Fenner®

A MARCA DA ENGENHARIA DE EXCELÊNCIA

MANUAL DE CONCEPÇÃO E MANUTENÇÃO DE TRANSMISSÕES



Um nome, uma gama, múltiplas soluções…

UM MUNDO EM TRANSMISSÕES INDUSTRIAIS

DORES | REDUTORES E MOTO-REDUTORES | CORREIAS | POLIAS | CORRENTES | CARRETOS | FIXADORES DE VEIOS | ACOPLAMENTOS | CORREIAS | POLIAS | CORRENTES | CARRETOS | FIXADO

APRIL LDA

QUALIDADE ASSEGURADA

Desde 1986 ao serviço da indústria



Fenner® power transmission products are world renowned for delivering the ultimate combination of rugged construction, reliable & efficient performance and value for money

- *proven in the harshest environments, guaranteed to perform in yours!*

All Fenner® power transmission products are manufactured to exacting specifications in line with UK and International standards, and are backed up by a product development programme designed to keep them at the cutting edge.

performance



Fenner®

THE MARK OF ENGINEERING EXCELLENCE

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ENGINEERING UNITS, CONVERSIONS & FORMULAE

SI (Systeme Internationale) Basic Units – from which all other units can be derived:

Quantity	Unit	Symbol	Imperial Unit
Length	metre	m	inch
Mass	kilogram	kg	pound
Time	second	s	(same)
Electric current	Ampere	A	(same)
Temperature	Kelvin	K	Fahrenheit

Other units of measurement, and their relationship to basic SI units.

Quantity	Unit	Symbol	Relationship	Imperial Unit
Angle	radian	rad	1 rad = 1 m/m	
	degree	°	1° = 1 rad x π/180	
Area	square metre	m^2	1 m^2 = 1m.m	square foot square inch
Frequency	Hertz	Hz	1 Hz = 1 s^{-1}	cycle/sec (c/s)
Force	Newton	N	1 N = 1kg.m/sec^2	
	tonne	t	1 t = 1000 kgf	ton
	kilogramforce	kgf	1 kgf = 9.81 N	poundforce (lbf)
Pressure	Pascal	Pa	1 Pa = 1 N/m^2	
	Bar	bar	1 bar = 10^5 Pa	lbf/$inch^2$ (psi)
Energy	Joule	J	1 J = 1 N.m	
Power	Watt	W	1 W = 1 J/s	
	kilowatt	kW	1 kW = 1000W	horsepower
Elec.potential	Volt	V	1 V = 1 kg.m^2/A^2.s^3	
Elec.resist.	Ohm	Ω	1 W = 1 V/A	
Elect. capacity	Farad	F	1 F = 1 A.s/V	
Temperature	degree. Celsius	°C	1° C = 1°K	Fahrenheit
Note: the kelvin scale starts at absolute zero i.e 0°K the Celsius scale starts at 273°K i.e 0°C (freezing point of water) K and C degree intervals are the same				
Speed				
Linear	metre/second	m/sec		mile per hour foot/sec
Angular	radian/second	rad/s	1 rad/s = 1 m/m.s	
	revolution/min	rev/min	1 rev/min = π/30 rad/s	
Torque	Newton metre	Nm	1 Nm = 1 kg.m^2/sec	foot.pound pound.inch
Volume	Cubic metre	m^3	1 m^3 = 1m.m.m	cubic inch
	Litre	ℓ	1ℓ = 1m^3/1000	Imperial Gallon
Acceleration				
Linear	metre/second squared	m/sec^2	1m/sec^2 = 1m/s/s	ft/sec^2
Angular	radian/second squared	rad/sec^2	1 rad/sec^2 = 1m/m.s.s	
Inertia	MR^2	kg.m^2	1kg.m^2 = 1 kg.m.m	pound.$inch^2$
Viscosity	centiStoke	cSt	1 cSt = 1mm^2/s	

Some common units are multiples or submultiples of the above.

They use 'preferred' prefixes which indicate multiples or submultiples of basic units and make the resultant unit more relevant to the engineering business.

Prefix	Symbol	Factor
mega	M	x 1,000,000
kilo	k	x 1,000
milli	m	÷ 1,000
micro	μ	÷ 1,000,000

e.g. the Watt is a small amount of power (an average light bulb consumes 60 Watts) so the kilowatt, i.e. 1000 Watts, is more commonly used in power transmission.

Megawatts i.e. 1,000,000 Watts, are a useful unit of measure for power station capacity.

CONVERSION FACTORS

Some of the more common Imperial units are mentioned above. The following table gives a comprehensive range of metric units and factors for their conversion to appropriate Imperial units.

Length

Millimetres x 0.0394 = inches	Inches x 25.4 = millimetres
Metres x 39.37 = inches	Inches x 0.0254 = metres
Metres x 3.281 = feet	Feet x 0.305 = metres
Metres x 1.094 = yards	Yards x 0.914 = metres
Kilometres x 0.6213 = miles	Miles x 1.61 = kilometres

Force

Newtons x 0.225 = lbf	lbf x 4.45 = newtons
kgf x 2.205 = lbf	lbf x 0.454 = kgf
Metric ton x 0.984 = ton (1000kgf)	Ton x 1.02 = metric ton (2240 lbf)
(2240lbf)	(1000kgf)
kgf x 9.81 = Newtons	Newtons x 0.102 = kgf

Note: kgf = kilogram force and lbf = pounds force

Area

Sq millimetres x 0.0026 = sq inches	Sq inches x 645.2 = sq millimetres
Sq metres x 10.764 = sq feet	Sq feet x 0.093 = sq metres
Sq metres x 1.196 = sq yards	Sq yards x 0.836 = sq metres

Inertia

Kilogram metre squared (kg m^2) x 23.73 = Pound feet squared (lbf ft^2)

Temperature

$°C = \frac{5}{9}(°F - 32)$ $\qquad$ $°F = \frac{9}{5}(°C) + 32$

Volume

Cubic metres x 35.317 = cubic feet	Cubic feet x 0.02831 = cubic metres
Cubic metres x 1.308 = cubic yards	Cubic yards x 0.7645 = cubic metres

Fluid Volume & Pressure

Litres x 0.22 = imp. gallons	Imp. gallons x 4.546 = litres
Litres x 0.035 = cubic feet	Cubic feet x 28.32 = litres
Bar x 14.5 = pounds per sq inch (lbf/in2 or psi)	Pounds per sq inch x 0.069 = bar

Torque

Newton metre (Nm) x 0.735	=	Pounds feet (lbf ft)
Newton metre (Nm) x 8.85	=	Pounds inches (lbf in)
Kilogram force metre (kgf m) x 9.81	=	Newton metre (Nm)

Power

Kilowatt (kW) x 1.34 = horse power (hp)

Horse power (hp) x 0.746 = kilowatt (kW)

The German Pferdestarke (PS) and French Cheval-vapeur (CV) are similar to the UK/US horse power.

Pi (π)

The mathematical ratio π (pi) = 3.14159

FORMULAE

Formulae regularly used in power transmission and general engineering.

Power, Torque and Speed

These are the basic parameters of rotational power transmission, related by the following formulae

$$\textbf{Power (kW)} = \frac{\textbf{Torque (Nm) x rotational speed (rev/min)}}{\textbf{9550}}$$

$$\textbf{Torque (Nm)} = \frac{\textbf{Power (kW) x 9550}}{\textbf{Rotational speed (rev/min)}}$$

Torque, Inertia and Acceleration

The above power / torque formulae are used for applications at their normal running speed.

If the inertia of an application is known, the higher torque necessary to accelerate the load from rest to running speed can be calculated.

Torque (Nm) = **Inertia** ($kg.m^2$) **x acceleration** (rad/sec^2)

For linear motion, a similar formula gives the force required to accelerate a mass in a straight line.

Force (N) = **Mass** (kg) **x acceleration** (m/sec^2)

The above formulae can be applied using deceleration, to calculate braking torque or force.

Hydraulic Pumps, Motors & Cylinders

$$\textbf{Shaft Torque (Nm)} = \frac{\textbf{Displacement } (cm^3/rev) \textbf{ x pressure (bar)}}{\textbf{20}\ \pi}$$

Cylinder force (N) = **Pressure** (bar) x **area** (m^2) x $\mathbf{10^5}$

Speed Ratio

Speed ratio is a feature of many transmission drives.

Ratio is usually described by a number > 1.0, followed by ":1".

Speed reduction (usually), or increasing, must be specified.

$$\textbf{Ratio} = \frac{\textbf{Faster machine speed (rev/min)}}{\textbf{Slower machine speed (rev/min)}}$$

E.g. Belt drive from a 1000 rev/min motor to a blower at 500 rev/min has a 2:1 reduction ratio. Same motor driving a fan at 1500 rev/min needs a 1.5:1 increase ratio.

Gearmotor with a 6-pole (960 rev/min) motor, having a 48 rev/min output speed has a 20:1 reduction ratio.

Chain drive using two 23 tooth sprockets has a 1:1 ratio.

Centre Distance Calculation

Belt length, given pulley diameters and centre distance:

$$\textbf{Length (L)} = \mathbf{2C + \frac{(D-d)^2}{4C} + 1{,}57\ (D+d)}$$

where

L	=	Pitch length of belt in millimetres.
C	=	Centre distance in millimetres.
D	=	Pitch diam. of large pulley in millimetres.
d	=	Pitch diam. of small pulley in millimetres.

Centre distance, given pulley diameters and belt length:

$$\textbf{Centre Distance (C)} = \mathbf{A + \sqrt{A^2 - B}} \qquad \text{where}$$

$$A = \frac{L}{4} - 0{,}3925\ (D + d) \quad \text{and} \quad B = \frac{(D - d)^2}{8}$$

The above formulae can also be used for chain lengths, using sprocket pitch diameters.

Pulley/Sprocket Pitch Diameters

For pitch diameter of a synchronous belt drive pulley or chain sprocket:

$$\textbf{Pitch dia (mm)} = \frac{\textbf{Chain/belt pitch x no. of sprocket/pulley teeth}}{\pi}$$

(mm or inch x 25.4)



Indirect Drive End Loads

For vee and wedge belt drives, the following formulae give a good approximation of loads sensed by shafts and bearings.

Static tension

To determine the static tension, Ts, in the belt(s), measure the force, P, required to depress a belt 16 mm per metre of span, by means of a Belt Tension Indicator or use setting forces recommended in the belt installation instructions.

The static tension, Ts, is given by

$$Ts = 2(16P) \times B \quad (N)$$

where B = the number of belts

P = Setting force in Newtons, for the belt in question.

Centrifugal tension

The centrifugal tension, Tc, developed in a belt is a function of its weight and the square of its belt speed.

$$Tc = M \times S^2 \quad (N)$$

The belt speed, S, is given by:

$$S = \frac{(d \times n)}{19100} \quad (m/s)$$

where d = pitch diameter of either pulley - mm

n = rotational speed of same pulley - rev/min.

M = mass per unit length for the belt section in question.

See pages 35 to 37 for vee and wedge belt mass values

Dynamic tension

To determine the approximate dynamic tension, T_D, imposed by a drive when running, the centrifugal tension per span, Tc, must be subtracted from the static tension, Ts, hence:

$$T_D = 2(16P - Tc) \times B \quad (N)$$

Synchronous Belt Drives

A different rationale applies – consult your Authorised Distributor.

Chain Drives

Approximate end loads can be calculated from the torque being transmitted:

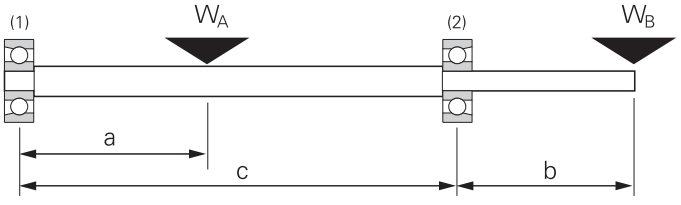
$$\text{End load (N)} = \frac{\text{Torque (Nm)}}{\text{Sprocket pitch radius (m) (= ½ pitch diameter)}}$$

Note that this calculation can be done on either sprocket.

Low torque/small radius (high speed shaft) or high torque/large radius (low speed shaft), give the same answer.

Bearing Loads

The radial load on simple bearing arrangements due to belt/chain drive end loads, gear separating forces, the weight of pulleys or motor rotors etc. can be calculated using "moments" as shown below for two such loads applied to an arrangement of two bearings supporting a horizontal shaft.



Bearing reactions are determined by taking moments about each support.

Taking moments about bearing (2)

$$\text{Radial load on (1)} = \left(W_A \cdot \frac{(c - a)}{c} - W_B \cdot \frac{b}{c} \right)$$

Taking moments about bearing (1)

$$\text{Radial load on (2)} = \left(W_A \cdot \frac{a}{c} + W_B \cdot \frac{(b - c)}{c} \right)$$

The units of radial bearing load will be the same as for the applied loads.

In the above example both applied loads act vertically downward. Bearing reactions will also be vertical but may be upward or downward, depending on the relative values of the applied loads.

Note: The above is a simple example. Comprehensive calculations involving many other factors must be carried out to determine bearing life

Electrical Engineering and Motors

Ohm's Law gives the relationship between Voltage (V), current (A) and resistance (Ω) for "simple" electric circuits (direct current, DC or 'resistive' circuits)

Voltage (Volts) **= current** (Amps) **x resistance** (Ω)

Electrical power is also related to voltage and current, but as all machinery is less than 100% efficient, an efficiency, designated η must be applied to calculations

Power (Watts) **= voltage** (Volts) **x current** (Amps) **x** η (effy.)

AC, or alternating current, electric motors have relatively complex electric circuits.

The above formulae apply, but need modifying by a 'power factor',

Power Factor = cosine of the circuit phase angle, designated **cos** σ

For single phase AC electric motors:

Power (Watts**)**
= voltage (Volts) **x current** (Amps) **x cos** σ (PF) **x** η (effy.)

In 3 phase AC electric motors, the applied voltage reaches the windings at a different value depending on whether the supply is connected in star (Y) or delta (Δ) configuration, hence 3Φ electric motor power is usually equal to the above x $\sqrt{3}$

AC electric motor speed is a function of supply frequency (Hz) and the number of pairs of poles, in the stator winding.

$$\text{'Synchronous' speed (rev/min)} = \frac{\text{supply frequency (Hz)} \times 60}{\text{pairs of poles}}$$

Most everyday electric motors are 'asynchronous', meaning they 'slip' below synchronous speed, to run at around 95-97% synchronous speed when on load.

e.g. A 6-pole (= 3 pairs), motor connected to the European standard 50 Hz supply will run at:

$$\frac{50 \text{ (Hz)} \times 60 \times 96\% \text{ (average slip)}}{3 \text{ (pairs of poles)}} = 960 \text{ rev/min}$$

Standard Motor Ratings - Three Phase

The ratings in the table below are based on Premium Efficiency (EFF1) IP55 multivoltage motors. Other manufacturers' motor performance data will be different.

Speed rev/min	Output Power		Frame Size	% of Full Load						Current (A)		Torque (Nm)			Weight
				Efficiency			Power Factor								
	kW	Hp		50	75	100	50	75	100	In	Il / In	Cn	Tl / Tn	Tb / Tn	kg
2-pole															
2760	0.12	0.16	63	58.0	64.8	65.5	0.51	0.64	0.74	0.36	5.0	0.41	2.5	2.7	7
2730	0.18	0.25	63	63.5	68.5	69.5	0.62	0.76	0.81	0.46	4.4	0.65	2.2	2.2	7
2730	0.25	0.33	63	64.0	68.5	71.2	0.58	0.71	0.80	0.63	4.5	0.86	2.2	2.2	7
2810	0.37	0.50	71	69.0	73.8	74.5	0.63	0.77	0.85	0.84	5.5	1.26	2.7	2.9	8
2790	0.55	0.75	71	72.5	76.6	76.7	0.68	0.80	0.86	1.20	5.7	1.91	2.5	2.5	9
2795	0.75	1.00	80	76.5	80.5	80.5	0.73	0.82	0.86	1.56	6.8	2.54	2.8	2.8	12
2820	1.10	1.50	80	81.0	83.0	83.6	0.64	0.76	0.84	2.26	7.8	3.76	3.0	3.0	13
2860	1.50	2.00	90S/L	83.2	84.9	84.5	0.68	0.80	0.85	3.01	7.3	4.94	2.5	2.5	20
2865	2.20	3.00	90S/L	84.0	86.0	86.6	0.64	0.76	0.83	4.42	8.4	7.38	3.3	3.1	23
2895	3.00	4.00	100L	84.5	87.0	88.3	0.73	0.83	0.87	5.64	8.9	9.72	2.7	2.8	28
2900	4.00	5.50	112M	87.0	88.4	88.6	0.72	0.83	0.87	7.49	8.2	13.40	2.4	3.0	39
2870	5.50	7.50	112M	87.5	88.5	88.6	0.78	0.86	0.89	10.10	7.7	18.40	2.3	2.7	45
2935	5.50	7.50	132S	88.5	90.0	90.1	0.71	0.81	0.86	10.20	8.0	18.00	2.4	2.9	55
2925	7.50	10.00	132S	88.5	90.6	90.8	0.72	0.82	0.87	13.70	8.0	24.10	2.2	2.7	85
2910	11.00	14.70	160M	92.4	92.7	92.3	0.86	0.88	0.88	19.50	6.5	36.10	2.1	2.4	106
2935	15.00	20.10	160M	92.5	93.1	92.5	0.89	0.88	0.89	26.20	7.7	48.80	2.6	3.0	116
2930	18.50	24.80	160L	93.4	93.8	93.1	0.85	0.89	0.90	32.00	7.8	60.30	2.9	3.6	129
2950	22.00	30.00	180M	92.5	93.6	93.7	0.76	0.85	0.87	39.00	8.6	71.30	2.8	2.7	180
2955	30.00	40.00	200L	92.8	93.7	94.0	0.84	0.88	0.89	51.80	7.4	97.00	2.7	2.4	245
2960	37.00	50.00	200L	93.0	94.0	94.3	0.71	0.81	0.87	65.10	8.3	119.00	2.6	2.6	60
2960	45.00	60.00	225S/M	93.6	94.5	94.7	0.82	0.88	0.90	76.20	8.5	145.00	2.4	2.9	385
2960	55.00	75.00	250S/M	94.3	95.1	95.0	0.85	0.89	0.91	91.80	8.3	178.00	2.3	3.0	470
2975	75.00	100.00	280S/M	93.0	94.4	95.0	0.81	0.86	0.88	129.00	7.1	241.00	1.6	2.6	680
2975	90.00	125.00	280S/M	94.4	95.5	95.8	0.83	0.87	0.89	152.00	8.2	289.00	1.8	2.7	740
4-pole															
1415	0.12	0.16	63	56.5	62.5	64.5	0.43	0.55	0.65	0.41	4.5	0.80	2.3	2.4	8
1400	0.18	0.25	63	58.0	64.0	67.5	0.44	0.55	0.66	0.58	4.6	1.26	2.1	2.4	8
1400	0.25	0.33	71	69.0	73.0	75.0	0.50	0.61	0.69	0.70	5.0	1.67	2.7	2.8	9
1395	0.37	0.50	71	69.0	74.0	75.5	0.47	0.59	0.69	1.03	5.0	2.54	2.5	2.6	9
1430	0.55	0.75	80	72.0	77.0	78.0	0.56	0.69	0.78	1.30	6.0	3.71	2.3	2.5	12
1420	0.75	1.00	80	76.0	78.6	80.1	0.62	0.75	0.82	1.65	5.7	4.98	2.3	2.3	14
1445	1.10	1.50	90S/L	80.0	83.8	83.8	0.59	0.72	0.80	2.37	7.0	7.32	2.3	2.7	25
1450	1.50	2.00	90S/L	80.5	84.6	85.2	0.54	0.68	0.77	3.30	7.5	9.76	2.6	3.0	24
1425	2.20	3.00	100L	85.3	86.4	86.4	0.65	0.77	0.83	4.43	7.4	14.80	2.5	2.6	29
1430	3.00	4.00	100L	84.5	86.5	87.5	0.64	0.76	0.83	5.96	7.8	19.70	2.6	3.0	34
1445	4.00	5.50	112M	87.1	88.3	88.6	0.66	0.77	0.83	7.85	6.6	26.80	1.8	2.3	43
1465	5.50	7.50	132S	88.0	89.6	90.1	0.69	0.79	0.85	10.40	8.5	36.10	2.1	2.8	65
1465	7.50	10.00	132M	89.0	90.0	90.4	0.71	0.81	0.86	13.90	8.2	48.10	2.2	2.7	68
1460	11.00	14.70	160M	90.7	91.6	91.2	0.67	0.76	0.80	21.80	6.1	71.90	2.0	2.6	111
1465	15.00	20.10	160L	91.1	92.1	91.8	0.66	0.76	0.80	29.40	6.4	97.80	2.3	2.8	121
1470	18.50	25.00	180M	91.6	93.0	93.4	0.65	0.77	0.82	34.90	8.1	120.00	2.7	2.8	175
1475	22.00	30.00	180L	92.2	93.5	93.7	0.71	0.81	0.86	39.40	8.6	143.00	2.8	2.9	195
1475	30.00	40.00	200L	93.0	94.0	93.9	0.67	0.78	0.83	55.60	7.0	194.00	2.4	2.6	240
1475	37.00	50.00	225S/M	93.0	94.0	94.1	0.75	0.84	0.87	65.20	7.2	240.00	2.2	2.7	365
1475	45.00	60.00	225S/M	93.9	94.4	94.4	0.80	0.86	0.89	77.30	7.4	292.00	2.3	2.8	400
1475	55.00	75.00	250S/M	94.1	94.7	94.6	0.76	0.85	0.89	94.30	7.4	356.00	2.3	2.8	450
1485	75.00	100.00	280S/M	93.9	95.1	95.2	0.79	0.85	0.88	129.00	7.2	483.00	2.2	2.4	660
1485	90.00	125.00	280S/M	94.3	95.1	95.3	0.79	0.85	0.88	155.00	7.8	579.00	2.4	2.6	795
6-pole															
900	0.18	0.25	71	49.0	57.0	61.0	0.42	0.51	0.60	0.71	3.5	1.97	1.9	2.0	11
900	0.25	0.33	71	53.0	63.0	67.0	0.39	0.48	0.55	0.98	3.5	2.60	1.9	2.0	12
925	0.37	0.50	80	62.0	67.5	70.0	0.48	0.61	0.70	1.09	4.7	3.82	1.9	2.0	14
920	0.55	0.75	80	62.0	68.5	70.3	0.48	0.63	0.72	1.57	4.8	5.79	2.0	2.2	16
920	0.75	1.00	90S/L	74.0	77.7	77.7	0.50	0.63	0.72	1.94	4.8	7.72	1.9	2.0	22
920	1.10	1.50	90S/L	72.0	77.7	77.7	0.48	0.61	0.71	2.88	5.0	11.60	2.1	2.2	23
945	1.50	2.00	100L	79.0	81.5	81.5	0.49	0.60	0.70	3.80	5.5	14.90	2.0	2.2	26
950	2.20	3.00	112M	81.5	84.0	83.8	0.52	0.64	0.72	5.26	6.2	22.30	2.1	2.3	45
960	3.00	4.00	132S	82.0	85.0	86.5	0.53	0.67	0.74	6.76	6.0	29.40	1.9	2.3	59
960	4.00	5.50	132M	85.0	86.6	87.2	0.56	0.69	0.76	8.71	6.5	40.50	2.0	2.3	68
965	5.50	7.50	132M	84.5	87.5	87.6	0.53	0.65	0.73	12.40	6.8	54.90	2.1	2.3	79
970	7.50	10.10	160M	89.3	90.4	90.0	0.53	0.65	0.71	16.90	5.4	73.80	2.1	2.4	121
970	11.00	14.70	160L	89.9	90.8	90.3	0.56	0.68	0.74	23.90	5.7	108.30	2.2	2.6	134
965	15.00	20.00	180L	91.0	91.9	91.6	0.79	0.86	0.89	26.60	7.3	149.00	2.5	2.6	183
975	18.50	25.00	200L	90.7	92.7	92.9	0.69	0.77	0.84	34.20	6.5	181.00	2.3	2.5	224
975	22.00	30.00	200L	91.0	92.6	92.9	0.65	0.75	0.82	41.70	7.0	216.00	2.3	2.6	235
985	30.00	40.00	225S/M	91.3	93.0	93.5	0.75	0.81	0.85	54.50	7.0	291.00	2.5	2.6	366
980	37.00	50.00	250S/M	91.8	94.0	94.0	0.75	0.81	0.82	69.70	7.0	361.00	2.3	2.4	450
980	45.00	60.00	280S/M	91.5	93.4	94.2	0.68	0.78	0.83	83.30	7.2	439.00	2.4	2.7	610
985	55.00	75.00	280S/M	92.3	93.9	94.3	0.65	0.76	0.81	104.00	7.0	534.00	2.3	2.5	655

Efficiency, power factor and current values are based on 400V supply
Cn = Full load torque
Il / In = Locked rotor current
Tl / Tn = Locked rotor torque
Tb / Tn = Breakdown torque
In = Full load current

Both CEMEP level EFF 1 and EFF 2 motors are available from your local Authorised Distributor. (EFF 1 are on the Goverment technology list and approved for Enhanced Capital Allowances).

Countering the Climate Change Levy

From April 2001 the UK Government introduced a 0.45p/kWh levy on electrical energy, squeezing further the slim margins made across industry. The principle is to move the burden of taxation from efficient operations to inefficient energy users, and uses a carrot and stick approach.

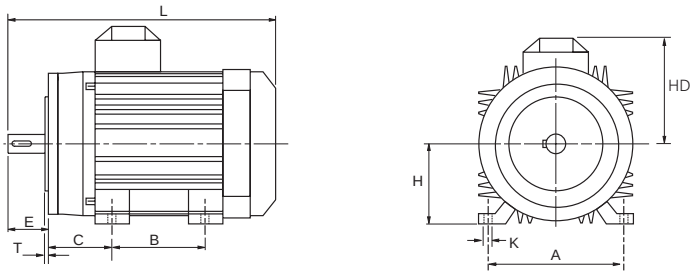
The CCL at 13%, is the stick while the carrot is in the form of Enhanced Capital Allowances (ECA's) which encourage companies to invest in a specified range of energy efficient equipment. This includes inverters and motors available from your local Authorised Distributor.

The benefits are two fold. The first is reduced energy consumption and therefore cost. The second is the ability to write off 100% of the cost against profits in the first year, with the resultant tax saving.

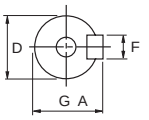


IEC MOTOR INTERFACE DIMENSIONS

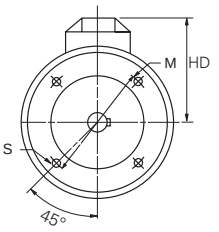
Foot Mount IM1001, B3



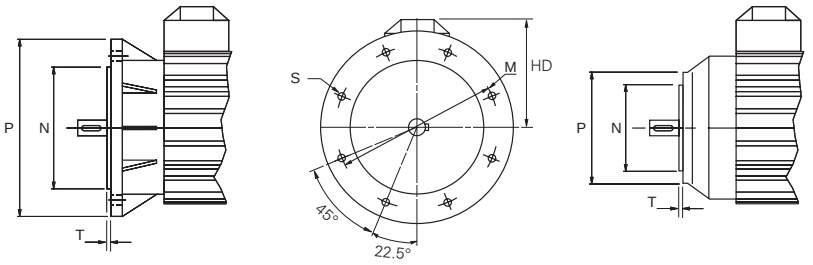
Output shaft



Face Mount IM3601, B14



Flange Mount IM3000, B5



Dimensions

IEC dimensions are highlighted in bold while other dimensions are based on the standard WEG range of motors. Other manufacturers' dimensions may be different, this should only be used as a guide.

Frame Size	Common Dimensions						IM1001					IM13001					IM3601				
							B3 Foot Mount						B5 Flange Mount				B14 Face Mount				
	D j6	**GA**	**F**	**E**	L	HD	**A**	**B**	**C**	**K**	**H**	**M**	**N** j6	**P**	**S** Clear Hole	**T**	**M**	**N** j6	**P**	**S**	**T**
63	11	12.5	4	23	213	101.0	100	80	40	7.0	63	115	95	140	10	3.0	75	60	90	M5	2.5
71	14	16.0	5	30	248	121.0	112	90	45	7.0	71	130	110	160	10	3.5	85	70	105	M6	2.5
80	19	21.5	6	40	276	130.0	125	100	50	10.0	80	165	130	200	12	3.5	100	80	120	M6	3.0
90S/L	24	27.0	8	50	330	150.0	140	100+	56	10.0	90	165	130	200	12	3.5	115	95	140	M8	3.0
100L**	28	31.0	8	60	376	160.0	160	140	63	12.0	100	215	180	250	15	4.0	130	110	160	M8	3.5
112M	28	31.0	8	60	388	154.0	190	140	70	12.0	112	215	180	250	15	4.0	130	110	160	M8	3.5
132S	38	41.0	10	80	490	206.5	216	140	89	12.0	132	265	230	300	15	4.0	165	130	200	M10	3.5
132M	38	41.0	10	80	490	206.5	216	178	89	12.0	132	265	230	300	15	4.0	165	130	200	M10	3.5
160M	42	45.0	12	110	637	254.0	254	210	108	15.5	160	300	250	350	19	5.0	-	-	-	-	-
160L	42	45.0	12	110	637	254.0	254	254	108	15.5	160	300	250	350	19	5.0	-	-	-	-	-
180M	48	51.5	16	110	664	270.0	279	241	121	14.5	180	300	250	350	19	5.0	-	-	-	-	-
180L	48	51.5	16	110	702	270.0	279	279	121	14.5	180	300	250	350	19	5.0	-	-	-	-	-
200M	55	59.0	16	110	729	294.0	318	267	133	18.5	200	350	300	400	19	5.0	-	-	-	-	-
200L	55	59.0	16	110	787	294.0	318	305	133	18.5	200	350	300	400	19	5.0	-	-	-	-	-
225S/M	55*/60	59*/64	18	110*/140	817*/847	368.0	356	286/311	149	18.5	225	400	350	450	19	5.0	-	-	-	-	-
250S/M	60*/65	64*/69	18	140	923	368.0	406	311/349	168	24.0	250	500	450	550	19	5.0	-	-	-	-	-
280S/M	65*/75	69*/72	18*/20	140	1036	463.0	457	368/419	190	24.0	280	500	450	550	19	5.0	-	-	-	-	-

* Dimensions for 2 pole motors.

** For frame 100L, 3kW, 4 poles, Premium Efficiency Line, the L dimension is 420 mm

\+ For 90L frame size B dimension is 125mm

All dimensions in millimeters



Fenner® CHAIN DRIVES

Roller chain technology has evolved over the centuries. During this time new design features and production processes have been introduced. The new Fenner roller chain is a product of this technology.



- Extensive range of transmission roller chains and sprockets
- BS and ANSI standards
- Attachment, double pitch, conveyor, agricultural and leaf chains

Chain Drives Design Data Required

- **Type of prime mover, or driving m/c**
- **Electric motor starting arrangement**
- **Rotational speed of prime mover**
- **Power rating of prime mover**
- **Type of driven machine**
- **Rotational speed of driven machine**
- **Power absorbed by driven machine**
- **Hours/day duty & start/stop frequency**
- **Both driven & driver machine shaft diameters**
- **Centre distance & space restraints**
  - fixed centres?
  - availability of lubrication?
- **Any environmental issues**
  - ambient temperature
  - noise limits
  - water, oil mist etc.

CHAIN DRIVES

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Fenner® PLUS
Power Transmission Chain

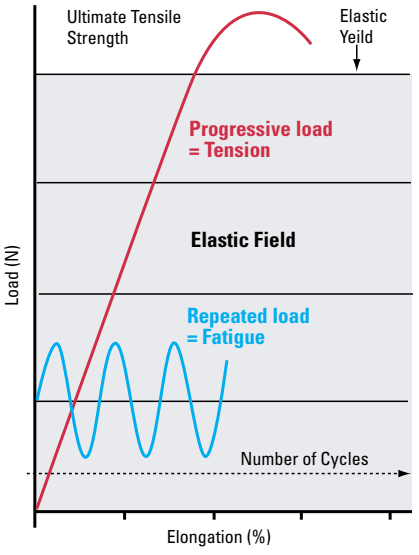
It is the detailed engineering approach and years of practical experience with chain drive applications that sets Fenner power transmission products apart and can make a real difference to your drive.

Fenner PLUS chain builds on the heritage and engineering experience of the existing Fenner product range by optimising the benefits of several performance enhancing details.

Solid Rollers: Fenner PLUS solid rollers are manufactured to achieve an extremely high surface hardness ensuring high wear resistance, great performance and a long chain life.

Shot Peening: Fenner PLUS chain plates are shot peened. This process relieves stresses that build up in manufacture and extends chain life by reducing the likelihood of fatigue failure.

Progressive Punching: All Fenner PLUS chain plates are progressively punched to give excellent hole concentricity and accuracy of both diameter and pitch. This gives a quiet and accurate mesh with the sprockets, and simple pin extraction for easy chain splitting.



Case Hardened Pins: Fenner PLUS pins are specially case hardened to ensure resistance to abrasion from dust and debris and hence minimises chain 'stretch'.

Wax Lubrication: All Fenner PLUS chain is wax lubricated so that it can be run straight from the box. Debris cannot adhere to the dry wax finish, which helps protect against premature wear failure.

Easy Pin eXtraction: Strict tolerance and quality control procedures mean Fenner PLUS chain can be easily split by hand and assembled on-site.





SELECTION

(a) Service Factor

From Table 1, determine the service factor which is applicable to the drive.

(b) Design Power

Multiply the normal running power by the service factor. This gives the Design Power which is used as the basis for selecting the drive.

(c) Chain Pitch

Refer to Table 2 (page 4) and trace to the right along the horizontal axis to the rev/min of the faster shaft. Trace upwards along the vertical axis to the Design Power. At the point of intersection, note the recommended chain pitch or pitches if there is an overlap.

(d) Speed Ratio

Divide the speed of the faster shaft by the speed of the slower shaft to obtain the speed ratio.

(e) Sprocket Sizes

Refer to Table 4 (page 6) and select driving and driven sprockets to match the Speed Ratio found in step (d). See sprocket pitch recommendations on page 4.

(f) Power Rating

Refer to the power rating tables (page 5) for the pitch of chain chosen in step (c). Read down the left hand column to the rotational speed of the faster shaft. On this line read the power rating for the simplex chain selected. These tables are for 19 tooth sprockets, if a sprocket with a different number of teeth is used, the power rating should be multiplied by the Sprocket Factor from the table at the bottom of page 5.

If the power rating figure does not equal or preferably exceed the Design Power, calculated in step (b), either select a larger pitch or a multiple strand (duplex or triplex) chain.

Single strand chain offers the most economical solution, and should be used where possible. However, for limitations in space, high speed or smooth running requirements a smaller pitch, duplex or triplex drive may be considered.

(g) Chain Length

To find the Chain length in pitches, use the formula below.

$$L = \frac{2C}{P} + \frac{T+t}{2} + \frac{KP}{C}$$

L = Length of chain in pitches.
C = Centre distance in mm.
P = Pitch of chain in mm.
T = Number of teeth on large sprocket.
t = Number of teeth on small sprocket.
K = Factor from Table 3 (page 6).

The calculated number of pitches should be rounded up to an even, whole number of pitches. If the centre distance cannot be adjusted, to allow for the use of an even number of pitches, it may be necessary to use an offset or cranked link, in which case the chain power rating will need to be reduced, consult your local Authorised Distributor. Re-calculate the exact centre distance required for the adjusted number of pitches. For recommended centre distance, refer to Table 5 below.

If a jockey or tensioning sprocket is used, add an extra 2 pitches.

To obtain the chain length, multiply the number of pitches by the pitch of the chain.

$$\text{Length of chain in feet} = \frac{LP}{305}$$

TABLE 1 – SERVICE FACTORS

	TYPES OF PRIME MOVER					
	'Soft' starts			'Heavy' starts		
	Electric motors: A.C. – Star-delta start D.C. – Shunt wound Internal combustion engines with 4 or more cylinders. All prime movers fitted with centrifugal clutches, dry or fluid couplings.			Electric motors: A.C. – Direct-on-line start D.C. – Series and compound wound. Internal combustion engines with less than 4 cylinders.		
	Hours per day duty					
TYPES OF DRIVEN MACHINE	10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
Light Duty Agitators (uniform density), Belt conveyors (uniformly loaded).	1.0	1.1	1.2	1.1	1.2	1.3
Medium Duty Agitators and mixers (variable density). Belt conveyors (not uniformly loaded), Kilns, Laundry machinery, Lineshafts, Machine tools, Printing machinery, Sawmill and woodworking machinery, Screens (rotary).	1.1	1.2	1.3	1.2	1.3	1.4
Heavy Duty Brick machinery, Bucket elevators, Conveyors (heavy duty), Hoists, Quarry plant, Rubber machinery, Screens (vibrating), Textile machinery.	1.3	1.4	1.5	1.5	1.6	1.7

EXAMPLE

Select a chain drive to transmit 1.5 kW from a gearbox running at 80 rev/min and driven by a direct-on-line electric motor, to a uniformly loaded conveyor drive shaft which is required to run at approximately 40 rev/min for 12 hours per day. Gearbox output shaft is 35mm and the conveyor headshaft is 65mm diameter.

(a) Service Factor

From Table 1 the Service Factor is 1.2.

(b) Design Power

= 1.5 x 1.2 = 1.8 kW.

(c) Chain Pitch

By referring to Table 2 (page 4), the intersection of design power and the rev/min of the faster shaft indicates a 16B 1" pitch chain.

(d) Speed Ratio

$$\frac{80}{40} = 2:1$$

(e) Sprocket Size

From Table 4 (page 6) sprockets of 19 and 38 teeth give a ratio of 2 : 1.

(f) Power Rating

The power ratings for 16B chain are given on page 5. The required power rating from step (b) is 1.8 kW. For a 19T driver sprocket, running at 80 rev/minute, the power rating for 16B-1 simplex chain is 3.79 kW. As this exceeds the required design power the selection is satisfactory.

If space limitations demand smaller sprocket dimensions, alternative selections would be: use 12B-2 duplex chain which has a power rating of 2.11 kW at 80 rev/min or 15T driving to 30T on 16 B-1 1" simplex chain - power rating 0.8 x 3.79 = 3.03 kW

g) Chain Length

Recommended centre distance for 16B-1 chain is 1000 mm (Table 5 below).

Therefore the chain length as per selection step (g) (chain length) is 108 pitches including a connecting link.

Drive Specification

108 pitches or 9 feet of Fenner 16B-1 chain
81-19 Driver Sprocket with a 2517 x 35mm bore
81-38 Driven Sprocket with a 3020 x 65mm bore

Alternative selection

Recommended centre distance for 12B-2 chain is 900 mm (Table 5 below).

Therefore the chain length as per selection step (g) (chain length) is 124 pitches including a connecting link.

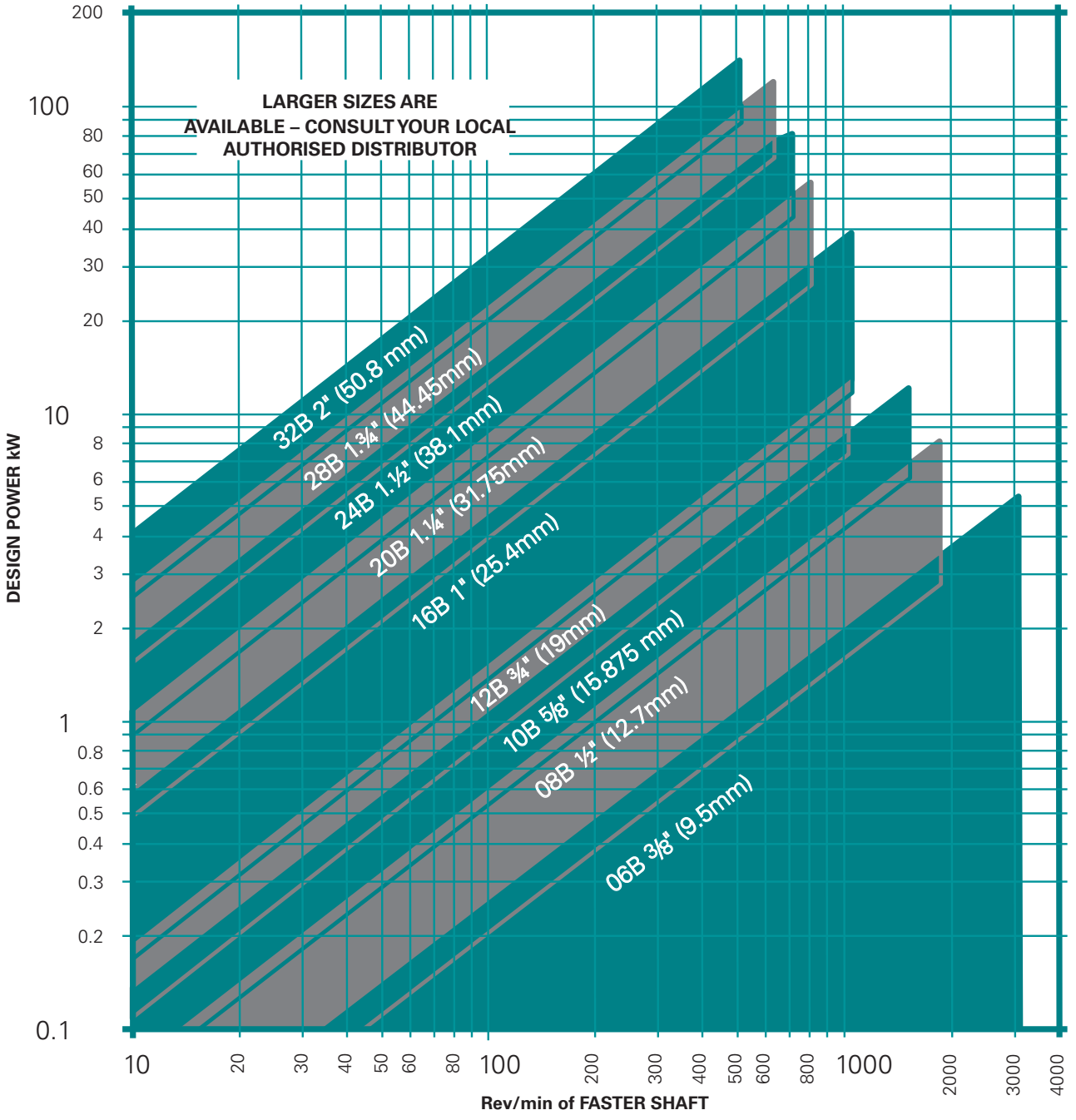
Alternative Drive Specification

124 pitches or 7.75 feet of Fenner 12B-2 chain
62-19 Driver Sprocket with a 2012 x 35mm bore
62-38 Driven Sprocket with a 3020 x 65mm bore.

TABLE 5 - RECOMMENDED CENTRE DISTANCE

Chain Pitch	Inches	3/8"	1/2"	5/8"	3/4"	1"	1.1/4"	1.1/2"	1.3/4"	2"
	mm	9.525	12.7	15.875	19.05	25.4	31.75	38.1	44.45	50.8
Centre Distance	mm	450	600	750	900	1000	1200	1350	1500	1700

TABLE 2 - BRITISH STANDARD CHAIN



GENERAL RECOMMENDATIONS ON SPROCKET SIZES

19 teeth and above —

Sprockets running at medium to maximum speeds on normal applications (see power ratings for speeds on page 5).

17 teeth —

Permissible to use this sprocket on very small pitches ie, 8mm and $^{3}/_{8}$". Refer to section above, but should be restricted to slow speed drives (see power ratings for speeds on page 5).

15 teeth or less —

Should be avoided unless shaft speed is below 100 revs/min.

23 teeth and above —

Recommended for impulse applications.

When ratios are low, the use of sprockets with high numbers of teeth minimises joint articulation, chain pull and bearing loads. If a small number of teeth are used on high speed, high load applications, hardening of teeth should be considered. Ratios over 7:1 are not recommended for single strand drives. In all drives where ratios exceed 5:1 the designer should consider using compound drives for maximum service life.

On drives where ratios exceed 3:1 the shaft centre distance should not be less than the sum of the sprocket pitch circle diameters.

For drives with vertical shafting always use multi-strand chains.



POWER RATINGS (KW) FOR BRITISH STANDARD CHAIN BASED ON 19 TOOTH DRIVER SPROCKETS

06B — 3/8" (9.5mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
20	0.06	0.10	0.15	
40	0.11	0.19	0.27	
60	0.16	0.27	0.40	
80	0.20	0.34	0.50	**1**
100	0.25	0.43	0.62	
200	0.46	0.78	1.15	
400	0.86	1.46	2.15	
600	1.24	2.11	3.10	
800	1.60	2.72	4.00	
1000	1.96	3.33	4.90	**2**
1200	2.31	3.93	5.77	
1400	2.65	4.51	6.62	
1600	2.99	5.10	7.47	
1800	3.33	5.66	8.32	
2000	3.66	6.22	9.15	
2200	3.99	6.78	9.97	
2400	4.31	7.33	10.77	
2600	4.63	7.87	11.57	**3**
2800	4.95	8.42	12.37	
3000	5.27	8.96	13.17	

08B — 1/2" (12.7mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	0.07	0.12	0.17	
20	0.14	0.24	0.35	
30	0.20	0.34	0.50	
40	0.26	0.44	0.65	
50	0.31	0.53	0.77	**1**
60	0.37	0.63	0.92	
70	0.42	0.71	1.05	
80	0.48	0.82	1.20	
100	0.58	0.99	1.45	
200	1.09	1.85	2.72	
300	1.57	2.67	3.92	
400	2.03	3.45	5.07	
500	2.48	4.22	6.20	
600	2.92	4.96	7.30	
800	3.78	6.43	9.45	**2**
900	4.63	7.87	11.57	
1200	5.45	7.27	13.62	
1400	6.26	10.64	15.65	
1600	7.06	12.00	17.65	**3**
1800	7.85	13.35	19.62	

10B — 5/8"(15.875 mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	0.13	0.22	0.33	
20	0.25	0.43	0.63	
30	0.36	0.61	0.89	
40	0.46	0.78	1.15	**1**
50	0.57	0.96	1.40	
60	0.67	1.13	1.66	
70	0.76	1.29	1.90	
80	0.86	1.47	2.15	
100	1.07	1.78	2.62	
200	1.96	3.33	4.90	
300	2.88	4.80	7.05	
400	3.65	6.21	9.13	
500	4.55	7.60	11.17	
600	5.25	8.94	13.15	**2**
800	6.81	11.58	17.03	
900	7.76	13.19	19.40	
1000	8.33	14.16	23.33	
1200	9.81	16.68	24.42	
1500	12.01	20.42	29.90	**3**

12B — 3/4" (19mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	0.19	0.32	0.48	
20	0.36	0.61	0.90	
30	0.51	0.87	1.28	
40	0.66	1.12	1.65	
50	0.84	1.43	2.10	**1**
60	0.96	1.63	2.40	
70	1.10	1.87	2.75	
80	1.24	2.11	3.10	
90	1.38	2.35	3.45	
100	1.55	2.64	3.88	
200	2.90	4.93	7.25	
300	4.07	6.92	10.18	
400	5.27	8.96	13.18	
500	6.62	11.25	16.55	
600	7.60	12.92	19.00	
700	8.95	15.22	22.38	**2**
800	9.84	16.73	24.60	
900	11.26	19.14	28.15	
1000	12.03	20.45	35.08	
1200	14.55	24.74	36.38	

16B — 1" (25.4mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
5	0.31	0.53	0.78	
10	0.58	0.99	1.45	
20	1.09	1.85	2.73	
30	1.57	2.67	3.93	
40	2.03	3.45	5.08	
50	2.48	4.22	6.20	**1**
60	2.92	4.96	7.30	
70	3.36	5.71	8.40	
80	3.79	6.44	9.48	
90	4.21	7.16	10.53	
100	4.63	7.87	11.58	
200	8.64	14.69	21.60	
300	12.45	21.17	31.13	
400	16.13	27.42	40.33	
500	19.72	33.52	49.30	**2**
600	23.23	39.49	58.08	
700	26.69	45.37	66.73	
800	30.10	51.17	75.25	
900	33.46	56.88	83.65	**3**
1000	36.79	62.54	91.98	

20B — 1.1/4" (31.75mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	1.02	1.73	2.55	
25	2.50	4.25	6.25	
50	4.65	7.90	11.63	**1**
100	8.65	14.70	21.63	
150	12.40	21.08	31.00	
200	16.20	27.54	40.50	
250	19.73	33.54	49.33	
300	23.27	39.56	58.18	
350	26.70	45.40	66.75	**2**
400	30.20	51.34	75.50	
450	33.50	56.95	83.75	
500	36.92	62.76	92.30	
600	43.50	73.95	108.75	
700	49.95	84.91	124.88	**3**
800	55.50	94.35	138.75	

24B — 1.1/2" (38.1mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	2.22	3.77	5.55	
25	5.03	8.55	12.58	**1**
50	9.40	15.98	23.50	
100	17.50	29.75	43.75	
150	25.30	43.01	63.25	**2**
200	32.70	55.59	81.75	
300	47.20	80.24	118.00	
400	61.60	104.72	154.00	
500	74.60	126.82	186.50	
600	88.00	149.60	220.00	**3**
700	94.00	159.80	235.00	

28B — 1.3/4" (44.45mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	3.44	5.85	8.60	**1**
25	7.83	13.31	19.58	
50	14.32	24.34	35.80	
100	27.30	46.41	68.25	
150	39.39	66.96	98.48	
200	51.10	86.87	127.75	
250	62.66	106.52	156.65	**2**
300	73.18	124.41	182.95	
350	84.30	143.31	210.75	
400	94.70	160.99	236.75	
450	105.90	180.03	264.75	
500	116.40	197.88	291.00	**3**
600	133.50	226.95	333.75	

32B — 2" (50.8mm) PITCH

Rev/min faster Shaft	19 Tooth			Type of Lubrication
	Simplex	Duplex	Triplex	
10	4.54	7.72	11.35	**1**
25	10.44	17.75	26.10	
50	19.40	32.98	48.50	
100	36.10	61.37	90.25	
150	51.80	88.06	129.50	
200	67.30	114.41	168.25	**2**
250	82.10	139.57	205.25	
300	97.00	164.90	242.50	
350	112.00	190.40	280.00	
400	126.00	214.20	315.00	**3**
500	154.00	261.80	385.00	

SPROCKET FACTOR

Nº Teeth	11	13	15	17	19	21	23	25	27
Factor	0.5	0.65	0.8	0.9	1.0	1.1	1.2	1.3	1.4

For driver sprockets other than 19 tooth, multiply the power rating by the Sprocket Factor (above) to calculate the actual power rating.

For detail of lubrication types see page 30.

TABLE 3 – K FACTOR

T-t	K	T-t	K	T-t	K	T-t	K	T-t	K	T-t	K	T-t	K	T-t	K	T-t	K
1	**0**	11	**3**	21	**11**	31	**24**	41	**43**	51	**66**	61	**94**	71	**128**	81	**166**
2	**0**	12	**4**	22	**12**	32	**26**	42	**45**	52	**68**	62	**97**	72	**131**	82	**170**
3	**0**	13	**4**	23	**13**	33	**28**	43	**47**	53	**71**	63	**101**	73	**135**	83	**175**
4	**0**	14	**5**	24	**15**	34	**29**	44	**49**	54	**74**	64	**104**	74	**139**	84	**179**
5	**1**	15	**6**	25	**16**	35	**31**	45	**51**	55	**77**	65	**107**	75	**142**	85	**183**
6	**1**	16	**6**	26	**17**	36	**33**	46	**54**	56	**79**	66	**110**	76	**146**	86	**187**
7	**1**	17	**7**	27	**18**	37	**35**	47	**56**	57	**82**	67	**114**	77	**150**	87	**192**
8	**2**	18	**8**	28	**20**	38	**37**	48	**58**	58	**85**	68	**117**	78	**154**	88	**196**
9	**2**	19	**9**	29	**21**	39	**39**	49	**61**	59	**88**	69	**121**	79	**158**	89	**201**
10	**3**	20	**10**	30	**23**	40	**41**	50	**63**	60	**91**	70	**124**	80	**162**	90	**205**

TABLE 4 – SPEED RATIOS

		Number of teeth – Driving Sprocket																	
		10	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**27**	**30**
Number of teeth – Driven Sprocket	**10**	1.00																	
	11	1.10	1.00																
	12	1.20	1.09	1.00															
	13	1.30	1.18	1.08	**1.00**														
	14	1.40	1.27	1.17	1.08	1.00													
	15	1.50	1.36	1.25	**1.15**	1.07	**1.00**												
	16	1.60	1.45	1.33	1.23	1.14	1.07	1.00											
	17	1.70	1.55	1.42	**1.31**	1.21	**1.13**	1.06	**1.00**										
	18	1.80	1.64	1.50	1.38	1.29	1.20	1.13	1.06	1.00									
	19	1.90	1.73	1.58	**1.46**	1.36	**1.27**	1.19	**1.12**	1.06	**1.00**								
	20	2.00	1.82	1.67	1.54	1.43	1.33	1.25	1.18	1.11	1.05	1.00							
	21	2.10	1.91	1.75	**1.62**	1.50	**1.40**	1.31	**1.24**	1.17	**1.11**	1.05	**1.00**						
	22	2.20	2.00	1.83	1.69	1.57	1.47	1.38	1.29	1.22	1.16	1.10	1.05	1.00					
	23	2.30	2.09	1.92	**1.77**	1.64	**1.53**	1.44	**1.35**	1.28	**1.21**	1.15	**1.10**	1.05	**1.00**				
	24	2.40	2.18	2.00	1.85	1.71	1.60	1.50	1.41	1.33	1.26	1.20	1.14	1.09	1.04	1.00			
	25	2.50	2.27	2.08	**1.92**	1.79	**1.67**	1.56	**1.47**	1.39	**1.32**	1.25	**1.19**	1.14	**1.09**	1.04	**1.00**		
	26	2.60	2.36	2.17	2.00	1.86	1.73	1.63	1.53	1.44	1.37	1.30	1.24	1.18	1.13	1.08	1.04		
	27	2.70	2.45	2.25	**2.08**	1.93	**1.80**	1.69	**1.59**	1.50	**1.42**	1.35	**1.29**	1.23	**1.17**	1.13	**1.08**	**1.00**	
	28	2.80	2.54	2.33	2.15	2.00	1.87	1.75	1.65	1.56	1.47	1.40	1.33	1.27	1.22	1.17	1.12	1.04	
	29	2.90	2.64	2.42	2.23	2.07	1.93	1.81	1.71	1.61	1.53	1.45	1.38	1.32	1.26	1.21	1.16	1.07	
	30	3.00	2.73	2.50	2.31	2.14	2.00	1.88	1.76	1.67	1.58	1.50	1.43	1.36	1.30	1.25	1.20	1.11	1.00
	38	3.80	3.45	3.17	**2.92**	2.71	**2.53**	2.38	**2.24**	2.11	**2.00**	1.90	**1.81**	1.73	**1.65**	1.58	**1.52**	1.41	1.27
	57	5.70	5.18	4.75	**4.38**	4.07	**3.80**	3.56	**3.35**	3.17	**3.00**	2.85	**2.71**	2.59	**2.48**	2.38	**2.28**	2.11	1.90
	76	7.60	6.91	6.33	**5.85**	5.43	**5.07**	4.75	**4.47**	4.22	**4.00**	3.80	**3.62**	3.45	**3.30**	3.17	**3.04**	2.81	2.53
	95	9.50	8.64	7.92	**7.31**	6.79	**6.33**	5.94	**5.59**	5.28	**5.00**	4.75	**4.52**	4.32	**4.13**	3.96	**3.80**	3.52	3.17

Ratios in BOLD type indicate ratios generally available in Taper Lock®

CHAIN LENGTH CONVERSION DATA

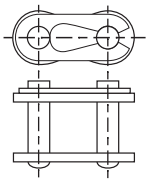
Chain Pitch (ins)	Pitches/ft	Pitches/Metre	Chain Pitch (ins)	Pitches/ft	Pitches/Metre
6mm	50.8	166.67	**1"**	12	39.37
8mm	38.1	125.00	**1¼"**	9.6	31.49
¼"	48	157.48	**1½"**	8	26.25
⅜"	32	104.99	**1¾"**	6.86	22.50
½"	24	78.74	**2"**	6	19.68
⅝"	19.2	62.99			
¾"	16	52.49			



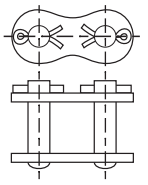
ROLLER CHAIN LINKS

CONN. LINK	CONN. LINK	RIVET PIN LINK	DOUBLE OFF-SET LINK	INNER LINK	OFFSET LINK
Spring Clip Type	Cotter Type	Rivet-on Type			
BRITISH STANDARD (BS)					
04B		04B	04B	04B	
05B		05B	05B	05B	
06B	06B	06B	06B	06B	06B
08B	08B	08B	08B	08B	08B
10B	10B	10B	10B	10B	10B
12B	12B	12B	12B	12B	12B
16B	16B	16B	16B	16B	16B
	20B	20B		20B	20B
	24B	24B		24B	24B
	288	28B		28B	28B
	32B	32B		328	328
AMERICAN STANDARD (ASA)					
25		25	25	25	
35	35	35	35	35	35
40	40	40	40	40	40
41	41	41	41	41	41
50	50	50	50	50	50
60	60	60	60	60	60
80	80	80	80	80	80
	100	100		100	100
	120	120		120	120
	140	140		140	140
	160	160		180	160
ASA HEAVY DUTY					
40H		40H	40H	40H	
50H	50H	50H	50H	50H	50H
60H	60H	60H	60H	60H	60H
80H	80H	80H	80H	80H	80H
	100H	100H	100H	100H	100H
	120H	120H	120H	120H	120H
DOUBLE PITCH					
A2040	A2040	A2040		A2040	A2040
A2050	A2050	A2050		A2050	A2050
A2060	A2060	A2060		A2060	A2060
C2040	C2040	C2040		C2040	C2040
C2050	C2050	C2050		C2050	C2050
C2060/H	C2060/H	C2060/H		C2060/H	C2060/H
	C2080/H	C2080/H		C2080/H	
	C2100/H	C2100/H		C2100/H	
	C2120/H	C2120/H		C2120/H	
C2042	C2042	C2042		C2042	C2042
C2052	C2052	C2052		C2052	C2052
C2062/H	C2062/H	C2062/H		C2062/H	C2062/H
	C2082/H	C2082/H		C2082/H	
	C2102/H	C2102/H		C2102/H	
	C2122/H	C2122/H		C2122/H	

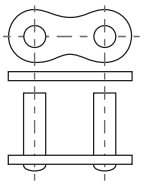
SPRING CLIP CONNECTING LINK



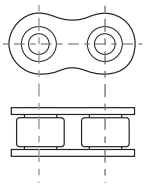
COTTER CONNECTING LINK



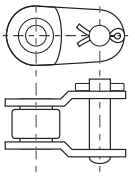
RIVET PIN LINK



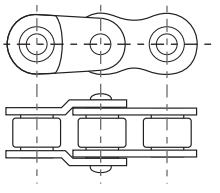
INNER LINK



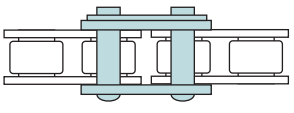
OFFSET LINK



DOUBLE OFFSET LINK

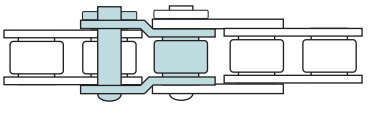


ENDLESS - EVEN NO. OF LINKS



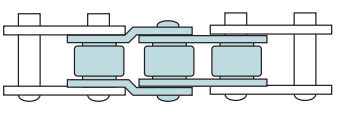
Odd number of links, with inner at each end and 1 standard connecting link.

ENDLESS - ODD NO. OF LINKS



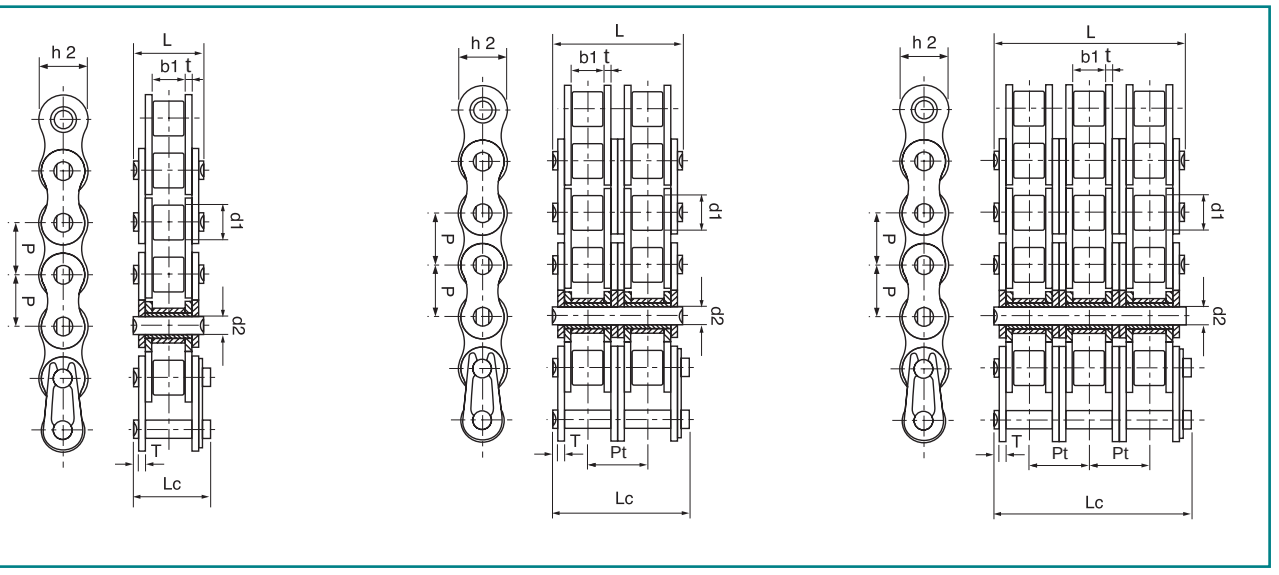
Even number of links, with inner at one end and outer at other end plus 1 offset link.

ENDLESS - ODD NO. OF LINKS



Odd number of links, with outer at each end plus 1 double offset link.

BRITISH STANDARD ROLLER CHAINS
BS 228, ISO R606, DIN 8187



Product Code		Chain No	ISO	Pitch Diameter	Roller Between Inner Plates	Width Diameter	PinLength		Inner Plate Depth	Plate Thickness	Transverse Pitch	Fenner PLUS Min Tensile Strength	Fenner Standard Min Tensile Strength	Weight per foot
Fenner Standard	Fenner PLUS		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	t/T max mm	Pt mm	Q min kN	Q_0 kN	q kg/ft
SIMPLEX														
028H0110	-	04B-1	6.000	4.00	2.80	1.85	6.80	7.80	5.00	0.60	-	-	3.00	0.033
028J0110	-	05B-1	8.000	5.00	3.00	2.31	8.20	8.90	7.10	0.80	-	-	5.00	0.060
028A0110	028A0111	#06B-1	9.525	6.35	5.72	3.27	13.50	14.10	8.23	1.30	-	9.00	9.00	0.122
028B0110	028B0111	08B-1	12.700	8.51	7.75	4.45	16.60	18.20	11.80	1.60	-	18.20	18.00	0.210
028C0110	028C0111	10B-1	15.875	10.16	9.65	5.08	19.00	20.90	13.70	1.70	-	23.00	22.40	0.259
028D0110	028D0111	12B-1	19.050	12.07	11.68	5.72	22.30	24.20	16.20	1.85	-	30.50	29.00	0.357
028E0110	028E0111	16B-1	25.400	15.88	17.02	8.28	35.10	37.40	20.80	4.15/3.1	-	66.00	60.00	0.811
028F0110	028F0111	20B-1	31.750	19.05	19.56	10.19	40.50	45.00	25.40	4.5/3.5	-	105.00	95.00	1.134
028G0110	028G0111	24B-1	38.100	25.40	25.40	14.63	53.10	57.80	32.30	6.0/4.8	-	180.00	160.00	2.149
028T0110	028T0111	28B-1	44.450	27.94	30.95	15.90	65.10	69.50	37.00	7.5/6.0	-	235.00	200.00	2.731
028U0110	028U0111	32B-1	50.800	29.21	30.99	17.81	63.60	71.00	42.30	7.0/6.0	-	270.00	250.00	3.048
028V0110	028V0111	40B-1	63.500	39.37	38.10	22.89	79.00	89.20	52.80	8.5/8.0	-	365.00	355.00	4.938
028Z0110	028Z0111	48B-1	76.200	48.26	45.72	29.24	99.10	107.00	64.20	12/10	-	600.00	560.00	7.598
DUPLEX														
028J0210	-	05B-2	8.000	5.00	3.00	2.31	13.90	14.50	7.10	0.80	5.64	-	7.80	0.100
028A0210	028A0211	#06B-2	9.525	6.35	5.72	3.27	23.80	24.40	8.23	1.30	10.24	17.60	16.90	0.226
028B0210	028B0211	08B-2	12.700	8.51	7.75	4.45	30.60	32.20	11.80	1.60	13.92	36.40	32.00	0.411
028C0210	028C0211	10B-2	15.875	10.16	9.65	5.08	35.75	37.50	13.70	1.70	16.59	46.00	44.50	0.506
028D0210	028D0211	12B-2	19.050	12.07	11.68	5.72	41.80	43.60	16.20	1.85	19.46	61.00	57.80	0.707
028E0210	028E0211	16B-2	25.400	15.88	17.02	8.28	68.00	69.30	20.80	4.15/3.1	31.88	132.00	106.00	1.609
028F0210	028F0211	20B-2	31.750	19.05	19.56	10.19	77.00	81.50	25.40	4.5/3.5	36.45	210.00	170.00	2.243
028G0210	028G0211	24B-2	38.100	25.40	25.40	14.63	101.80	106.20	33.40	6.0/4.8	48.36	360.00	280.00	4.221
028T0210	028T0211	28B-2	44.450	27.94	30.95	15.90	124.60	129.10	37.00	7.5/6.0	59.56	470.00	360.00	5.730
028U0210	028U0211	32B-2	50.800	29.21	30.99	17.81	124.60	129.60	42.30	7.0/6.0	58.55	540.00	450.00	6.035
028V0210	028V0211	40B-2	63.500	39.37	38.10	22.89	152.00	161.50	52.80	8.5/8.0	72.29	730.00	630.00	9.778
028Z0210	028Z0211	48B-2	76.200	48.26	47.70	29.22	190.40	198.20	64.20	12/10	91.21	1200.00	1000.00	15.087
TRIPLEX														
028A0310	028A0311	#06B-3	9.525	6.35	5.72	3.27	34.00	34.60	8.23	1.30	10.24	26.50	24.90	0.335
028B0310	028B0311	08B-3	12.700	8.51	7.75	4.45	44.60	46.10	11.80	1.60	13.92	54.60	47.50	0.616
028C0310	028C0311	10B-3	15.875	10.16	9.65	5.08	52.30	54.10	13.70	1.70	16.59	69.00	66.70	0.795
028D0310	028D0311	12B-3	19.050	12.07	11.68	5.72	61.40	63.10	16.20	1.85	19.46	91.50	86.70	1.975
028E0310	028E0311	16B-3	25.400	15.88	17.02	8.28	99.90	101.20	20.80	4.15/3.1	31.88	198.00	160.00	2.396
028F0310	028F0311	20B-3	31.750	19.05	19.56	10.19	113.50	117.90	25.40	4.5/3.5	36.45	315.00	250.00	3.353
028G0310	028G0311	24B-3	38.100	25.40	25.40	14.63	150.20	154.60	33.40	6.0/4.8	48.36	540.00	425.00	6.190
028T0310	028T0311	28B-3	44.450	27.94	30.95	15.90	184.60	188.70	37.00	7.5/6.0	59.56	705.00	530.00	8.534
028U0310	028U0311	32B-3	50.800	29.21	30.99	17.81	184.60	188.20	42.30	7.0/6.0	58.55	810.00	670.00	9.022
028V0310	028V0311	40B-3	63.500	39.37	38.10	22.89	224.60	233.80	52.80	8.5/8.0	72.29	1095.00	950.00	14.617
028Z0310	028Z0311	48B-3	76.200	48.26	47.70	29.22	281.60	289.40	64.20	12/10	91.21	1800.00	1500.00	24.444

For weight in metres multiply by 3.281

Straight side plates.

All Fenner Standard and Fenner PLUS chains are equivalent to or exceed ISO 606 minimum tensile strength
The above dimensions are for Fenner PLUS chain, some non-functional dimensions may differ slightly for Fenner Standrad Chain

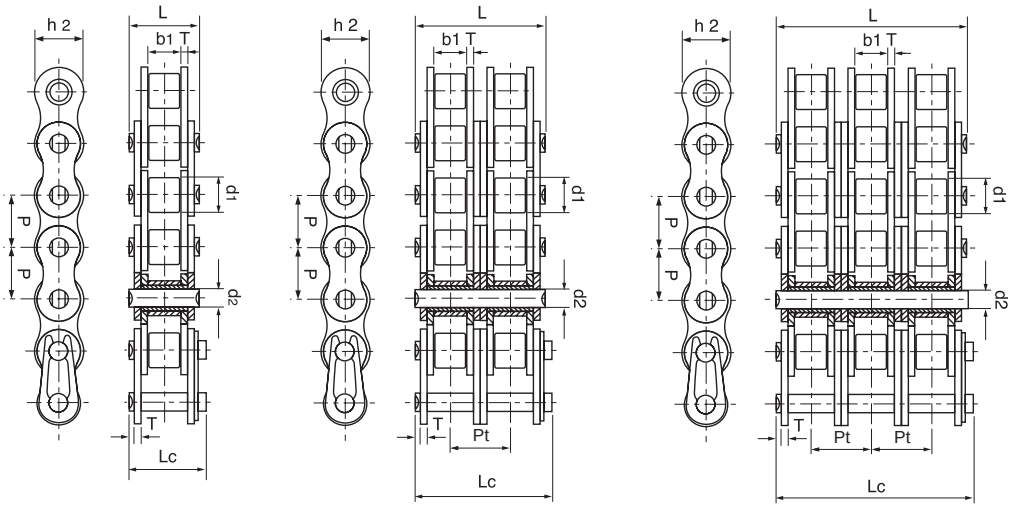
Chain is sold in units of feet or metres, depending on geographical market



AMERICAN STANDARD ROLLER CHAINS
ANSI B29.1, ISO R606, DIN 8188

ANSI standard chain is dimensionally similar to BS chain but with generally thicker plates resulting in a narrower b1 dimension between inner plates. The pitching between strands of duplex and triplex chain, dimension Pt may also vary from BS chain.

Care should be taken to ensure that correct sprockets are used with ANSI chain.



Product Code		ANSI Chain No	ISO Chain	Pitch	Roller Dia.	Width Between Inner Plates	Pin Dia.	Pin Length		Inner Plate Depth	Plate Thickness	Transverse Pitch	Fenner PLUS Min Tensile Strength	Fenner Standard Min Tensile Strength	Weight per foot
Fenner Standard	Fenner PLUS			P mm	d1 max mm	b1 min mm	d2 max mm	L max mm	Lc max mm	h2 max mm	t/T max mm	Pt mm	Q min kN	Q0 kN	q kg/ft
SIMPLEX															
028K0110	-	•35	•06C-1	9.525	5.080	4.77	3.58	12.40	13.17	9.00	1.30	-	-	7.90	0.045
028L0110	028L0111	40	08A-1	12.700	7.930	7.85	3.98	16.30	17.80	11.50	1.50	-	16.50	14.10	0.180
028M0110	-	41	085-1	12.700	7.770	6.25	3.58	13.75	15.00	9.91	1.30	-	-	6.67	0.125
028N0110	028N0111	50	10A-1	15.875	10.150	9.55	5.09	20.45	22.20	13.70	2.03	-	27.00	22.20	0.304
028P0110	028P0111	60	12A-1	19.050	11.910	12.65	5.96	25.40	27.70	16.20	2.42	-	38.00	31.80	0.414
028Q0110	028Q0111	80	16A-1	25.400	15.880	15.88	7.94	32.80	35.00	20.80	3.25	-	62.00	56.70	0.786
028R0110	028R0111	100	20A-1	31.750	19.050	19.05	9.53	39.60	44.70	25.40	4.00	-	99.00	88.50	1.183
028S0110	028S0111	120	24A-1	38.100	22.220	25.40	11.10	49.60	54.30	35.20	4.80	-	140.00	127.00	1.695
028W0110	028W0111	140	28A-1	44.450	25.400	25.40	12.70	53.50	59.00	42.00	5.60	-	178.00	172.40	2.268
028X0110	028X0111	160	32A-1	50.800	28.580	31.75	14.27	64.00	69.60	48.20	6.40	-	228.00	226.80	3.060
028Y0110	028Y0111	200	40A-1	63.500	39.670	38.10	19.85	77.90	87.20	58.00	8.00	-	380.00	353.80	5.090
028Z0110	028Z0111	240	48A-1	76.200	47.630	47.60	23.80	94.50	103.00	71.80	9.50	-	700.00	510.30	7.220
DUPLEX															
028K0210	-	•35-2	•06C-2	9.525	5.080	4.77	3.58	22.50	23.30	9.00	1.30	10.13	-	15.80	0.085
028L0210	028L0211	40-2	08A-2	12.700	7.930	7.85	3.98	30.80	32.20	11.50	1.50	14.38	33.00	28.20	0.366
028N0210	028N0211	50-2	10A-2	15.875	10.150	9.55	5.09	38.90	40.40	13.70	2.03	18.11	54.00	44.40	0.609
028P0210	028P0211	60-2	12A-2	19.050	11.910	12.65	5.96	48.30	50.50	16.20	2.42	22.78	76.00	63.60	0.829
028Q0210	028Q0211	80-2	16A-2	25.400	15.880	15.87	7.94	62.30	64.30	20.80	3.25	29.29	124.00	113.40	1.554
028R0210	028R0211	100-2	20A-2	31.750	19.050	19.05	9.53	75.50	80.50	25.40	4.00	35.76	198.00	177.00	2.347
028S0210	028S0211	120-2	24A-2	38.100	22.220	25.40	11.10	95.30	99.70	35.20	4.80	45.44	280.00	254.00	3.340
028W0210	028W0211	140-2	28A-2	44.450	25.400	25.40	12.70	102.60	107.90	42.00	5.60	48.87	356.00	344.80	4.499
028X0210	028X0211	160-2	32A-2	50.800	28.580	31.75	14.27	123.30	144.40	48.20	6.40	58.55	456.00	453.60	6.065
028Y0210	028Y0211	200-2	40A-2	63.500	39.670	38.10	19.85	150.20	158.80	58.00	8.00	71.55	760.00	707.60	10.119
028Z0210	028Z0211	240-2	48A-2	76.200	47.600	47.60	23.80	182.20	190.80	71.80	9.50	87.83	1400.00	1020.60	14.400
TRIPLEX															
028K0310	-	•35-3	•06C-3	9.525	5.08	4.77	3.58	32.70	33.50	9.00	1.30	10.13	-	23.70	0.134
028L03010	028L0311	40-3	08A-3	12.700	7.93	7.85	3.98	45.30	46.60	11.50	1.50	14.38	49.50	42.30	0.550
028N0310	028N0311	50-3	10A-3	15.875	10.15	9.55	5.09	57.00	58.50	13.70	2.03	18.11	81.00	66.60	0.908
028P3010	028P3011	60-3	12A-3	19.050	11.91	12.65	5.96	71.10	73.30	16.20	2.42	22.78	114.00	95.40	1.243
028Q3010	028Q3011	80-3	16A-3	25.400	15.88	15.88	7.94	91.80	93.60	20.80	3.25	29.29	186.00	170.10	2.340
028R3010	028R3011	100-3	20A-3	31.750	19.05	19.05	9.53	112.10	116.30	25.40	4.00	35.76	297.00	265.50	3.511
028S3010	028S0311	120-3	24A-3	38.100	22.22	25.40	11.10	140.90	145.20	35.20	4.80	45.44	420.00	381.00	5.011
028W0310	028W0311	140-3	28A-3	44.450	25.4	25.40	12.70	152.40	156.80	42.00	5.60	48.87	534.00	517.20	6.730
028X0310	028X0311	160-3	32A-3	50.800	28.58	31.75	14.27	182.00	182.00	48.20	6.40	58.55	684.00	680.40	9.070
028Y0310	028Y0310	200-3	40A-3	63.500	39.67	38.10	19.85	222.20	230.40	58.00	8.00	71.55	1140.00	1061.40	15.148
028Z0310	028Z0311	240-3	48A-3	76.200	47.6	47.60	23.80	270.00	278.60	71.80	9.50	87.83	2100.00	1530.90	21.49

For weight in metres multiply by 3.281

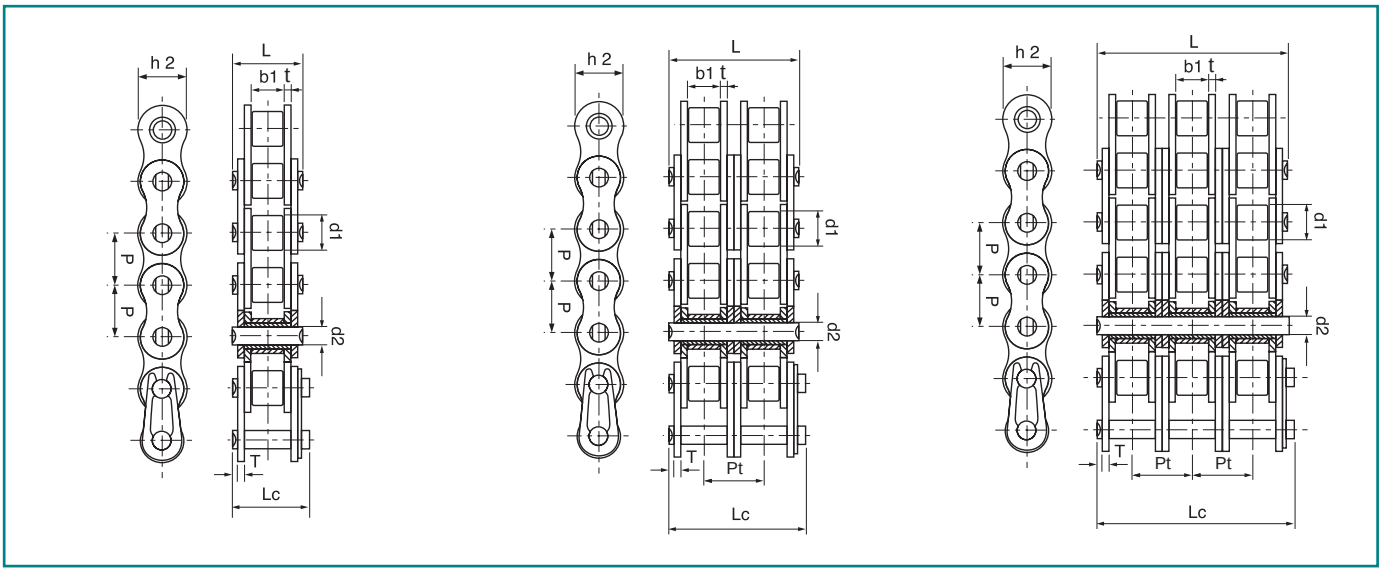
• Bushing chain, d1 indicates the external diameter of the bushing.
Cottered chain can be supplied for all chains of 19.05 mm pitch and above.

Chain is sold in units of feet or metres, depending on geographical market

All Fenner Standard and Fenner PLUS chains are equivalent to or exceed ISO 606 minimum tensile strength

The above dimensions are for Fenner PLUS chain, some non-functional dimensions may differ slightly for Fenner Standrad Chain

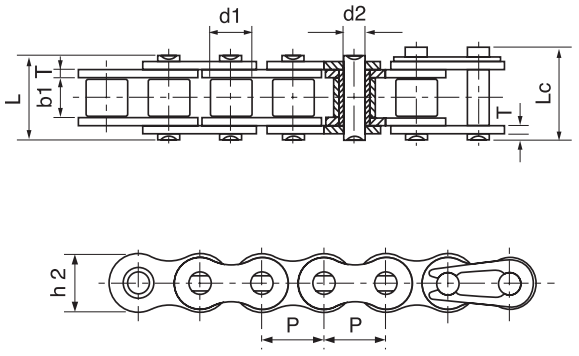
BRITISH STANDARD FENNER PLUS LUBRICATION FREE ROLLER CHAIN
BS 228, ISO R606, DIN 8187



Product Code	ISO Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Transverse Pitch	Fenner + Minimum Tensile Strength	ISO 606 Minimum Tensile Strength	Weight per Foot
		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	t/T max mm	Pt mm	Q min kN	Q_0 kN	q kg/ft
SIMPLEX													
028B0114	08B-1	12.700	8.51	7.75	4.45	16.60	18.20	11.80	1.6		17.80	17.8	0.210
028C0114	10B-1	15.875	10.16	9.65	5.08	19.00	20.90	13.70	1.7		22.20	22.2	0.259
028D0114	12B-1	19.050	12.07	11.68	5.72	22.30	24.20	16.20	1.85		28.90	28.9	0.357
028E0114	16B-1	25.400	15.88	17.02	8.28	35.10	37.40	20.80	4.15/3.1		60.00	60.0	0.811
DUPLEX													
028B0214	08B-2	12.700	8.51	7.75	4.45	30.60	32.20	11.80	1.6	13.92	31.10	31.10	0.411
028C0214	10B-2	15.875	10.16	9.65	5.08	35.75	37.50	13.70	1.7	16.59	44.50	44.50	0.506
028D0214	12B-2	19.050	12.07	11.68	5.72	41.80	43.60	16.20	1.85	19.46	57.80	57.80	0.707
028E0214	16B-2	25.400	15.88	17.02	8.28	68.00	69.30	20.80	4.15/3.1	31.88	106.00	106.00	1.609
TRIPLEX													
028B0314	08B-3	12.700	8.51	7.75	4.45	44.60	46.10	11.80	1.6	13.92	44.50	44.5	0.616
028C0314	10B-3	15.875	10.16	9.65	5.08	52.30	54.10	13.70	1.7	16.59	66.70	66.7	0.795
028D0314	12B-3	19.050	12.07	11.68	5.72	61.40	63.10	16.20	1.85	19.46	86.70	86.70	1.975
028E0314	16B-3	25.400	15.88	17.02	8.28	99.90	101.20	20.80	4.15/3.1	31.88	160.00	160.00	2.396

Chain is sold in units of feet or metres, depending on geographical market

AMERICAN STANDARD ROLLER CHAINS



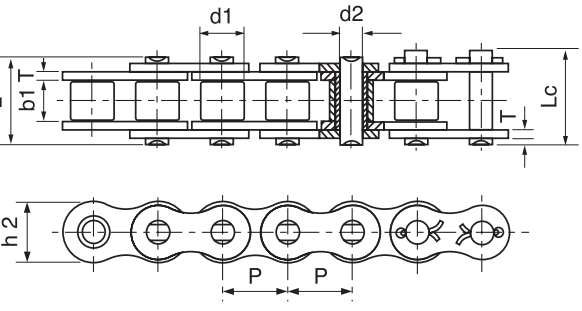
"H" SERIES ROLLER CHAINS

ANSI "H" Series chains are dimensionally identical to ANSI standard chains except that the sideplates are thicker. The heavier side plates provide some additional fatigue resistance. They are primarily intended for applications where occasional shock loads are likely to cause fatigue failures in the chain. Whilst there is an increase in tensile strength, the wear life of the case hardened pins remains the same as for standard chain.

Simplex "H" series chains operate on standard ANSI sprockets. Multiple strand "H" chain require non-standard ANSI sprockets because of the thicker side plates.

Product Code	ANSI Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diam-eter	Pin Length		Inner Plate Depth	Plate Thick-ness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	T max mm	Q min kN	Q_0 kN	q kg/m
028L5114	40H	12.700	7.95	7.85	3.96	18.80	19.90	12.00	2.03	14.10	19.10	0.82
028N0114	50H	15.875	10.16	9.40	5.08	22.10	23.40	15.09	2.42	22.20	30.20	1.25
028P0114	60H	19.050	11.91	12.57	5.94	29.20	31.00	18.00	3.25	31.80	42.70	1.87
028Q0114	80H	25.400	15.88	15.75	7.92	36.20	37.70	24.00	4.00	56.70	71.40	3.10
028R0114	100H	31.750	19.05	18.90	9.53	43.60	46.90	30.00	4.80	88.50	112.40	4.52
028S0114	120H	38.100	22.23	25.22	11.10	53.50	57.50	35.70	5.60	127.00	160.90	6.60
028W0114	140H	44.450	25.40	25.22	12.70	57.60	62.20	41.00	6.40	172.40	217.30	8.30
028X0114	160H	50.800	28.58	31.55	14.27	68.20	73.00	47.80	7.20	226.80	285.80	10.30
028Z0114	200H	63.500	39.68	37.85	19.85	86.60	93.50	60.00	9.50	353.80	444.50	19.16

Note; Refer to your local Autorised Distributor for dimensional details of ANSI "H" Series multiple strand chain



"SH" SERIES ROLLER CHAINS

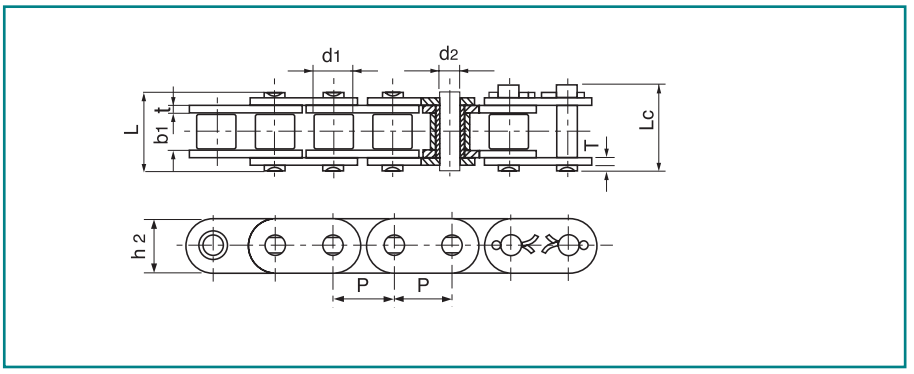
ANSI "SH" series chains are identical to "H" series but they have a different pin material, which is through hardened. The surface hardness is less than that of the carburised pins in the ANSI standard and ANSI "H" series chains but through hardened pins provide additional fatigue resistance, at some slight sacrifice in wear life.

Simplex "SH" series chains operate on standard ANSI sprockets. Multiple strand "SH" series chain requires non-standard ANSI sprockets because of the thicker side plates.

Product Code	ANSI Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diam-eter	Pin Length		Inner Plate Depth	Plate Thick-ness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	T max mm	Q min kN	Q_0 kN	q kg/m
028L5115	40SH	12.700	7.95	7.85	3.96	18.80	19.90	12.00	2.03	22.40	24.80	0.82
028N0115	50SH	15.875	10.16	9.40	5.08	22.10	23.40	15.09	2.42	30.40	36.20	1.25
028P0115	60SH	19.050	11.91	12.57	5.94	29.20	31.60	18.00	3.25	44.10	50.40	1.87
028Q0115	80SH	25.400	15.88	15.75	7.92	36.20	37.70	24.00	4.00	88.20	93.00	3.10
028R0115	I00SH	31.750	19.05	18.90	9.53	43.60	46.90	30.00	4.80	116.60	129.10	4.52
028S0115	I20SH	38.100	22.23	25.22	11.10	53.50	57.50	35.70	5.60	158.20	175.30	6.60
028W0115	I40SH	44.450	25.40	25.22	12.70	57.60	62.20	41.00	6.40	206.00	266.50	8.30
028X0115	I60SH	50.800	28.58	31.55	14.27	68.20	73.00	47.80	7.20	274.00	293.00	10.30
028Z0115	200SH	63.500	39.68	37.85	19.85	86.60	93.50	60.00	9.50	506.10	562.30	19.16

Chain is sold in units of feet or metres, depending on geographical market

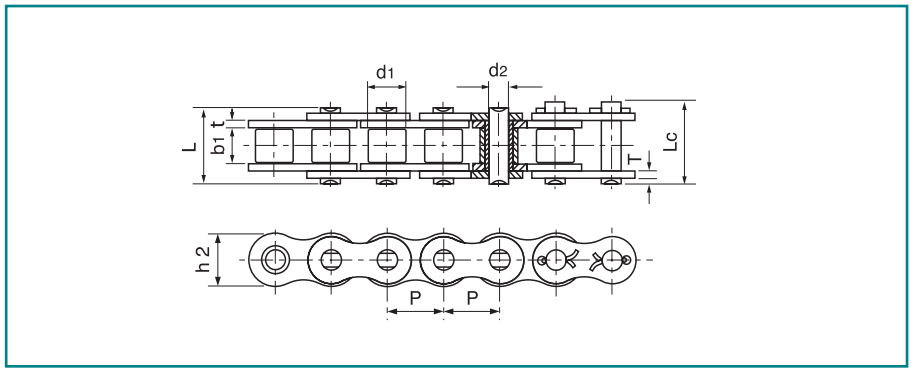
ROLLER CHAINS WITH STRAIGHT SIDE PLATES



Product Code	DIN ISO Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diam-eter	Pin Length		Plate Depth	Plate Thick-ness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	t/T max mm	Q min kN	Q_0 kN	q kg/m
028B0410	C08B-1	12.700	8.51	7.75	4.45	16.70	18.20	11.80	1.60	18.00	19.50	0.80
028C0410	C10B-1	15.875	10.16	9.65	5.08	19.50	20.90	14.70	1.70	22.40	27.09	1.06
028D0410	C12B-1	19.050	12.07	11.68	5.72	22.50	25.20	16.00	1.85	29.00	32.20	1.32
028E0410	C16B-1	25.400	15.88	17.02	8.28	36.10	39.10	21.00	4.15/3.1	60.00	72.80	3.08
028E0410	C16B-/24	25.400	15.88	17.02	8.28	36.10	39.10	24.00	4.15/3.1	60.00	72.80	3.49
028F0410	C20B-1	31.750	19.05	19.56	10.19	41.30	45.00	26.40	4.5/3.5	95.00	106.70	4.16
028G0410	C24B-1	38.100	25.40	25.40	14.63	53.40	57.80	33.20	6.0/4.8	160.00	178.00	7.47

Chain is sold in units of feet or metres, depending on geographical market

STAINLESS STEEL CHAINS



Material: AISI 304 Stainless Steel for optimum corrosion resistance, having regard for tensile strength and wear life considerations. Stainless steel chain is not as hard or as strong as carbon steel chain. AISI 304 Stainless Steel may have some slight residual magnetism due to cold working of the pins, bushes and rollers in manufacture. For applications where non-magnetic chain is required consult your local Authorised Distributor.

Product Code	Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diam-eter	Pin Length		Inner Plate Depth	Plate Thick-ness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	t/T mm	Q min kN	Q_0 kN	q kg/m
028H0112	04B-1SS	6.000	4.00	2.80	1.85	6.80	7.80	5.00	0.60	2.00	2.40	0.11
028J0112	05B-1SS	8.000	5.00	3.00	2.31	8.20	8.90	7.10	0.80	3.50	4.10	0.20
028A0412	*06B-1SS	9.525	6.35	5.72	3.28	13.15	14.10	8.20	1.30	6.20	6.80	0.41
028B0112	08B-1SS	12.700	8.51	7.75	4.45	16.70	18.20	11.80	1.60	12.00	14.30	0.70
028C0112	10B-1SS	15.875	10.16	9.65	5.08	19.50	20.90	14.70	1.70	14.50	17.20	0.94
028D0112	12B-1SS	19.050	12.07	11.68	5.72	22.50	24.20	16.00	1.85	18.50	20.90	1.16
028E0112	16B-1SS	25.400	15.88	17.02	8.28	36.10	37.40	21.00	4.15/3.1	40.00	47.60	2.73
028F0112	20B-1SS	31.750	19.05	19.56	10.19	41.30	45.00	26.40	4.5/3.5	59.00	69.60	3.73
028K0112	•35SS	9.525	5.08	4.77	3.58	12.40	13.17	9.00	1.30	5.50	6.60	0.33
028L0112	40SS	12.700	7.95	7.85	3.96	16.60	17.80	12.00	1.50	9.60	10.80	0.63
028N0112	50SS	15.875	10.16	9.40	5.08	20.70	22.20	15.00	2.03	15.20	17.20	1.03
028P0112	60SS	19.050	11.91	12.57	5.94	25.90	27.70	18.00	2.42	21.70	26.40	1.51
028Q0112	80SS	25.400	15.88	15.75	7.92	32.70	35.00	24.00	3.25	38.90	46.60	2.62

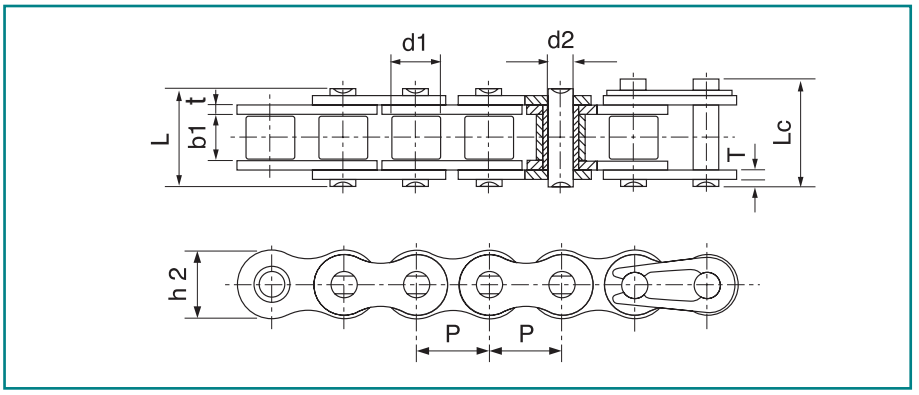
* Straight Side Plates.

• Bushing chain, d_1 indicates the external diameter of the bushing.



FENNER SPECIAL CHAINS

Also available are the extended range of "Special" chains which are widely used industrial standards but not part of any ISO or ANSI International Standards.



Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P	d_1 max	b_1 min	d_2 max	L max	L_C max	h_2 max	t/T max	Q min	Q_0	q
	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg/m
04BH	6.00	4.00	2.80	1.85	8.40	9.40	5.00	0.90	5.00	5.30	0.14
415	12.70	7.77	4.76	3.60	11.00	12.40	9.70	1.00	6.86	7.60	0.32
415H	12.70	7.77	4.76	3.96	13.10	14.50	12.00	1.50	14.40	16.10	0.55
415B	12.70	7.75	4.88	4.09	12.90	14.40	10.30	1.30	12.00	14.20	0.44
415BF1	12.70	7.75	4.88	4.09	11.50	13.00	10.30	1.00	9.00	10.60	0.38
423	12.70	8.51	6.40	4.45	15.60	17.10	12.40	1.70	19.60	21.90	0.71
478	12.70	7.80	4.80	4.00	11.60	13.65	10.46	1.25	9.80	12.80	0.39
08BF	12.70	8.51	5.55	4.45	14.60	16.10	11.80	1.60	17.80	19.20	0.66
12BV	19.05	12.07	11.68	6.10	24.50	26.50	16.00	2.42	36.00	39.90	1.43
12BH	19.05	12.07	11.68	5.94	25.20	26.80	16.00	2.42	40.00	44.40	1.45
12BHF1	19.05	12.07	11.68	6.10	25.00	27.20	16.50	2.50	44.00	48.80	1.46
16BF1	25.40	15.88	12.20	8.28	31.40	32.70	21.00	4.15/3.1	60.00	71.40	2.60
16BF2	25.40	15.88	17.02	8.28	38.60	39.80	21.00	4.15	60.00	71.40	3.08
16BF5	25.40	15.88	12.70	8.28	30.80	32.10	20.00	3.5/3.0	50.00	57.50	2.37
16BH	25.40	15.88	17.02	8.90	35.70	38.90	24.10	4.0/3.1	80.00	94.20	3.11
24BH	38.10	25.40	25.40	14.63	58.60	63.40	36.20	7.5/6.0	225.00	250.30	9.00

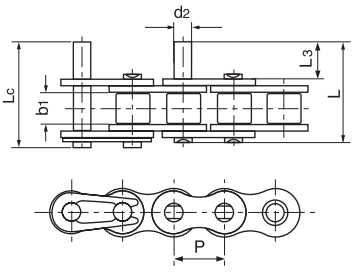
CHAINS WITH EXTENDED PINS

The following extended pins, for British and ANSI chains, conform generally with the ISO "Standard". Other manufacturers standards may differ in detail.
The critical dimensions are extended length and diameter and requirements should be checked against the dimensions below.
Duplex and triplex pin lengths can be supplied to order.

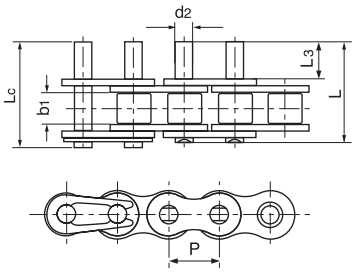
ISO Chain No	ANSI Chain No	Pitch	Width Between Inner Plates	Pin Diameter	Extended Length	Pin Length	
		P	b_1	d_2	L_3	L max	L_C max
		mm	mm	mm	mm	mm	mm
08B		12.700	7.75	4.45	9.50	25.10	26.60
10B		15.875	9.65	5.08	11.90	30.10	31.50
12B		19.050	11.68	5.72	14.30	35.40	37.10
16B		25.400	17.02	8.28	19.10	53.00	54.30
	35	9.525	4.77	3.58	9.50	20.80	21.60
	40	12.700	7.85	3.96	9.50	25.10	26.20
	50	15.875	9.40	5.08	11.90	31.30	33.10
	60	19.050	12.57	5.94	14.30	38.60	40.60
	80	25.400	15.75	7.92	19.10	50.30	53.30
	100	31.750	18.90	9.53	23.80	61.80	66.10
	120	38.100	25.22	11.10	28.60	76.40	80.40
	140	44.450	25.22	12.70	33.30	84.80	89.40
	160	50.800	31.55	14.27	38.10	99.60	104.40

Chain is sold in units of feet or metres, depending on geographical market

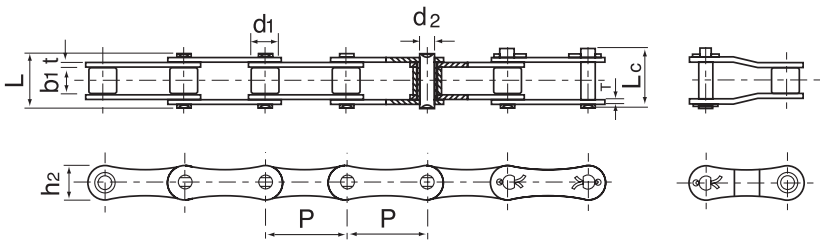
D1



D3



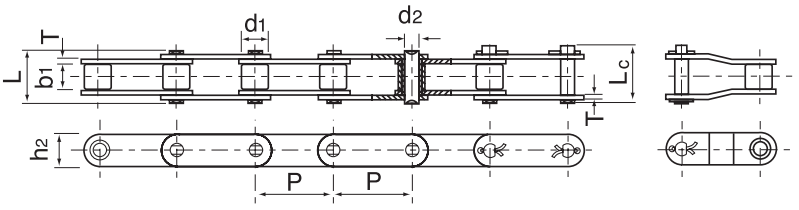
DOUBLE PITCH TRANSMISSION CHAINS



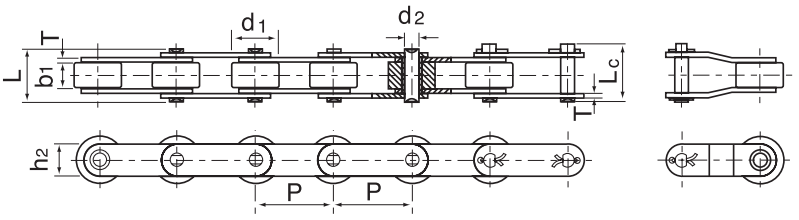
ANSI Chain No	ISO Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P	d_1 max	b_1 min	d_2 max	L max	L_C max	h_2 max	t/T max	Q min	Q_0	q
		mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg/m
A2040		25.40	7.95	7.85	3.96	16.60	17.80	12.00	1.50	14.10	16.70	0.42
	208B	25.40	8.51	7.75	4.45	16.70	18.20	11.80	1.60	18.00	19.40	0.45
A2050		31.75	10.16	9.40	5.08	20.70	22.20	15.00	2.03	22.20	28.10	0.73
	210B	31.75	10.16	9.65	5.08	19.50	20.90	14.70	1.70	22.40	27.50	0.65
A2060		38.10	11.91	12.57	5.94	25.90	27.70	18.00	2.42	31.80	36.80	1.02
	212B	38.10	12.07	11.68	5.72	22.50	25.20	16.00	1.85	29.00	32.20	0.76
A2080		50.80	15.88	15.75	7.92	32.70	36.50	24.00	3.25	56.70	65.70	1.70
	216B	50.80	15.88	17.02	8.28	36.10	39.10	21.00	4.15/3.10	60.00	72.80	1.75

DOUBLE PITCH CONVEYOR CHAINS

SMALL ROLLER TYPE



LARGE ROLLER TYPE



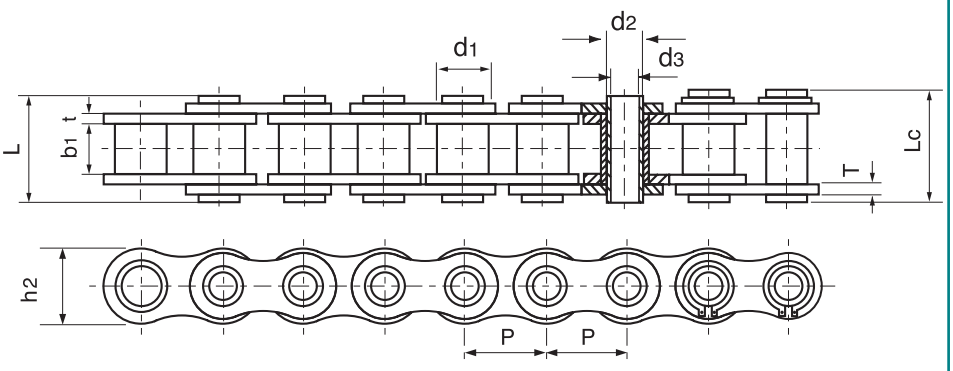
ANSI Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P	d_1 max	b_1 min	d_2 max	L max	L_C max	h_2 max	T max	Q min	Q_0	q
	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg/m
C2040	25.40	7.95	7.85	3.96	16.60	17.80	12.00	1.50	14.10	16.70	0.50
C2042	25.40	15.88	7.85	3.96	16.60	17.80	12.00	1.50	14.10	16.70	0.84
C2050	31.75	10.16	9.40	5.08	20.70	22.20	15.00	2.03	22.20	28.10	0.78
C2052	31.75	19.05	9.40	5.08	20.70	22.20	15.00	2.03	22.20	28.10	1.27
C2060	38.10	11.91	12.57	5.94	25.90	27.70	18.00	2.42	31.80	36.80	1.12
C2062	38.10	22.23	12.57	5.94	25.90	27.70	18.00	2.42	31.80	36.80	1.61
C2060H	38.10	11.91	12.57	5.94	29.20	31.60	18.00	3.25	31.80	41.60	1.44
C2062H	38.10	22.23	12.57	5.94	29.20	31.60	18.00	3.25	31.80	41.60	2.07
C2080H	50.80	15.88	15.75	7.92	36.20	39.40	24.40	4.00	56.70	70.00	2.54
C2082H	50.80	28.58	15.75	7.92	36.20	39.40	24.40	4.00	56.70	70.00	3.58
C2100H	63.50	19.05	18.90	9.53	43.60	46.90	30.00	4.80	88.50	112.40	3.56
C2102H	63.50	39.67	18.90	9.53	43.60	46.90	30.00	4.80	88.50	112.40	5.38
C2120H	76.20	22.23	25.22	11.10	53.50	57.50	35.70	5.60	127.00	160.90	5.26
C2122H	76.20	44.45	25.22	11.10	53.50	57.50	35.70	5.60	127.00	160.90	8.26

Chain is sold in units of feet or metres, depending on geographical market

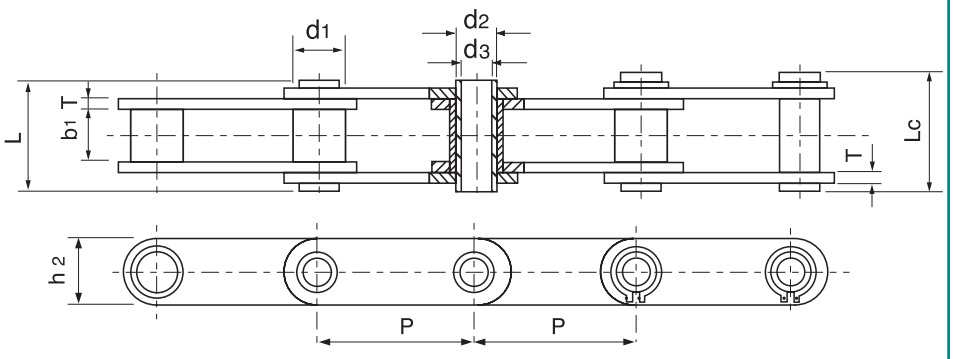


HOLLOW PIN CHAINS

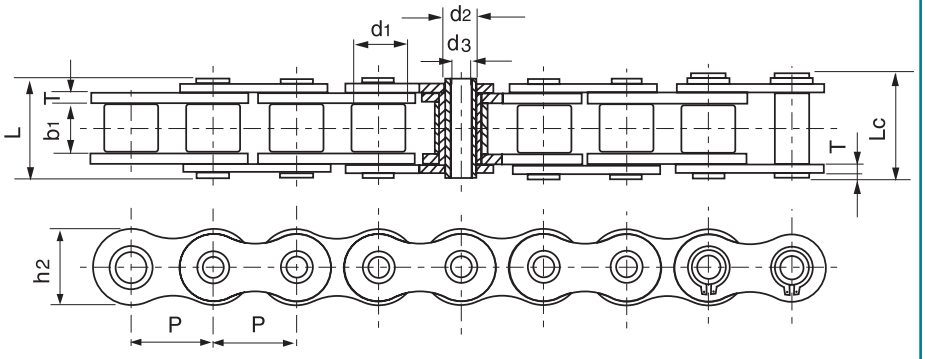
TYPE A - BUSHED



TYPE B - BUSHED



TYPE C - ROLLER

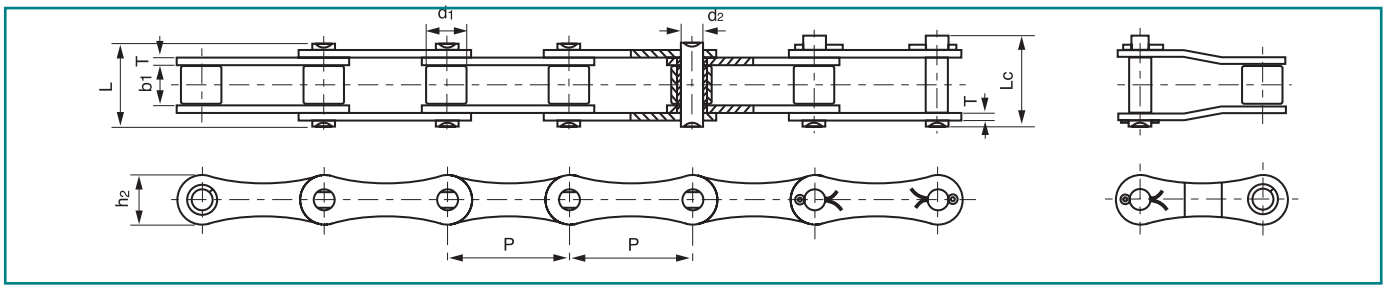


Chain No	Pitch	Bush / Roller Diameter	Width Between Inner Plates	Pin Diameter		Pin Length		Inner Plate Depth	Plate Thick-ness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre	Type
	P mm	d_1 max mm	b_1 min mm	d_2 max mm	d_3 max mm	L max mm	L_C max mm	h_2 max mm	t/T max mm	Q mim kN	Q_0 kN	q kg/m	
08BHP	12.700	8.51	7.75	6.55	4.50	16.40	17.60	11.80	1.60/1.30	11.10	12.10	0.56	A
10BHP	15.875	10.16	9.65	5.94	4.04	19.30	20.60	14.70	1.70	17.00	20.80	0.86	C
12BHP	19.050	12.07	11.68	6.50	4.00	21.60	22.80	15.90	1.85	23.60	25.90	1.09	C
40HP	12.700	7.95	7.85	5.63	4.00	16.50	17.60	12.00	1.50	11.00	12.20	0.54	A
50HP	15.875	10.16	9.40	7.03	5.13	20.70	21.90	15.09	2.03	20.00	22.60	0.91	A
60HP/5.01	19.050	11.91	12.70	7.00	5.01	25.50	26.60	18.00	2.42	20.00	22.40	1.35	C
60HP/6.00	19.050	11.91	12.70	8.31	6.00	25.80	26.80	18.00	2.42	24.00	26.90	1.29	A
80HP	25.400	15.88	15.75	11.40	8.05	32.50	33.80	24.00	3.25	50.00	58.30	2.26	A
C2040HP	25.400	7.95	7.85	5.63	4.00	16.50	17.60	12.00	1.50	11.00	12.60	0.46	B
C2050HP	31.750	10.16	9.40	7.22	5.12	20.50	21.80	15.00	2.03	20.40	22.80	0.76	B
C2060HP	38.100	11.91	12.70	8.31	6.00	25.80	26.80	18.00	2.42	24.00	27.10	1.02	B
C2080HP	50.800	15.88	15.75	11.40	8.05	32.50	33.80	24.00	3.25	50.00	55.20	1.81	B

Chain is sold in units of feet or metres, depending on geographical market

'S' TYPE STEEL AGRICULTURAL CHAINS

All 'S' type chain and attachments can be supplied zinc plated.
Please specify at time of order.

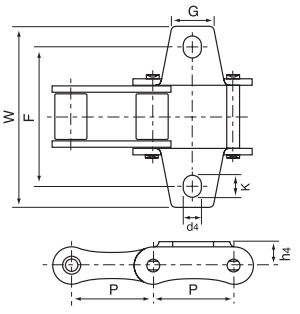


Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	T max mm	Q mim kN	Q_0 kN	q kg/m
S32	29.21	11.43	15.88	4.45	26.70	28.80	13.20	1.80	8.00	21.60	0.86
S42	34.93	14.27	19.05	7.00	34.30	37.00	19.80	2.80	27.00	50.80	1.60
S45	41.40	15.24	22.23	5.72	37.70	40.40	17.30	2.80	18.00	36.10	1.66
S52	38.10	15.24	22.23	5.72	37.70	40.40	17.30	2.80	18.00	36.10	1.68
S55	41.40	17.78	22.23	5.72	37.70	40.40	17.30	2.80	18.00	36.10	1.80
S55R	41.40	17.78	22.23	8.90	41.00	44.00	22.40	3.50	45.00	73.10	2.49
S62	41.91	19.05	25.40	5.72	40.30	43.00	17.30	2.50	27.00	36.10	1.87
S77	58.34	18.26	22.23	8.90	43.20	46.40	26.20	4.00	45.00	73.10	2.65
S88	66.27	22.86	28.58	8.90	49.80	53.00	26.20	4.00	45.00	73.10	3.25

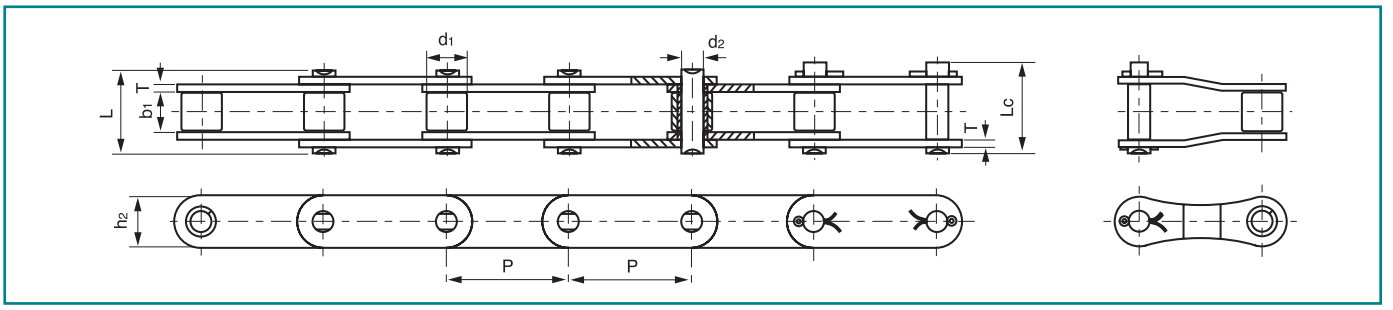
'S' TYPE STEEL AGRICULTURAL CHAIN ATTACHMENTS

Chain No	Pitch	Width	Hole Centres	Overall Width	Platform Height	Hole Dia	Elongated Slot Width
	P mm	G mm	F mm	W mm	h_4 mm	d_4 mm	K mm
S32K1	29.21	15.00	42.90	61.00	8.60	5.30	6.90
S42K1	34.93	17.50	54.00	74.90	14.00	8.30	11.50
S45K1	41.40	22.00	54.00	75.00	11.40	8.50	11.70
S52K1	38.10	19.00	58.80	78.00	11.40	8.30	9.90
S55K1	41.40	22.00	54.00	75.00	11.40	8.50	11.70
S62K1	41.91	22.00	66.80	95.40	11.40	6.50	13.00
S62F2	41.91	22.00	66.80	95.40	11.40	8.30	14.70

K-I ATTACHMENTS



'C' TYPE STEEL AGRICULTURAL CHAINS

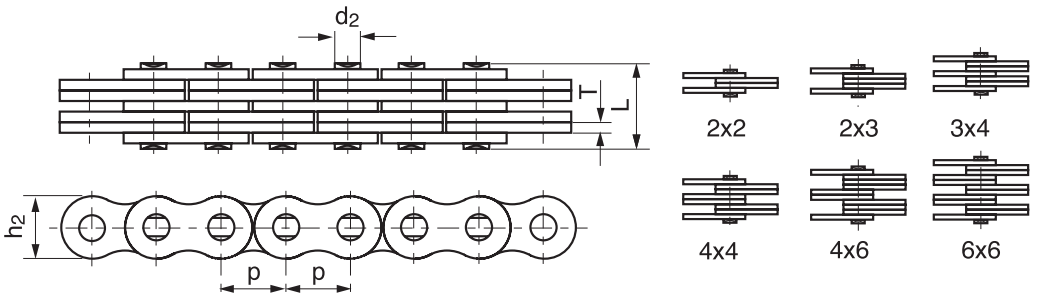


Chain No	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Depth	Plate Thickness	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P mm	d_1 max mm	b_1 min mm	d_2 max mm	L max mm	L_C max mm	h_2 max mm	T max mm	Q mim kN	Q_0 kN	q kg/m
CA550	41.40	16.87	19.81	7.19	35.00	38.00	19.30	2.80	39.10	51.20	1.94
CA557	41.40	17.78	20.24	8.00	37.40	40.60	23.10	3.10	55.61	74.30	2.20
CA620	42.01	17.91	24.51	7.19	41.80	45.20	20.20	3.25	39.10	55.10	2.35



BL SERIES LEAF CHAINS

CHAIN LACING



ANSI Chain No	ISO Chain No	Pitch	Chain Lacing	Plate Depth	Plate Thickness	Pin Diameter	Pin Length	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
		P mm		h2 max mm	T max mm	d2 max mm	L max mm	Q min kN	Q0 kN	q kg/m
BL422	LH0822	12.700 1/2"	2x2	12.07	2.08	5.09	11.05	22.20	27.60	0.64
BL423	LH0823		2x3				13.16	22.20	27.60	0.80
BL434	LH0834		3x4				17.40	33.40	41.40	1.12
BL444	LH0844		4x4				19.51	44.50	56.00	1.28
BL446	LH0846		4x6				23.75	44.50	56.00	1.60
BL466	LH0866		6x6				27.99	66.70	81.70	1.92
BL522	LH1022	15.875 5/8"	2x2	15.09	2.44	5.96	12.90	33.40	43.10	0.88
BL523	LH1023		2x3				15.37	33.40	43.10	1.10
BL534	LH1034		3x4				20.32	48.90	65.60	1.50
BL544	LH1044		4x4				22.78	66.70	84.50	1.80
BL546	LH1046		4x6				27.74	66.70	84.50	2.20
BL566	LH1066		6x6				32.69	100.10	125.10	2.65
BL622	LH1222	19.050 3/4"	2x2	18.11	3.30	7.94	17.37	48.90	63.60	1.45
BL623	LH1223		2x3				20.73	48.90	63.60	1.80
BL634	LH1234		3x4				27.43	75.60	102.80	2.50
BL644	LH1244		4x4				30.78	97.90	120.90	2.90
BL646	LH1246		4x6				37.49	97.90	120.90	3.60
BL666	LH1266		6x6				44.20	146.80	190.80	4.30
BL822	LH1622	25.400 1"	2x2	24.13	4.09	9.54	21.34	84.50	108.20	2.20
BL823	LH1623		2x3				25.48	84.50	108.20	2.70
BL834	LH1634		3x4				33.76	129.00	170.00	3.80
BL844	LH1644		4x4				37.90	169.00	214.60	4.30
BL846	LH1646		4x6				46.18	169.00	214.60	5.40
BL866	LH1666		6x6				54.46	253.60	324.50	6.50
BL1022	LH2022	31.750 1.1/4"	2x2	30.18	4.90	11.11	25.37	115.60	150.80	3.40
BL1023	LH2023		2x3				30.33	115.60	150.80	4.30
BL1034	LH2034		3x4				40.23	182.40	231.60	6.00
BL1044	LH2044		4x4				45.19	231.30	291.40	6.90
BL1046	LH2046		4x6				55.09	231.30	291.40	8.60
BL1066	LH2066		6x6				65.00	347.00	430.30	10.30
BL1222	LH2422	38.100 1.1/2"	2x2	36.20	5.77	12.71	29.62	151.20	192.00	4.60
BL1223	LH2423		2x3				35.43	151.20	192.00	5.80
BL1234	LH2434		3x4				47.07	244.60	315.90	8.10
BL1244	LH2444		4x4				52.88	302.50	381.10	9.30
BL1246	LH2446		4x6				64.52	302.50	381.10	11.60
BL1266	LH2466		6x6				76.15	453.70	543.60	13.90
BL1422	LH2822	44.450 1.3/4"	2x2	42.24	6.55	14.29	33.55	191.30	225.70	6.10
BL1423	LH2823		2x3				40.16	191.30	225.70	7.60
BL1434	LH2834		3x4				53.37	315.80	372.60	10.60
BL1444	LH2844		4x4				59.97	382.60	451.20	12.20
BL1446	LH2846		4x6				73.18	382.60	451.20	15.20
BL1466	LH2866		6x6				86.39	578.30	682.40	18.20
BL1622	LH3222	50.800 2"	2x2	48.26	7.52	17.46	39.01	289.10	341.10	8.00
BL1623	LH3223		2x3				46.58	289.10	341.10	10.00
BL1634	LH3234		3x4				61.72	440.40	519.60	14.00
BL1644	LH3244		4x4				69.29	578.30	680.40	16.00
BL1646	LH3246		4x6				84.43	578.30	680.40	20.00
BL1666	LH3266		6x6				99.57	857.40	1000.70	24.00

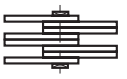
LL SERIES LEAF CHAINS

ISO Chain No	Pitch	Chain Lacing	Plate Depth	Plate Thickness	Pin Diam-eter	Pin Length	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P mm		h_2 max mm	T max mm	d_2 max mm	L max mm	Q min kN	Q_0 kN	q kg/m
LL0822	12.700 1/2"	2x2	10.60	1.30	4.45	7.60	17.80	20.40	0.35
LL0844		4x4				13.00	31.10	35.70	0.69
LL0866		6x6				18.20	44.50	50.90	1.00
LL1022	15.875 5/8"	2x2	13.70	1.60	5.08	9.20	22.30	25.50	0.54
LL1044		4x4				15.80	44.50	51.00	1.06
LL1066		6x6				22.10	66.70	76.30	1.57
LL1088		8x8				28.80	89.00	101.90	2.10
LL1222	19.050 3/4"	2x2	16.00	1.85	5.72	10.40	28.90	33.20	0.73
LL1244		4x4				17.90	57.80	66.40	1.44
LL1266		6x6				25.40	86.70	99.70	2.15
LL1288		8x8				32.90	115.60	132.90	2.84
LL1622	25.400 1"	2X2	21.0	3.10	8.28	17.20	58.00	66.70	1.52
LL1644		4X4				29.60	144.00	164.60	2.90
LL1666		6X6				42.40	200.00	230.00	4.30
LL1688		8X8				55.40	288.00	331.20	5.71
LL2022	31.750 1.1/4"	2X2	26.40	3.70	10.19	20.10	95.00	109.20	2.33
LL2044		4X4				33.80	190.00	218.50	4.40
LL2066		6X6				50.10	285.00	324.60	6.79
LL2088		8X8				65.40	380.00	435.10	8.75
LL2422	38.100 1.1/2"	2X2	33.40	5.00	14.63	28.40	170.00	195.50	4.47
LL2444		4X4				46.30	340.00	380.80	8.22
LL2466		6X6				66.40	510.00	571.20	12.22
LL2488		8X8				86.60	680.00	775.20	16.30
LL2822	44.450 1.3/4"	2X2	37.08	6.00	15.90	32.20	200.00	224.00	5.10
LL2844		4X4				56.40	400.00	448.00	9.90
LL2866		6X6				80.60	600.00	672.00	14.60
LL2888		8X8				105.20	800.00	896.00	19.40
LL3222	50.800 2"	2X2	42.00	6.00	17.81	33.20	260.00	291.20	5.80
LL3244		4X4				57.40	520.00	582.40	11.40
LL3266		6X6				81.60	780.00	873.60	16.90
LL3288		8X8				105.00	1050.00	1176.00	24.00
LL4022	63.500 2.1/2"	2X2	52.76	8.25	22.89	44.70	360.00	703.20	10.30
LL4044		4X4				77.90	780.00	873.60	20.00
LL4066		6X6				111.10	1080.00	1209.60	29.50
LL4088		8X8				145.50	1560.00	1747.20	39.10
LL4822	76.200 3"	2X2	63.88	10.30	29.24	56.10	560.00	627.20	18.50
LL4844		4X4				97.40	1120.00	1554.40	35.70
LL4866		6X6				138.90	1168.00	1308.10	53.00
LL4888		8X8				182.40	2240.00	2508.80	70.40

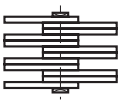
CHAIN LACING



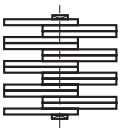
2x2



4x4



6x6



8x8

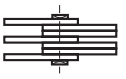
AL SERIES LEAF CHAINS

ANSI Chain No	Pitch	Chain Lacing	Plate Depth	Plate Thickness	Pin Diam-eter	Pin Length	Minimum Tensile Strength	Average Tensile Strength	Weight per Metre
	P mm		h_2 max mm	T max mm	d_2 max mm	L max mm	Q min kN	Q_0 kN	q kg/m
AL322	9.525 3/8"	2X2	7.70	1.30	3.58	6.80	9.00	10.20	0.23
AL422	12.700 1/2"	2X2	10.40	1.50	3.96	7.90	14.10	16.90	0.39
AL444		4X4				14.40	28.20	35.20	0.74
AL466		6X6				20.50	42.30	52.70	1.10
AL522	15.875 5/8"	2X2	12.80	2.03	5.08	10.30	22.00	27.50	0.61
AL534		3X4				17.00	33.00	46.00	1.10
AL544		4X4				18.90	44.00	55.00	1.19
AL566		6X6				26.90	66.00	82.50	1.79
AL622	19.050 3/4"	2X2	15.60	2.42	5.94	12.40	37.00	44.40	0.86
AL644		4X4				22.70	64.00	78.80	1.69
AL666		6X6				32.40	101.00	118.60	2.52
AL822	25.400 1"	2X2	20.50	3.25	7.92	16.00	56.70	68.60	1.54
AL844		4X4				29.40	113.40	135.60	3.00
AL866		6X6				42.50	170.00	202.30	4.46
AL1022	31.750 1.1/4"	2X2	25.60	4.00	9.53	19.60	88.50	107.10	2.37
AL1044		4X4				35.90	177.00	203.60	4.68
AL1066		6X6				52.30	265.00	315.30	7.00
AL1222	38.100 1.1/2"	2X2	30.50	4.80	11.10	24.30	127.00	151.10	3.65
AL1244		4X4				43.80	254.00	299.70	7.05
AL1266		6X6				63.00	381.00	426.30	10.44
AL1444	44.450 1.3/4"	4X4	36.40	5.60	12.64	51.30	372.70	413.60	10.34
AL1466		6X6				74.56	559.00	620.40	15.16
AL1644	50.800 2"	4X4	41.60	6.40	14.21	58.06	471.00	522.80	12.98
AL1666		6X6				84.46	706.00	783.60	19.41

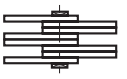
CHAIN LACING



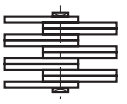
2x2



3x4



4x4



6x6



Fenner® PLUS

High Performance Sprockets
Hardened teeth for a longer life.

Fenner PLUS sprockets have been re-engineered to become the perfect partner for the new Fenner PLUS roller chain.

All Fenner PLUS sprockets up to circa 40 teeth are manufactured from C45 grade steel - a 0.45% plain carbon steel ideally suited to throigh hardening.

Hardened Teeth:
Fenner PLUS steel sprockets up to circa 40 teeth have hardened teeth - hardened to just below the tooth root.

Increased Life:
The superior hardened sprocket dramatically improves both chain and sprocket life by up to 50%.

Reduced Noise:
The teeth on Fenner PLUS sprockets are carefully hardened to specified levels, allowing accurate mesh to be maintained longer and therefore reducing drive noise.



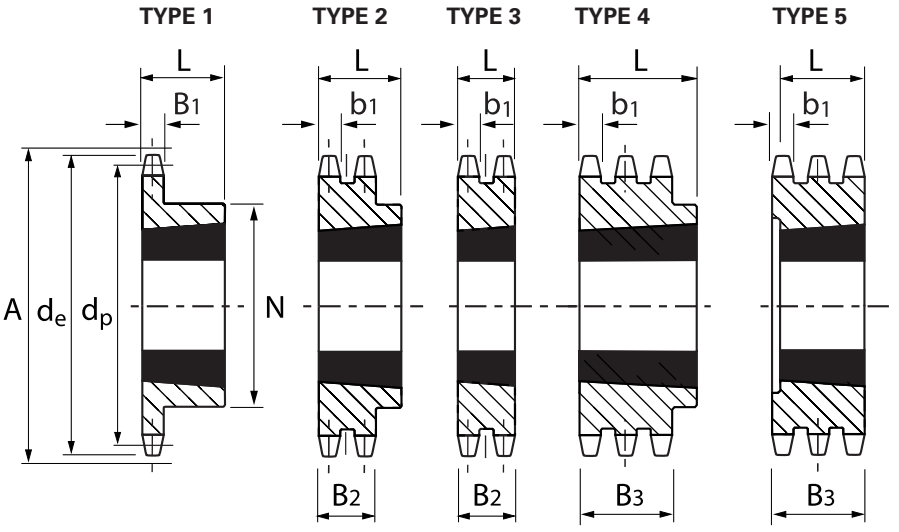
Use with Fenner PLUS high performance chain for exceptional performance and value.

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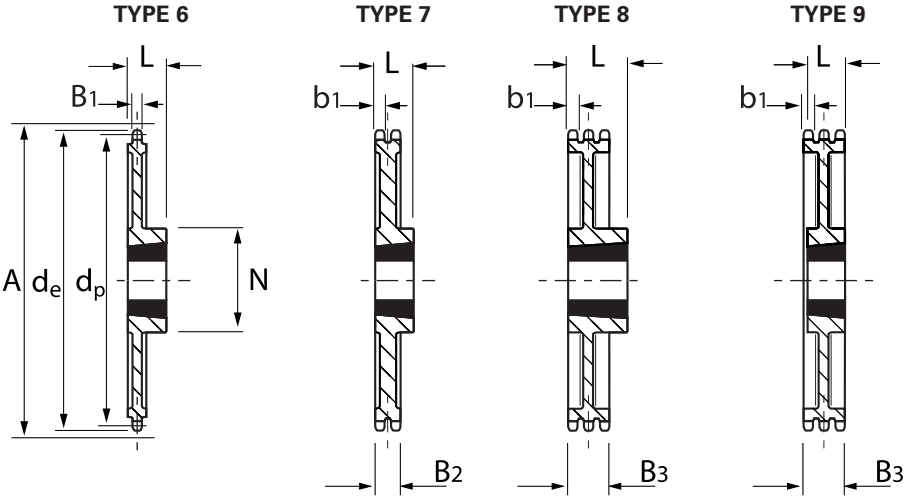
BUILT TO LAST

EXCEPTIONAL PERFORMANCE FOR EVERYDAY USE

STEEL C45



CAST IRON GG22



06B T/L SPROCKET

3/8" (9.5mm) PITCH

Tooth Width

B1 5.3mm
b1 5.2mm
B2 15.4mm
B3 25.6mm

No.of Teeth	Pitch Dia	Outer Dia	Dia Over Chain	Simplex Taper Lock						Duplex Taper Lock						Triplex Taper Lock					
				Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia
	dp mm	de mm	A mm					L mm	N mm					L mm	N mm					L mm	N mm
17	51.84	56	60	026A*117	**31–17**	1008	1	22.2	45	026A*217	**32–17**	1008	2	22.2	45	026A*317	**33–17**	1008	5	25.6	
19	57.86	62	66	026A*119	**31–19**	1008	1	22.2	45	026A*219	**32–19**	1008	2	22.2	45	026A*319	**33–19**	1008	5	25.6	
20	60.89	64	68	026A*120	**31–20**	1008	1	22.2	46												
21	63.91	68	72	026A*121	**31–21**	1008	1	22.2	46	026A*221	**32–21**	1008	2	22.2	49	026A*321	**33–21**	1008	5	25.6	
23	69.95	74	78	026A*123	**31–23**	1210	1	25.4	63	026A*223	**32–23**	1210	2	25.4	59	026A*323	**33–23**	1210	5	25.6	
25	76.00	80	84	026A*125	**31–25**	1210	1	25.4	63	026A*225	**32–25**	1210	2	25.4	65	026A*325	**33–25**	1210	5	25.6	
27	82.05	86	90	026A*127	**31–27**	1210	1	25.4	63	026A*227	**32–27**	1210	2	25.4	70	026A*327	**33–27**	1210	5	25.6	
30	91.12	95	99	026A*130	**31–30**	1210	1	25.4	63	026A*230	**32–30**	1210	2	25.4	75	026A*330	**33–30**	1615	4	38.0	79
38	115.34	119	123	026A*138	**31–38**	1210	1	25.4	70	026A*238	**32–38**	1610	2	25.4	80	026A*338	**33–38**	1615	4	38.0	90
45	136.55	141	145	026A0145	**31–45**	1210	1	25.4	70	026A0245	**32–45**	1610	2	25.4	80						
57	172.90	177	181	026A0157	**31–57**	1210	6	25.4	83	026A0257	**32–57**	1610	7	25.4	80						
76	230.48	234	239	026A0176	**31–76**	1210	6	25.4	83	026A0276	**32–76**	1610	7	25.4	92						
95	288.08	292	296	026A0195	**31–95**	1210	6	25.4	83	026A0295	**32–95**	1610	7	25.4	92						

Taper Lock bushes supplied as a separate items

For Fenner PLUS sprocket order refernce substitute * for 9 for Fenner standard sprockets substitute * for 0

Cast iron sprockets do not have hardened teeth



08B T/L SPROCKET ½" (12.7mm) PITCH

Tooth Width

B_1	7.2mm
b_1	7.0mm
B_2	21.0mm
B_3	34.9mm

No.of Teeth	Pitch Dia	Outer Dia	Dia Over Chain	Simplex Taper Lock						Duplex Taper Lock						Triplex Taper Lock					
				Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia
	d_p mm	d_e mm	A mm					L mm	N mm					L mm	N mm					L mm	N mm
15	61.09	66	73	026B*115	**41–15**	1008	1	22.2	45	026B*215	**42–15**	1008	2	22.2	46	026B*315	**43–15**	1008	5	34.9	
17	69.11	74	81	026B*117	**41–17**	1210	1	25.4	60	026B*217	**42–17**	1210	2	25.4	56	026B*317	**43–17**	1210	5	34.9	
19	77.17	82	89	026B*119	**41–19**	1210	1	25.4	63	026B*219	**42–19**	1210	2	25.4	62	026B*319	**43–19**	1210	5	34.9	
20	81.19	86	93	026B*120	**41–20**	1610	1	25.4	65												
21	85.22	90	97	026B*121	**41–21**	1610	1	25.4	71	026B*221	**42–21**	1610	2	25.4	70	026B*321	**43–21**	1610	5	34.9	
23	93.27	99	106	026B*123	**41–23**	1610	1	25.4	76	026B*223	**42–23**	1610	2	25.4	79	026B*323	**43–23**	1610	5	34.9	
25	101.32	106	113	026B*125	**41–25**	1610	1	25.4	76	026B*225	**42–25**	2012	2	32.0	87	026B*325	**43–25**	2012	5	34.9	
27	109.40	114	121	026B*127	**41–27**	1610	1	25.4	76	026B*227	**42–27**	2012	2	32.0	87	026B*327	**43–27**	2012	5	34.9	
30	121.50	126	133	026B*130	**41–30**	2012	1	32.0	90	026B*230	**42–30**	2012	2	32.0	87	026B*330	**43–30**	2012	5	34.9	
38	153.80	159	166	026B*138	**41–38**	2012	1	32.0	90	026B*238	**42–38**	2012	2	32.0	100	026B*338	**43–38**	2012	5	34.9	
45	182.07	188	195	026B0145	**41–45**	2012	1	32.0	100	026B0245	**42–45**	2012	2	32.0	100						
57	230.53	236	243	026B0157	**41–57**	2012	6	32.0	110	026B0257	**42–57**	2012	7	32.0	110						
76	307.31	312	319	026B0176	**41–76**	2012	6	32.0	110	026B0276	**42–76**	2012	7	32.0	110						
95	384.10	389	396	026B0195	**41–95**	2012	6	32.0	110	026B0295	**42–95**	2012	7	32.0	110						

Taper Lock bushes supplied as a separate item

For Fenner PLUS sprocket order refernce substitute * for 9 for Fenner standard sprockets substitute * for 0
Cast iron sprockets do not have hardened teeth

10B T/L SPROCKET 5/8" (15.9mm) PITCH

Tooth Width

B_1	9.1mm
b_1	9.0mm
B_2	25.5mm
B_3	42.1mm

No.of Teeth	Pitch	Outer Dia	Dia Over Chain	Simplex Taper Lock						Duplex Taper Lock						Triplex Taper Lock					
				Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia
	d_p mm	d_e mm	A mm					L mm	N mm					L mm	N mm					L mm	N mm
13	66.34	73	81	026C*113	**51–13**	1008	1	22.2	47												
15	76.35	83	91	026C*115	**51–15**	1210	1	25.4	60	026C*215	**52–15**	1210	3	25.4		026C*315	**53–15**	1210	5	42.1	
17	86.39	93	101	026C*117	**51–17**	1610	1	25.4	71	026C*217	**52–17**	1610	3	25.4		026C*317	**53–17**	1210	5	42.1	
19	96.44	103	111	026C*119	**51–19**	1610	1	25.4	75	026C*219	**52–19**	1610	3	25.4		026C*319	**53–19**	1615	5	42.1	
20	101.49	108	116	026C*120	**51–20**	1610	1	25.4	76												
21	106.50	114	122	026C*121	**51–21**	1610	1	25.4	76	026C*221	**52–21**	1610	3	25.4		026C*321	**53–21**	1615	5	42.1	
23	116.59	124	132	026C*123	**51–23**	1610	1	25.4	76	026C*223	**52–23**	1610	3	25.4		026C*323	**53–23**	2012	5	42.1	
25	126.67	134	142	026C*125	**51–25**	2012	1	32.0	90	026C*225	**52–25**	2012	2	32.0	90	026C*325	**53–25**	2517	4	45.0	105
27	136.75	144	152	026C*127	**51–27**	2012	1	32.0	90	026C*227	**52–27**	2012	2	32.0	90	026C*327	**53–27**	2517	4	45.0	110
30	151.87	159	167	026C*130	**51–30**	2012	1	32.0	90	026C*230	**52–30**	2012	2	32.0	90	026C*330	**53–30**	2517	4	45.0	120
38	192.23	200	208	026C*138	**51–38**	2012	1	32.0	100												
45	227.58	235	243	026C0145	**51–45**	2012	6	32.0	100												
57	288.19	296	304	026C0157	**51–57**	2012	6	32.0	110												
76	384.15	392	400	026C0176	**51–76**	2012	6	32.0	110												

Taper Lock bushes supplied as a separate items

For Fenner PLUS sprocket order refernce substitute * for 9 for Fenner standard sprockets substitute * for 0
Cast iron sprockets do not have hardened teeth

12B T/L SPROCKET ¾" (19.0mm) PITCH

Tooth Width

B_1 11.1mm
b_1 10.8mm
B_2 30.3mm
B_3 49.8mm

No.of Teeth	Pitch Dia	Outer Dia	Dia Over Chain	Simplex Taper Lock						Duplex Taper Lock						Triplex Taper Lock					
				Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia
	dp mm	de mm	A mm					L mm	N mm					L mm	N mm					L mm	N mm
13	79.60	88	96	026D*113	61–13	1210	1	25.4	60												
15	91.62	100	108	026D*115	61–15	1610	1	25.4	70	026D*215	62–15	1610	3	25.4		026D*315	63–15	1615	5	49.8	
17	103.68	112	120	026D*117	61–17	1610	1	25.4	76	026D*217	62–17	1610	3	25.4		026D*317	63–17	2012	5	49.8	
19	115.75	124	132	026D*119	61–19	2012	1	32.0	90	026D*219	62–19	2012	2	32.0	90	026D*319	63–19	2012	5	49.8	
20	121.78	130	138	026D*120	61–20	2012	1	32.0	95												
21	127.81	136	144	026D*121	61–21	2517	1	44.5	102	026D*221	62–21	2517	2	44.5	108	026D*321	63–21	2517	5	49.8	
23	139.90	149	157	026D*123	61–23	2517	1	44.5	108	026D*223	62–23	2517	2	44.5	108	026D*323	63–23	2517	5	49.8	
25	151.99	160	168	026D*125	61–25	2517	1	44.5	108	026D*225	62–25	2517	2	44.5	130	026D*325	63–25	2517	5	49.8	
27	164.09	172	180	026D*127	61–27	2517	1	44.5	108	026D*227	62–27	2517	2	44.5	130	026D*327	63–27	3020	4	50.8	140
30	182.25	191	197	026D*130	61–30	2517	1	44.5	108	026D*230	62–30	2517	2	44.5	130	026D*330	63–30	3020	4	50.8	140
38	230.68	239	247	026D*138	61–38	2517	1	44.5	108	026D*238	62–38	3020	2	50.8	140	026D*338	63–38	3020	4	50.8	140
45	273.10	283	291	026D0145	61–45	2517	6	44.5	108	026D0245	62-45	3020	7	50.8	140	026D0345	63-45	3020	4	50.8	140
57	345.82	355	363	026D0157	61–57	2517	6	44.5	124	026D0257	62–57	3020	7	50.8	160	026D0357	63–57	3020	8	50.8	150
76	460.98	470	478	026D0176	61–76	2517	6	44.5	124	026D0276	62–76	3020	7	50.8	160	026D0376	63–76	3020	8	50.8	160
95	576.17	585	593	026D0195	61–95	2517	6	44.5	124	026D0295	62–95	3020	7	50.8	160						

Taper Lock bushes supplied as a separate item

For Fenner PLUS sprocket order refernce substitute * for 9 for Fenner standard sprockets substitute * for 0
Cast iron sprockets do not have hardened teeth

16B T/L SPROCKET 1" (25.4mm) PITCH

Tooth Width

B_1 16.2mm
b_1 15.8mm
B_2 47.7mm
B_3 79.6mm

No.of Teeth	Pitch Dia	Outer Dia	Dia Over Chain	Simplex Taper Lock						Duplex Taper Lock						Triplex Taper Lock					
				Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia	Product code	Desig-nation	Bush No.	Type	Length Bore	Hub Dia
	dp mm	de mm	A mm					L mm	N mm					L mm	N mm					L mm	N mm
13	106.15	117	127	026E*113	81–13	1615	1	38.1	73												
15	122.17	133	143	026E*115	81–15	1615	1	38.1	76	026E*215	82–15	2012	3	32.0							
17	138.23	149	159	026E*117	81–17	2012	1	32.0	90	026E*217	82–17	2517	3	44.5		026E*317	83–17	2517	5	76.2	
19	154.33	165	175	026E*119	81–19	2517	1	44.5	108	026E*219	82–19	2517	3	44.5		026E*319	83–19	3030	5	76.2	
20	162.38	173	183	026E*120	81–20	2517	1	44.5	108	026E*220	82-20	2517	3	44.5							
21	170.43	181	191	026E*121	81–21	2517	1	44.5	110	026E*221	82–21	3020	2	50.8	140	026E*321	83–21	3030	5	76.2	
23	186.54	198	208	026E*123	81–23	2517	1	44.5	110	026E*223	82–23	3020	2	50.8	140	026E*323	83–23	3525	5	89.0	
25	202.67	214	224	026E*125	81–25	2517	1	44.5	110	026E*225	82–25	3020	2	50.8	140	026E*325	83–25	3525	5	89.0	
27	218.79	230	240	026E*127	81–27	2517	1	44.5	110	026E*227	82–27	3020	2	50.8	140	026E*327	83–27	3525	5	89.0	
30	243.00	254	264	026E*130	81–30	3020	1	50.8	140	026E*230	82–30	3020	2	76.2	140	026E*330	83–30	3525	5	89.0	
38	307.59	321	331	026E*138	81–38	3020	6	50.8	140	026E*238	82–38	3020	7	76.2	140	026E*338	83–38	3525	9	89.0	175
45	364.13	377	387	026E0145	81–45	3020	6	50.8	140	026E0245	82–45	3020	7	76.2	140	026E0345	83–45	4030	9	102.0	215
57	461.09	474	484	026E0157	81–57	3020	6	50.8	157	026E0257	82–57	3525	7	89.0	175	026E0357	83–57	4030	9	102.0	215
76	614.63	627	637	026E0176	81–76	3020	6	50.8	157	026E0276	82–76	3525	7	89.0	175	026E0376	83–76	4030	9	102.0	215

Taper Lock bushes supplied as a separate item

For Fenner PLUS sprocket order refernce substitute * for 9 for Fenner standard sprockets substitute * for 0
Cast iron sprockets do not have hardened teeth



05B PILOT BORED SPROCKET

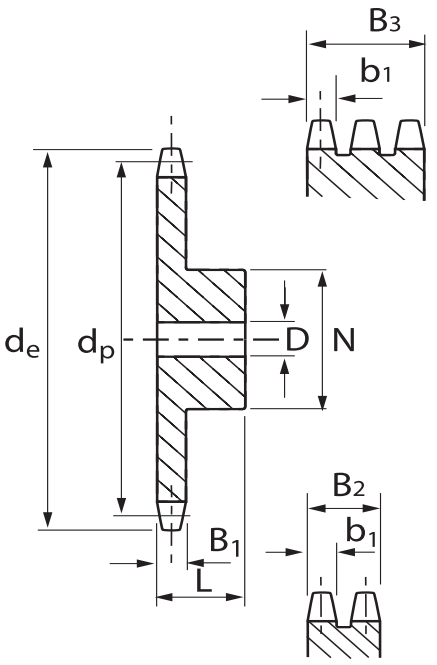
8 X 3mm PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027 J01--)				Duplex (027 J02--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D	
8	20.90	24.00	13	12	6	A	13	18	8	A
9	23.39	26.60	15	12	6	A	15	18	8	A
10	25.89	29.20	17	12	8	A	17	18	8	A
11	28.39	31.70	18	13	8	A	19	18	8	A
12	30.91	34.20	20	13	8	A	21	18	8	A
13	33.42	36.70	23	13	8	A	24	18	8	A
14	35.95	39.20	25	13	8	A	26	18	8	A
15	38.48	41.70	28	13	8	A	29	18	8	A
16	41.01	44.30	30	14	8	A	32	20	10	A
17	43.53	46.80	30	14	8	A	34	20	10	A
18	46.07	49.30	30	14	8	A	37	20	10	A
19	48.61	51.90	30	14	8	A	39	20	10	A
20	51.14	54.40	30	14	8	A	40	20	10	A
21	53.68	57.00	35	14	8	A	40	20	10	A
22	56.21	59.50	35	14	8	A	40	20	10	A
23	58.75	62.00	35	14	8	A	40	20	10	A
24	61.29	64.60	35	14	8	A	40	20	10	A
25	63.83	67.50	35	14	8	A	40	20	10	A
26	66.37	69.50	40	16	10	A	50	22	12	A
27	68.91	72.20	40	16	10	A	50	22	12	A
28	71.45	74.80	40	16	10	A	50	22	12	A
29	73.99	77.30	40	16	10	A	50	22	12	A
30	76.53	79.80	40	16	10	A	50	22	12	A
31	79.08	82.40	40	16	10	A	60	22	12	A
32	81.61	84.90	40	16	10	A	60	22	12	A
33	84.16	87.50	40	16	10	A	60	22	12	A
34	86.70	90.00	40	16	10	A	60	22	12	A
35	89.25	92.50	40	16	10	A	60	22	12	A
36	91.79	95.00	40	16	10	A	60	22	12	A
37	94.33	97.60	40	16	10	A	60	22	12	A
38	96.88	100.20	40	16	10	A	60	22	12	A
39	99.42	102.70	40	16	10	A	60	22	12	A
40	101.97	105.30	40	16	10	A	60	22	12	A
45	114.69	118.00	58	20	10	A	78	38	12	A
57	145.22	148.60	78	20	10	A	78	38	12	A
76	193.59	197.70	78	34	10	A	78	38	12	A
95	241.96	246.10	78	34	10	A	88	43	12	A
114	290.33	294.50	88	39	10	A	88	43	12	A

Tooth Width

B1	2.8mm
b1	2.7mm
B2	8.3mm

Type A = Steel C45
Type B = Cast Iron GG22



Type A = Steel C45
Type B = Cast Iron GG22

To complete the product code insert the number of teeth required (027J0109 = 05B-1 8mm pitch 9 tooth pilot bore sprocket)

06B PILOT BORED SPROCKET

3/8" X 7/32" PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027A01--)				Duplex (027A02--)				Triplex (027A03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	24.89	28.00	15	22	8	A	15	22	8	A	15	32	8	A
9	27.85	31.00	16	22	8	A	18	22	8	A	18	32	8	A
10	30.82	34.00	20	22	8	A	20	22	8	A	20	32	10	A
11	33.80	37.00	22	25	8	A	22	25	10	A	22	35	10	A
12	36.80	40.00	25	25	8	A	25	25	10	A	25	35	10	A
13	39.79	43.00	28	25	10	A	28	25	10	A	28	35	10	A
14	42.80	46.30	31	25	10	A	31	25	10	A	31	35	12	A
15	45.81	49.30	34	25	10	A	34	25	10	A	34	35	12	A
16	48.82	52.30	37	28	10	A	37	30	12	A	37	35	12	A
17	51.83	55.30	40	28	10	A	40	30	12	A	40	35	12	A
18	54.85	58.30	43	28	10	A	43	30	12	A	43	35	12	A
19	57.87	61.30	45	28	10	A	46	30	12	A	46	35	12	A
20	60.89	64.30	46	28	10	A	49	30	12	A	49	35	12	A
21	63.91	68.00	48	28	12	A	52	30	12	A	52	40	14	A
22	66.93	71.00	50	28	12	A	55	30	12	A	55	40	14	A
23	69.95	73.50	52	28	12	A	58	30	12	A	58	40	14	A
24	72.97	77.00	54	28	12	A	61	30	12	A	61	40	14	A
25	76.00	80.00	57	28	12	A	64	30	12	A	64	40	14	A
26	79.02	83.00	60	28	12	A	67	30	12	A	67	40	14	A
27	82.05	86.00	60	28	12	A	70	30	12	A	70	40	14	A
28	85.07	89.00	60	28	12	A	73	30	12	A	73	40	14	A
29	88.09	92.00	60	28	12	A	76	30	12	A	76	40	14	A
30	91.12	94.70	60	30	12	A	79	30	12	A	79	40	14	A
31	94.15	98.30	65	30	14	A	80	30	16	A	80	40	16	A
32	97.17	101.30	65	30	14	A	80	30	16	A	80	40	16	A
33	100.20	104.30	65	30	14	A	80	30	16	A	80	40	16	A
34	103.23	107.30	65	30	14	A	80	30	16	A	85	40	16	A
35	106.26	110.40	65	30	14	A	80	30	16	A	85	40	16	A
36	109.29	113.43	70	30	14	A	90	30	16	A	90	40	16	A
37	112.32	116.40	70	30	14	A	90	30	16	A	90	40	16	A
38	115.35	119.50	70	30	14	A	90	30	16	A	90	40	16	A
39	118.37	122.50	70	30	14	A	90	30	16	A	90	40	16	A
40	121.40	125.50	70	30	14	A	90	30	16	A	90	40	16	A
45	136.55	140.70	70	32	19	B	80	32	19	B	90	56	24	B
57	172.91	176.90	70	32	19	B	80	32	19	B	90	56	24	B
76	230.49	234.50	70	32	19	B	80	32	19	B	100	56	24	B
95	288.08	292.50	80	40	19	B	80	32	19	B	100	56	24	B
114	345.68	350.30	80	40	20	B	95	45	20	B	100	56	24	B

Tooth Width

B1	5.3mm
b1	5.2mm
B2	15.4mm
B3	25.6mm

FINISHED BORES
For bore and keywayed sprockets, the maximum finished bore diameter is normally hub diameter N ÷ 1.5

Type A = Steel C45
Type B = Cast Iron GG22

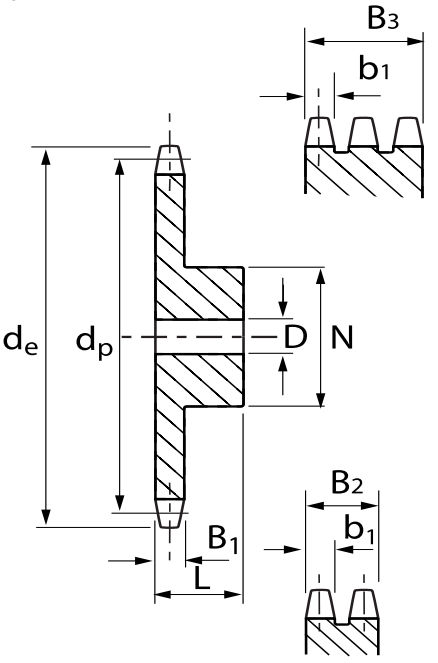
08B PILOT BORED SPROCKET

½" X 5/16" PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027B01--)				Duplex (027B02--)				Triplex (027B03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	33.18	37.20	20	25	10	A	20	32	10	A	20	46	10	A
9	37.13	41.00	24	25	10	A	24	32	10	A	24	46	12	A
10	41.10	45.20	26	25	10	A	28	32	10	A	28	46	12	A
11	45.07	48.70	29	25	10	A	32	35	12	A	32	50	14	A
12	49.07	53.00	33	28	10	A	35	35	12	A	35	50	14	A
13	53.06	57.40	37	28	10	A	38	35	12	A	38	50	14	A
14	57.07	61.80	41	28	10	A	42	35	12	A	42	50	14	A
15	61.09	65.50	45	28	10	A	46	35	12	A	46	50	14	A
16	65.10	69.50	50	28	12	A	50	35	14	A	50	50	16	A
17	69.11	73.60	52	28	12	A	54	35	14	A	54	50	16	A
18	73.14	77.80	56	28	12	A	58	35	14	A	58	50	16	A
19	77.16	81.70	60	28	12	A	62	35	14	A	62	50	16	A
20	81.19	85.80	64	28	12	A	66	35	14	A	66	50	16	A
21	85.22	89.70	68	28	12	A	70	40	16	A	70	55	16	A
22	89.24	93.80	70	28	12	A	70	40	16	A	70	55	16	A
23	93.27	98.20	70	28	14	A	70	40	16	A	70	55	16	A
24	97.29	101.80	70	28	14	A	75	40	16	A	75	55	16	A
25	101.33	105.80	70	28	14	A	80	40	16	A	80	55	16	A
26	105.36	110.00	70	30	16	A	85	40	16	A	85	55	20	A
27	109.40	114.00	70	30	16	A	85	40	16	A	85	55	20	A
28	113.42	118.00	70	30	16	A	90	40	16	A	90	55	20	A
29	117.46	122.00	80	30	16	A	95	40	16	A	95	55	20	A
30	121.50	126.10	80	30	16	A	100	40	16	A	100	55	20	A
31	125.54	130.20	90	30	16	A	100	40	20	A	110	55	20	A
32	129.56	134.30	90	30	16	A	100	40	20	A	110	55	20	A
33	133.60	138.40	90	30	16	A	100	40	20	A	110	55	20	A
34	137.64	142.60	90	30	16	A	100	40	20	A	110	55	20	A
35	141.68	146.70	90	30	16	A	100	40	20	A	110	55	20	A
36	145.72	151.00	90	35	16	A	100	40	20	A	120	55	25	A
37	149.76	154.60	90	35	16	A	100	40	20	A	120	55	25	A
38	153.80	158.60	90	35	16	A	100	40	20	A	120	55	25	A
39	157.83	162.70	90	35	16	A	100	40	20	A	120	55	25	A
40	161.87	166.80	90	35	16	A	100	40	20	A	120	55	25	A
45	182.07	188.00	70	40	19	B	90	50	23	B	100	60	24	B
57	230.54	236.40	70	40	19	B	90	50	23	B	100	60	24	B
76	307.33	313.30	80	40	23	B	100	56	23	B	100	60	24	B
95	384.11	390.10	80	45	23	B	100	56	23	B	120	67	24	B
114	460.91	466.90	80	45	24	B	100	63	24	B	120	67	24	B

Tooth Width

B1	7.2mm
b1	7.0mm
B2	21.0mm
B3	34.9mm



Type A = Steel C45
Type B = Cast Iron GG22

To complete the product code insert the number of teeth required
(027B0109 = 08B-1 ½" pitch 9 tooth pilot bore sprocket)

10B PILOT BORED SPROCKET

5/8" X 3/8" PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027C01--)				Duplex (027C02--)				Triplex (027C03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	41.48	47.00	25	25	10	A	25	40	12	A	25	55	12	A
9	46.42	52.60	30	25	10	A	30	40	12	A	30	55	12	A
10	51.37	57.50	35	25	10	A	35	40	12	A	35	55	16	A
11	56.34	63.00	37	30	12	A	39	40	14	A	39	55	16	A
12	61.34	68.00	42	30	12	A	44	40	14	A	44	55	16	A
13	66.32	73.00	47	30	12	A	49	40	14	A	49	55	16	A
14	71.34	78.00	52	30	12	A	54	40	14	A	54	55	16	A
15	76.36	83.00	57	30	12	A	59	40	14	A	59	55	16	A
16	81.37	88.00	60	30	12	A	64	45	16	A	64	60	16	A
17	86.39	93.00	60	30	12	A	69	45	16	A	69	60	16	A
18	91.42	98.30	70	30	14	A	74	45	16	A	74	60	16	A
19	96.45	103.30	70	30	14	A	79	45	16	A	79	60	16	A
20	101.49	108.40	75	30	14	A	84	45	16	A	84	60	16	A
21	106.52	113.40	75	30	16	A	85	45	16	A	85	60	20	A
22	111.55	118.00	80	30	16	A	90	45	16	A	90	60	20	A
23	116.58	123.40	80	30	16	A	95	45	16	A	95	60	20	A
24	121.62	128.30	80	30	16	A	100	45	16	A	100	60	20	A
25	126.66	134.00	80	30	16	A	105	45	16	A	105	60	20	A
26	131.70	139.00	85	35	20	A	110	45	20	A	110	60	20	A
27	136.75	144.00	85	35	20	A	110	45	20	A	110	60	20	A
28	141.78	148.70	90	35	20	A	115	45	20	A	115	60	20	A
29	146.83	153.80	90	35	20	A	115	45	20	A	115	60	20	A
30	151.87	158.80	90	35	20	A	120	45	20	A	120	60	20	A
31	156.92	163.90	95	35	20	A	120	45	20	A	120	60	20	A
32	161.95	168.90	95	35	20	A	120	45	20	A	120	60	20	A
33	167.00	174.50	95	35	20	A	120	45	20	A	120	60	20	A
34	172.05	179.00	95	35	20	A	120	45	20	A	120	60	20	A
35	177.10	184.10	95	35	20	A	120	45	20	A	120	60	20	A
36	182.15	189.10	100	35	20	A	120	45	20	A	120	60	25	A
37	187.20	194.20	100	35	20	A	120	45	20	A	120	60	25	A
38	192.24	199.20	100	35	20	A	120	45	20	A	120	60	25	A
39	197.29	204.20	100	35	20	A	120	45	20	A	120	60	25	A
40	202.34	209.30	100	35	20	A	120	45	20	A	120	60	25	A
45	227.58	235.00	80	40	19	B	100	50	30	B	100	60	32	B
57	288.18	296.00	90	45	23	B	100	56	30	B	100	63	32	B
76	384.16	392.10	90	50	23	B	100	63	30	B	110	67	35	B
95	480.14	488.50	100	56	23	B	110	63	30	B	125	70	35	B
114	576.13	584.10	100	56	24	B	125	70	30	B	125	80	35	B

Tooth Width

B1	9.1mm
b1	9.0mm
B2	25.5mm
B3	42.1mm

FINISHED BORES
For bore and keywayed sprockets, the maximum finished bore diameter is normally hub diameter N ÷ 1.5

Type A = Steel C45
Type B = Cast Iron GG22

To complete the product code insert the number of teeth required
(027C0109 = 10B-1 5/8" pitch 9 tooth pilot bore sprocket)

12B PILOT BORED SPROCKETS

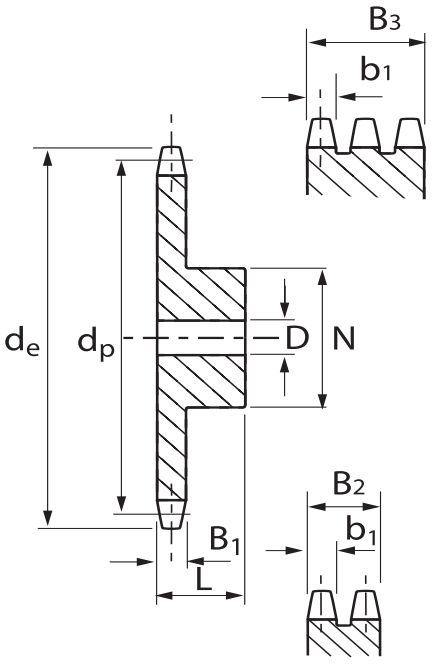
¾" X 7/16" PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027D01--)				Duplex (027D02--)				Triplex (027D03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	49.78	57.60	31	30	12	A	31	45	12	A	31	65	16	A
9	55.70	62.00	37	30	12	A	37	45	12	A	37	65	16	A
10	61.64	69.00	42	30	12	A	42	45	12	A	42	65	16	A
11	67.61	75.00	46	35	14	A	47	50	16	A	47	70	20	A
12	73.61	81.50	52	35	14	A	53	50	16	A	53	70	20	A
13	79.59	87.50	58	35	14	A	59	50	16	A	59	70	20	A
14	85.61	93.60	64	35	14	A	65	50	16	A	65	70	20	A
15	91.63	99.80	70	35	14	A	71	50	16	A	71	70	20	A
16	97.65	105.50	75	35	16	A	77	50	20	A	77	70	20	A
17	103.67	111.50	80	35	16	A	83	50	20	A	83	70	20	A
18	109.71	118.00	80	35	16	A	89	50	20	A	89	70	20	A
19	115.75	124.20	80	35	16	A	95	50	20	A	95	70	20	A
20	121.78	129.70	80	35	16	A	100	50	20	A	100	70	20	A
21	127.82	136.00	90	40	20	A	100	50	20	A	100	70	20	A
22	133.86	141.80	90	40	20	A	100	50	20	A	100	70	20	A
23	139.90	149.00	90	40	20	A	110	50	20	A	110	70	20	A
24	145.94	153.90	90	40	20	A	110	50	20	A	110	70	20	A
25	152.00	160.00	90	40	20	A	120	50	20	A	120	70	20	A
26	158.04	165.90	95	40	20	A	120	50	20	A	120	70	20	A
27	164.09	172.30	95	40	20	A	120	50	20	A	120	70	20	A
28	170.13	178.00	95	40	20	A	120	50	20	A	120	70	20	A
29	176.19	184.10	95	40	20	A	120	50	20	A	120	70	20	A
30	182.25	190.50	95	40	20	A	120	50	20	A	120	70	20	A
31	188.31	196.30	95	40	20	A	120	50	20	A	130	70	25	A
32	194.35	203.30	95	40	20	A	120	50	20	A	130	70	25	A
33	200.40	209.30	95	40	20	A	120	50	20	A	130	70	25	A
34	206.46	214.60	95	40	20	A	120	50	20	A	130	70	25	A
35	212.52	221.00	95	40	20	A	120	50	20	A	130	70	25	A
36	218.58	226.80	100	40	20	A	120	50	25	A	130	70	25	A
37	224.64	232.90	100	40	20	A	120	50	25	A	130	70	25	A
38	230.69	239.80	100	40	20	A	120	50	25	A	130	70	25	A
39	236.75	245.10	100	40	20	A	120	50	25	A	130	70	25	A
40	242.81	251.30	100	40	20	A	120	50	25	A	130	70	25	A
45	273.10	282.50	100	56	24	B	110	63	30	B	140	70	30	B
57	345.81	354.00	100	56	30	B	120	63	30	B	140	70	40	B
76	460.99	469.90	100	56	30	B	135	63	30	B	160	75	40	B
95	576.17	585.10	100	65	30	B	135	70	30	B	170	82	40	B
114	691.36	700.60	100	65	30	B	135	70	45	B	170	82	50	B

To complete the product code insert the number of teeth required (027D0109 = 12B-1 ¾" pitch 9 tooth pilot bore sprocket)

Tooth Width

B1	11.1mm
b1	10.8mm
B2	30.3mm
B3	49.8mm



Type A = Steel C45
Type B = Cast Iron GG22

16B PILOT BORED SPROCKETS

1" X 17.02mm PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027E01--)				Duplex (027E02--)				Triplex (027E03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	66.37	77.00	42	35	16	A	42	65	16	A	42	95	20	A
9	74.27	85.00	50	35	16	A	50	65	16	A	50	95	20	A
10	82.19	93.00	55	35	16	A	56	65	16	A	56	95	20	A
11	90.14	99.50	61	40	16	A	64	70	20	A	64	100	25	A
12	93.14	109.00	69	40	16	A	72	70	20	A	72	100	25	A
13	106.12	117.00	78	40	16	A	80	70	20	A	80	100	25	A
14	114.15	125.00	84	40	16	A	88	70	20	A	88	100	25	A
15	122.17	133.00	92	40	16	A	96	70	20	A	96	100	25	A
16	130.20	141.00	100	14	20	A	104	70	20	A	104	100	25	A
17	138.22	149.00	100	45	20	A	112	70	20	A	112	100	25	A
18	146.28	157.00	100	45	20	A	120	70	20	A	120	100	25	A
19	154.33	165.20	100	45	20	A	128	70	20	A	128	100	25	A
20	162.38	173.20	100	45	20	A	130	70	20	A	130	100	25	A
21	170.43	181.20	110	50	20	A	130	70	25	A	130	100	25	A
22	178.48	189.30	110	50	20	A	130	70	25	A	130	100	25	A
23	186.53	197.50	110	50	20	A	130	70	25	A	130	100	25	A
24	194.59	205.50	110	50	20	A	130	70	25	A	130	100	25	A
25	202.66	213.50	110	50	20	A	130	70	25	A	130	100	25	A
26	210.72	221.60	120	50	20	A	130	70	25	A	130	100	30	A
27	218.79	229.60	120	50	20	A	130	70	25	A	130	100	30	A
28	226.85	237.70	120	50	20	A	130	70	25	A	130	100	30	A
29	234.92	245.80	120	50	20	A	130	70	25	A	130	100	30	A
30	243.00	254.00	120	50	20	A	130	70	25	A	130	100	30	A
31	251.08	262.00	120	50	25	A	140	70	25	A	140	100	30	B
32	259.13	270.00	120	50	25	A	140	70	25	A	140	100	30	B
33	267.21	278.50	120	50	25	A	140	70	25	A	140	100	30	B
34	275.28	287.00	120	50	25	A	140	70	25	A	140	100	30	B
35	283.36	296.20	120	50	25	A	140	70	25	A	140	100	30	B
36	291.44	304.60	120	50	25	A	140	70	25	A	140	100	30	B
37	299.51	312.60	120	50	25	A	140	70	25	A	140	100	30	B
38	307.59	320.70	120	50	25	A	140	70	25	A	140	100	30	B
39	315.67	328.80	120	50	25	A	140	70	25	A	140	100	30	B
40	323.75	336.90	120	50	25	A	140	70	25	A	140	100	30	B
45	364.13	377.00	125	70	30	B	150	75	40	B	160	100	45	B
57	461.08	474.00	125	70	35	B	170	90	40	B	180	100	45	B
76	614.65	627.00	140	80	35	B	175	95	40	B	200	110	45	B
95	768.22	781.10	140	80	40	B	175	95	45	B	200	110	50	B
114	921.81	935.60	140	80	40	B	175	95	45	B	200	115	50	B

To complete the product code insert the number of teeth required (027E0109 = 16B-1 1" pitch 9 tooth pilot bore sprocket)

Tooth Width

B1	16.2mm
b1	15.8mm
B2	47.7mm
B3	79.6mm

FINISHED BORES
For bore and keywayed sprockets, the maximum finished bore diameter is normally hub diameter N ÷ 1.5

Type A = Steel C45
Type B = Cast Iron GG22

20B PILOT BORED SPROCKETS

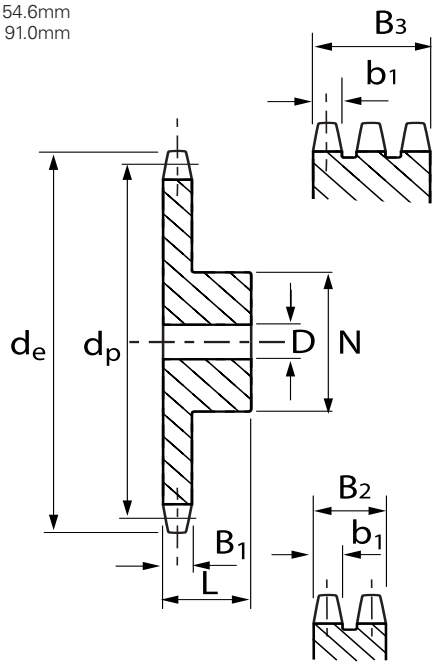
1.¼" X ¾" PITCH

No. of Teeth	Pitch Dia	Outer Dia	Simplex (027F01--)				Duplex (027F02--)				Triplex (027F03--)			
			Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type	Hub Dia	Length Bore	Stock Bore	Type
	dp	de	N	L	D		N	L	D		N	L	D	
8	82.96	98.10	53	40	20	A	53	75	20	A	53	110	20	A
9	92.84	108.00	63	40	20	A	63	75	20	A	63	110	20	A
10	102.74	117.90	70	40	20	A	70	75	20	A	70	110	20	A
11	112.68	127.80	77	45	20	A	80	80	20	A	80	115	20	A
12	122.68	137.80	88	45	20	A	90	80	20	A	90	115	20	A
13	132.65	147.80	98	45	20	A	100	80	20	A	100	115	20	A
14	142.68	157.80	108	45	20	A	110	80	20	A	110	115	20	A
15	152.72	167.90	118	45	20	A	120	80	20	A	120	115	20	A
16	162.75	177.90	120	50	20	A	120	80	25	A	120	115	25	A
17	172.78	187.90	120	50	25	A	120	80	25	A	120	115	25	A
18	182.85	198.00	120	50	25	A	120	80	25	A	120	115	25	A
19	192.91	208.10	120	50	25	A	120	80	25	A	120	115	25	A
20	202.98	218.10	120	50	25	A	120	80	25	B	120	115	25	B
21	213.04	228.20	140	55	25	A	140	80	25	B	140	115	25	B
22	223.11	238.30	140	55	25	A	140	80	25	B	140	115	25	B
23	233.17	248.30	140	55	25	A	140	80	25	B	140	115	25	B
24	243.23	258.40	140	55	25	A	140	80	25	B	140	115	25	B
25	253.33	268.50	140	55	25	A	140	80	25	B	140	115	25	B
26	263.40	278.60	150	55	25	A	150	80	25	B	150	115	25	B
27	273.49	288.60	150	55	25	A	150	80	25	B	150	115	25	B
28	283.56	298.70	150	55	25	A	150	80	25	B	150	115	25	B
29	293.65	308.80	150	55	25	A	150	80	25	B	150	115	25	B
30	303.75	318.90	150	55	25	A	150	80	25	B	150	115	25	B
31	313.85	329.00	150	55	25	A	150	80	25	B	150	115	30	B
32	323.91	339.10	150	55	25	A	150	80	25	B	150	115	30	B
33	334.01	349.20	150	55	25	A	150	80	25	B	150	115	30	B
34	344.10	359.30	150	55	25	A	150	80	25	B	150	115	30	B
35	354.20	369.40	150	55	25	A	150	80	25	B	150	115	30	B
36	364.30	379.50	150	55	25	A	150	80	30	B	150	115	30	B
37	374.39	389.50	150	55	25	A	150	80	30	B	150	115	30	B
38	384.49	399.60	150	55	25	A	150	80	30	B	150	115	30	B
39	394.59	409.70	150	55	25	B	150	80	30	B	150	115	30	B
40	404.69	419.80	150	55	25	B	150	80	30	B	150	115	30	B
57	576.35	591.50	135	80	40	B	170	100	50	B	180	130	50	B
76	768.32	783.50	140	90	50	B	180	110	50	B	200	140	50	B

To complete the product code insert the number of teeth required (027F0109 = 20B-1 1.¼" pitch 9 tooth pilot bore sprocket)

Tooth Width

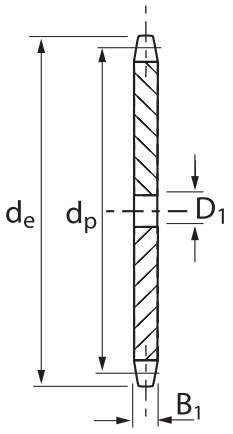
B1	18.5mm
b1	18.2mm
B2	54.6mm
B3	91.0mm

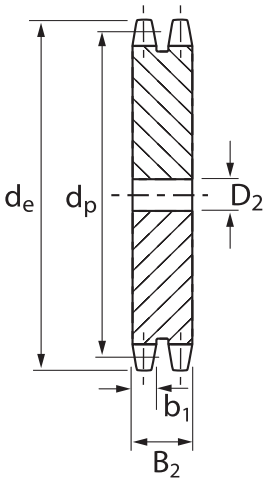


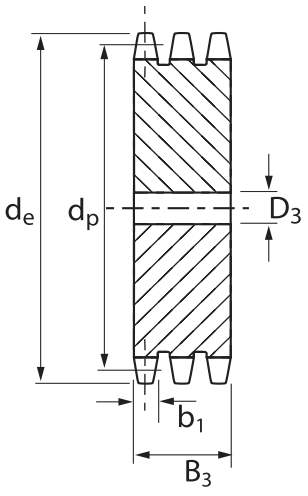
Type A = Steel C45
Type B = Cast Iron GG22

FINISHED BORES
For bore and keywayed sprockets, the maximum finished bore diameter is normally hub dimater (N) / 1.5









05B PLATEWHEEL 8 X 3mm PITCH

(027J00– for simplex)

Tooth Width B_1 2.8mm; b_1 2.7mm; B_2 8.3mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore	
	d_p	d_e	Simp D_1	Dup D_2
8	20.90	24.00	6	8
9	23.39	26.60	6	8
10	25.89	29.20	8	8
11	28.39	31.70	8	8
12	30.91	34.20	8	8
13	33.42	36.70	8	8
14	35.95	39.20	8	8
15	38.48	41.70	8	8
16	41.01	44.30	8	10
17	43.53	46.80	8	10
18	46.07	49.30	8	10
19	48.61	51.90	8	10
20	51.14	54.40	8	10
21	53.68	57.00	8	10
22	56.21	59.50	8	10
23	58.75	62.00	8	10
24	61.29	64.60	8	10
25	63.83	67.50	8	10
26	66.37	69.50	10	12
27	68.91	72.20	10	12
28	71.45	74.80	10	12
29	73.99	77.30	10	12
30	76.53	79.80	10	12
31	79.08	82.40	10	12
32	81.61	84.90	10	12
33	84.16	87.50	10	12
34	86.70	90.00	10	12
35	89.25	92.50	10	12
36	91.79	95.00	10	12
37	94.33	97.60	10	12
38	96.88	100.20	10	12
39	99.42	102.70	10	12
40	101.97	105.30	10	12
41	104.51	107.80	12	14
42	107.05	110.40	12	14
43	109.60	112.90	12	14
44	112.14	115.50	12	14
45	114.69	118.00	12	14
46	117.23	120.60	12	14
47	119.77	123.10	12	14
48	122.32	125.60	12	14
57	145.22	148.60	14	16
76	193.59	197.70	20	20
95	241.96	246.10	20	20

06B PLATEWHEEL 3/8" X 7/32" PITCH

(027A00– for simplex)

Tooth Width B_1 5.3mm; b_1 5.2mm; B_2 15.4mm; B_3 25.6mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	Simp D_1	Dup D_2	Trip D_3
8	24.89	28.00	6	8	8
9	27.85	31.00	7	8	8
10	30.82	34.00	7	8	10
11	33.80	37.00	8	10	10
12	36.80	40.00	8	10	10
13	39.79	43.00	8	10	10
14	42.80	46.30	8	10	12
15	45.81	49.30	8	10	12
16	48.82	52.30	10	12	12
17	51.83	55.30	10	12	12
18	54.85	58.30	10	12	12
19	57.87	61.30	10	12	12
20	60.89	64.30	10	12	12
21	63.91	68.00	10	12	14
22	66.93	71.00	10	12	14
23	69.95	73.50	10	12	14
24	72.97	77.00	10	12	14
25	76.00	80.00	10	12	14
26	79.02	83.00	10	12	14
27	82.05	86.00	10	12	14
28	85.07	89.00	10	12	14
29	88.09	92.00	10	12	14
30	91.12	94.70	10	12	14
31	94.15	98.30	12	14	16
32	97.17	101.30	12	14	16
33	100.20	104.30	12	14	16
34	103.23	107.30	12	14	16
35	106.26	110.40	12	14	16
36	109.29	113.40	12	14	16
37	112.32	116.40	12	14	16
38	115.35	119.50	12	14	16
39	118.37	112.50	12	14	16
40	121.40	125.50	12	14	16
41	124.43	128.50	16	16	16
42	127.46	131.60	16	16	16
43	130.49	134.60	16	16	16
44	133.52	137.60	16	16	16
45	136.55	140.70	16	16	16
46	139.58	143.70	16	16	16
47	142.61	146.70	16	16	16
48	145.64	149.70	16	16	16
57	172.91	176.90	16	16	20
76	230.49	234.90	20	20	25
95	288.08	292.50	20	20	25

08B PLATEWHEEL ½" X 5/16" PITCH

(027B00– for simplex)

Tooth Width B_1 7.2mm; b_1 7.0mm; B_2 21.0mm; B_3 34.9mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	Simp D_1	Dup D_2	Trip D_3
8	33.18	37.20	8	10	10
9	37.13	41.00	8	10	10
10	41.10	45.20	8	10	10
11	45.07	48.70	10	10	12
12	49.07	53.00	10	10	12
13	53.06	57.40	10	10	12
14	57.07	61.80	10	10	12
15	61.09	65.50	10	10	12
16	65.10	69.50	10	12	16
17	69.11	73.60	10	12	16
18	73.14	77.80	10	12	16
19	77.16	81.70	10	12	16
20	81.19	85.80	10	12	16
21	85.22	89.70	12	16	16
22	89.24	93.80	12	16	16
23	93.27	98.20	12	16	16
24	97.29	101.80	12	16	16
25	101.33	105.80	12	16	16
26	105.36	110.00	16	16	16
27	109.40	114.00	16	16	16
28	113.42	118.00	16	16	16
29	117.46	122.00	16	16	16
30	121.50	126.10	16	16	16
31	125.54	130.20	16	16	20
32	129.56	134.30	16	16	20
33	133.60	138.40	16	16	20
34	137.64	142.60	16	16	20
35	141.68	146.70	16	16	20
36	145.72	151.00	16	20	20
37	149.76	154.60	16	20	20
38	153.80	158.60	16	20	20
39	157.83	162.70	16	20	20
40	161.87	166.80	16	20	20
41	165.91	171.40	20	20	25
42	169.95	175.40	20	20	25
43	173.99	179.70	20	20	25
44	178.03	183.80	20	20	25
45	182.07	188.00	20	20	25
46	186.10	192.10	20	20	25
47	190.14	196.20	20	20	25
48	194.18	200.30	20	20	25
57	230.54	236.40	20	25	25
76	307.33	313.30	25	25	25
95	384.11	390.10	25	25	25

MATERIAL: Steel grade C45 To complete the product code insert the number of teeth required (027B0009 = 08B-1 ½" pitch 9 tooth simplex platewheel)

10B PLATEWHEEL 5/8" X 3/8" PITCH

(027C00– for simplex)

Tooth Width

B_1	9.1mm
b_1	9.0mm
B_2	25.5mm
B_3	42.1mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	**Simp** D_1	**Dup** D_2	**Trip** D_3
8	41.48	47.00	10	10	12
9	46.42	52.60	10	10	12
10	51.37	57.50	10	10	12
11	56.34	63.00	10	10	12
12	61.34	68.00	10	10	12
13	66.32	73.00	10	10	12
14	71.34	78.00	10	10	12
15	76.36	83.00	10	12	12
16	81.37	88.00	12	12	16
17	86.39	93.00	12	12	16
18	91.42	98.30	12	12	16
19	96.45	103.30	12	12	16
20	101.49	108.40	12	12	16
21	106.52	113.40	12	16	16
22	111.55	118.00	12	16	16
23	116.58	123.40	12	16	16
24	121.62	128.30	12	16	16
25	126.66	134.00	12	16	16
26	131.70	139.00	16	16	20
27	136.75	144.00	16	16	20
28	141.78	148.70	16	16	20
29	146.83	153.80	16	16	20
30	151.87	158.80	16	16	20
31	156.92	163.90	16	20	20
32	161.95	168.90	16	20	20
33	167.00	174.50	16	20	20
34	172.05	179.00	16	20	20
35	177.10	184.10	16	20	20
36	182.15	189.10	20	20	25
37	187.20	194.20	20	20	25
38	192.24	199.20	20	20	25
39	197.29	204.20	20	20	25
40	202.34	209.30	20	20	25
41	207.39	214.80	20	20	25
42	212.44	219.90	20	20	25
43	217.49	224.90	20	20	25
44	222.53	230.00	20	20	25
45	227.58	235.00	20	20	25
46	232.63	240.10	20	25	25
47	237.68	245.10	20	25	25
48	242.73	250.20	20	25	25
57	288.18	296.00	25	25	25
76	384.16	392.10	25	25	30
95	480.14	488.50	30	30	30

12B PLATEWHEEL 3/4" X 7/16" PITCH

(027D00– for Simplex)

Tooth Width

B_1	11.1mm
b_1	10.8mm
B_2	30.3mm
B_3	49.8mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	**Simp** D_1	**Dup** D_2	**Trip** D_3
8	49.78	57.60	12	12	12
9	55.70	62.00	12	12	12
10	61.64	69.00	12	12	12
11	67.61	75.00	14	14	16
12	73.61	81.50	14	14	16
13	79.59	87.50	14	14	16
14	85.61	93.60	14	14	16
15	91.63	99.80	14	14	16
16	97.65	105.50	14	16	16
17	103.67	111.50	14	16	16
18	109.71	118.00	14	16	16
19	115.75	124.20	14	16	16
20	121.78	129.70	14	16	16
21	127.82	136.00	16	16	20
22	133.86	141.80	16	16	20
23	139.90	149.00	16	16	20
24	145.94	153.90	16	16	20
25	152.00	160.00	16	16	20
26	158.04	165.90	16	20	20
27	164.09	172.30	16	20	20
28	170.13	178.00	16	20	20
29	176.19	184.10	16	20	20
30	182.25	190.50	16	20	20
31	188.31	196.30	20	20	25
32	194.35	203.30	20	20	25
33	200.40	209.30	20	20	25
34	206.46	214.60	20	20	25
35	212.52	221.00	20	20	25
36	218.58	226.80	20	25	25
37	224.64	232.90	20	25	25
38	230.69	239.00	20	25	25
39	236.75	245.10	20	25	25
40	242.81	251.30	20	25	25
41	248.87	257.30	20	25	25
42	254.93	264.50	20	25	25
43	260.98	270.50	25	25	25
44	267.04	276.50	25	25	25
45	273.10	282.50	25	25	25
46	279.16	287.90	25	25	25
47	285.21	294.00	25	25	25
48	291.27	300.10	25	25	25
57	345.81	355.40	25	25	30
76	460.99	469.90	30	30	30
95	576.17	585.10	30	30	30

16B PLATEWHEEL 1" X 17.02mmPITCH

(027E00– for Simplex)

Tooth Width

B_1	16.2mm
b_1	15.8mm
B_2	47.7mm
B_3	79.6mm

No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	**Simp** D_1	**Dup** D_2	**Trip** D_3
8	66.37	77.00	14	16	16
9	74.27	85.00	14	16	16
10	82.19	93.00	15	16	16
11	90.14	99.50	15	20	20
12	98.14	109.00	15	20	20
13	106.12	117.00	15	20	20
14	114.15	125.00	15	20	20
15	122.17	133.00	15	20	20
16	130.20	141.00	19	20	25
17	138.22	149.00	19	20	25
18	146.28	157.00	19	20	25
19	154.33	165.20	19	20	25
20	162.38	173.20	19	20	25
21	170.43	181.20	20	25	25
22	178.48	189.30	20	25	25
23	186.53	197.50	20	25	25
24	194.59	205.50	20	25	25
25	202.66	213.50	20	25	25
26	210.72	221.60	20	25	30
27	218.79	229.60	20	25	30
28	226.85	237.70	20	25	30
29	234.92	245.80	20	25	30
30	243.00	254.00	20	25	30
31	251.08	262.00	25	25	30
32	259.13	270.00	25	25	30
33	267.21	278.50	25	25	30
34	275.28	287.00	25	25	30
35	283.36	296.20	25	25	30
36	291.44	304.60	25	25	30
37	299.51	312.60	25	25	30
38	307.59	320.70	25	25	30
39	315.67	328.80	25	25	30
40	323.75	336.90	25	25	30
41	331.82	345.00	25	25	30
42	339.90	353.00	25	25	30
43	347.98	361.10	25	25	30
44	356.06	369.10	25	25	30
45	364.13	377.10	25	25	30
46	372.21	385.20	25	25	30
47	380.29	393.20	25	25	30
48	388.36	401.30	25	25	30
57	461.07	474.00	30	30	40
76	614.65	627.00	30	30	40
95	768.22	781.10	30	30	40

MATERIAL: Steel grade C45 To complete the product code insert the number of teeth required (027C0009 = 10B-1 5/8" pitch 9 tooth simplex platewheel)

NOTE: Platewheels for use with friction torque limiting devices may require a special surface finish.



20B PLATEWHEEL 1.¼" X ¾" PITCH

(027F00– for Simplex)

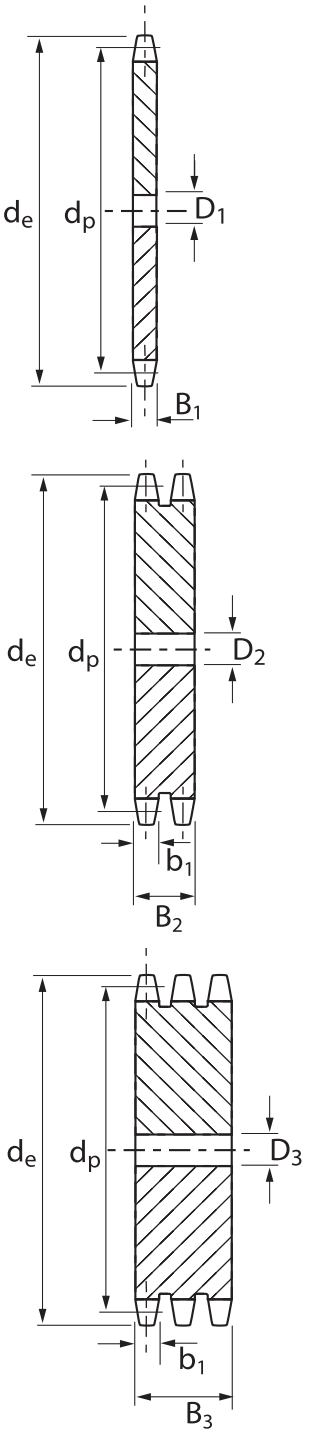
Tooth Width

B_1	18.5mm
b_1	18.2mm
B_2	54.6mm
B_3	91.0mm

=No. of Teeth	Pitch Dia	Outer Dia	Stock Bore		
	d_p	d_e	**Simp** D_1	**Dup** D_2	**Trip** D_3
8	82.96	98.10	16	20	20
9	92.84	108.00	16	20	20
10	102.74	117.90	16	20	20
11	112.68	127.80	16	20	20
12	122.68	137.80	20	20	20
13	132.65	147.80	20	20	20
14	142.68	157.80	20	20	20
15	152.72	167.90	20	20	20
16	162.75	177.90	20	25	25
17	172.78	187.90	20	25	25
18	182.85	198.00	20	25	25
19	192.91	208.10	20	25	25
20	202.98	218.10	20	25	25
21	213.04	228.20	25	25	25
22	223.11	238.30	25	25	25
23	233.17	248.30	25	25	25
24	243.23	258.40	25	25	25
25	253.33	268.50	25	25	25
26	263.40	278.60	25	25	25
27	273.49	288.60	25	25	25
28	283.56	298.70	25	25	25
29	293.65	308.80	25	25	25
30	303.75	318.90	25	25	25
31	313.85	329.00	25	25	30
32	323.91	339.10	25	25	30
33	334.01	349.20	25	25	30
34	344.10	359.30	25	25	30
35	354.20	369.40	25	25	30
36	364.30	379.50	25	30	30
37	374.39	389.50	25	30	30
38	384.49	399.60	25	30	30
39	394.59	409.70	25	30	30
40	404.69	419.80	25	30	30
41	414.77	429.90	30	30	30
42	424.86	440.00	30	30	40
43	434.96	450.10	30	30	40
44	445.06	460.20	30	30	40
45	455.17	470.30	30	30	40
46	465.25	480.40	30	30	40
47	475.35	490.50	30	30	40
48	485.45	500.60	30	30	40
57	576.35	591.50	30	30	40
76	768.32	783.50	30	30	40
95	960.25	975.20	30	30	40

MATERIAL: Steel grade C45

To complete the product code insert the number of teeth required (027C0009 = 20B-1 1.¼" pitch 9 tooth simplex platewheel)



NOTE: Platewheels for use with friction torque limiting devices may require a special surface finish.

INSTALLATION NOTES

Shafts must be parallel. Supporting structures must be of sufficient rigidity to maintain true alignment.

Mount sprockets as close as possible to bearings.

Check correct alignment of each sprocket by use of a straight edge.

Roller chain can be used in practically any position provided the shafts are parallel.

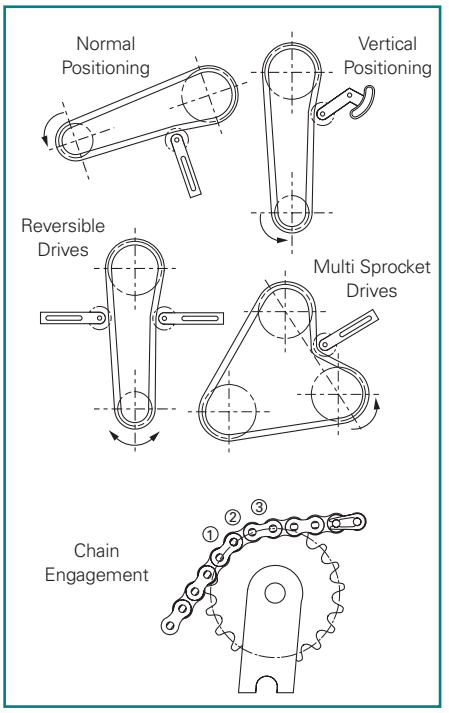
Where the slack strand is nearly vertical, or where torque variation causes waves or whip in the chain, an idler must be used to take up the excessive slack. The idler should preferably be near to the larger sprocket in the drive, located on the outside of the slack strand of the chain. Where layout makes this impossible it is permissible to locate the idler on the inside of the chain.

CHAIN TENSION

Chains should be fairly tight at installation with only a small amount of slack. With vertical drives the chain should be kept snug. After the first few weeks of operation, re-check chain tension and adjust if necessary.

FIXED CENTRE APPLICATIONS

An idler sprocket is generally recommended for fixed centre drives. It should be positioned on the slack side as close to the larger sprocket as feasible. The tensioning sprocket should have a minimum of three teeth engaged and be a minimum of four links away from the nearest sprocket.



CHAIN TENSIONERS

LUBRICATION

Effective lubrication is essential in order to ensure optimum wear life from any chain.

To be effective it must form a film of lubricant between the wearing parts, (the pin and bush), of the chain. It has therefore to be of suitable viscosity and be delivered to the gap between the sideplates such that it can penetrate into the space between the pin and bush. The viscosity, amount and type of lubricant is governed by the size of chain and the operating conditions involved. Oil will only penetrate into the bearing area of the chain when the chain is slack, therefore oil should be delivered to the slack strand just after the driver sprocket.

High speed drives are especially critical. These generally require a continuous stream of lubricant applied across the full chain width in order to act as a coolant as well as lubricating the bearing area.

Three basic lubrication methods are recommended for use with Fenner roller chain.

TYPE 1 Drip Feed (for linear chain speeds up to 1 m/sec.)

Oil drops directed between the side plate gaps with a drip feed lubricator. Brush applicators may also be used, provided they are positioned to ensure that the oil is correctly delivered to the gap between the side plates. Volume and frequency should be sufficient to prevent discolouration of the lubricant in the chain joints. Any discolouration of the lubricant or of the pin will indicate insufficient lubrication penetrating into the bearing area. Air movement, due to the motion of the drive, can disturb and mis-direct the oil drops, therefore, with due regard for safety, check the applicator while the drive is running.

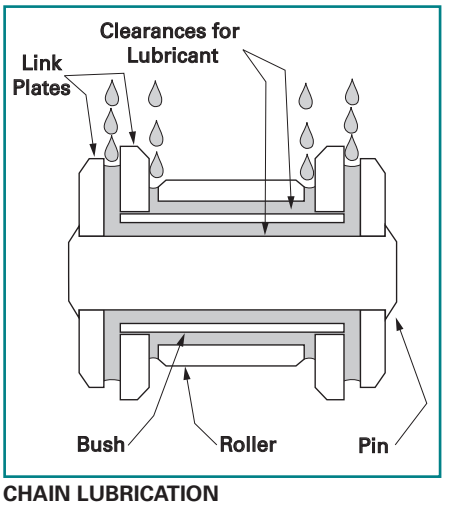
TYPE 2 Oil Bath or Disc Lubricator (for linear chain speeds up to 6 m/sec.)

With oil bath lubrication the lower strand of chain runs through an oil sump. With the chain running, the oil level in the sump should immerse the chain at its lowest point. The oil level and condition of the oil should be checked periodically to ensure sufficient volume of oil is present and that it has not emulsified or become contaminated.

A disc or oil slinger may also be used. In which case the disc picks up oil from the sump and deposits it on the chain, usually through a trough. The chain operates above the oil level. The diameter of the disc should be sufficient to ensure a rim speed between 3 and 15 m/s.

TYPE 3 Pump and Sump (for high speed drives).

Oil is pumped from the sump by a circulating pump capable of delivering a constant stream of oil, evenly distributed across the full width of the chain. The oil should be supplied on the inside of the chain loop and at the lower strand, when chain speeds exceed 10 m/s.



CHAIN LUBRICATION

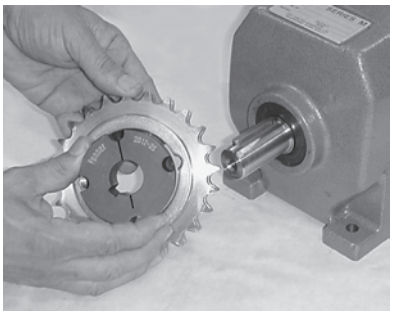
TAPER LOCK® BUSH INSTALLATION

TO INSTALL

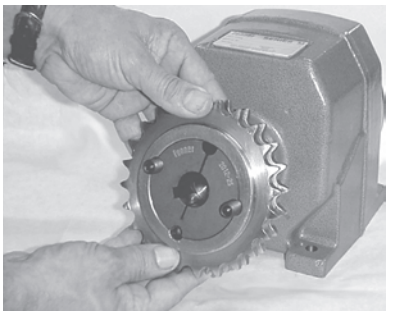
1. After ensuring that the mating tapered surfaces, bore and shaft, are completely clean and free from oil or dirt, insert the bush into the hub so that holes line up.
2. Sparingly oil thread and point of grub screws, or thread and under head of cap screws. Place screws loosely in holes threaded in hub, shown thus ◎ in diagram.
3. If a key is to be fitted, place it in the shaft keyway before fitting the bush. It is essential that it is a parallel key and side fitting only and has TOP CLEARANCE.
4. Clean shaft and fit hub to shaft as one unit and locate in position desired, remembering that bush will nip the shaft first and then hub will be slightly drawn on to the brush.
5. Using a hexagon wrench tighten screws gradually and alternately to torque shown in table below.
6. Hammer against large-end of bush, using a block or sleeve to prevent damage. (This will ensure that the bush is seated squarely in the bore.) Screws will now turn a little more. Repeat this alternate hammering and screw tightening once or twice to achieve maximum grip on the shaft.
7. After drive has been running under load for a short time stop and check tightness of screws.
8. Fill empty holes with grease to exclude dirt.

TO REMOVE

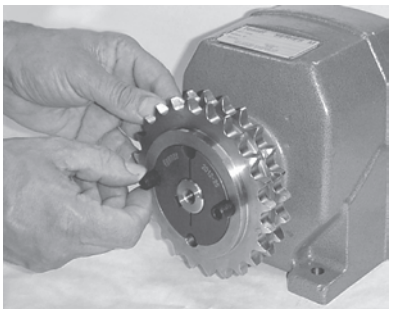
1. Slacken all screws by several turns, remove one or two according to number of removal holes shown thus ● in diagram. Insert screws into removal holes after oiling thread and under head of cap screws.
2. Tighten screws alternately until bush is loosened in hub and assembly is free on the shaft.
3. Remove assembly from shaft.



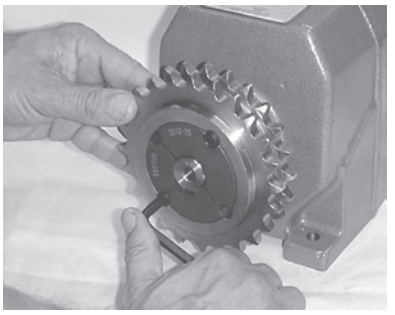
INSERT BUSH



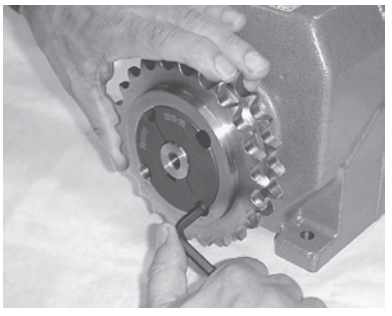
INSERT SCREWS AND LOCATE ON SHAFT



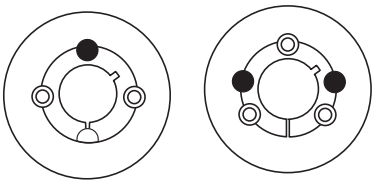
TIGHTEN SCREWS FINGER TIGHT



TIGHTEN SCREWS ALTERNATELY



REMOVING A TAPER LOCK BUSH



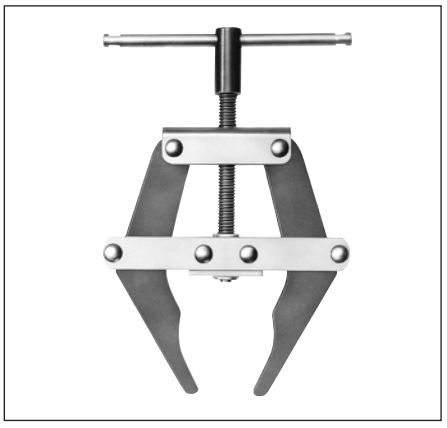
REMOVAL HOLES ●

Bush size		1008	1108	1210	1610	1615	2012	2517	3020	3030	3525	3535	4030	4040	4535	4545	5040	5050
Screw tightening torque (Nm)		5.6	5.6	20.0	20.0	20.0	30.0	50.0	90.0	90.0	115.0	115.0	170.0	170.0	190.0	190.0	270.0	270.0
Screw details	qty	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	size (BSW)	1/4"	1/4"	3/8"	3/8"	3/8"	7/16"	1/2"	5/8"	5/8"	1/2"	1/2"	5/8"	5/8"	3/4"	3/4"	7/8"	7/8"
	Hex. socket size (mm)	3	3	5	5	5	6	6	8	8	10	10	12	12	14	14	14	14
Large end dia. (mm)		35.0	38.0	47.5	57.0	57.0	70.0	85.5	108.6	108.0	127.0	127.0	146.0	146.0	162.0	162.0	178.0	178.0
Bush length (mm)		22.3	22.3	25.4	25.4	38.1	31.8	44.5	50.8	76.2	63.5	89.0	76.2	102.0	89.0	114.0	102.0	127.0
Approx mass (kg)		0.1	0.1	0.2	0.3	0.5	0.7	1.5	2.7	3.6	3.8	5.0	5.6	7.7	7.5	10.0	11.1	14.0

ACCESSORIES

CHAIN PULLERS

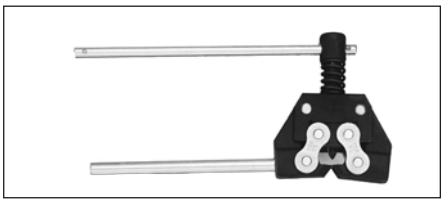
For drawing ends of a chain length together, to allow insertion of connecting links.



Catalogue Code	Model	Chain Sizes	Jaw Spread	Weight
028Z0035	35	⅜"–¾"	50 mm	0.14 kg
028Z0050	50	½"–1"	85 mm	0.45 kg
028Z0080	80	1"–3"	125 mm	0.90 kg

PIN EXTRACTORS

Splitting chain to required length is simple with this easy to use tool. The pin extractor may be used with almost any size and make of roller chain.



Catalogue Code	Max. Pitch
028Z0001	⅝"
028Z0002	1¼"
028Z0003	2"

FREEWHEEL UNITS

Size	Bore	Catalogue Code
RSJ	1⅜"	027Z0001
NVF	2"	027Z0000
½" x 5/16" x 19T	1⅜"	027Z0019
½" x 5/16" x 19T	1⅜"	027Z0020
½" x 3/16" x 19T	1⅝"	027Z0022
½" x 3/16" x 19T	2"	027Z0024

SHEARGUARD CLUTCH

The Shearguard clutch uses wedge pins for torque control, to give a simple, accurate and reliable drive overload protection. An added advantage is that the wedge pins are bolted in position and cannot fall into machinery when sheared by overload. The clutch is designed to accommodate standard platewheels for fast delivery chain drive protection.

TORQUE LIMITER

The Torque Limiter utilises spring loaded friction surfaces to limit the torque transmitted in a drive system. Protection against shock loads is achieved by a pre-set force.

When torque demand exceeds this pre-set value the unit slips, automatically re-engaging when overload torque has passed with no re-setting required.

The four sizes of Torque limiters available are designed to use a range of specially surface ground platewheels.

We recommend and offer from stock specially ground platewheels for use with all Torque Limiters.

CHAIN LUBRICANTS

Recommended lubricant is a penetrating non-mineral oil which lubricates the chain pins and frees seized chain. It forms a dry film which will not attract dust and dirt, and is also non-drip.

High temperature lubricant is also available.

Fenner®
DRIVE ALIGNMENT LASER

Improved Performance, Longer Life.

The new Fenner Drive Alignment Laser is the perfect tool for pulley and sprocket alignment. Applied magnetically in just a few seconds, the laser line projects onto targets, allowing rapid adjustment to perfect alignment. It could not be simpler!

- Reduces wear on belts and pulleys
- Increases drive efficiency for larger energy savings
- Quick and easy to use, producing more accurate results than other methods
- Shows parallel and angular misalignment
- Suitable for both vertical & horizontal mounted machines



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Order yours today: Product Code: 230L0000



Fenner® FRICTION BELT DRIVES

Fenner friction belt drives have set the pace for over a century and will continue to do so with the recent addition to the range of Fenner Quattro PLUS high power cogged raw edge belts.



- State of the art design and manufacture reflected in optimised power ratings, for compact size, economy, efficiency and extended life
- PB (Precision built) construction allows 'one-shot tensioning' for fit & forget applications
- Fullest range of international standard belt lengths and pulleys available
- All belts have superior anti-static, heat and oil resistant properties

Friction Belt Drives
Design Data Required

- **Type of prime mover, or driving m/c**
- **Electric motor starting arrangement**
- **Rotational speed of prime mover**
- **Power rating of prime mover**
- **Type of driven machine**
- **Rotational speed of driven machine**
- **Power absorbed by driven machine**
- **Hours/day duty & start/stop frequency**
- **Both driven & driver machine shaft diameters**
- **Centre distance & space restraints**
  - fixed centres?
  - adjustment?
- **Space restraints**
- **Any environmental issues**
  - ambient temperature
  - water, oil mist, solvents etc.

Visit www.fptgroup.com for the Drive Design Assistant

FRICTION BELT DRIVES

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Ultra Plus 140

Fenner®
THE LANGUAGE OF POWER TRANSMISISONS

The Ultimate heavy duty drive belt for harsh environments.



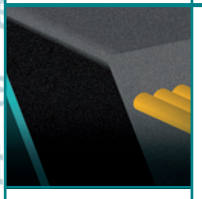
NEW in 2010



High Modulus Aramid Cords

140% Power Transmission!

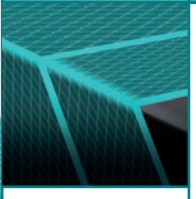
The Ultra Plus 140 uses high modulus Aramid cords to transmit up to 40% more power than standard wedge belts.



Chloroprene Rubber Core

Inner Strength!

The aramid cords are supported by a chloroprene rubber core and protected by a double layer jacket, to give rugged durability and low maintenance requirements.



Double Layer Outer Jacket

96% Energy Efficiency!

The double layer outer jacket of the Ultra Plus 140 is a unique construction to improve flexibility for efficiency while providing incredible protection of the Aramid core.



State-of-the-art, high efficiency drive belt engineering.

www.fptgroup.com



ISO 4184 – DIN 2215 – BS 3790 – RMA IP20

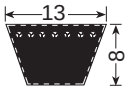
Fenner Classic PB V-Belts have specially treated jackets to give superior anti-static, heat and oil-resistant properties.

All Fenner Classic V-Belts are static conductive to **ISO 1813** and conform to the anti-static specifications of the American Petroleum Institute (API).



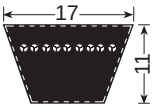
Z

Belt Designation
Metric
Z370
Z395
Z410
Z420
Z445
Z470
Z480
Z495
Z510
Z520
Z530
Z545
Z560
Z570
Z600
Z610
Z620
Z630
Z650
Z660
Z700
Z725
Z750
Z780
Z800
Z820
Z840
Z850
Z860
Z875
Z890
Z900
Z920
Z930
Z940
Z950
Z965
Z980
Z990
Z1015
Z1035
Z1055
Z1080
Z1105
Z1130
Z1155
Z1205
Z1270
Z1330
Z1380
Z1420
Z1750



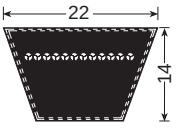
A

Belt Designation	
Metric	Imperial
A540	A20
A570	A21
A590	A22
A620	A23
A640	A24
A670	A25
A700	A26
A720	A27
A740	A28
A770	A29
A790	A30
A820	A31
A850	A32
A870	A33
A890	A34
A920	A35
A930	—
A950	A36
A970	A37
A990	A38
A1020	A39
A1050	A40
A1070	A41
A1100	A42
A1130	A43
A1150	A44
A1180	A45
A1200	A46
A1230	A47
A1250	A48
A1280	A49
A1300	A50
A1330	A51
A1360	A52
A1380	A53
A1410	A54
A1430	A55
A1460	A56
A1480	A57
A1510	A58
A1530	A59
A1550	A60
A1580	A61
A1610	A62
A1640	A63
A1660	A64
A1690	A65
A1710	A66
A1740	A67
A1760	A68
A1790	A69
A1810	A70
A1840	A71
A1860	A72
A1890	A73
A1920	A74
A1940	A75
A1960	A76
A1990	A77
A2020	A78
A2050	A79
A2070	A80
A2090	A81
A2120	A82
A2140	A83
A2170	A84
A2200	A85
A2220	A86
A2240	A87
A2270	A88
A2300	A89
A2320	A90
A2350	A91
A2370	A92
A2400	A93
A2420	A94
A2450	A95
A2480	A96
A2500	A97
A2570	A100
A2630	A102
A2650	A103
A2680	A104
A2700	A105
A2750	A107
A2780	A108
A2830	A110
A2880	A112
A2910	A113
A2960	A115
A2980	A116
A3080	A120
A3190	A124
A3290	A128
A3440	A134
A3490	A136
A3540	A138
A3690	A144
A3950	A154



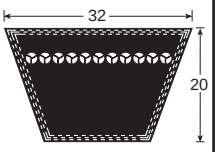
B

Belt Designation	
Metric	Imperial
B700	B26
B750	B28
B800	B30
B830	B31
B860	B32
B880	B33
B910	B34
B930	B35
B960	B36
B980	B37
B1000	B38
B1030	B39
B1060	B40
B1080	B41
B1100	B42
B1130	B43
B1160	B44
B1180	B45
B1210	B46
B1240	B47
B1260	B48
B1290	B49
B1310	B50
B1340	B51
B1370	B52
B1390	B53
B1410	B54
B1440	B55
B1460	B56
B1490	B57
B1510	B58
B1540	B59
B1560	B60
B1590	B61
B1620	B62
B1640	B63
B1670	B64
B1690	B65
B1720	B66
B1740	B67
B1760	B68
B1800	B69
B1820	B70
B1850	B71
B1870	B72
B1900	B73
B1920	B74
B1950	B75
B1970	B76
B2000	B77
B2020	B78
B2050	B79
B2070	B80
B2100	B81
B2130	B82
B2150	B83
B2180	B84
B2200	B85
B2230	B86
B2250	B87
B2280	B88
B2300	B89
B2330	B90
B2350	B91
B2380	B92
B2400	B93
B2420	B94
B2450	B95
B2480	B96
B2500	B97
B2530	B98
B2580	B100
B2630	B102
B2660	B103
B2680	B104
B2700	B105
B2740	B106
B2790	B108
B2840	B110
B2870	B111
B2890	B112
B2940	B114
B2990	B116
B3040	B118
B3090	B120
B3140	B122
B3200	B124
B3240	B126
B3290	B128
B3350	B130
B3400	B132
B3450	B134
B3500	B136
B3550	B138
B3600	B140
B3700	B144
B3800	B148
B3850	B150
B3870	B151
B3900	B152
B3950	B154
B4060	B158
B4160	B162
B4310	B168
B4430	B173
B4610	B180
B4740	B185
B5000	B195
B5220	B204
B5370	B210
B5580	B218
B5630	B220
B6070	B238



C

Belt Designation	
Metric	Imperial
C1300	C49
C1350	C51
C1450	C55
C1480	C56
C1530	C58
C1560	C59
C1580	C60
C1650	C63
C1700	C65
C1760	C67
C1780	C68
C1830	C70
C1860	C71
C1880	C72
C1950	C75
C2010	C77
C2040	C78
C2090	C80
C2110	C81
C2160	C83
C2190	C84
C2200	C85
C2270	C87
C2340	C90
C2420	C93
C2440	C94
C2490	C96
C2520	C97
C2550	C98
C2600	C100
C2650	C102
C2700	C104
C2720	C105
C2800	C108
C2850	C110
C2880	C111
C2900	C112
C2950	C114
C3000	C116
C3080	C119
C3100	C120
C3210	C124
C3310	C128
C3360	C130
C3460	C134
C3520	C136
C3560	C138
C3610	C140
C3660	C142
C3710	C144
C3760	C146
C3870	C150
C3920	C152
C3970	C154
C4060	C158
C4170	C162
C4220	C164
C4320	C168
C4450	C173
C4500	C175
C4600	C179
C4630	C180
C4750	C185
C4780	C186
C4880	C190
C5010	C195
C5140	C200
C5240	C204
C5380	C210
C5640	C220
C5720	C223
C5850	C228
C6100	C238
C6150	C240
C6360	C248
C6610	C258
C6660	C260
C6860	C268
C6910	C270
C7120	C278*
C7600	C297*
C7620	C298*
C8030	C314*
C8390	C328*
C9100	C356*
C9150	C358*
C9760	C382*
C10670	C418*
C10700	C419*
C11330	C444*



D

Belt Designation	
Metric	Imperial
D2740	D105
D3130	D120
D3330	D128
D3730	D144
D4080	D158
D4190	D162
D4470	D173
D4620	D179
D4650	D180
D5030	D195
D5260	D204
D5400	D210
D5790	D225
D5870	D228
D6100	D237
D6120	D238
D6170	D240
D6840	D266
D6890	D268
D6940	D270
D7620	D297
D7650	D298
D7700	D300*
D8050	D314*
D8410	D328*
D9140	D357*
D9170	D358*
D9830	D384*
D9980	D390*
D10700	D418*
D12200	D478*
D13700	D538*

MASS PER UNIT LENGTH kg/m	
BELT SECTION	STD BELT
Z	0.055
A	0.094
B	0.163
C	0.284
D	0.560

Metric belt designation denotes pitch length in mm

Z:	Li = Lp - 26 mm
A:	Li = Lp - 34 mm
B:	Li = Lp - 45 mm
C:	Li = Lp - 58 mm
D:	Li = Lp - 85 mm
Li:	= inside length
Lp:	= pitch length

* These lengths may not be available from stock. Consult your local Authorised Distributor for non-listed belt lengths.

PRODUCT CODES

8 digit for standard V-belts.

Digits 1 to 3:	constant 240.
Digit 4:	section letter Z, A, B, C or D.
Digits 5 to 8:	0 then first 3 of 4-figure metric lengths or, first 4 of 5-figure metric lengths.

E.g.: C10700 is coded 240C1070.

WORKING TEMPERATURES

Fenner V-belts perform satisfactorily within the ambient temperature range –40 to 70°C.

Section dimensions in millimetres.
Metric designations show pitch length in millimetres.
Imperial designations show inside length in inches.

Fenner Power PLUS PB Wedge Belts

ISO 4184 – DIN 7753 – BS 3790 – RMA IP22

In addition to their precision-built qualities, Fenner Power Plus PB wedge belts have superior anti-static and oil-resistant properties.

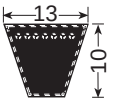
All Fenner Power PLUS wedge belts are static conductive to the **ISO 1813** standard and conform to the anti-static specifications of the American Petroleum Institute (API) for similar belts. They will not readily self-ignite under severe slip/stall conditions, subject to maximum surface temperature limitations.



SPZ

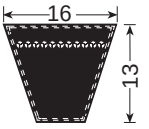
Belt Designation	
Metric	Imperial 3V
487	-
512	-
562	-
587	-
612	-
630	**3V**250
637	-
662	-
670	-
687	-
710	280
722	-
737	-
750	-
760	300
772	-
787	-
800	315
812	-
825	-
837	-
850	-
862	-
875	-
887	-
900	355
912	-
925	-
940	370
950	-
962	-
987	-
1000	-
1010	400
1024	-
1037	-
1047	-
1060	-
1080	425
1087	-
1112	-
1120	-
1140	450
1162	-
1180	-
1187	-
1200	475
1212	-
1237	-
1250	-
1262	-
1270	500
1287	-
1312	-
1320	-
1340	530
1347	-
1362	-
1387	-

Belt Designation	
Metric	Imperial 3V
1400	-
1412	-
1420	560
1437	-
1462	-
1470	580
1487	-
1500	-
1512	-
1520	600
1537	-
1560	617
1587	-
1600	630
1612	-
1637	-
1650	650
1662	-
1687	-
1700	670
1737	-
1762	-
1787	-
1800	710
1812	-
1837	-
1850	730
1862	-
1887	-
1900	750
1937	-
1987	800
2000	-
2030	-
2037	-
2120	-
2137	-
2160	850
2187	-
2240	-
2262	-
2280	900
2287	-
2360	-
2410	950
2500	-
2540	1000
2650	-
2690	1060
2800	-
2840	1120
3000	1180
3150	-
3170	1250
3350	-
3550	1400



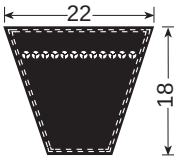
SPA

Belt Designation	Belt Designation
732	1750
757	1757
782	*1782*
800	**1800**
807	*1807*
825	1832
832	1850
850	1857
857	1882
875	1900
882	*1907*
900	1932
907	1950
925	1957
932	1982
950	**2000**
957	2032
975	2057
982	2060
1000	2082
1007	2120
1030	2132
1060	2180
1082	2207
1090	*2232*
1107	**2240**
1120	2282
1132	2300
1150	*2307*
1157	*2332*
1180	2360
1207	2382
1220	2430
1232	*2482*
1250	**2500**
1257	2532
1272	2580
1280	2607
1307	*2632*
1320	2650
1332	2682
1357	2720
1360	*2732*
1382	2782
1400	**2800**
1407	*2832*
1432	*2847*
1450	2882
1457	2900
1482	*2932*
1500	2982
1507	3000
1532	*3032*
1550	*3082*
1557	**3150**
1582	3182
1600	*3282*
1607	3350
1632	*3382*
1650	**3550**
1657	3750
1682	**4000**
1700	4250
1707	**4500**
1732	



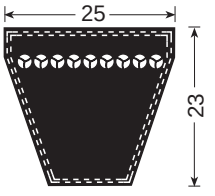
SPB

Belt Designation	
Metric	Imperial 5V
1250	-
1260	**5V**500
1320	-
1340	530
1400	-
1410	560
1500	-
1550	-
1600	630
1670	-
1700	-
1750	-
1800	710
1850	-
1900	-
1950	-
1980	-
2000	-
2020	800
2060	-
2120	-
2150	850
2240	-
2280	900
2360	-
2410	950
2450	-
2500	-
2530	1000
2580	-
2650	-
2680	1060
2720	-
2800	-
2840	1120
2900	-
3000	1180
3150	-
3170	1250
3250	1320
3350	-
3450	1400
3550	-
3750	1500
3800	-
3870	-
4000	-
4060	1600
4250	-
4310	1700
4500	-
4560	1800
4750	-
4820	1900
5000	-
5070	2000
5300	-
5380	2120
5600	-
5680	2240
6000	2360
6300	-
6340	2500
6700	-
7100	2800
7500	-
8000	3150



SPC

Belt Designation
2000
2120
2240
2360
2500
2650
2800
3000
3150
3350
3550
3750
4000
4250
4500
4750
5000
5300
5600
6000
6300
6700
7100
7500
8000
8500
9000
9500
10000
10600
11200
11800
12500



8V

Belt Designation	
Metric	Imperial 8V
2540	1000
2840	1120
3180	1250
3550	1400
3810	1500
4060	1600
4570	1800
5080	2000
5690	2240
6350	2500
7100	2800
8000	3150
9000	3550
10160	4000
11430	4500

Section dimensions in millimetres. Italic type denotes not held in stock at all locations. Bold type denotes standrad sizes in ISO 4184.
Metric designations show pitch length in mm. Imperial designations show 'effective' length in 1/10 inches
Note: The ISO 4184 standard now refers to 'datum' lengths, which are essentially the same as 'pitch' lengths.



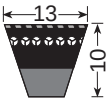
Fenner CRE PLUS® & Quattro PLUS® CRE Wedge Belts

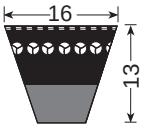
ISO 4184 – DIN 7753 – BS 3790

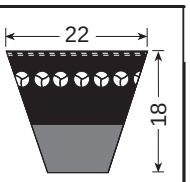
Fenner cogged raw edge wedge belts are precision built PB for excellent length matching. They are manufactured from high quality polymer and textile materials for superior heat and oil resistance.

All Fenner CRE PLUS and Quattro PLUS cogged raw edge wedge belts are static conductive to the **ISO 1813** standard and conform to the anti-static specifications of the American Petroleum Institute (API) for similar belts. They will not ignite under severe slip/stall conditions, subject to maximum surface temperature limitations.









Belt Designation		Belt Designation		Belt Designation		Belt Designation	
XPZ	QXPZ	XPA	QXPA	XPB	QXPB	XPC	QXPC
630	630	800	800	1250	1250	2000	2000
670	670	850	850	1260		2120	2120
710	710	900	900	1320	1320	2240	2240
750	750	925		1340		2360	2360
760		950	950	1400	1400	2500	2500
800	800	1000	1000	1410		2650	2650
850	850		1030	1500	1500	2800	2800
900	900	1060	1060	1600	1600	3000	3000
937		1090		1700	1700	3150	3150
940		1120	1120	1800	1800	3350	3350
950	950	1180	1180	1900	1900	3550	3550
1000	1000	1207		2000	2000	3750	3750
1010		1250	1250	2020		4000	4000
1060	1060	1280		2120	2120	4060	4060
1077		1320	1320	2150		4250	4250
1080		1382		2240	2240	4310	4310
1120	1120	1400	1400	2280		4500	4500
1137		1450	1450	2360	2360	4750	4750
1140		1500	1500	2410		5000	5000
	1150	1532		2500	2500		
1180	1180	1550	1550	2530			
1200		1600	1600	2650	2650		
	1220	1650	1650	2680			
1250	1250	1700	1700	2800	2800		
1270		1750	1750	2840			
	1287	1800	1800	3000	3000		
1320	1320	1850	1850	3150	3150		
1337		1900	1900	3350	3350		
1340		1950	1950	3550	3550		
1360		2000	2000		3750		
1400	1400	2060	2060		4000		
1420		2120	2120		4060		
	1450	2240	2240		4250		
1462		2360	2360		4310		
1470		2430			4500		
1500	1500	2500	2500				
1520		2650	2650				
	1537	2800	2800				
	1550	3000	3000				
1560		3150	3150				
1587		3350					
1600	1600	3550	3550				
1650			4000				
1700	1700						
1800	1800						
1850							
1900	1900						
2000	2000						
2040							
2120	2120						
2160							
2240	2240						
2280							
2360							
2410							
2500	2500						
2540							
2650							
2690							
2800	2800						
2840							
3000							
3150	3150						
3350							
3550	3550						

CRE PLUS
Quattro PLUS

DATA FOR ALL WEDGE BELTS

Metric belt designation denotes pitch length in mm.

SPZ: Lo = Lp + 13mm
SPA: Lo = Lp + 18mm
SPB: Lo = Lp + 22mm
SPC: Lo = Lp + 30mm

Lp = Pitch length
Lo = Outside length

PITCH LENGTH Lp = Li + mm (Inside length)

BELT SECTION	WRAPPED BELT	CRE BELT	QUATTRO PLUS
SPZ	37	38	30
SPA	45	44	40
SPB	60	58	60
SPC	90	-	80
8V	120	-	-

MASS PER UNIT LENGTH kg/m

BELT SECTION	WRAPPED BELT	CRE BELT	QUATTRO PLUS
SPZ	0.07	0.06	0.07
SPA	0.12	0.11	0.12
SPB	0.19	0.18	0.19
SPC	0.32	—	0.36
8V	0.54	—	—

PRODUCT CODES

8 digit for standard wedge belt.

Digits 1 to 3:
Product Group 260 Power Plus
267 CRE Plus
269 Quattro Plus

Digit 4:
Section Letter (SP, XP, QXP) Z, A, B, C
D (8V).

Digits 5 to 8:
Length 0 then first 3 of 4-figure lengths or, first 4 of 5-figure lengths.

E.g.: Power Plus SPB 2800 is coded 260B0280.
Quattro plus QXPZ 1250 is coded 269Z0125

WORKING TEMPERATURES

Fenner Power Plus and CRE Plus wedge belts perform satisfactorily within the temperature range –40 to 70°C.

Quattro Plus temperature range –40 to 80°C

Metric designations are 'pitch' lengths in mm. Imperial belt designation denotes approximate 'effective' length in tenths of an inch in accordance with RMA standards.

Note: The ISO 4184 standard now refers to 'datum' lengths, which are essentially the same as 'pitch' lengths.

For similar cross sections, other designations include
SPZ, Alpha, 3V & 9N
SPB, Beta, 5V & 15N
8V, Delta, & 25N

SPZ, SPA, SPB & SPC belt designations shown in heavier type identify standard sizes in ISO 4184.

Belt lengths in italic type are available but not ex stock in all locations.

Consult your local Authorised Distributor for non-listed belt lengths.

(a) Speed Ratio

Calculate Speed Ratio by dividing the rev/min of the faster shaft by the rev/min of the slower shaft.

(b) Service Factor

From Table 3 (page 39), select the Service Factor which is applicable to the drive. If the drive is speed increasing, an additional factor may be required – refer to top of Table 3.

(c) Design Power

Multiply the normal running power or prime mover power by the Service Factor. This gives the Design Power which is used as the basis for selecting the drive.

(d) Belt Section & Type

Refer to Table 2 (opposite) and trace to the right along the horizontal axis to the rev/min of the faster shaft. Trace upwards along the vertical axis to the Design Power. Choose the belt section and type represented by the area in which the point of intersection falls.

(e) Minimum Pulley Diameter

Refer to Table 1 (below) and select the minimum recommended pulley, using the Design Power from step (c) and the faster shaft speed. This is a guide to the minimum pulley pitch diameter capable of transmitting the design power at the given speed, without generating excessive bearing loads.

(f) Pulley Pitch Diameters

Refer to the drive selection tables on pages 40 to 51 and for the belt section chosen read down the speed ratio column to the value nearest the calculated speed ratio. Use the Minimum Pulley Diameter from step (e) as a guide to the small pulley selection.

(g) Belt Length, Centre Distance and Correction Factor

The drive tables list ISO belt lengths.

Along the same line as the chosen Speed Ratio read across the table to find a suitable Centre Distance. The required Belt Length is given at the head of the column.

Note the Correction Factor by following the colour band in which the chosen centre distance falls, to the top of the table.

If the Centre Distance is not specified consider a drive with a centre distance approximately equal to the sum of the pulley pitch diameters.

When non-standard pulleys or belts are used the Centre Distance and Belt Length can be calculated using the formulae given on page iii of the technical information section. Interpolate from the tables for the Correction Factor.

(h) Basic Power per Belt

Refer to the power rating tables (pages 52 to 59) for the section and type of wedge belt chosen. In the left-hand column locate rev/min of the faster shaft, i.e. the one with the small pulley. Read across to the column headed by the pitch diameter of the small pulley and note the rated power.

For CRE Plus belts refer to page 54 for power ratings.

Note that Fenner pulleys are designed for belt speeds up to 40 m/s. If using non-Fenner pulleys seek manufacturer's approval at high speeds.

N.B. The powers listed in the columns headed by the motor speeds in the Drive Tables (pages 40 to 51) give the power per belt including Speed Ratio Increment, step (j), for Power Plus wedge belts.

These powers require correcting for belt length and arc of contact correction factor (g) and should be used in conjunction with the appropriate Service Factor.

(j) Speed Ratio Power Increment

From the power rating tables (pages 52 to 59) note the additional power per belt for the Speed Ratio being used.

This value is the same for all types of belt of a given section.

(k) Corrected Power per Belt

Add the Speed Ratio Power increment (j) to the Basic Power per Belt (h) and multiply by the Correction Factor from step (g).

(l) Number of Belts required

Divide the Design Power from step (c) by the Corrected Power per Belt (k). The result gives the number of belts required. If the answer contains a fraction use the next whole number.

(m) Bore sizes

Check that the pulleys will fit shafts by referring to the pulley dimension tables (pages 60 to 67).

TABLE 2

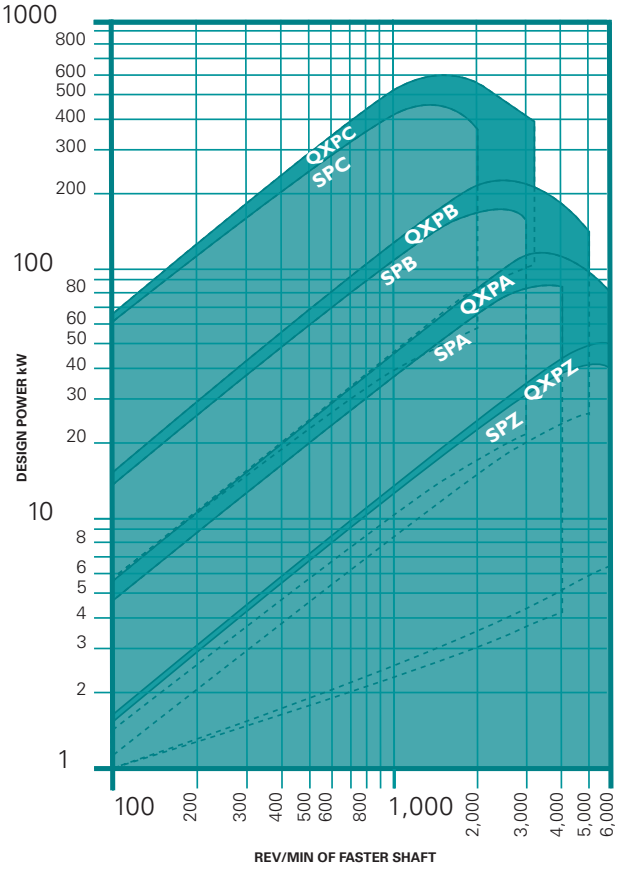


TABLE 1

Speed of faster shaft rev/min	*Minimum Pulley Diameter (mm) Design Power (kW)																			
	up to 1	3.0	4.0	5.0	7.5	10	15	20	25	30	40	50	60	75	90	110	130	150	200	250
500	56	90	100	112	125	140	180	200	212	236	250	280	280	315	375	400	450	475	500	560
600	56	85	90	100	112	125	140	180	200	212	224	250	265	280	300	335	375	400	475	500
720	56	80	85	90	100	106	132	150	160	170	200	236	250	265	280	300	335	375	450	500
960	56	75	80	85	95	100	112	132	150	180	180	200	224	250	280	280	300	335	400	450
1200	56	71	80	80	95	95	106	118	132	150	160	180	200	236	236	250	265	300	335	355
1440	56	63	75	80	85	85	100	112	125	140	160	170	190	212	236	236	250	280	315	335
1800	56	63	71	75	80	85	95	106	112	125	150	160	170	190	212	224	236	265	300	335
2880	56	60	67	67	80	80	85	90	100	112	125	140	160	170	180	212	224	236	–	–

* This table is intended as a guide to selection only. Bearing loads should be carefully considered when using small pulleys on electric motors. This is particularly important when using the small pulleys allowable with CRE Plus or Quattro Plus belts.



EXAMPLE

Design a wedge belt drive from a 50 kW 6 cylinder diesel engine which runs at 1050 rev/min to a reciprocating compressor running at 660 rev/min. The centre distance is to be approximately 1600 mm and the duty is 24 hours/day. The engine shaft is 70 mm diameter and the compressor shaft 80 mm diameter.

(a) Speed Ratio

Speed ratio = $\frac{1050}{660}$ = 1.59:1

(b) Service Factor

From Table 3 the service factor is 1.4.

(c) Design Power

= 50 x 1.4 = 70 kW

(d) Belt Section

By referring to Table 2 (opposite) the intersection of design power and the speed of the faster shaft indicates SPB or QXPB section.

(e) Minimum Pulley

From Table 1 (page 38) the minimum recommended pulley is approximately 250 mm.

(f) Pulley Pitch Diameters

By referring to the centre distance tables relating to SPB section belts on page 47 the selection is a driving pulley of 315 mm pitch diameter and a driven pulley of 500 mm pitch diameter.

(g) Belt Length, Centre Distance and Correction Factor

Reading across the table, the nearest centre distance to the 1600 mm required is 1607 mm. The belt length at the head of the column is 4500. By following the colour shading to the top of the table, a correction factor of 1.05 is noted.

(h) Basic Power per Belt

From the power rating table (pages 52 & 59) by interpolation the rated power/belt for a 315 mm pitch diameter pulley at 1050 rev/min is 18.67 kW for Power Plus SPB (22.37 for Quattro Plus QXPB)

(j) Speed Ratio Power Increment

The power increment (by interpolation) for a speed ratio of 1.59 at 1050 rev/min is 0.77 kW. (pages 56)

(k) Corrected Power per Belt

= (18.67 + 0.77) x 1.05

= 20.41 kW per belt. (24.3 for QXPB)

(l) Number of Belts required

= $\frac{70}{20.41}$ = 3.43 i.e use 4 SPB Power Plus wedge belts.

or

= $\frac{70}{24.3}$ = 2.88 i.e use 3 QXPB Quattro Plus belts.

(m) Bore Sizes

From pulley dimension tables, a 315mm x 4 SPB has a bush size 3525 with 100 mm max. bore (315 mm x 3 SPB has a bush size 3020 with 75 mm max. bore).

Either will fit the 70 mm dia. engine shaft.

500 mm x 3 or 4 SPB pulleys, both of which have a bush size 3525, will fit the 80 mm dia. compressor shaft.

DRIVE SPECIFICATION

	Power Plus SPB	Quattro Plus QXPB
Engine pulley	315 x 4SPB	315 x 3 SPB
Taper Lock bush	3525/70 mm	3020/70mm
Compressor pulley	500 x 4SPB	500 x 3SPB
Taper Lock bush	3525/80 mm	3525/80mm

4 x SPB 4500 wedge belts give 1607 mm centres.
3 x QXPB 4500 wedge belts give 1607 mm centres.

TABLE 3: SERVICE FACTORS

SPEED INCREASE RATIO		TYPES OF PRIME MOVER					
		'Soft' starts			'Heavy' starts		
For speed increasing drives of: Speed ratio 1.00 – 1.24 multiply service factor by 1.00 Speed ratio 1.25 – 1.74 multiply service factor by 1.05 Speed ratio 1.75 – 2.49 multiply service factor by 1.11 Speed ratio 2.50 – 3.49 multiply service factor by 1.18 Speed ratio 3.50 and over multiply service factor by 1.25		Electric motors: AC – Star Delta start DC – Shunt wound Internal combustion engines with 4 or more cylinders Prime movers fitted with centrifugal clutches, dry or fluid couplings or electronic soft start devices			Electric motors: AC – Direct-on-line start DC – Series & compound wound Internal combustion engines with less than 4 cylinders Prime movers not fitted with soft start devices		
		Hours per day duty					
	TYPES OF DRIVEN MACHINE	10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
Class 1 Light Duty	Agitators (uniform density), blowers, exhausters and fans (up to 7.5 kW), centrifugal compressors and pumps. Belt conveyors (uniformly loaded).	1.0	1.1	1.2	1.1	1.2	1.3
Class 2 Medium Duty	Agitators and mixers (variable density), blowers, exhausters and fans (over 7.5 kW). Rotary compressors and pumps (other than centrifugal). Belt conveyors (not uniformly loaded), generators and excitors, laundry machinery, lineshafts, machine tools, printing machinery, sawmill and woodworking machinery, screens (rotary).	1.1	1.2	1.3	1.2	1.3	1.4
Class 3 Heavy Duty	Brick machinery, bucket elevators, compressors and pumps (reciprocating), conveyors (heavy duty). Hoists, mills (hammer), pulverisers, punches, presses, shears, quarry plant, rubber machinery, screens (vibrating), textile machinery.	1.2	1.3	1.4	1.4	1.5	1.6
Class 4 Extra Heavy Duty	Crushers (gyratory-jaw roll), mills (ball-rod-tube).	1.3	1.4	1.5	1.5	1.6	1.8

Centre Distance SPZ, XPZ & QXPZ Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80	0.85		0.90		0.95			1.00		1.05		1.10			1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPZ Belt (kW)		BELT LENGTH														SPZ & QXPZ ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	
1.00	***56***	***56***	*0.93*	*1.56*	*227*	*267*	*312*	*362*	*412*	*472*	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	***60***	***60***	*1.11*	*1.90*	*221*	*261*	*306*	*356*	*406*	*466*	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	**63**	**63**	1.06	1.77	216	256	301	351	401	461	526	601	701	801	901	1021	1151	1301	1476	1676	1.00
1.00	**67**	**67**	1.24	2.11	210	250	295	345	395	455	520	595	695	795	895	1015	1145	1295	1470	1670	1.00
1.00	**71**	**71**	1.42	2.44	203	243	288	338	388	448	513	588	688	788	888	1008	1138	1288	1463	1663	1.00
1.00	**75**	**75**	1.60	2.77	197	237	282	332	382	442	507	582	682	782	882	1002	1132	1282	1457	1657	1.00
1.00	**80**	**80**	1.82	3.18	189	229	274	324	374	434	499	574	674	774	874	994	1124	1274	1449	1649	1.00
1.00	**85**	**85**	2.04	3.58	181	221	266	316	366	426	491	566	666	766	866	986	1116	1266	1441	1641	1.00
1.00	**90**	**90**	2.26	3.98	174	214	259	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1.00
1.00	**95**	**95**	2.48	4.38	166	206	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1.00
1.00	**100**	**100**	2.70	4.77	158	198	243	293	343	403	458	543	643	743	843	963	1093	1243	1418	1618	1.00
1.00	**112**	**112**	3.22	5.69	139	179	224	274	324	384	449	524	624	724	824	944	1074	1224	1399	1599	1.00
1.00	**125**	**125**	3.77	6.65	–	159	204	254	304	364	429	504	604	704	804	924	1054	1204	1379	1579	1.00
1.00	**140**	**140**	4.40	7.72	–	–	180	230	280	340	405	480	580	680	780	900	1030	1180	1355	1555	1.00
1.05	***60***	***63***	*1.14*	*1.94*	*218*	*258*	*303*	*353*	*403*	*463*	–	–	–	–	–	–	–	–	–	–	*1.05*
1.05	**95**	**100**	2.50	4.42	162	202	247	297	347	407	472	547	647	747	847	967	1097	1247	1422	1622	1.05
1.06	**90**	**95**	2.31	4.09	170	210	255	305	355	415	480	555	655	755	855	975	1105	1255	1430	1630	1.06
1.06	**71**	**75**	1.47	2.54	200	240	285	335	385	445	510	585	685	785	885	1005	1135	1285	1460	1660	1.06
1.06	**85**	**90**	2.09	3.69	178	218	263	313	363	423	488	563	663	763	863	983	1113	1263	1438	1638	1.06
1.06	**67**	**71**	1.29	2.21	207	247	292	342	392	452	517	592	692	792	892	1012	1142	1292	1467	1667	1.06
1.06	**80**	**85**	1.87	3.28	185	225	270	320	370	430	495	570	670	770	870	990	1120	1270	1445	1645	1.06
1.06	**63**	**67**	1.11	1.88	213	253	298	348	398	458	523	598	698	798	898	1018	1148	1298	1473	1673	1.06
1.07	**75**	**80**	1.65	2.87	193	233	278	328	378	438	503	578	678	778	878	998	1128	1278	1453	1653	1.07
1.07	***56***	***60***	*0.98*	*1.67*	*224*	*264*	*309*	*359*	*409*	*469*	–	–	–	–	–	–	–	–	–	–	*1.07*
1.11	**90**	**100**	2.31	4.09	166	206	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1.11
1.12	**112**	**125**	3.31	5.87	–	169	214	264	314	374	439	514	614	714	814	934	1064	1214	1389	1589	1.12
1.12	***60***	***67***	*1.20*	*2.09*	*215*	*255*	*300*	*350*	*400*	*460*	–	–	–	–	–	–	–	–	–	–	*1.12*
1.12	**85**	**95**	2.13	3.77	174	214	259	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1.12
1.12	**67**	**75**	1.33	2.29	203	243	288	338	388	448	513	588	688	788	888	1008	1138	1288	1463	1663	1.12
1.12	**100**	**112**	2.79	4.95	148	188	233	283	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1.12
1.12	**125**	**140**	3.86	6.84	–	–	192	242	292	352	417	492	592	692	792	912	1042	1192	1367	1567	1.12
1.13	***56***	***63***	*1.02*	*1.74*	*222*	*262*	*307*	*357*	*407*	*467*	–	–	–	–	–	–	–	–	–	–	*1.13*
1.13	**80**	**90**	1.91	3.36	181	221	266	316	366	426	491	566	666	766	866	986	1116	1266	1441	1641	1.13
1.13	**71**	**80**	1.51	2.62	196	236	281	331	381	441	506	581	681	781	881	1001	1131	1281	1456	1656	1.13
1.13	**63**	**71**	1.15	1.95	210	250	295	345	395	455	520	595	695	795	895	1015	1145	1295	1470	1670	1.13
1.13	**75**	**85**	1.69	2.95	189	229	274	324	374	434	499	574	674	774	874	994	1124	1274	1449	1649	1.13
1.14	**140**	**160**	4.49	7.91	–	–	–	214	264	324	389	464	564	664	764	884	1014	1164	1339	1539	1.14
1.18	**85**	**100**	2.13	3.77	170	210	255	305	355	415	480	555	655	755	855	975	1105	1255	1430	1630	1.18
1.18	**95**	**112**	2.57	4.56	152	192	237	287	337	397	462	537	637	737	837	957	1087	1237	1412	1612	1.18
1.18	***60***	***71***	*1.24*	*2.15*	*212*	*252*	*297*	*347*	*397*	*457*	–	–	–	–	–	–	–	–	–	–	*1.18*
1.19	**80**	**95**	1.95	3.43	177	217	262	312	362	422	487	563	663	763	863	983	1113	1263	1438	1638	1.19
1.19	**63**	**75**	1.18	2.02	207	247	292	342	392	452	517	592	692	792	892	1012	1142	1292	1467	1667	1.19
1.19	**67**	**80**	1.37	2.36	199	239	284	334	384	444	510	585	685	785	885	1005	1135	1285	1460	1660	1.19
1.20	***56***	***67***	*1.06*	*1.81*	*218*	*258*	*303*	*353*	*403*	*463*	–	–	–	–	–	–	–	–	–	–	*1.20*
1.20	**71**	**85**	1.54	2.69	192	232	277	327	377	437	502	577	677	777	877	997	1127	1277	1452	1652	1.20
1.20	**75**	**90**	1.72	3.02	185	225	270	320	370	430	495	570	670	770	870	990	1120	1270	1445	1645	1.20
1.24	**90**	**112**	2.39	4.23	156	196	241	291	341	401	466	541	641	741	841	961	1091	1241	1416	1616	1.24
1.25	***60***	***75***	*1.24*	*2.15*	*209*	*249*	*294*	*344*	*394*	*454*	–	–	–	–	–	–	–	–	–	–	*1.25*
1.25	**80**	**100**	1.95	3.43	173	213	258	308	358	419	484	559	659	759	859	979	1109	1259	1434	1634	1.25
1.25	**100**	**125**	2.82	5.02	138	178	223	273	323	383	448	523	623	723	823	943	1073	1223	1398	1598	1.25
1.25	**112**	**140**	3.34	5.94	–	156	202	252	302	362	427	502	602	702	802	922	1052	1202	1377	1577	1.25
1.27	**75**	**95**	1.75	3.07	181	221	266	316	366	426	491	566	666	766	866	986	1116	1266	1441	1641	1.27
1.27	**71**	**90**	1.57	2.74	188	228	273	323	373	433	498	573	673	773	873	994	1124	1274	1449	1649	1.27
1.27	***56***	***71***	*1.08*	*1.86*	*215*	*255*	*300*	*350*	*400*	*460*	–	–	–	–	–	–	–	–	–	–	*1.27*
1.27	**67**	**85**	1.39	2.41	195	235	280	330	381	441	506	581	681	781	881	1001	1131	1281	1456	1656	1.27
1.27	**63**	**80**	1.21	2.07	203	243	288	338	388	448	513	588	688	788	888	1008	1138	1288	1463	1663	1.27
1.28	**125**	**160**	3.92	6.96	–	–	175	225	276	336	401	476	576	676	776	896	1026	1176	1351	1551	1.28
1.29	**140**	**180**	4.55	8.03	–	–	–	198	248	308	373	448	548	648	748	868	998	1148	1324	1524	1.29
1.32	**95**	**125**	2.63	4.68	141	182	227	277	327	387	452	527	627	727	827	947	1077	1227	1402	1602	1.32
1.32	**85**	**112**	2.19	3.89	160	200	245	295	345	405	470	545	645	745	845	965	1095	1245	1420	1620	1.32
1.33	***60***	***80***	*1.26*	*2.21*	*205*	*245*	*290*	*340*	*390*	*450*	–	–	–	–	–	–	–	–	–	–	*1.33*
1.33	**75**	**100**	1.75	3.07	177	217	262	312	362	422	487	562	662	762	862	982	1112	1262	1438	1638	1.33
1.34	**71**	**95**	1.57	2.74	184	224	269	319	369	429	494	569	670	770	870	990	1120	1270	1445	1645	1.34
1.34	***56***	***75***	*1.08*	*1.86*	*212*	*252*	*297*	*347*	*397*	*457*	–	–	–	–	–	–	–	–	–	–	*1.34*
1.34	**67**	**90**	1.39	2.41	191	231	276	326	377	437	502	577	677	777	877	997	1127	1277	1452	1652	1.34
1.35	**63**	**85**	1.21	2.07	198	239	284	334	384	444	509	584	684	784	884	1004	1134	1284	1459	1659	1.35
1.39	**90**	**125**	2.44	4.34	145	185	230	281	331	391	456	531	631	731	831	951	1081	1231	1406	1606	1.39
1.40	**80**	**112**	2.00	3.53	163	204	249	299	349	409	474	549	649	749	849	969	1099	1249	1424	1624	1.40
1.40	**100**	**140**	2.88	5.12	–	165	211	261	311	371	436	511	611	711	811	931	1061	1211	1386	1586	1.40
1.41	**71**	**100**	1.60	2.80	180	220	265	315	365	425	490	566	666	766	866	986	1116	1266	1441	1641	1.41
1.42	***60***	***85***	*1.29*	*2.26*	*201*	*241*	*286*	*336*	*386*	*446*	–	–	–	–	–	–	–	–	–	–	*1.42*
1.42	**67**	**95**	1.42	2.46	187	227	272	322	373	433	498	573	673	773	873	993	1123	1273	1448	1648	1.42
1.43	***56***	***80***	*1.11*	*1.92*	*208*	*248*	*293*	*343*	*393*	*453*	–	–	–	–	–	–	–	–	–	–	*1.43*
1.43	**63**	**90**	1.24	2.13	194	234	280	330	380	440	505	580	680	780	880	1000	1130	1280	1455	1655	1.43
1.43	**112**	**160**	3.39	6.04	–	–	185	235	285	346	411	486	586	686	786	906	1036	1186	1361	1561	1.43

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.



Centre Distance SPZ, XPZ & QXPZ Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80		0.85		0.90		0.95		1.00		1.05		1.10			1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPZ Belt (kW)		BELT LENGTH														SPZ & QXPZ ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	
1.43	**140**	**200**	4.57	8.08	–	–	–	–	231	291	357	432	532	632	732	852	983	1133	1308	1508	1.43
1.44	**125**	**180**	3.95	7.01	–	–	–	209	259	319	384	460	560	660	760	880	1010	1160	1335	1535	1.44
1.47	**85**	**125**	2.22	3.94	149	189	234	284	334	395	460	535	635	735	835	955	1085	1235	1410	1610	1.47
1.47	**95**	**140**	2.66	4.73	–	169	214	264	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1.47
1.49	**67**	**100**	1.42	2.46	183	223	268	318	368	429	494	569	669	769	869	969	1119	1269	1444	1644	1.49
1.49	**75**	**112**	1.78	3.13	167	207	252	303	353	413	478	553	653	753	853	973	1103	1253	1428	1628	1.49
1.50	***60***	***90***	*1.29*	*2.26*	*197*	*237*	*282*	*332*	*382*	*442*	–	–	–	–	–	–	–	–	–	–	*1.50*
1.51	**63**	**95**	1.24	2.13	190	230	275	326	376	436	501	576	676	776	876	996	1126	1276	1451	1651	1.51
1.52	***56***	***85***	*1.11*	*1.92*	*204*	*244*	*289*	*339*	*389*	*449*	–	–	–	–	–	–	–	–	–	–	*1.52*
1.56	**90**	**140**	2.44	4.34	–	173	218	268	318	379	444	519	619	719	819	939	1069	1219	1394	1594	1.56
1.56	**80**	**125**	2.00	3.53	152	193	238	288	338	398	463	539	639	739	839	959	1089	1239	1414	1614	1.56
1.58	**71**	**112**	1.62	2.84	170	210	255	306	356	416	481	556	656	756	856	976	1106	1256	1431	1631	1.58
1.58	***60***	***95***	*1.31*	*2.30*	*192*	*233*	*278*	*328*	*378*	*438*	–	–	–	–	–	–	–	–	–	–	*1.58*
1.59	**63**	**100**	1.26	2.17	186	226	271	321	372	432	497	572	672	772	872	992	1122	1272	1447	1647	1.59
1.60	**100**	**160**	2.90	5.17	–	–	193	244	294	355	420	495	595	695	795	915	1045	1195	1370	1571	1.60
1.60	**125**	**200**	3.97	7.05	–	–	–	191	242	302	368	443	543	644	744	864	994	1144	1319	1519	1.60
1.61	***56***	***90***	*1.13*	*1.96*	*200*	*240*	*285*	*335*	*385*	*445*	–	–	–	–	–	–	–	–	–	–	*1.61*
1.61	**112**	**180**	3.42	6.09	–	–	167	218	269	329	394	469	570	670	770	890	1020	1170	1345	1545	1.61
1.65	**85**	**140**	2.24	3.98	135	176	222	272	322	382	447	523	623	723	823	943	1073	1223	1398	1598	1.65
1.67	***60***	***100***	*1.31*	*2.30*	*188*	*228*	*274*	*324*	*374*	*434*	–	–	–	–	–	–	–	–	–	–	*1.67*
1.67	**75**	**125**	1.80	3.17	156	196	242	292	342	402	467	542	642	742	843	963	1093	1243	1418	1618	1.67
1.67	**67**	**112**	1.44	2.51	173	213	258	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1.67
1.68	**95**	**160**	2.68	4.78	–	151	197	248	298	358	423	499	599	699	799	919	1049	1199	1374	1574	1.68
1.70	***56***	***95***	*1.13*	*1.96*	*195*	*236*	*281*	*331*	*381*	*441*	–	–	–	–	–	–	–	–	–	–	*1.70*
1.75	**80**	**140**	2.02	3.58	139	180	225	276	326	386	451	526	626	727	827	947	1077	1227	1402	1602	1.75
1.76	**71**	**125**	1.62	2.84	159	199	245	295	345	405	470	545	645	746	846	966	1096	1246	1421	1621	1.76
1.78	**63**	**112**	1.26	2.17	176	216	261	312	362	422	487	562	662	762	862	982	1112	1262	1437	1637	1.78
1.78	**90**	**160**	2.46	4.38	–	155	201	251	302	362	427	502	603	703	803	923	1053	1203	1378	1578	1.78
1.79	***56***	***100***	*1.13*	*1.96*	*191*	*231*	*277*	*327*	*377*	*437*	–	–	–	–	–	–	–	–	–	–	*1.79*
1.79	**112**	**200**	3.42	6.09	–	–	–	200	251	312	377	453	563	653	754	874	1004	1154	1329	1529	1.79
1.79	**140**	**250**	4.60	8.12	–	–	–	–	–	248	314	390	491	591	692	812	942	1092	1268	1468	1.79
1.80	**100**	**180**	2.90	5.17	–	–	176	227	277	338	403	478	579	679	779	899	1029	1179	1354	1555	1.80
1.87	**67**	**125**	1.44	2.51	162	202	248	298	348	408	473	548	649	749	849	969	1099	1249	1424	1624	1.87
1.87	***60***	***112***	*1.31*	*2.30*	*178*	*218*	*264*	*314*	*364*	*424*	–	–	–	–	–	–	–	–	–	–	*1.87*
1.87	**75**	**140**	1.80	3.17	142	183	229	279	330	390	455	530	630	730	831	951	1081	1231	1406	1606	1.87
1.88	**85**	**160**	2.24	3.98	–	158	204	255	305	366	431	506	606	707	807	927	1057	1207	1382	1582	1.88
1.89	**95**	**180**	2.68	4.78	–	–	179	230	281	341	407	482	582	683	783	903	1033	1183	1358	1558	1.89
1.97	**71**	**140**	1.64	2.88	145	186	232	282	332	393	458	533	633	733	834	954	1084	1234	1409	1609	1.97
1.98	**63**	**125**	1.28	2.21	164	205	250	301	351	411	476	551	652	752	852	972	1102	1252	1427	1627	1.98
2.00	***56***	***112***	*1.15*	*2.00*	*181*	*221*	*267*	*317*	*367*	*427*	–	–	–	–	–	–	–	–	–	–	*2.00*
2.00	**80**	**160**	2.04	3.61	–	162	208	258	309	369	435	510	610	710	811	931	1061	1211	1386	1586	2.00
2.00	**90**	**180**	2.48	4.42	–	–	182	234	284	345	410	486	586	686	787	907	1037	1187	1362	1562	2.00
2.00	**100**	**200**	2.92	5.20	–	–	–	208	260	320	386	462	562	662	763	883	1013	1163	1338	1539	2.00
2.00	**125**	**250**	3.99	7.09	–	–	–	–	–	258	324	401	502	602	703	823	953	1104	1279	1479	2.00
2.08	***60***	***125***	*1.33*	*2.34*	*167*	*207*	*253*	*303*	*353*	*413*	–	–	–	–	–	–	–	–	–	–	*2.08*
2.09	**67**	**140**	1.46	2.54	148	189	235	285	335	396	461	536	636	737	837	957	1087	1237	1412	1612	2.09
2.11	**95**	**200**	2.70	4.81	–	–	–	212	263	324	390	465	566	666	767	887	1017	1167	1342	1542	2.11
2.12	**85**	**180**	2.26	4.02	–	–	186	237	288	349	414	490	590	690	790	911	1041	1191	1366	1566	2.12
2.13	**75**	**160**	1.82	3.21	–	165	211	262	313	373	438	514	614	714	814	934	1065	1215	1390	1590	2.13
2.22	**63**	**140**	1.28	2.21	151	192	237	288	338	399	464	539	639	740	840	960	1090	1240	1415	1615	2.22
2.22	**90**	**200**	2.48	4.42	–	–	–	215	267	328	393	469	570	670	770	891	1021	1171	1346	1546	2.22
2.23	***56***	***125***	*1.15*	*2.00*	*169*	*210*	*256*	*306*	*356*	*416*	–	–	–	–	–	–	–	–	–	–	*2.23*
2.23	**112**	**250**	3.43	6.12	–	–	–	–	204	267	334	410	511	612	712	833	963	1114	1289	1489	2.23
2.25	**80**	**180**	2.04	3.61	–	–	189	241	292	352	418	493	594	694	794	914	1045	1195	1370	1570	2.25
2.25	**140**	**315**	4.61	8.16	–	–	–	–	–	–	252	331	434	535	637	758	888	1039	1214	1415	2.25
2.25	**71**	**160**	1.64	2.88	–	168	214	265	315	376	441	517	617	717	817	938	1068	1218	1393	1593	2.25
2.33	***60***	***140***	*1.33*	*2.34*	*153*	*194*	*240*	*290*	*341*	*401*	–	–	–	–	–	–	–	–	–	–	*2.33*
2.35	**85**	**200**	2.26	4.02	–	–	166	219	270	331	397	473	573	674	774	894	1025	1175	1350	1550	2.35
2.39	**67**	**160**	1.46	2.54	–	170	217	268	318	379	444	520	620	720	820	941	1071	1221	1396	1596	2.39
2.40	**75**	**180**	1.82	3.21	–	–	193	244	295	356	421	497	597	698	798	918	1048	1199	1374	1574	2.40
2.50	***56***	***140***	*1.15*	*2.00*	*155*	*197*	*242*	*293*	*343*	*404*	–	–	–	–	–	–	–	–	–	–	*2.50*
2.50	**80**	**200**	2.04	3.61	–	–	169	222	274	335	401	476	577	677	778	898	1028	1179	1354	1554	2.50
2.50	**100**	**250**	2.92	5.20	–	–	–	–	212	275	342	418	520	621	721	842	972	1123	1298	1498	2.50
2.52	**125**	**315**	3.99	7.09	–	–	–	–	–	–	262	341	444	546	647	769	899	1050	1226	1426	2.52
2.54	**71**	**180**	1.64	2.88	–	148	195	247	298	359	424	500	600	701	801	921	1051	1202	1377	1577	2.54
2.54	**63**	**160**	1.28	2.21	–	173	219	271	321	382	447	523	623	723	823	944	1074	1224	1399	1599	2.54
2.63	**95**	**250**	2.70	4.81	–	–	–	–	215	278	345	422	523	624	725	845	976	1126	1302	1502	2.63
2.67	***60***	***160***	*1.33*	*2.34*	*133*	*175*	*222*	*273*	*323*	*384*	–	–	–	–	–	–	–	–	–	–	*2.67*
2.67	**75**	**200**	1.82	3.21	–	–	173	225	277	338	404	480	581	681	782	902	1032	1182	1358	1558	2.67
2.69	**67**	**180**	1.46	2.54	–	150	198	250	301	362	427	503	603	704	804	924	1054	1205	1380	1580	2.69
2.78	**90**	**250**	2.48	4.42	–	–	–	–	218	282	349	425	527	628	729	849	980	1130	1306	1506	2.78
2.81	**112**	**315**	3.43	6.12	–	–	–	–	–	–	271	350	453	555	657	778	909	1060	1235	1436	2.81
2.82	**71**	**200**	1.64	2.88	–	–	175	228	280	341	407	483	584	684	785	905	1035	1185	1361	1561	2.82
2.86	***56***	***160***	*1.15*	*2.00*	*135*	*178*	*224*	*275*	*326*	*387*	–	–	–	–	–	–	–	–	–	–	*2.86*
2.86	**63**	**180**	1.28	2.21	–	153	201	252	304	364	430	506	606	707	807	927	1058	1208	1383	1583	2.86

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.

Centre Distance SPZ, XPZ & QXPZ Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.75	0.80		0.85		0.90		0.95		1.00		1.05		1.10	1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPZ Belt (kW)		BELT LENGTH													SPZ & QXPZ ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	
2.86	**140**	**400**	4.61	8.16	–	–	–	–	–	–	–	–	352	457	561	684	816	967	1143	1345	2.86
2.94	**85**	**250**	2.26	4.02	–	–	–	–	222	285	352	429	530	632	732	853	983	1134	1309	1510	2.94
2.99	**67**	**200**	1.46	2.54	–	–	178	231	282	344	410	486	587	687	787	908	1038	1188	1364	1564	2.99
3.00	***60***	***180***	*1.33*	*2.34*	–	*155*	*203*	*254*	*306*	*367*	–	–	–	–	–	–	–	–	–	–	*3.00*
3.13	**80**	**250**	2.04	3.61	–	–	–	–	225	288	356	432	534	635	736	857	987	1138	1313	1513	3.13
3.15	**100**	**315**	2.92	5.20	–	–	–	–	–	–	278	358	462	564	665	787	918	1069	1244	1445	3.15
3.17	**63**	**200**	1.28	2.21	–	–	180	233	285	347	413	489	589	690	790	911	1041	1191	1367	1567	3.17
3.20	**125**	**400**	3.99	7.09	–	–	–	–	–	–	–	–	362	467	571	694	826	978	1154	1356	3.20
3.21	***56***	***180***	*1.15*	*2.00*	–	*157*	*205*	*257*	*308*	*369*	–	–	–	–	–	–	–	–	–	–	*3.21*
3.32	**95**	**315**	2.70	4.81	–	–	–	–	–	–	281	361	465	567	669	790	921	1072	1248	1449	3.32
3.33	***60***	***200***	*1.33*	*2.34*	–	–	*182*	*235*	*287*	*349*	–	–	–	–	–	–	–	–	–	–	*3.33*
3.33	**75**	**250**	1.82	3.21	–	–	–	–	228	292	359	436	538	639	740	860	991	1141	1317	1517	3.33
3.50	**90**	**315**	2.49	4.44	–	–	–	–	–	–	285	365	468	571	673	794	925	1076	1252	1453	3.50
3.52	**71**	**250**	1.65	2.90	–	–	–	–	231	294	362	439	540	642	742	863	994	1144	1320	1520	3.52
3.57	***56***	***200***	*1.16*	*2.02*	–	–	*185*	*238*	*290*	*352*	–	–	–	–	–	–	–	–	–	–	*3.57*
3.57	**112**	**400**	3.45	6.15	–	–	–	–	–	–	–	–	370	476	580	703	835	987	1164	1365	3.57
3.71	**85**	**315**	2.27	4.04	–	–	–	–	–	–	288	368	472	574	676	798	929	1080	1256	1456	3.71
3.73	**67**	**250**	1.47	2.57	–	–	–	–	233	297	365	442	543	645	745	866	997	1147	1323	1523	3.73
3.94	**80**	**315**	2.05	3.64	–	–	–	–	–	218	291	371	475	578	680	801	932	1083	1259	1460	3.94
3.97	**63**	**250**	1.29	2.23	–	–	–	180	236	300	367	444	546	647	748	869	1000	1150	1326	1526	3.97
4.00	**100**	**400**	2.93	5.23	–	–	–	–	–	–	–	–	377	484	588	711	844	996	1173	1374	4.00
4.17	***60***	***250***	*1.34*	*2.36*	–	–	–	*182*	*238*	*302*	–	–	–	–	–	–	–	–	–	–	*4.17*
4.20	**75**	**315**	1.83	3.23	–	–	–	–	–	221	294	374	479	581	683	805	936	1087	1263	1464	4.20
4.21	**95**	**400**	2.71	4.84	–	–	–	–	–	–	–	268	381	487	592	715	848	1000	1176	1378	4.21
4.44	**71**	**315**	1.65	2.90	–	–	–	–	–	224	297	377	481	584	686	808	939	1090	1266	1467	4.44
4.44	**90**	**400**	2.49	4.44	–	–	–	–	–	–	–	271	384	491	595	718	851	1003	1180	1381	4.44
4.46	***56***	***250***	*1.16*	*2.02*	–	–	–	*184*	*240*	*304*	–	–	–	–	–	–	–	–	–	–	*4.46*
4.70	**67**	**315**	1.47	2.57	–	–	–	–	–	226	299	380	484	587	689	810	942	1093	1269	1470	4.70
4.71	**85**	**400**	2.27	4.04	–	–	–	–	–	–	–	274	387	494	598	722	855	1007	1184	1385	4.71
5.00	**63**	**315**	1.29	2.23	–	–	–	–	–	228	302	382	487	590	692	813	945	1096	1272	1473	5.00
5.00	**80**	**400**	2.05	3.64	–	–	–	–	–	–	–	277	390	497	602	725	858	1010	1187	1389	5.00
5.33	**75**	**400**	1.83	3.23	–	–	–	–	–	–	–	280	393	501	605	729	862	1014	1191	1392	5.33
5.63	**71**	**400**	1.65	2.90	–	–	–	–	–	–	–	282	396	503	608	732	864	1017	1194	1395	5.63
5.97	**67**	**400**	1.47	2.57	–	–	–	–	–	–	–	284	398	506	611	734	867	1020	1197	1398	5.97

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All dimensions in millimetres.

Fenner® Quattro PLUS

Premium CRE Belt

State-of-the-art, high efficiency drive belt engineering.

- Transmits four times the power of original V belts
- Allows a more compact drive envelope
- Precision built, eliminating the need for matching
- Superior anti-static, heat and oil resistance
- Ideal problem solving belt
- High efficiency for low running costs



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Centre Distance SPA, XPA, QXPA Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80	0.85		0.90			0.95		1.00			1.05		1.10			
Speed Ratio	Pitch Diameter of Pulleys		Power per SPA Belt (kW)		BELT LENGTH												SPA, QXPA ONLY		SPA ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000	4500	
1.00	***80***	***80***	*2.04*	*3.29*	*274*	*324*	*374*	*434*	*499*	*574*	*974*	–	–	–	–	–	–	–	–	–	*1.00*
1.00	***85***	***85***	*2.43*	*4.00*	*266*	*316*	*366*	*426*	*491*	*566*	*666*	–	–	–	–	–	–	–	–	–	*1.00*
1.00	**90**	**90**	2.29	3.65	259	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1859	2109	1.00
1.00	**95**	**95**	2.68	4.35	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1851	2101	1.00
1.00	**100**	**100**	3.06	5.04	243	293	343	403	468	543	643	743	843	963	1093	1243	1418	1618	1843	2093	1.00
1.00	**106**	**106**	3.52	5.85	233	283	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1833	2083	1.00
1.00	**112**	**112**	3.98	6.66	224	274	324	384	449	524	624	724	824	944	1074	1224	1399	1599	1824	2074	1.00
1.00	**118**	**118**	4.43	7.45	215	265	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1815	2065	1.00
1.00	**125**	**125**	4.95	8.36	204	254	304	364	429	504	604	704	804	924	1054	1204	1379	1579	1804	2054	1.00
1.00	**132**	**132**	5.47	9.26	193	243	293	353	418	493	593	693	793	913	1043	1193	1368	1568	1793	2043	1.00
1.00	**140**	**140**	6.06	10.25	180	230	280	340	405	480	580	680	780	900	1030	1180	1355	1555	1780	2030	1.00
1.00	**150**	**150**	6.79	11.47	–	214	264	324	389	464	564	664	764	884	1014	1164	1339	1539	1764	2014	1.00
1.00	**160**	**160**	7.51	12.65	–	199	249	309	374	449	549	649	749	869	999	1149	1324	1524	1749	1999	1.00
1.00	**180**	**180**	8.93	14.89	–	–	217	277	342	417	517	617	717	837	967	1117	1292	1492	1717	1967	1.00
1.00	**200**	**200**	10.31	16.95	–	–	–	246	311	386	486	586	686	806	936	1086	1261	1461	1686	1936	1.00
1.05	**95**	**100**	2.73	4.45	247	297	347	407	472	547	647	747	847	967	1097	1247	1422	1622	1847	2097	1.05
1.05	**112**	**118**	4.03	6.76	219	269	319	379	444	519	619	719	819	939	1069	1219	1394	1594	1819	2069	1.05
1.06	**90**	**95**	2.43	3.92	255	305	355	415	480	555	655	755	855	975	1105	1255	1430	1630	1855	2105	1.06
1.06	**125**	**132**	5.09	8.63	198	248	298	358	423	498	598	698	798	918	1048	1198	1373	1573	1798	2048	1.06
1.06	**106**	**112**	3.66	6.13	229	279	329	389	454	529	629	729	829	949	1079	1229	1404	1604	1829	2079	1.06
1.06	***85***	***90***	*2.57*	*4.27*	*263*	*313*	*363*	*423*	*488*	*563*	*663*	–	–	–	–	–	–	–	–	–	*1.06*
1.06	**118**	**125**	4.56	7.72	209	259	309	369	434	509	609	709	809	929	1059	1209	1384	1584	1809	2059	1.06
1.06	**100**	**106**	3.20	5.31	238	288	338	398	463	538	638	738	838	958	1088	1238	1413	1613	1838	2088	1.06
1.06	**132**	**140**	5.60	9.53	186	236	286	346	411	486	586	686	786	906	1036	1186	1361	1561	1786	2036	1.06
1.06	***80***	***85***	*2.18*	*3.56*	*270*	*320*	*370*	*430*	*495*	*570*	*670*	–	–	–	–	–	–	–	–	–	*1.06*
1.07	**150**	**160**	6.92	11.74	–	206	256	316	381	456	557	657	757	877	1007	1157	1332	1532	1757	2007	1.07
1.07	**140**	**150**	6.19	10.53	172	222	272	332	397	472	572	672	772	882	1022	1172	1347	1547	1772	2022	1.07
1.11	**90**	**100**	2.43	3.92	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1851	2101	1.11
1.11	**180**	**200**	9.06	15.17	–	–	–	261	326	401	501	601	701	821	951	1102	1277	1477	1702	1952	1.11
1.11	**106**	**118**	3.66	6.13	224	274	324	384	449	524	624	724	824	944	1074	1224	1399	1599	1824	2074	1.11
1.12	**95**	**106**	2.92	4.82	242	292	342	402	467	542	642	742	842	962	1092	1242	1417	1617	1842	2092	1.12
1.12	**112**	**125**	4.21	7.13	214	264	314	374	439	514	614	714	814	934	1064	1214	1389	1589	1814	2064	1.12
1.12	***85***	***95***	*2.67*	*4.47*	*259*	*309*	*359*	*419*	*484*	*559*	*659*	–	–	–	–	–	–	–	–	–	*1.12*
1.12	**118**	**132**	4.66	7.93	204	254	304	364	429	504	604	704	804	924	1054	1204	1379	1579	1804	2054	1.12
1.12	**100**	**112**	3.30	5.51	233	283	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1833	2083	1.12
1.12	**125**	**140**	5.19	8.84	192	242	292	352	417	492	592	692	792	912	1042	1192	1367	1567	1792	2042	1.12
1.12	**200**	**224**	10.55	17.42	–	–	–	–	292	367	467	567	667	787	917	1067	1242	1442	1667	1917	1.12
1.13	***80***	***90***	*2.28*	*3.76*	*266*	*316*	*366*	*426*	*491*	*566*	*666*	–	–	–	–	–	–	–	–	–	*1.13*
1.13	**160**	**180**	7.74	13.12	–	–	233	293	358	433	533	633	733	853	983	1133	1308	1508	1733	1983	1.13
1.14	**132**	**150**	5.71	9.73	178	228	278	338	403	478	578	678	778	898	1028	1178	1353	1553	1778	2028	1.14
1.14	**140**	**160**	6.29	10.73	–	214	264	324	389	464	564	664	764	884	1014	1164	1339	1539	1764	2014	1.14
1.18	***85***	***100***	*2.67*	*4.47*	*255*	*305*	*355*	*415*	*480*	*555*	*655*	–	–	–	–	–	–	–	–	–	*1.18*
1.18	**90**	**106**	2.53	4.12	246	296	346	406	471	546	646	746	846	966	1096	1246	1421	1621	1846	2096	1.18
1.18	**112**	**132**	4.21	7.13	208	258	308	368	433	508	608	708	808	928	1058	1208	1383	1583	1808	2058	1.18
1.18	**95**	**112**	2.92	4.82	237	287	337	397	462	537	637	737	837	957	1087	1237	1412	1612	1837	2087	1.18
1.18	**106**	**125**	3.76	6.33	218	268	318	378	443	518	618	719	819	939	1069	1219	1394	1594	1819	2069	1.18
1.18	**100**	**118**	3.39	5.68	229	279	329	389	454	529	629	729	829	949	1079	1229	1404	1604	1829	2079	1.18
1.19	**118**	**140**	4.75	8.10	197	247	297	357	422	497	597	697	797	917	1047	1197	1372	1572	1797	2047	1.19
1.19	***80***	***95***	*2.37*	*3.93*	*262*	*312*	*362*	*422*	*487*	*563*	*663*	–	–	–	–	–	–	–	–	–	*1.19*
1.20	**125**	**150**	5.27	9.01	184	234	284	344	409	484	584	684	784	904	1034	1184	1359	1559	1784	2034	1.20
1.20	**150**	**180**	7.11	12.12	–	190	240	300	366	441	541	641	741	861	991	1141	1316	1516	1741	1991	1.20
1.21	**132**	**160**	5.79	9.90	170	220	270	330	395	470	570	671	771	891	1021	1171	1346	1546	1771	2021	1.20
1.24	**95**	**118**	3.00	4.99	232	282	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1833	2083	1.24
1.24	**90**	**112**	2.62	4.29	241	291	341	401	466	541	641	741	841	961	1091	1241	1416	1616	1841	2091	1.24
1.24	**180**	**224**	9.25	15.53	–	–	–	242	307	382	482	582	682	802	932	1082	1258	1458	1683	1933	1.24
1.25	**106**	**132**	3.84	6.50	213	263	313	373	438	513	613	713	813	933	1063	1213	1388	1588	1813	2063	1.25
1.25	***85***	***106***	*2.76*	*4.65*	*250*	*300*	*350*	*410*	*475*	*550*	*650*	–	–	–	–	–	–	–	–	–	*1.25*
1.25	***80***	***100***	*2.37*	*3.93*	*258*	*308*	*358*	*419*	*484*	*559*	*659*	–	–	–	–	–	–	–	–	–	*1.25*
1.25	**100**	**125**	3.39	5.69	223	273	323	383	448	523	623	723	823	943	1073	1223	1398	1598	1823	2073	1.25
1.25	**112**	**140**	4.30	7.30	202	252	302	362	427	502	602	702	802	922	1052	1202	1377	1577	1802	2052	1.25
1.25	**160**	**200**	7.83	13.29	–	–	216	277	342	417	517	617	717	837	967	1117	1292	1492	1717	1967	1.25
1.25	**200**	**250**	10.63	17.60	–	–	–	–	270	346	446	546	646	766	896	1046	1221	1421	1646	1896	1.25
1.27	**118**	**150**	4.82	8.23	189	239	289	349	414	489	589	689	789	909	1039	1189	1364	1564	1789	2039	1.27
1.28	**125**	**160**	5.34	9.14	175	225	276	336	401	476	576	676	776	896	1026	1176	1351	1551	1776	2026	1.28
1.29	**140**	**180**	6.45	11.04	–	198	248	308	373	448	548	648	748	868	998	1148	1324	1524	1749	1999	1.29
1.31	**90**	**118**	2.68	4.43	236	286	336	396	461	536	636	737	837	957	1087	1237	1412	1612	1837	2087	1.31
1.32	**95**	**125**	3.07	5.13	227	277	327	387	452	527	627	727	827	947	1077	1227	1402	1602	1827	2077	1.32
1.32	***85***	***112***	*2.82*	*4.78*	*245*	*295*	*345*	*405*	*470*	*545*	*645*	–	–	–	–	–	–	–	–	–	*1.32*
1.32	**100**	**132**	3.45	5.82	217	267	317	377	442	518	618	718	818	938	1068	1218	1393	1593	1818	2068	1.32
1.32	**106**	**140**	3.91	6.63	206	256	306	366	431	507	607	707	807	927	1057	1207	1382	1582	1807	2057	1.32
1.32	***80***	***106***	*2.43*	*4.07*	*254*	*304*	*354*	*414*	*479*	*554*	*654*	–	–	–	–	–	–	–	–	–	*1.32*
1.33	**150**	**200**	7.18	12.25	–	–	224	284	349	424	525	625	725	845	975	1125	1300	1500	1725	1975	1.33
1.34	**112**	**150**	4.37	7.44	193	243	294	354	419	494	594	694	794	914	1044	1194	1369	1569	1794	2044	1.34
1.36	**118**	**160**	4.82	8.23	180	231	281	341	406	481	581	681	781	901	1031	1181	1356	1557	1782	2032	1.36
1.36	**132**	**180**	5.86	10.04	–	204	254	314	379	454	554	655	755	875	1005	1155	1330	1530	1755	2005	1.36

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.

Centre Distance SPA, XPA, QXPA Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80			0.85			0.90	0.95		1.00		1.05		1.10		
Speed Ratio	Pitch Diameter of Pulleys		Power per SPA Belt (kW)		BELT LENGTH											SPA, QXPA ONLY		SPA ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000	4500	
1.39	***85***	***118***	*2.89*	*4.92*	*240*	*290*	*340*	*400*	*465*	*540*	*640*	–	–	–	–	–	–	–	–	–	*1.39*
1.39	**90**	**125**	2.75	4.56	230	281	331	391	456	531	631	731	831	951	1081	1231	1406	1606	1831	2081	1.39
1.39	**180**	**250**	9.38	15.80	–	–	–	–	285	361	461	561	661	781	912	1062	1237	1437	1662	1912	1.39
1.39	**95**	**132**	3.14	5.26	221	271	321	381	446	521	621	721	822	942	1072	1222	1397	1597	1822	2072	1.39
1.40	***80***	***112***	*2.50*	*4.20*	*249*	*299*	*349*	*409*	*474*	*549*	*649*	–	–	–	–	–	–	–	–	–	*1.40*
1.40	**100**	**140**	3.52	5.95	211	261	311	371	436	511	611	711	811	931	1061	1211	1386	1586	1811	2061	1.40
1.40	**160**	**224**	7.96	13.56	–	–	–	256	322	397	497	598	698	818	948	1098	1273	1473	1698	1948	1.40
1.40	**200**	**280**	10.77	17.87	–	–	–	–	–	321	421	521	622	742	872	1022	1197	1397	1623	1873	1.40
1.42	**106**	**150**	3.98	6.77	198	248	298	358	423	498	599	699	799	919	1049	1199	1374	1574	1799	2049	1.42
1.43	**112**	**160**	4.43	7.57	185	235	285	346	411	486	586	686	786	906	1036	1186	1361	1561	1786	2036	1.43
1.43	**140**	**200**	6.51	11.17	–	–	231	291	357	432	532	632	732	852	983	1133	1308	1508	1733	1983	1.43
1.44	**125**	**180**	5.41	9.28	–	209	259	319	384	460	560	660	760	880	1010	1160	1335	1535	1760	2010	1.44
1.47	**90**	**132**	2.75	4.56	225	275	325	385	450	525	625	725	825	945	1075	1225	1400	1601	1826	2076	1.47
1.47	***85***	***125***	*2.89*	*4.92*	*234*	*284*	*334*	*395*	*460*	*535*	*635*	–	–	–	–	–	–	–	–	–	*1.47*
1.47	**95**	**140**	3.14	5.26	214	264	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1815	2065	1.47
1.47	***80***	***118***	*2.50*	*4.20*	*244*	*294*	*344*	*404*	*469*	*544*	*644*	–	–	–	–	–	–	–	–	–	*1.47*
1.49	**150**	**224**	7.24	12.39	–	–	–	264	329	405	505	605	705	825	956	1106	1281	1481	1706	1956	1.49
1.50	**100**	**150**	3.52	5.95	202	252	303	363	428	503	603	703	803	923	1053	1203	1378	1578	1803	2053	1.50
1.51	**106**	**160**	3.98	6.77	189	240	290	350	415	490	590	691	791	911	1041	1191	1366	1566	1791	2041	1.51
1.52	**132**	**200**	5.93	10.17	–	186	237	297	363	438	538	638	738	859	989	1139	1314	1514	1739	1989	1.52
1.53	**118**	**180**	4.88	8.37	–	214	264	324	390	465	565	665	765	885	1015	1166	1341	1541	1766	2016	1.53
1.55	***85***	***132***	*2.89*	*4.92*	*228*	*279*	*329*	*389*	*454*	*529*	*629*	–	–	–	–	–	–	–	–	–	*1.55*
1.56	**90**	**140**	2.75	4.56	218	268	318	379	444	519	619	719	819	939	1069	1219	1394	1594	1819	2069	1.56
1.56	**180**	**280**	9.38	15.80	–	–	–	–	259	335	436	536	637	757	887	1038	1213	1413	1638	1888	1.56
1.56	***80***	***125***	*2.50*	*4.20*	*238*	*288*	*338*	*398*	*463*	*539*	*639*	–	–	–	–	–	–	–	–	–	*1.56*
1.56	**160**	**250**	7.96	13.56	–	–	–	234	300	375	476	576	676	797	927	1077	1252	1452	1677	1927	1.56
1.57	**200**	**315**	10.78	17.89	–	–	–	–	–	290	391	492	593	713	844	994	1169	1369	1594	1845	1.57
1.58	**95**	**150**	3.19	5.38	206	256	306	367	432	507	607	707	807	927	1057	1207	1382	1582	1807	2057	1.58
1.60	**100**	**160**	3.58	6.07	193	244	294	355	420	495	595	695	795	915	1045	1195	1370	1571	1796	2046	1.60
1.60	**125**	**200**	5.46	9.39	–	191	242	302	368	443	543	644	744	864	994	1144	1319	1519	1744	1994	1.60
1.60	**140**	**224**	6.57	11.28	–	–	210	271	336	412	512	613	713	833	963	1113	1288	1489	1714	1964	1.60
1.61	**112**	**180**	4.49	7.69	167	218	269	329	394	469	570	670	770	890	1020	1170	1345	1545	1770	2020	1.61
1.65	***85***	***140***	*2.95*	*5.03*	*222*	*272*	*322*	*382*	*447*	*523*	*623*	–	–	–	–	–	–	–	–	–	*1.65*
1.65	***80***	***132***	*2.56*	*4.32*	*232*	*282*	*332*	*393*	*458*	*533*	*633*	–	–	–	–	–	–	–	–	–	*1.65*
1.67	**90**	**150**	2.81	4.68	209	260	310	370	435	511	611	711	811	931	1061	1211	1386	1586	1811	2061	1.67
1.67	**150**	**250**	7.30	12.50	–	–	–	241	307	383	483	584	684	804	935	1085	1260	1460	1685	1935	1.67
1.68	**95**	**160**	3.19	5.38	197	248	298	358	423	499	599	699	799	919	1049	1199	1374	1574	1799	2049	1.68
1.69	**118**	**200**	4.94	8.48	–	196	247	308	373	448	549	649	749	869	999	1150	1325	1525	1750	2000	1.69
1.70	**132**	**224**	5.98	10.28	–	–	215	277	342	418	518	619	719	839	969	1119	1295	1495	1720	1970	1.70
1.70	**106**	**180**	4.04	6.88	171	222	273	333	399	474	574	674	774	895	1025	1175	1350	1550	1775	2025	1.70
1.75	***80***	***140***	*2.56*	*4.32*	*225*	*276*	*326*	*386*	*451*	*526*	*626*	–	–	–	–	–	–	–	–	–	*1.75*
1.75	**160**	**280**	8.02	13.68	–	–	–	–	273	349	450	551	652	772	902	1053	1228	1428	1653	1903	1.75
1.75	**180**	**315**	9.44	15.91	–	–	–	–	–	304	406	507	607	728	859	1009	1184	1385	1610	1860	1.75
1.76	***85***	***150***	*2.95*	*5.03*	*213*	*263*	*314*	*374*	*439*	*514*	*615*	–	–	–	–	–	–	–	–	–	*1.76*
1.78	**90**	**160**	2.81	4.68	201	251	302	362	427	502	603	703	803	923	1053	1203	1378	1578	1803	2053	1.78
1.79	**112**	**200**	4.49	7.69	–	200	251	312	377	453	553	653	754	874	1004	1154	1329	1529	1754	2004	1.79
1.79	**140**	**250**	6.57	11.28	–	–	–	248	314	390	491	591	692	812	942	1092	1268	1468	1693	1943	1.79
1.79	**125**	**224**	5.46	9.39	–	–	220	282	347	423	524	624	724	844	975	1125	1300	1500	1725	1975	1.79
1.80	**100**	**180**	3.58	6.07	176	227	277	338	403	478	579	679	779	899	1029	1179	1354	1555	1780	2030	1.80
1.87	**150**	**280**	7.30	12.50	–	–	–	–	280	356	458	558	659	780	910	1060	1236	1436	1661	1911	1.87
1.88	***80***	***150***	*2.56*	*4.32*	*217*	*267*	*317*	*378*	*443*	*518*	*618*	–	–	–	–	–	–	–	–	–	*1.88*
1.88	***85***	***160***	*2.95*	*5.03*	*204*	*255*	*305*	*366*	*431*	*506*	*606*	–	–	–	–	–	–	–	–	–	*1.88*
1.89	**106**	**200**	4.04	6.88	–	204	255	316	382	457	558	658	758	878	1009	1159	1334	1534	1759	2009	1.89
1.89	**132**	**250**	5.98	10.28	–	–	–	253	320	396	496	597	697	818	948	1098	1274	1474	1699	1949	1.89
1.89	**95**	**180**	3.19	5.38	179	230	281	341	407	482	582	683	783	903	1033	1183	1358	1558	1784	2034	1.89
1.90	**118**	**224**	4.94	8.48	–	–	225	286	352	428	529	629	729	850	980	1130	1305	1505	1731	1981	1.90
1.97	**160**	**315**	8.07	13.77	–	–	–	–	–	317	420	521	622	743	873	1024	1199	1400	1625	1875	1.97
2.00	***80***	***160***	*2.60*	*4.41*	*208*	*258*	*309*	*369*	*435*	*510*	*610*	–	–	–	–	–	–	–	–	–	*2.00*
2.00	**90**	**180**	2.85	4.77	182	234	284	345	410	486	586	686	787	907	1037	1187	1362	1562	1787	2037	2.00
2.00	**100**	**200**	3.62	6.16	–	208	260	320	386	462	562	662	763	883	1013	1163	1338	1539	1764	2014	2.00
2.00	**112**	**224**	4.54	7.78	–	–	229	291	357	432	533	634	734	854	985	1135	1310	1510	1735	1985	2.00
2.00	**125**	**250**	5.51	9.48	–	–	–	258	324	401	502	602	703	823	953	1104	1279	1479	1704	1954	2.00
2.00	**140**	**280**	6.62	11.38	–	–	–	–	287	363	465	566	666	787	917	1068	1243	1443	1669	1919	2.00
2.00	**200**	**400**	10.87	18.07	–	–	–	–	–	–	–	417	519	641	772	923	1099	1300	1525	1776	2.00
2.10	**150**	**315**	7.35	12.59	–	–	–	–	–	324	427	528	629	750	881	1031	1207	1407	1633	1883	2.10
2.11	**95**	**200**	3.24	5.47	–	212	263	324	390	465	566	666	767	887	1017	1167	1342	1542	1768	2018	2.11
2.11	**106**	**224**	4.08	6.97	–	–	233	295	361	437	538	638	738	859	989	1139	1314	1515	1740	1990	2.11
2.12	***85***	***180***	*2.99*	*5.12*	*186*	*237*	*288*	*349*	*414*	*490*	*590*	–	–	–	–	–	–	–	–	–	*2.12*
2.12	**118**	**250**	4.99	8.57	–	–	–	263	329	406	507	607	708	828	959	1109	1284	1485	1710	1960	2.12
2.12	**132**	**280**	6.03	10.38	–	–	–	–	292	369	471	572	672	793	923	1074	1249	1450	1675	1925	2.12
2.22	**90**	**200**	2.85	4.77	–	215	267	328	393	469	570	670	770	891	1021	1171	1346	1546	1771	2021	2.22
2.22	**180**	**400**	9.49	16.01	–	–	–	–	–	–	326	430	533	655	787	938	1114	1315	1541	1791	2.22
2.23	**112**	**250**	4.54	7.78	–	–	204	267	334	410	511	612	712	833	963	1114	1289	1489	1714	1964	2.23
2.24	**100**	**224**	3.62	6.16	–	185	237	299	365	441	542	643	743	863	994	1144	1319	1519	1744	1995	2.24
2.24	**125**	**280**	5.51	9.48	–	–	–	229	297	374	476	577	677	798	929	1079	1255	1455	1680	1930	2.24

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.



Centre Distance SPA, XPA, QXPA Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80	0.85		0.90			0.95		1.00			1.05		1.10			
Speed Ratio	Pitch Diameter of Pulleys		Power per SPA Belt (kW)		BELT LENGTH													SPA, QXPA ONLY		SPA ONLY	Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000	4500	
2.25	***80***	***180***	*2.60*	*4.41*	*189*	*241*	*292*	*352*	*418*	*493*	*594*	–	–	–	–	–	–	–	–	–	*2.25*
2.25	**140**	**315**	6.62	11.38	–	–	–	–	252	331	434	535	637	758	888	1039	1214	1415	1640	1891	2.25
2.35	***85***	***200***	*2.99*	*5.12*	*166*	*219*	*270*	*331*	*397*	*473*	*573*	–	–	–	–	–	–	–	–	–	*2.35*
2.36	**95**	**224**	3.24	5.47	–	188	241	303	369	445	546	646	747	867	997	1148	1323	1523	1748	1998	2.36
2.36	**106**	**250**	4.08	6.97	–	–	208	271	338	414	515	616	717	837	968	1118	1293	1494	1719	1969	2.36
2.37	**118**	**280**	4.99	8.57	–	–	–	233	302	379	481	582	683	803	934	1084	1260	1460	1685	1936	2.37
2.39	**132**	**315**	6.03	10.38	–	–	–	–	258	336	439	541	642	763	894	1045	1220	1421	1646	1897	2.39
2.49	**90**	**224**	2.85	4.77	–	192	244	306	372	448	549	650	750	871	1001	1151	1327	1527	1752	2002	2.49
2.50	***80***	***200***	*2.60*	*4.41*	*169*	*222*	*274*	*335*	*401*	*476*	*577*	–	–	–	–	–	–	–	–	–	*2.50*
2.50	**100**	**250**	3.62	6.16	–	–	212	275	342	418	520	621	721	842	972	1123	1298	1498	1723	1974	2.50
2.50	**112**	**280**	4.54	7.78	–	–	–	237	306	383	485	586	687	808	938	1089	1264	1465	1690	1940	2.50
2.50	**160**	**400**	8.07	13.77	–	–	–	–	–	–	339	444	547	669	801	953	1129	1330	1556	1806	2.50
2.50	**200**	**500**	10.87	18.07	–	–	–	–	–	–	–	–	424	550	684	837	1014	1216	1442	1694	2.50
2.52	**125**	**315**	5.51	9.48	–	–	–	–	262	341	444	546	647	769	899	1050	1226	1426	1652	1902	2.52
2.63	**95**	**250**	3.24	5.47	–	–	215	278	345	422	523	624	725	845	976	1126	1302	1502	1727	1978	2.63
2.64	***85***	***224***	*2.99*	*5.12*	–	*195*	*248*	*310*	*376*	*452*	*553*	–	–	–	–	–	–	–	–	–	*2.64*
2.64	**106**	**280**	4.08	6.97	–	–	–	241	310	387	489	590	691	812	943	1093	1269	1469	1695	1945	2.64
2.67	**150**	**400**	7.35	12.59	–	–	–	–	–	–	345	451	554	676	808	960	1136	1337	1563	1814	2.67
2.67	**118**	**315**	4.99	8.57	–	–	–	–	267	346	449	551	652	774	905	1055	1231	1432	1657	1907	2.67
2.78	**90**	**250**	2.85	4.77	–	–	218	282	349	425	527	628	729	849	980	1130	1306	1506	1731	1981	2.78
2.78	**180**	**500**	9.49	16.01	–	–	–	–	–	–	–	–	437	563	698	851	1028	1231	1457	1708	2.78
2.80	***80***	***224***	*2.60*	*4.41*	–	*198*	*251*	*313*	*379*	*456*	*557*	–	–	–	–	–	–	–	–	–	*2.80*
2.80	**100**	**280**	3.62	6.16	–	–	–	245	314	391	493	595	696	817	947	1098	1273	1474	1699	1949	2.80
2.81	**112**	**315**	4.54	7.78	–	–	–	–	271	350	453	555	657	778	909	1060	1235	1436	1662	1912	2.81
2.86	**140**	**400**	6.62	11.38	–	–	–	–	–	–	352	457	561	684	816	967	1143	1345	1571	1821	2.86
2.94	***85***	***250***	*2.99*	*5.12*	–	–	*222*	*285*	*352*	*429*	*530*	–	–	–	–	–	–	–	–	–	*2.94*
2.95	**95**	**280**	3.24	5.47	–	–	–	248	317	395	497	598	699	820	951	1102	1277	1478	1703	1953	2.95
2.97	**106**	**315**	4.08	6.97	–	–	–	–	274	354	457	560	661	782	913	1064	1240	1441	1666	1916	2.97
3.03	**132**	**400**	6.03	10.38	–	–	–	–	–	–	357	463	566	689	821	973	1149	1351	1576	1827	3.03
3.11	**90**	**280**	2.85	4.77	–	–	–	251	320	398	500	602	703	824	955	1105	1281	1481	1707	1957	3.11
3.13	***80***	***250***	*2.60*	*4.41*	–	–	*225*	*288*	*356*	*432*	*534*	–	–	–	–	–	–	–	–	–	*3.13*
3.13	**160**	**500**	8.07	13.77	–	–	–	–	–	–	–	–	449	577	711	865	1043	1245	1472	1723	3.13
3.15	**100**	**315**	3.62	6.16	–	–	–	–	278	358	462	564	665	787	918	1069	1244	1445	1671	1921	3.15
3.15	**200**	**630**	10.87	18.07	–	–	–	–	–	–	–	–	–	–	557	716	897	1102	1331	1584	3.15
3.20	**125**	**400**	5.51	9.48	–	–	–	–	–	–	362	467	571	694	826	978	1154	1356	1582	1833	3.20
3.29	***85***	***280***	*2.99*	*5.12*	–	–	–	*255*	*324*	*401*	*504*	–	–	–	–	–	–	–	–	–	*3.29*
3.32	**95**	**315**	3.24	5.47	–	–	–	–	281	361	465	567	669	790	921	1072	1248	1449	1674	1925	3.32
3.33	**150**	**500**	7.35	12.59	–	–	–	–	–	–	–	345	456	583	718	872	1050	1252	1479	1731	3.33
3.39	**118**	**400**	5.02	8.64	–	–	–	–	–	–	366	472	576	699	831	983	1160	1361	1587	1838	3.39
3.50	***80***	***280***	*2.64*	*4.47*	–	–	–	*258*	*327*	*405*	*507*	–	–	–	–	–	–	–	–	–	*3.50*
3.50	**90**	**315**	2.89	4.84	–	–	–	–	285	365	468	571	673	794	925	1076	1252	1453	1678	1929	3.50
3.50	**180**	**630**	9.52	16.07	–	–	–	–	–	–	–	–	–	–	569	729	911	1116	1345	1598	3.50
3.57	**112**	**400**	4.57	7.85	–	–	–	–	–	–	370	476	580	703	835	987	1164	1365	1591	1842	3.57
3.57	**140**	**500**	6.65	11.44	–	–	–	–	–	–	–	351	462	590	725	879	1057	1259	1486	1738	3.57
3.71	***85***	***315***	*3.03*	*5.19*	–	–	–	–	*288*	*368*	*472*	–	–	–	–	–	–	–	–	–	*3.71*
3.77	**106**	**400**	4.11	7.04	–	–	–	–	–	–	374	480	584	707	840	992	1168	1370	1596	1847	3.77
3.79	**132**	**500**	6.06	10.44	–	–	–	–	–	–	–	356	467	595	730	884	1063	1265	1492	1744	3.79
3.94	***80***	***315***	*2.64*	*4.47*	–	–	–	*218*	*291*	*371*	*475*	–	–	–	–	–	–	–	–	–	*3.94*
3.94	**160**	**630**	8.10	13.84	–	–	–	–	–	–	–	–	–	436	582	742	925	1130	1359	1612	3.94
4.00	**100**	**400**	3.66	6.22	–	–	–	–	–	–	377	484	588	711	844	996	1173	1374	1600	1851	4.00
4.00	**125**	**500**	5.54	9.55	–	–	–	–	–	–	–	360	472	600	735	889	1068	1270	1497	1749	4.00
4.20	**150**	**630**	7.38	12.66	–	–	–	–	–	–	–	–	–	442	588	749	931	1137	1366	1620	4.20
4.21	**95**	**400**	3.27	5.53	–	–	–	–	–	268	381	487	592	715	848	1000	1176	1378	1604	1855	4.21
4.24	**118**	**500**	5.02	8.64	–	–	–	–	–	–	–	365	476	604	740	894	1073	1275	1502	1754	4.24
4.44	**90**	**400**	2.89	4.84	–	–	–	–	–	271	384	491	595	718	851	1003	1180	1381	1608	1859	4.44
4.46	**112**	**500**	4.57	7.85	–	–	–	–	–	–	–	368	480	608	744	898	1077	1280	1507	1759	4.46
4.50	**140**	**630**	6.65	11.44	–	–	–	–	–	–	–	–	–	448	595	756	938	1144	1373	1627	4.50
4.71	***85***	***400***	*3.03*	*5.19*	–	–	–	–	–	*274*	*387*	–	–	–	–	–	–	–	–	–	*4.71*
4.72	**106**	**500**	4.11	7.04	–	–	–	–	–	–	–	372	484	612	748	903	1081	1284	1511	1763	4.72
4.77	**132**	**630**	6.06	10.44	–	–	–	–	–	–	–	–	–	453	600	761	944	1150	1379	1633	4.77
5.00	***80***	***400***	*2.64*	*4.47*	–	–	–	–	–	*277*	*390*	–	–	–	–	–	–	–	–	–	*5.00*
5.00	**100**	**500**	3.66	6.22	–	–	–	–	–	–	–	375	488	616	752	907	1085	1288	1516	1767	5.00
5.04	**125**	**630**	5.54	9.55	–	–	–	–	–	–	–	–	–	457	604	765	948	1154	1384	1638	5.04
5.26	**95**	**500**	3.27	5.53	–	–	–	–	–	–	–	379	491	620	756	910	1089	1292	1519	1771	5.26
5.34	**118**	**630**	5.02	8.64	–	–	–	–	–	–	–	–	–	462	609	770	953	1159	1389	1643	5.34
5.56	**90**	**500**	2.89	4.84	–	–	–	–	–	–	–	382	494	623	759	914	1092	1295	1523	1775	5.56
5.63	**112**	**630**	4.57	7.85	–	–	–	–	–	–	–	–	–	465	612	774	957	1163	1393	1647	5.63
5.71	**140**	**800**	6.65	11.44	–	–	–	–	–	–	–	–	–	–	–	565	766	981	1217	1475	5.71
5.94	**106**	**630**	4.11	7.04	–	–	–	–	–	–	–	–	–	469	616	778	961	1168	1397	1651	5.94

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.

Centre Distance SPB, XPB, QXPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.85		0.90		0.95		1.00			1.05			1.10		1.15		
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH									SPB, QXPB ONLY			SPB ONLY				Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	
1.00	***112***	***112***	*4.81*	*3.52*	*449*	*524*	*724*	*824*	–	–	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	***118***	***118***	*5.56*	*4.04*	*440*	*515*	*715*	*815*	–	–	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	***125***	***125***	*6.43*	*4.64*	*429*	*504*	*704*	*804*	–	–	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	***132***	***132***	*7.29*	*5.24*	*418*	*493*	*693*	*793*	–	–	–	–	–	–	–	–	–	–	–	–	*1.00*
1.00	**140**	**140**	6.88	5.00	405	480	680	780	900	1030	1180	1355	1555	1780	2030	2280	2580	2930	3330	3780	1.00
1.00	**150**	**150**	7.95	5.75	389	464	664	764	885	1014	1164	1339	1539	1764	2014	2264	2564	2914	3314	3764	1.00
1.00	**160**	**160**	9.00	6.50	374	449	649	749	869	999	1149	1324	1524	1749	1999	2249	2549	2889	3299	3749	1.00
1.00	**170**	**170**	10.05	7.24	358	433	633	733	853	983	1133	1308	1508	1733	1983	2233	2533	2883	3283	3733	1.00
1.00	**180**	**180**	11.08	7.98	342	417	617	717	837	967	1117	1292	1492	1717	1967	2217	2517	2867	3267	3717	1.00
1.00	**190**	**190**	12.10	8.71	327	402	602	702	822	952	1102	1277	1477	1702	1952	2202	2502	2852	3252	3702	1.00
1.00	**200**	**200**	13.11	9.43	311	386	586	686	806	936	1086	1261	1461	1686	1936	2186	2486	2836	3236	3686	1.00
1.00	**212**	**212**	14.30	10.29	292	367	567	667	787	917	1067	1242	1442	1667	1917	2167	2467	2817	3217	3667	1.00
1.00	**224**	**224**	15.47	11.15	273	348	548	648	768	898	1048	1223	1423	1648	1898	2148	2448	2798	3198	3648	1.00
1.00	**236**	**236**	16.63	11.99	–	329	529	629	749	879	1029	1204	1404	1629	1879	2129	2429	2779	3179	3629	1.00
1.00	**250**	**250**	17.96	12.97	–	307	507	607	728	857	1007	1182	1382	1607	1857	2107	2407	2757	3157	3607	1.00
1.00	**280**	**280**	20.70	15.03	–	–	460	560	680	810	960	1135	1335	1560	1810	2060	2360	2710	3110	3560	1.00
1.00	**315**	**315**	23.75	17.37	–	–	405	505	625	755	905	1080	1280	1505	1755	2005	2305	2655	3055	3505	1.00
1.05	**190**	**200**	12.20	8.78	319	394	594	694	814	944	1094	1269	1469	1694	1944	2194	2494	2844	3244	3694	1.05
1.05	***112***	***118***	*4.91*	*3.59*	*444*	*519*	*719*	*819*	–	–	–	–	–	–	–	–	–	–	–	–	*1.05*
1.05	**224**	**236**	15.57	11.22	264	339	539	639	759	889	1039	1214	1414	1639	1889	2139	2439	2789	3189	3639	1.05
1.06	**180**	**190**	11.36	8.16	334	409	609	709	829	959	1109	1284	1484	1709	1959	2209	2509	2859	3259	3709	1.06
1.06	***125***	***132***	*6.71*	*4.83*	*423*	*498*	*698*	*798*	–	–	–	–	–	–	–	–	–	–	–	–	*1.06*
1.06	**212**	**224**	14.58	10.48	283	358	558	658	778	908	1058	1233	1433	1658	1908	2158	2458	2808	3208	3658	1.06
1.06	**170**	**180**	10.33	7.43	350	425	625	725	845	975	1125	1300	1500	1725	1975	2225	2525	2875	3275	3725	1.06
1.06	***118***	***125***	*5.84*	*4.23*	*434*	*509*	*709*	*809*	–	–	–	–	–	–	–	–	–	–	–	–	*1.06*
1.06	**236**	**250**	16.91	12.18	–	318	518	618	738	868	1018	1193	1393	1618	1868	2118	2418	2768	3168	3618	1.06
1.06	**200**	**212**	13.39	9.62	301	376	576	676	797	926	1076	1251	1451	1676	1926	2176	2476	2826	3226	3676	1.06
1.06	***132***	***140***	*7.57*	*5.43*	*411*	*486*	*686*	*786*	–	–	–	–	–	–	–	–	–	–	–	–	*1.06*
1.06	**160**	**170**	9.28	6.69	366	441	641	741	861	991	1141	1316	1516	1741	1991	2241	2541	2891	3291	3741	1.06
1.07	**150**	**160**	8.23	5.94	381	456	657	757	877	1007	1157	1332	1532	1757	2007	2257	2557	2907	3307	3757	1.07
1.07	**140**	**150**	7.16	5.19	397	472	672	772	892	1022	1172	1347	1547	1772	2022	2272	2572	2922	3322	3772	1.07
1.11	**180**	**200**	11.36	8.17	326	401	601	701	822	951	1102	1277	1477	1702	1952	2202	2502	2852	2352	3702	1.11
1.11	**212**	**236**	14.58	10.48	273	348	548	648	768	898	1048	1223	1423	1648	1898	2148	2448	2798	3198	3648	1.11
1.12	**190**	**212**	12.59	9.03	309	384	584	684	804	934	1084	1259	1459	1684	1934	2184	2484	2834	3234	3684	1.12
1.12	***112***	***125***	*5.30*	*3.85*	*439*	*514*	*714*	*814*	–	–	–	–	–	–	–	–	–	–	–	–	*1.12*
1.12	**224**	**250**	15.97	11.47	–	327	528	628	748	878	1028	1203	1403	1628	1878	2128	2428	2778	3178	3628	1.12
1.12	**170**	**190**	10.54	7.57	342	417	617	717	837	967	1117	1292	1492	1717	1967	2217	2517	2867	3267	3717	1.12
1.12	***118***	***132***	*6.05*	*4.37*	*429*	*504*	*704*	*804*	–	–	–	–	–	–	–	–	–	–	–	–	*1.12*
1.12	***125***	***140***	*6.92*	*4.97*	*417*	*492*	*692*	*792*	–	–	–	–	–	–	–	–	–	–	–	–	*1.12*
1.12	**200**	**224**	13.60	9.76	292	367	567	667	787	917	1067	1242	1442	1667	1917	2167	2467	2817	3217	3667	1.12
1.12	**250**	**280**	18.45	13.30	–	–	484	584	704	834	984	1159	1359	1584	1834	2084	2384	2734	3134	3584	1.12
1.13	**160**	**180**	9.49	6.83	358	433	633	733	853	983	1133	1308	1508	1733	1983	2233	2533	2883	3283	3733	1.13
1.13	**280**	**315**	21.20	15.36	–	–	432	532	653	782	933	1108	1308	1533	1783	2033	2333	2683	3083	3533	1.13
1.13	**315**	**355**	24.24	17.70	–	–	373	473	594	724	874	1049	1249	1474	1724	1974	2274	2624	3024	3474	1.13
1.13	**150**	**170**	8.44	6.08	374	449	649	749	869	999	1149	1324	1524	1749	1999	2249	2549	2899	3299	3749	1.13
1.14	***132***	***150***	*7.78*	*5.57*	*403*	*478*	*678*	*778*	–	–	–	–	–	–	–	–	–	–	–	–	*1.14*
1.14	**140**	**160**	7.37	5.33	389	464	664	764	884	1014	1164	1339	1539	1764	2014	2264	2564	2914	3314	3764	1.14
1.18	**170**	**200**	10.54	7.57	334	409	609	709	829	959	1109	1284	1484	1709	1959	2209	2509	2859	3259	3709	1.18
1.18	**180**	**212**	11.57	8.30	317	392	592	692	812	942	1092	1267	1467	1692	1942	2192	2492	2842	3242	3692	1.18
1.18	***112***	***132***	*5.30*	*3.85*	*433*	*508*	*708*	*808*	–	–	–	–	–	–	–	–	–	–	–	–	*1.18*
1.18	**190**	**224**	12.59	9.03	299	374	575	675	795	925	1075	1250	1450	1675	1925	2175	2475	2825	3225	3675	1.18
1.18	**212**	**250**	14.79	10.62	261	337	537	637	759	887	1037	1212	1412	1637	1887	2137	2437	2787	3187	3637	1.18
1.18	**200**	**236**	13.78	9.88	282	357	557	657	778	907	1057	1232	1432	1657	1907	2157	2457	2808	3208	3658	1.18
1.19	***118***	***140***	*6.23*	*4.49*	*422*	*497*	*697*	*797*	–	–	–	–	–	–	–	–	–	–	–	–	*1.19*
1.19	**236**	**280**	17.30	12.44	–	294	494	594	715	844	994	1170	1370	1595	1845	2095	2395	2745	3145	3595	1.19
1.19	**160**	**190**	9.67	6.95	350	425	625	725	845	975	1125	1300	1500	1725	1975	2225	2525	2875	3275	3725	1.19
1.20	***125***	***150***	*7.09*	*5.09*	*409*	*484*	*684*	*784*	–	–	–	–	–	–	–	–	–	–	–	–	*1.20*
1.20	**150**	**180**	8.61	6.20	366	441	641	741	861	991	1141	1316	1516	1741	1991	2241	2541	2891	3291	3741	1.20
1.21	***132***	***160***	*7.96*	*5.69*	*395*	*470*	*671*	*771*	–	–	–	–	–	–	–	–	–	–	–	–	*1.21*
1.21	**140**	**170**	7.55	5.45	381	456	656	756	877	1006	1156	1331	1531	1756	2006	2256	2556	2906	3306	3756	1.21
1.24	**190**	**236**	12.77	9.15	290	365	565	665	785	915	1065	1240	1440	1665	1915	2165	2465	2815	3215	3665	1.24
1.24	**180**	**224**	11.75	8.42	307	382	582	682	803	932	1082	1258	1458	1683	1933	2183	2483	2833	3233	3683	1.24
1.25	**170**	**212**	10.72	7.69	324	399	600	700	820	950	1100	1275	1475	1700	1950	2200	2500	2850	3250	3700	1.25
1.25	***112***	***140***	*5.48*	*3.97*	*427*	*502*	*702*	*802*	–	–	–	–	–	–	–	–	–	–	–	–	*1.25*
1.25	**160**	**200**	9.67	6.95	342	417	617	717	837	967	1117	1292	1492	1717	1967	2217	2517	2867	3267	3717	1.25
1.25	**200**	**250**	13.78	9.88	270	346	546	646	766	896	1046	1221	1421	1646	1896	2146	2446	2796	3196	3646	1.25
1.25	**224**	**280**	16.14	11.59	–	303	503	604	724	854	1004	1179	1379	1604	1854	2104	2404	2754	3154	3604	1.25
1.26	**250**	**315**	18.62	13.41	–	–	455	555	676	806	956	1131	1331	1556	1806	2056	2356	2706	3106	3556	1.26
1.27	**150**	**190**	8.76	6.29	357	433	633	733	853	983	1133	1308	1508	1733	1983	2233	2533	2883	3283	3733	1.27
1.27	**280**	**355**	21.51	15.57	–	–	400	500	620	750	900	1076	1276	1501	1751	2001	2301	2651	3051	3501	1.27
1.27	**315**	**400**	24.56	17.91	–	–	–	436	557	687	837	1013	1213	1438	1688	1938	2238	2588	2988	3438	1.27
1.27	***118***	***150***	*6.37*	*4.58*	*414*	*489*	*689*	*789*	–	–	–	–	–	–	–	–	–	–	–	–	*1.27*
1.28	***125***	***160***	*7.24*	*5.18*	*401*	*476*	*676*	*776*	–	–	–	–	–	–	–	–	–	–	–	–	*1.28*
1.29	**140**	**180**	7.69	5.54	373	448	648	748	869	998	1148	1324	1524	1749	1999	2249	2549	2899	3299	3749	1.29
1.29	***132***	***170***	*8.10*	*5.78*	*387*	*462*	*663*	*763*	–	–	–	–	–	–	–	–	–	–	–	–	*1.29*

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.



Centre Distance SPB, XPB, QXPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80		0.85		0.90		0.95		1.00	1.05				1.10	1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH								SPB, QXPB ONLY				SPB ONLY			Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	
1.31	**180**	**236**	11.89	8.52	297	372	573	673	797	923	1073	1248	1448	1673	1923	2173	2473	2823	3223	3673	1.31
1.32	**190**	**250**	12.91	9.25	278	353	554	654	774	904	1054	1229	1429	1654	1904	2154	2454	2804	3204	3654	1.32
1.32	**170**	**224**	10.86	7.78	314	390	590	690	810	940	1090	1265	1465	1690	1940	2190	2490	2840	3240	3690	1.32
1.32	**212**	**280**	15.11	10.83	–	312	512	613	733	863	1013	1188	1388	1613	1863	2113	2413	2763	3163	3613	1.32
1.32	**160**	**212**	9.81	7.04	332	407	607	707	828	957	1108	1283	1483	1708	1958	2208	2508	2858	3258	3708	1.32
1.33	**150**	**200**	8.76	6.29	349	424	625	725	844	975	1125	1300	1500	1725	1975	2225	2525	2875	3275	3725	1.33
1.33	**236**	**315**	17.44	12.53	–	–	466	566	686	816	966	1142	1342	1567	1817	2067	2367	2717	3117	3567	1.33
1.34	***112***	***150***	*5.62*	*4.06*	*419*	*494*	*694*	*794*	–	–	–	–	–	–	–	–	–	–	–	–	*1.34*
1.36	***118***	***160***	*6.37*	*4.58*	*406*	*481*	*681*	*781*	–	–	–	–	–	–	–	–	–	–	–	–	*1.36*
1.36	**140**	**190**	7.69	5.54	365	440	640	740	861	991	1141	1316	1516	1741	1991	2241	2541	2891	3291	3741	1.36
1.36	***125***	***170***	*7.24*	*5.18*	*393*	*468*	*668*	*768*	–	–	–	–	–	–	–	–	–	–	–	–	*1.36*
1.36	***132***	***180***	*8.10*	*5.78*	*379*	*454*	*655*	*755*	–	–	–	–	–	–	–	–	–	–	–	–	*1.36*
1.39	**170**	**236**	11.00	7.87	304	380	580	680	801	931	1081	1256	1456	1681	1931	2181	2481	2831	3231	3681	1.39
1.39	**180**	**250**	12.03	8.61	285	361	561	661	782	912	1062	1237	1437	1662	1912	2162	2462	2812	3212	3662	1.39
1.40	**160**	**224**	9.95	7.13	322	397	598	698	818	948	1098	1273	1473	1698	1948	2198	2498	2848	3248	3698	1.40
1.40	**200**	**280**	14.06	10.06	–	321	521	622	742	872	1022	1197	1397	1623	1873	2123	2423	2773	3173	3623	1.40
1.41	**224**	**315**	16.42	11.78	–	–	474	575	695	825	976	1151	1351	1576	1826	2076	2376	2726	3126	3576	1.41
1.41	**150**	**212**	8.90	6.39	339	415	615	715	835	965	1115	1290	1490	1715	1965	2215	2515	2866	3266	3716	1.41
1.42	**250**	**355**	18.90	13.60	–	–	422	522	643	773	923	1099	1299	1524	1774	2024	2324	2674	3074	3524	1.42
1.43	***112***	***160***	*5.76*	*4.15*	*411*	*486*	*686*	*786*	–	–	–	–	–	–	–	–	–	–	–	–	*1.43*
1.43	**140**	**200**	7.83	5.63	357	432	632	732	853	983	1133	1308	1508	1733	1983	2233	2533	2883	3283	3733	1.43
1.43	**280**	**400**	21.65	15.67	–	–	361	462	583	713	864	1039	1239	1465	1715	1965	2265	2615	3015	3465	1.43
1.44	***132***	***190***	*8.24*	*5.88*	*371*	*446*	*646*	*747*	–	–	–	–	–	–	–	–	–	–	–	–	*1.44*
1.44	***125***	***180***	*7.38*	*5.28*	*384*	*460*	*660*	*760*	–	–	–	–	–	–	–	–	–	–	–	–	*1.44*
1.44	***118***	***170***	*6.51*	*4.67*	*398*	*473*	*673*	*773*	–	–	–	–	–	–	–	–	–	–	–	–	*1.44*
1.47	**170**	**250**	11.00	7.87	292	368	569	669	789	919	1069	1244	1445	1670	1920	2170	2470	2820	3220	3670	1.47
1.47	**190**	**280**	13.05	9.34	–	328	529	629	750	880	1030	1205	1405	1630	1880	2130	2430	2780	3181	3631	1.47
1.47	**160**	**236**	9.95	7.13	312	387	588	688	808	938	1088	1263	1463	1689	1939	2189	2489	2839	3229	3689	1.47
1.49	**212**	**315**	15.25	10.93	–	–	483	584	704	835	985	1160	1360	1585	1835	2085	2386	2736	3136	3586	1.49
1.49	**150**	**224**	8.90	6.39	329	405	605	705	826	956	1106	1281	1481	1706	1956	2206	2506	2856	3256	3706	1.49
1.50	**236**	**355**	17.58	12.63	–	–	432	533	653	784	934	1109	1309	1535	1785	2035	2335	2685	3085	3535	1.50
1.51	**140**	**212**	7.83	5.63	347	422	622	723	843	973	1123	1298	1498	1723	1973	2223	2523	2873	3273	3723	1.51
1.52	***132***	***200***	*8.24*	*5.88*	*363*	*438*	*638*	*738*	–	–	–	–	–	–	–	–	–	–	–	–	*1.52*
1.52	***112***	***170***	*5.76*	*4.15*	*402*	*478*	*678*	*778*	–	–	–	–	–	–	–	–	–	–	–	–	*1.52*
1.52	***125***	***190***	*7.38*	*5.28*	*376*	*451*	*651*	*752*	–	–	–	–	–	–	–	–	–	–	–	–	*1.52*
1.53	***118***	***180***	*6.51*	*4.67*	*390*	*465*	*665*	*765*	–	–	–	–	–	–	–	–	–	–	–	–	*1.53*
1.56	**180**	**280**	12.03	8.61	259	335	536	637	757	887	1038	1213	1413	1638	1888	2138	2438	2788	3188	3638	1.56
1.56	**160**	**250**	9.95	7.13	300	375	576	676	797	927	1077	1252	1452	1677	1927	2178	2478	2828	3228	3678	1.56
1.57	**150**	**236**	8.89	6.37	319	394	595	696	816	946	1096	1271	1471	1696	1946	2196	2496	2847	3247	3697	1.57
1.57	**200**	**315**	14.05	10.05	–	290	492	593	713	844	994	1169	1369	1594	1845	2095	2395	2745	3145	3595	1.57
1.58	**224**	**355**	16.54	11.86	–	–	440	541	662	793	943	1118	1319	1544	1794	2044	2344	2694	3095	3545	1.58
1.59	**315**	**500**	24.81	18.09	–	–	–	–	471	603	754	930	1131	1357	1607	1858	2158	2508	2908	3359	1.59
1.60	***125***	***200***	*7.49*	*5.35*	*368*	*443*	*644*	*744*	–	–	–	–	–	–	–	–	–	–	–	–	*1.60*
1.60	**140**	**224**	7.95	5.71	336	412	613	713	833	963	1113	1288	1489	1714	1964	2214	2514	2864	3264	3714	1.60
1.60	**250**	**400**	19.02	13.68	–	–	382	484	605	736	886	1062	1262	1488	1738	1988	2288	2368	3039	3489	1.60
1.61	***132***	***212***	*8.36*	*5.95*	*353*	*428*	*629*	*729*	–	–	–	–	–	–	–	–	–	–	–	–	*1.61*
1.61	***112***	***180***	*5.88*	*4.23*	*394*	*469*	*670*	*770*	–	–	–	–	–	–	–	–	–	–	–	–	*1.61*
1.61	***118***	***190***	*6.63*	*4.75*	*381*	*457*	*657*	*757*	–	–	–	–	–	–	–	–	–	–	–	–	*1.61*
1.65	**170**	**280**	11.11	7.95	266	342	544	644	765	895	1045	1220	1421	1646	1896	2146	2446	2796	3196	3646	1.65
1.66	**190**	**315**	13.17	9.42	–	297	499	600	721	851	1001	1177	1377	1602	1852	2102	2403	2753	3153	3603	1.66
1.67	**150**	**250**	9.01	6.46	307	383	584	684	804	935	1085	1260	1460	1685	1935	2185	2485	2835	3235	3686	1.67
1.67	**212**	**355**	15.37	11.00	–	–	449	550	671	801	952	1127	1328	1553	1803	2053	2354	2704	3104	3554	1.67
1.69	**140**	**236**	7.95	5.71	326	402	603	703	823	953	1104	1279	1479	1704	1954	2204	2504	2854	3254	3704	1.69
1.69	***118***	***200***	*6.63*	*4.75*	*373*	*448*	*649*	*749*	–	–	–	–	–	–	–	–	–	–	–	–	*1.69*
1.69	**236**	**400**	17.70	12.71	–	–	392	494	615	746	897	1072	1273	1498	1749	1999	2299	2649	3049	3500	1.69
1.70	***125***	***212***	*7.49*	*5.35*	*358*	*433*	*634*	*734*	–	–	–	–	–	–	–	–	–	–	–	–	*1.70*
1.70	***112***	***190***	*5.88*	*4.23*	*386*	*461*	*662*	*762*	–	–	–	–	–	–	–	–	–	–	–	–	*1.70*
1.70	***132***	***224***	*8.36*	*5.95*	*342*	*418*	*619*	*719*	–	–	–	–	–	–	–	–	–	–	–	–	*1.70*
1.75	**160**	**280**	10.07	7.21	273	349	551	652	772	902	1053	1228	1428	1653	1903	2154	2454	2804	3204	3654	1.75
1.75	**180**	**315**	12.15	8.69	–	304	507	607	728	859	1009	1184	1385	1610	1860	2110	2410	2760	3161	3611	1.75
1.77	**200**	**355**	14.17	10.14	–	–	458	559	680	810	961	1136	1337	1562	1812	2063	2363	2713	3113	3563	1.77
1.79	***112***	***200***	*5.88*	*4.23*	*377*	*453*	*653*	*754*	–	–	–	–	–	–	–	–	–	–	–	–	*1.79*
1.79	**140**	**250**	7.95	5.71	314	390	591	692	812	942	1092	1268	1468	1693	1943	2193	2493	2843	3243	3693	1.79
1.79	**224**	**400**	16.54	11.86	–	–	400	502	624	755	906	1081	1282	1507	1758	2008	2308	2658	3059	3509	1.79
1.79	**280**	**500**	21.77	15.74	–	–	–	–	495	628	780	956	1157	1383	1634	1884	2185	2535	2935	3386	1.79
1.79	***132***	***236***	*8.36*	*5.95*	*332*	*408*	*609*	*709*	–	–	–	–	–	–	–	–	–	–	–	–	*1.79*
1.79	***125***	***224***	*7.49*	*5.35*	*347*	*423*	*624*	*724*	–	–	–	–	–	–	–	–	–	–	–	–	*1.79*
1.80	***118***	***212***	*6.63*	*4.75*	*363*	*438*	*639*	*739*	–	–	–	–	–	–	–	–	–	–	–	–	*1.80*
1.85	**170**	**315**	11.11	7.95	–	311	514	615	735	866	1016	1192	1392	1617	1868	2118	2418	2768	3168	3618	1.85
1.87	**150**	**280**	9.01	6.46	280	356	558	659	780	910	1060	1236	1436	1661	1911	2161	2461	2812	3212	3662	1.87
1.87	**190**	**355**	13.17	9.42	–	–	465	566	687	818	968	1144	1344	1570	1820	2070	2371	2721	3121	3571	1.87
1.89	**212**	**400**	15.37	11.00	–	–	409	511	633	764	915	1090	1291	1516	1767	2017	2317	2668	3068	3518	1.89
1.89	***125***	***236***	*7.49*	*5.35*	*337*	*413*	*614*	*714*	–	–	–	–	–	–	–	–	–	–	–	–	*1.89*
1.89	***112***	***212***	*5.88*	*4.23*	*367*	*443*	*644*	*744*	–	–	–	–	–	–	–	–	–	–	–	–	*1.89*
1.89	***132***	***250***	*8.36*	*5.95*	*320*	*396*	*597*	*697*	–	–	–	–	–	–	–	–	–	–	–	–	*1.89*

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.

Centre Distance SPB, XPB, QXPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80		0.85		0.90		0.95		1.00		1.05			1.10			1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH									SPB, QXPB ONLY				SPB ONLY				Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	
1.90	***118***	***224***	*6.63*	*4.75*	*352*	*428*	*629*	*729*	–	–	–	–	–	–	–	–	–	–	–	–	*1.90*
1.97	**160**	**315**	10.17	7.28	–	317	521	622	743	873	1024	1199	1400	1625	1875	2126	2426	2776	3176	3626	1.97
1.97	**180**	**355**	12.24	8.75	–	–	472	573	695	825	976	1151	1352	1577	1828	2078	2378	2728	3129	3579	1.97
2.00	***112***	***224***	*5.97*	*4.30*	*357*	*432*	*634*	*734*	–	–	–	–	–	–	–	–	–	–	–	–	*2.00*
2.00	***118***	***236***	*6.72*	*4.81*	*342*	*418*	*619*	*720*	–	–	–	–	–	–	–	–	–	–	–	–	*2.00*
2.00	***125***	***250***	*7.59*	*5.42*	*324*	*401*	*602*	*703*	–	–	–	–	–	–	–	–	–	–	–	–	*2.00*
2.00	**140**	**280**	8.04	5.78	287	363	566	666	787	917	1068	1243	1443	1669	1919	2169	2469	2819	3219	3669	2.00
2.00	**200**	**400**	14.27	10.21	–	–	417	519	641	772	923	1099	1300	1525	1776	2026	2327	2677	3077	3527	2.00
2.00	**250**	**500**	19.12	13.75	–	–	–	–	516	649	801	978	1179	1405	1656	1907	2207	2558	2958	3409	2.00
2.00	**315**	**630**	24.91	18.15	–	–	–	–	–	–	638	818	1021	1248	1500	1751	2052	2403	2803	3254	2.00
2.09	**170**	**355**	11.21	8.02	–	–	479	580	702	833	983	1159	1360	1585	1835	2086	2386	2736	3136	3586	2.09
2.10	**150**	**315**	9.11	6.53	–	324	528	629	750	881	1031	1207	1407	1633	1883	2133	2433	2784	3184	3634	2.10
2.11	**190**	**400**	13.26	9.48	–	–	424	526	648	780	931	1107	1307	1533	1784	2034	2334	2685	3085	3535	2.11
2.11	***112***	***236***	*5.97*	*4.30*	*346*	*422*	*624*	*724*	–	–	–	–	–	–	–	–	–	–	–	–	*2.11*
2.12	***118***	***250***	*6.72*	*4.81*	*429*	*406*	*607*	*708*	–	–	–	–	–	–	–	–	–	–	–	–	*2.12*
2.12	**236**	**500**	17.79	12.77	–	–	–	400	526	659	811	988	1190	1416	1667	1917	2218	2569	2969	3419	2.12
2.12	***132***	***280***	*8.45*	*6.02*	*292*	*369*	*572*	*672*	–	–	–	–	–	–	–	–	–	–	–	–	*2.12*
2.22	**160**	**355**	10.17	7.28	–	278	486	587	709	840	991	1166	1367	1593	1843	2093	2394	2744	3144	3594	2.22
2.22	**180**	**400**	12.24	8.75	–	–	430	533	655	787	938	1114	1315	1541	1791	2042	2342	2692	3093	3543	2.22
2.23	***112***	***250***	*5.97*	*4.30*	*334*	*410*	*612*	*712*	–	–	–	–	–	–	–	–	–	–	–	–	*2.23*
2.23	**224**	**500**	16.64	11.92	–	–	–	408	534	667	820	997	1198	1425	1676	1926	2227	2578	2978	3429	2.23
2.24	***125***	***280***	*7.59*	*5.42*	*297*	*374*	*577*	*677*	–	–	–	–	–	–	–	–	–	–	–	–	*2.24*
2.25	**140**	**315**	8.04	5.78	252	331	535	637	758	888	1039	1214	1415	1640	1891	2141	2441	2791	3191	3642	2.25
2.25	**280**	**630**	21.87	15.81	–	–	–	–	364	505	662	842	1046	1273	1525	1777	2078	2429	2830	3281	2.25
2.35	**170**	**400**	11.21	8.02	–	–	437	540	663	794	945	1121	1322	1548	1799	2049	2350	2700	3100	3550	2.35
2.36	**212**	**500**	15.46	11.07	–	–	–	416	542	675	828	1005	1207	1434	1685	1935	2236	2587	2987	3438	2.36
2.37	**150**	**355**	9.11	6.53	–	285	493	595	733	847	998	1174	1375	1600	1851	2101	2401	2751	3152	3602	2.37
2.37	***118***	***280***	*6.72*	*4.81*	*302*	*379*	*582*	*683*	–	–	–	–	–	–	–	–	–	–	–	–	*2.37*
2.39	***132***	***315***	*8.45*	*6.02*	*258*	*336*	*541*	*642*	–	–	–	–	–	–	–	–	–	–	–	–	*2.39*
2.50	***112***	***280***	*5.97*	*4.30*	*306*	*383*	*586*	*687*	–	–	–	–	–	–	–	–	–	–	–	–	*2.50*
2.50	**160**	**400**	10.17	7.28	–	–	444	547	670	801	953	1129	1330	1556	1806	2057	2357	2708	3108	3558	2.50
2.50	**200**	**500**	14.27	10.21	–	–	–	424	550	684	837	1014	1216	1442	1694	1944	2245	2596	2996	3447	2.50
2.52	***125***	***315***	*7.59*	*5.42*	*262*	*341*	*546*	*647*	–	–	–	–	–	–	–	–	–	–	–	–	*2.52*
2.52	**250**	**630**	19.12	13.75	–	–	–	–	382	524	682	863	1067	1295	1547	1799	2100	2451	2853	3303	2.52
2.54	**140**	**355**	8.04	5.78	–	291	500	602	723	854	1005	1181	1382	1608	1858	2108	2409	2759	3159	3610	2.54
2.54	**315**	**800**	24.81	18.15	–	–	–	–	–	–	–	654	865	1097	1353	1606	1909	2261	2663	3115	2.54
2.63	**190**	**500**	13.26	9.48	–	–	–	430	557	691	844	1021	1223	1450	1701	1952	2253	2603	3004	3455	2.63
2.67	**150**	**400**	9.11	6.53	–	–	451	554	677	808	960	1136	1337	1563	1814	2064	2365	2715	3116	3566	2.67
2.67	***118***	***315***	*6.72*	*4.81*	*267*	*346*	*551*	*652*	–	–	–	–	–	–	–	–	–	–	–	–	*2.67*
2.67	**236**	**630**	17.79	12.77	–	–	–	–	390	533	692	873	1077	1305	1557	1809	2111	2462	2863	3314	2.67
2.69	***132***	***355***	*8.45*	*6.02*	–	*297*	*505*	*607*	–	–	–	–	–	–	–	–	–	–	–	–	*2.69*
2.78	**180**	**500**	12.24	8.75	–	–	–	437	563	698	851	1028	1231	1457	1708	1959	2260	2611	3012	3462	2.78
2.81	***112***	***315***	*5.97*	*4.30*	*271*	*350*	*555*	*657*	–	–	–	–	–	–	–	–	–	–	–	–	*2.81*
2.81	**224**	**630**	16.64	11.92	–	–	–	–	398	541	700	881	1085	1314	1566	1818	2120	2471	2872	3323	2.81
2.84	***125***	***355***	*7.59*	*5.42*	–	*301*	*510*	*612*	–	–	–	–	–	–	–	–	–	–	–	–	*2.84*
2.86	**140**	**400**	8.04	5.78	–	–	457	561	684	816	967	1143	1345	1571	1821	2072	2372	2723	3123	3574	2.86
2.86	**280**	**800**	21.87	15.81	–	–	–	–	–	–	–	677	889	1122	1377	1631	1934	2287	2689	3141	2.86
2.94	**170**	**500**	11.21	8.02	–	–	–	443	570	704	858	1036	1238	1464	1716	1967	2268	2619	3019	3470	2.94
2.97	**212**	**630**	15.46	11.07	–	–	–	–	405	549	708	889	1094	1322	1575	1827	2128	2480	2881	3332	2.97
3.01	***118***	***355***	*6.72*	*4.81*	–	*306*	*515*	*617*	–	–	–	–	–	–	–	–	–	–	–	–	*3.01*
3.03	***132***	***400***	*8.45*	*6.02*	–	–	*463*	*566*	–	–	–	–	–	–	–	–	–	–	–	–	*3.03*
3.13	**160**	**500**	10.17	7.28	–	–	–	449	577	711	865	1043	1245	1472	1723	1974	2275	2626	3027	3477	3.13
3.15	**200**	**630**	14.27	10.21	–	–	–	–	412	557	716	897	1102	1331	1584	1836	2137	2489	2890	3341	3.15
3.17	***112***	***355***	*5.97*	*4.30*	–	*309*	*519*	*621*	–	–	–	–	–	–	–	–	–	–	–	–	*3.17*
3.17	**315**	**1000**	24.91	18.15	–	–	–	–	–	–	–	–	–	902	1167	1426	1733	2089	2494	2947	3.17
3.20	***125***	***400***	*7.59*	*5.42*	–	–	*467*	*571*	–	–	–	–	–	–	–	–	–	–	–	–	*3.20*
3.20	**250**	**800**	19.12	13.75	–	–	–	–	–	–	–	696	909	1142	1398	1652	1956	2309	2711	3163	3.20
3.32	**190**	**630**	13.26	9.48	–	–	–	–	418	563	722	904	1109	1338	1591	1843	2145	2496	2898	3349	3.32
3.33	**150**	**500**	9.11	6.53	–	–	345	456	584	718	872	1050	1252	1479	1731	1982	2283	2634	3034	3485	3.33
3.39	***118***	***400***	*6.79*	*4.86*	–	–	*472*	*576*	–	–	–	–	–	–	–	–	–	–	–	–	*3.39*
3.39	**236**	**800**	17.86	12.82	–	–	–	–	–	–	–	705	918	1152	1408	1662	1966	2319	2722	3174	3.39
3.50	**180**	**630**	12.31	8.80	–	–	–	–	425	569	729	911	1116	1345	1598	1850	2152	2504	2905	3356	3.50
3.57	***112***	***400***	*6.04*	*4.34*	–	–	*476*	*580*	–	–	–	–	–	–	–	–	–	–	–	–	*3.57*
3.57	**140**	**500**	8.11	5.82	–	–	351	462	590	725	879	1057	1259	1486	1738	1989	2290	2641	3042	3493	3.57
3.57	**224**	**800**	16.71	11.97	–	–	–	–	–	–	–	713	926	1160	1416	1671	1975	2328	2731	3183	3.57
3.57	**280**	**1000**	21.94	15.85	–	–	–	–	–	–	–	–	673	925	1190	1450	1758	2114	2519	2973	3.57
3.71	**170**	**630**	11.28	8.06	–	–	–	–	431	576	736	918	1123	1352	1605	1857	2159	2511	2913	3364	3.71
3.77	**212**	**800**	15.53	11.11	–	–	–	–	–	–	–	720	934	1168	1425	1679	1983	2337	2739	3192	3.77
3.79	***132***	***500***	*8.52*	*6.06*	–	–	*356*	*467*	–	–	–	–	–	–	–	–	–	–	–	–	*3.79*
3.94	**160**	**630**	10.23	7.32	–	–	–	–	437	582	742	925	1130	1359	1612	1865	2167	2519	2920	3371	3.94
4.00	***125***	***500***	*7.66*	*5.46*	–	–	*360*	*472*	–	–	–	–	–	–	–	–	–	–	–	–	*4.00*
4.00	**200**	**800**	14.34	10.25	–	–	–	–	–	–	530	728	942	1176	1433	1688	1992	2345	2748	3201	4.00
4.00	**250**	**1000**	19.19	13.79	–	–	–	–	–	–	–	–	692	944	1210	1470	1779	2135	2541	2995	4.00
4.20	**150**	**630**	9.18	6.57	–	–	–	–	443	588	749	931	1137	1366	1620	1872	2174	2526	2928	3379	4.20
4.21	**190**	**800**	13.33	9.53	–	–	–	–	–	–	536	734	948	1183	1440	1695	1999	2353	2756	3208	4.21

Pitch diameters in italic type indicates drives where the use of CRE Plus or Quattro Plus belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.

Centre Distance SPB, XPB, QXPB Wedge Belt Drives



Combined Arc and Belt Length Correction Factor					0.80				0.85		0.90		0.95		1.00		1.05		1.10		
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH								SPB, QXPB ONLY				SPB ONLY				Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	
4.24	**236**	**1000**	17.86	12.82	–	–	–	–	–	–	–	–	700	953	1219	1480	1788	2145	2551	3005	4.24
4.44	**180**	**800**	12.31	8.80	–	–	–	–	–	–	542	740	955	1190	1447	1702	2006	2360	2763	3215	4.44
4.46	**224**	**1000**	16.71	11.97	–	–	–	–	–	–	–	–	707	960	1227	1488	1797	2154	2559	3014	4.46
4.50	**140**	**630**	8.11	5.82	–	–	–	–	449	595	756	938	1144	1373	1627	1879	2181	2533	2935	3386	4.50
4.71	**170**	**800**	11.28	8.06	–	–	–	–	–	–	548	747	962	1197	1454	1709	2014	2367	2770	3223	4.71
4.72	**212**	**1000**	15.53	11.11	–	–	–	–	–	–	–	–	714	968	1235	1496	1805	2162	2568	3022	4.72
5.00	**160**	**800**	10.23	7.32	–	–	–	–	–	–	554	753	968	1203	1461	1716	2021	2374	2778	3230	5.00
5.00	**200**	**1000**	14.34	10.25	–	–	–	–	–	–	–	–	722	976	1243	1504	1813	2171	2576	3031	5.00
5.26	**190**	**1000**	13.33	9.53	–	–	–	–	–	–	–	–	728	982	1250	1511	1820	2178	2584	3038	5.26
5.33	**150**	**800**	9.18	6.57	–	–	–	–	–	–	–	759	975	1210	1468	1723	2028	2382	2785	3238	5.33
5.56	**180**	**1000**	12.31	8.80	–	–	–	–	–	–	–	–	734	988	1256	1518	1827	2185	2591	3046	5.56
5.71	**140**	**800**	8.11	5.82	–	–	–	–	–	–	–	766	981	1217	1475	1730	2035	2389	2792	3245	5.71
5.88	**170**	**1000**	11.28	8.06	–	–	–	–	–	–	–	–	740	994	1263	1525	1834	2192	2598	3053	5.88

The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.

Fenner® Efficiency Drive

Get the most from your wedge belt drives



For laser pulley alignment (rather than simply 'string') see the Fenner Drive Alignment Laser page 32

Wedge belt drives can offer as much as 96% efficiency in power transmission on most applications.

To achieve and maintain such efficiency, requires optimum drive design, care on installation, and simple regular maintenance. The Fenner Wedge Belt Drive Maintenance Kit can help achieve this.

The kit contains the simple tools necessary to help achieve optimum performance.

- Guide to efficient wedge belt operation - including belt efficiency audit questionnaire.
- Fenner belt tension indicator - simple tool to ensure accurate belt tension.
- Pulley groove gauge - check pulley wear

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Centre Distance SPC, XPC, QXPC Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.85		0.90			0.95		1.00			1.05			1.10			1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPC Belt (kW)		BELT LENGTH										SPC ONLY							Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	9000	10000	11200	12500	
1.00	**224**	**224**	16.59	12.68	648	768	898	1048	1223	1423	1648	1898	2148	2448	2798	3198	3648	4148	4648	5248	5898	1.00
1.00	**250**	**250**	21.50	16.30	608	728	858	1008	1183	1383	1608	1858	2108	2408	2758	3158	3608	4108	4608	5208	5858	1.00
1.00	**300**	**300**	30.43	23.05	529	649	779	929	1104	1304	1529	1779	2029	2329	2679	3079	3529	4029	4529	5129	5779	1.00
1.00	**335**	**335**	36.23	27.61	474	594	724	874	1049	1249	1474	1724	1974	2274	2624	3024	3474	3974	4474	5074	5724	1.00
1.00	**400**	**400**	45.91	35.71	–	492	622	772	947	1147	1372	1622	1872	2172	2522	2922	3377	3877	4372	4972	5622	1.00
1.00	**450**	**450**	52.32	41.58	–	–	544	694	869	1069	1294	1544	1794	2094	2444	2844	3294	3621	4121	4721	5544	1.00
1.00	**500**	**500**	57.73	47.12	–	–	–	615	790	990	1215	1465	1715	2015	2365	2765	3215	3715	4215	4815	5465	1.00
1.00	**560**	**560**	–	53.29	–	–	–	–	–	896	1121	1371	1621	1921	2271	2671	3121	3621	4121	4721	5371	1.00
1.05	**300**	**315**	30.74	23.26	517	637	767	917	1092	1292	1517	1767	2017	2317	2667	3067	3517	4017	4517	5117	5767	1.05
1.05	**224**	**236**	16.90	12.89	639	759	889	1039	1214	1414	1639	1889	2139	2439	2789	3189	3639	4139	4639	5239	5889	1.05
1.06	**355**	**375**	40.24	30.74	–	547	677	827	1002	1202	1427	1677	1927	2227	2577	2977	3427	3927	4427	5027	5677	1.06
1.06	**425**	**450**	50.14	39.27	–	–	563	713	888	1088	1313	1563	1813	2113	2463	2863	3313	3813	4313	4913	5563	1.06
1.06	**236**	**250**	19.75	14.94	618	738	868	1018	1193	1393	1618	1868	2118	2418	2768	3168	3618	4118	4618	5218	5868	1.06
1.06	**500**	**530**	58.60	47.70	–	–	–	591	766	966	1191	1441	1691	1991	2341	2741	3191	3691	4191	4791	5441	1.06
1.07	**375**	**400**	43.25	33.24	–	511	642	792	967	1167	1392	1642	1892	2192	2542	2942	3392	3892	4392	4992	5642	1.07
1.07	**280**	**300**	27.81	20.96	545	665	795	945	1120	1320	1545	1795	2045	2345	2695	3095	3545	4045	4545	5145	5795	1.07
1.11	**450**	**500**	53.19	42.16	–	–	–	654	829	1029	1254	1504	1754	2054	2404	2804	3254	3754	4254	4854	5504	1.11
1.12	**425**	**475**	50.78	39.70	–	–	543	693	868	1068	1293	1543	1793	2093	2443	2843	3293	3793	4293	4893	5543	1.12
1.12	**335**	**375**	37.74	28.62	442	562	692	842	1017	1217	1443	1693	1943	2243	2593	2993	3443	3943	4443	5043	5693	1.12
1.12	**250**	**280**	23.01	17.31	584	704	834	984	1159	1359	1584	1834	2084	2384	2734	3134	3584	4084	4584	5184	5834	1.12
1.12	**500**	**560**	60.11	48.13	–	–	–	–	742	942	1168	1418	1668	1968	2318	2718	3168	3668	4168	4768	5418	1.12
1.13	**560**	**630**	–	54.30	–	–	–	–	–	840	1065	1315	1565	1866	2216	2616	3066	3566	4066	4666	5316	1.13
1.13	**355**	**400**	40.88	31.17	–	527	657	807	982	1182	1407	1657	1907	2207	2557	2957	3407	3907	4407	5007	5657	1.13
1.13	**265**	**300**	25.76	19.36	556	676	806	956	1131	1331	1556	1806	2056	2356	2706	3106	3556	4056	4556	5156	5806	1.13
1.18	**475**	**560**	56.72	45.40	–	–	–	586	761	962	1187	1437	1687	1987	2337	2737	3187	3687	4187	4787	5437	1.18
1.18	**224**	**265**	18.10	13.69	616	736	866	1016	1191	1391	1616	1866	2116	2416	2766	3166	3616	4116	4616	5216	5866	1.18
1.18	**300**	**355**	31.94	24.09	485	605	735	885	1060	1261	1486	1736	1986	2286	2636	3036	3486	3986	4486	5086	5736	1.18
1.19	**400**	**475**	47.97	37.08	–	–	562	712	887	1087	1313	1563	1813	2113	2463	2863	3313	3813	4313	4913	5563	1.19
1.19	**265**	**315**	26.31	19.72	544	664	794	944	1119	1319	1544	1795	2045	2345	2695	3095	3545	4045	4545	5144	5795	1.19
1.19	**315**	**375**	35.02	26.39	457	578	708	858	1033	1233	1458	1708	1958	2258	2608	3008	3458	3958	4458	5058	5708	1.19
1.20	**355**	**425**	41.43	31.53	–	506	637	787	962	1162	1387	1637	1887	2187	2537	2937	3388	3888	4388	4988	5638	1.20
1.20	**250**	**300**	23.56	17.67	568	688	818	968	1143	1343	1568	1818	2068	2368	2718	3118	3568	4068	4568	5168	5818	1.20
1.24	**450**	**560**	54.38	42.95	–	–	–	605	780	981	1206	1456	1706	2006	2357	2757	3207	3707	4207	4807	5457	1.24
1.25	**224**	**280**	18.65	14.05	604	724	854	1004	1179	1379	1604	1854	2104	2404	2754	3154	3604	4104	4604	5204	5854	1.25
1.25	**300**	**375**	32.49	24.42	469	589	719	869	1044	1245	1470	1720	1970	2270	2620	3020	3470	3970	4470	5070	5720	1.25
1.25	**400**	**500**	47.97	37.08	–	–	541	692	867	1067	1293	1543	1793	2093	2443	2843	3293	3793	4293	4893	5543	1.25
1.26	**250**	**315**	23.56	17.67	566	676	806	956	1131	1331	1556	1806	2056	2356	2706	3106	3556	4056	4556	5156	5806	1.26
1.26	**500**	**630**	60.66	48.49	–	–	–	–	685	886	1111	1361	1612	1912	2262	2662	3112	3612	4112	4713	5363	1.26
1.27	**315**	**400**	35.46	26.69	437	557	687	838	1013	1213	1438	1688	1938	2238	2588	2988	3438	3938	4439	5039	5689	1.27
1.27	**236**	**300**	21.38	16.03	578	699	829	979	1154	1354	1579	1829	2079	2379	2729	3129	3579	4079	4579	5179	5829	1.27
1.32	**425**	**560**	51.77	40.36	–	–	–	623	799	999	1225	1475	1725	2026	2376	2776	3226	3726	4226	4826	5476	1.32
1.33	**300**	**400**	39.93	24.72	448	568	699	849	1024	1224	1450	1700	1950	2250	2600	3000	3450	3950	4450	5050	5700	1.33
1.33	**375**	**500**	44.88	34.33	–	–	560	710	896	1086	1312	1562	1812	2112	2462	2862	3313	3813	4313	4913	5563	1.33
1.33	**236**	**315**	21.38	16.03	566	686	817	967	1142	1342	1567	1817	2067	2367	2717	3117	3567	4067	4567	5167	5817	1.33
1.34	**355**	**475**	38.73	31.83	–	–	595	746	921	1122	1347	1597	1847	2148	2498	2898	3348	3848	4348	4948	5598	1.34
1.34	**250**	**335**	24.00	17.97	539	659	790	940	1115	1315	1540	1790	2040	2340	2690	3090	3541	4041	4541	5141	5791	1.34
1.35	**315**	**425**	35.46	26.69	–	536	667	817	993	1193	1418	1668	1918	2218	2569	2969	3419	3919	4419	5019	5669	1.35
1.40	**400**	**560**	48.84	37.66	–	–	–	641	817	1018	1244	1494	1745	2045	2395	2795	3245	3746	4246	4846	5496	1.40
1.40	**450**	**630**	55.16	43.53	–	–	–	–	722	923	1149	1399	1650	1950	2300	2701	3151	3651	4151	4751	5401	1.40
1.41	**224**	**315**	19.52	14.63	575	695	826	976	1151	1351	1576	1826	2076	2376	2727	3127	3577	4077	4577	5177	5827	1.41
1.41	**355**	**500**	42.30	32.11	–	–	574	725	901	1101	1327	1577	1827	2128	2478	2878	3328	3828	4328	4928	5578	1.41
1.42	**335**	**475**	39.16	29.56	–	479	610	761	937	1137	1362	1613	1863	2163	2513	2913	3363	3864	4364	4964	5614	1.42
1.42	**250**	**355**	24.43	18.25	522	643	773	924	1099	1299	1524	1744	2024	2324	2675	3075	3525	4025	4525	5125	5775	1.42
1.43	**315**	**450**	35.89	26.97	–	515	646	797	972	1173	1398	1648	1898	2198	2549	2949	3399	3899	4399	4999	5649	1.43
1.43	**560**	**800**	–	55.24	–	–	–	–	–	–	925	1176	1427	1728	2079	2479	2930	3430	3931	4531	5181	1.43
1.48	**425**	**630**	52.20	40.64	–	–	–	–	740	941	1167	1418	1669	1969	2320	2720	3170	3670	4171	4771	5421	1.48
1.49	**335**	**500**	39.16	29.56	–	–	589	740	916	1116	1342	1592	1843	2143	2493	2893	3344	3844	4344	4944	5594	1.49
1.49	**375**	**560**	45.31	34.61	–	–	–	660	836	1037	1263	1513	1764	2064	2414	2815	3265	3765	4265	4865	5515	1.49
1.50	**250**	**375**	24.43	18.25	506	626	757	907	1083	1283	1508	1758	2008	2309	2659	3059	3509	4009	4509	5109	5759	1.50
1.50	**300**	**450**	33.36	25.00	–	526	657	808	983	1184	1409	1660	1910	2210	2560	2960	3410	3911	4411	5011	5611	1.50
1.51	**315**	**475**	35.89	29.56	–	493	625	776	951	1152	1378	1628	1878	2178	2529	2929	3379	3879	4379	4979	5629	1.51
1.51	**530**	**800**	63.46	52.22	–	–	–	–	–	–	946	1198	1450	1751	2102	2502	2953	3453	3954	4554	5204	1.51
1.52	**280**	**425**	29.87	22.33	441	562	693	843	1019	1219	1445	1695	1945	2245	2596	2996	3446	3946	4446	5046	5696	1.52
1.58	**400**	**630**	49.21	37.91	–	–	–	580	758	960	1186	1437	1688	1988	2339	2739	3189	3690	4190	4790	5440	1.58
1.59	**315**	**500**	36.26	27.22	–	471	603	755	931	1131	1357	1608	1858	2158	2509	2909	3359	3859	4358	4959	5609	1.59
1.59	**236**	**375**	22.18	16.56	516	637	767	918	1093	1293	1519	1769	2019	2319	2669	3079	3520	4020	4520	5120	5770	1.59
1.60	**250**	**400**	24.80	18.50	484	605	736	887	1062	1263	1488	1738	1988	2289	2639	3039	3489	3989	4489	5089	5739	1.60
1.60	**500**	**800**	61.90	49.32	–	–	–	–	–	739	968	1220	1472	1773	2124	2525	2976	3476	3977	4577	5227	1.60
1.61	**280**	**450**	30.24	22.58	–	540	672	823	998	1199	1424	1675	1925	2225	2576	2976	3426	3926	4426	5026	5676	1.61
1.67	**335**	**560**	39.53	29.81	–	–	536	688	865	1066	1293	1543	1794	2094	2445	2845	3296	3796	4296	4896	5546	1.67
1.67	**224**	**375**	19.89	14.88	524	645	776	927	1102	1303	1528	1778	2028	2329	2679	3079	3529	4029	4529	5129	5779	1.67
1.68	**375**	**630**	45.68	34.86	–	–	–	597	776	978	1204	1455	1706	2007	2358	2758	3209	3709	4209	4809	5460	1.68

The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.
All dimensions in millimetres.
Drive combinations are available using 200mm & 212mm pitch diameter pulleys and Quattro Plus belts - consult your local Authorised Distributor.



Centre Distances SPC, XPC, QXPC Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80		0.85		0.90		0.95		1.00			1.05		1.10			1.15	
Speed Ratio	Pitch Diameter of Pulleys		Power per SPC Belt (kW)		BELT LENGTH								SPC ONLY									Speed Ratio
	Driver	Driven	1440 rev/min	960 rev/min	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000	9000	10000	11200	12500	
1.68	**315**	**530**	36.26	27.22	–	–	577	729	905	1106	1332	1583	1834	2134	2484	2885	3335	3835	4335	4936	5586	1.68
1.69	**236**	**400**	22.18	16.56	494	615	746	897	1073	1273	1498	1749	1999	2299	2649	3050	3500	4000	4500	5100	5750	1.69
1.70	**280**	**475**	30.24	22.58	–	518	650	801	977	1178	1404	1654	1905	2205	2555	2956	3406	3906	4406	5006	5656	1.70
1.70	**250**	**425**	24.80	18.50	462	584	715	866	1041	1242	1468	1718	1968	2268	2619	3019	3469	3969	4469	5069	5716	1.70
1.77	**300**	**530**	33.73	25.25	–	–	587	740	916	1118	1344	1594	1845	2145	2496	2896	3346	3847	4347	4947	5597	1.77
1.77	**355**	**630**	42.67	33.36	–	–	–	611	790	992	1219	1470	1721	2022	2373	2773	3224	3724	4225	4825	5475	1.77
1.78	**315**	**560**	36.26	27.22	–	–	549	702	880	1081	1307	1558	1809	2110	2460	2861	3311	3811	4311	4912	5562	1.78
1.78	**450**	**800**	55.62	43.78	–	–	–	–	–	774	1003	1257	1509	1810	2162	2563	3014	3514	4015	4615	5266	1.78
1.79	**280**	**500**	30.24	22.58	–	495	628	780	956	1157	1383	1634	1884	2185	2535	2936	3386	3886	4386	4986	5637	1.79
1.79	**560**	**1000**	–	55.49	–	–	–	–	–	–	–	1001	1256	1560	1913	2315	2767	3268	3769	4370	5021	1.79
1.80	**250**	**450**	24.80	18.50	439	562	693	845	1021	1221	1447	1698	1948	2248	2599	2999	3449	3949	4449	5050	5700	1.80
1.80	**236**	**426**	22.18	16.56	472	594	725	876	1052	1253	1478	1729	1979	2279	2629	3030	3480	3980	4480	5080	5730	1.80
1.87	**300**	**560**	33.73	25.25	–	–	560	713	890	1092	1318	1570	1820	2121	2471	2872	3322	3823	4323	4923	5573	1.87
1.88	**335**	**630**	39.53	29.81	–	–	–	625	804	1007	1234	1485	1736	2037	2388	2789	3239	3740	4240	4840	5490	1.88
1.88	**425**	**800**	52.57	40.89	–	–	–	–	–	791	1021	1275	1527	1829	2180	2582	3033	3533	4034	4035	5285	1.88
1.89	**280**	**530**	30.24	22.58	–	467	601	754	931	1132	1358	1609	1860	2161	2511	2911	3362	3862	4362	4963	5613	1.89
1.90	**250**	**475**	24.80	8.50	–	539	671	823	1000	1201	1426	1677	1928	2228	2578	2979	3429	3929	4429	5030	5680	1.90
1.91	**236**	**450**	22.18	16.56	449	571	703	855	1031	1232	1458	1708	1959	2259	2609	3010	3460	3960	4460	5060	5710	1.91
2.00	**265**	**530**	27.75	20.75	–	478	612	764	942	1143	1370	1621	1891	2172	2523	2923	3373	3874	4374	4974	5624	2.00
2.00	**315**	**630**	36.49	27.42	–	–	–	639	818	1021	1248	1500	1751	2052	2403	2804	3254	3755	4255	4856	5506	2.00
2.00	**500**	**1000**	62.10	49.52	–	–	–	–	–	–	–	1043	1298	1603	1957	2359	2811	3313	3814	4415	5066	2.00
2.01	**236**	**475**	22.38	18.76	425	549	681	833	1010	1211	1437	1688	1938	2239	2589	2989	3440	3940	4440	5040	5691	2.01
2.10	**300**	**630**	33.93	25.45	–	–	–	649	829	1032	1259	1511	1762	2063	2414	2815	3266	3766	4267	4867	5517	2.10
2.11	**475**	**1000**	58.71	46.79	–	–	–	–	–	–	–	1060	1316	1621	1975	2378	2830	3332	3833	4434	5085	2.11
2.11	**265**	**560**	27.75	20.75	–	–	584	738	915	1118	1344	1596	1846	2147	2498	2899	3349	3850	4350	4950	5600	2.11
2.12	**250**	**530**	25.00	18.70	–	488	622	775	952	1154	1381	1632	1882	2183	2534	2934	3385	3885	4385	4986	5636	2.12
2.12	**224**	**475**	20.09	15.08	433	557	690	842	1019	1220	1446	1697	1947	2248	2598	2999	3449	3949	4450	5050	5700	2.12
2.13	**375**	**800**	45.88	35.06	–	–	–	–	–	825	1056	1310	1563	1866	2217	2619	3070	3571	4072	4673	5323	2.13
2.22	**450**	**1000**	55.82	43.98	–	–	–	–	–	–	815	1077	1333	1639	1993	2396	2848	3350	3852	4453	5104	2.22
2.23	**224**	**500**	20.09	15.08	–	534	667	820	997	1199	1425	1676	1927	2227	2578	2978	3429	3929	4430	5030	5680	2.23
2.23	**560**	**1250**	–	55.69	–	–	–	–	–	–	–	–	1021	1335	1694	2101	2556	3060	3562	4165	4817	2.23
2.24	**250**	**560**	25.00	18.70	–	–	594	748	926	1129	1355	1607	1858	2159	2509	2910	3361	3861	4361	4962	5612	2.24
2.25	**280**	**630**	30.44	22.78	–	–	–	663	842	1046	1274	1526	1777	2078	2429	2830	3281	3782	4282	4883	5533	2.25
2.25	**355**	**800**	42.87	32.56	–	–	–	–	–	839	1070	1325	1578	1880	2232	2634	3085	3586	4087	4688	5339	2.25
2.35	**425**	**1000**	52.77	41.09	–	–	–	–	–	–	832	1094	1351	1656	2011	2414	2867	3369	3871	4472	5123	2.35
2.36	**530**	**1250**	64.03	52.67	–	–	–	–	–	–	–	–	1040	1355	1715	2122	2578	3082	3585	4187	4839	2.36
2.37	**236**	**560**	22.38	18.76	–	467	603	758	936	1139	1366	1617	1868	2169	2520	2921	3371	3872	4372	4973	5623	2.37
2.38	**265**	**630**	27.75	20.75	–	–	515	673	853	1057	1284	1537	1788	2089	2441	2842	3292	3793	4294	4894	5544	2.38
2.39	**335**	**800**	39.73	30.01	–	–	–	–	642	852	1084	1339	1592	1895	2247	2649	3100	3602	4102	4703	5354	2.39
2.50	**224**	**560**	20.09	15.08	–	475	611	766	945	1147	1374	1626	1877	2178	2529	2930	3380	3881	4381	4982	5632	2.50
2.50	**500**	**1250**	62.10	49.52	–	–	–	–	–	–	–	–	1060	1375	1736	2143	2599	3104	3607	4210	4862	2.50
2.52	**250**	**630**	25.00	18.70	–	–	525	683	863	1067	1295	1548	1799	2101	2452	2853	3304	3804	4305	4906	5556	2.52
2.54	**315**	**800**	36.49	27.42	–	–	–	–	655	866	1098	1353	1606	1909	2262	2664	3115	3617	4118	4718	5369	2.54
2.63	**475**	**1250**	58.71	46.79	–	–	–	–	–	–	–	–	1076	1392	1753	2161	2617	3122	3625	4228	4880	2.63
2.67	**375**	**1000**	45.88	35.06	–	–	–	–	–	–	864	1127	1385	1692	2047	2451	2904	3406	3908	4510	5161	2.67
2.67	**236**	**630**	22.38	18.76	–	–	534	692	873	1077	1305	1558	1809	2111	2462	2863	3314	3815	4316	4916	5567	2.67
2.78	**450**	**1250**	55.82	43.98	–	–	–	–	–	–	–	–	1092	1409	1770	2179	2635	3140	3644	4247	4899	2.78
2.81	**224**	**630**	20.09	15.08	–	–	542	700	881	1086	1314	1566	1818	2120	2471	2872	3323	3824	4325	4925	5576	2.81
2.82	**355**	**1000**	42.87	32.56	–	–	–	–	–	–	877	1141	1399	1706	2061	2465	2919	3421	3923	4525	5176	2.82
2.86	**280**	**800**	30.44	22.78	–	–	–	–	677	889	1122	1378	1631	1935	2287	2690	3141	3643	4144	4745	5396	2.86
2.94	**425**	**1250**	52.77	41.09	–	–	–	–	–	–	–	–	1108	1425	1788	2196	2653	3158	3662	4265	4918	2.94
2.99	**335**	**1000**	39.73	30.01	–	–	–	–	–	–	890	1154	1413	1720	2075	2480	2933	3436	3938	4540	5191	2.99
3.02	**265**	**800**	27.75	20.75	–	–	–	–	687	899	1132	1388	1642	1946	2298	2701	3153	3654	4155	4756	5407	3.02
3.13	**400**	**1250**	49.41	38.11	–	–	–	–	–	–	–	–	1124	1442	1805	2214	2671	3176	3680	4284	4936	3.13
3.17	**315**	**1000**	36.49	27.42	–	–	–	–	–	–	903	1167	1427	1734	2090	2494	2948	3451	3953	4555	5206	3.17
3.20	**250**	**800**	25.00	18.70	–	–	–	–	696	909	1143	1399	1653	1956	2309	2712	3164	3665	4167	4768	5419	3.20
3.33	**300**	**1000**	33.93	25.45	–	–	–	–	–	–	912	1177	1437	1744	2100	2505	2959	3462	3964	4566	5218	3.33
3.39	**236**	**800**	22.69	16.90	–	–	–	–	705	918	1152	1409	1663	1967	2320	2722	3174	3676	4177	4778	5429	3.39
3.52	**355**	**1250**	43.18	32.70	–	–	–	–	–	–	–	876	1153	1472	1836	2245	2703	3209	3713	4317	4970	3.52
3.57	**224**	**800**	20.40	15.22	–	–	–	516	713	926	1160	1417	1671	1975	2328	2731	3183	3685	4186	4787	5439	3.57
3.73	**335**	**1250**	40.04	30.15	–	–	–	–	–	–	–	888	1166	1485	1849	2259	2717	3223	3728	4332	4985	3.73
3.77	**265**	**1000**	28.06	20.89	–	–	–	–	–	–	935	1201	1461	1769	2125	2530	2984	3488	3990	4592	5244	3.77
3.97	**315**	**1250**	36.77	27.56	–	–	–	–	–	–	–	900	1179	1499	1863	2273	2731	3238	3742	4346	5000	3.97
4.00	**250**	**1000**	25.31	18.84	–	–	–	–	–	–	944	1211	1471	1779	2136	2541	2995	3499	4001	4603	5255	4.00
4.17	**300**	**1250**	34.24	25.59	–	–	–	–	–	–	–	909	1188	1508	1873	2284	2742	3249	3753	4357	5011	4.17
4.24	**236**	**1000**	22.69	16.90	–	–	–	–	–	–	953	1220	1480	1789	2146	2551	3005	3509	4012	4612	5266	4.24
4.46	**280**	**1250**	30.75	22.92	–	–	–	–	–	–	–	921	1201	1522	1887	2298	2756	3263	3768	4372	5026	4.46
4.72	**265**	**1250**	28.06	20.89	–	–	–	–	–	–	–	930	1211	1532	1897	2308	2767	3274	3776	4383	5037	4.72
5.00	**250**	**1250**	25.31	18.84	–	–	–	–	–	–	–	939	1220	1541	1907	2319	2777	3284	3790	4394	5048	5.00
5.30	**236**	**1250**	22.69	16.90	–	–	–	–	–	–	–	948	1229	1551	1916	2328	2787	3294	3800	4404	5058	5.30
5.58	**224**	**1250**	20.40	15.20	–	–	–	–	–	–	–	955	1236	1558	1925	2337	2796	3303	3808	4413	5067	5.58

The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor
All dimensions in millimetres.
Drive combinations are available using 200mm & 212mm pitch diameter pulleys and Quattro Plus belts - consult your local Authorised Distributor.

POWER RATINGS - QXPZ QUATTRO PLUS WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																		Belt Speed (m/s)
	56	**60**	**63**	**67**	**71**	**75**	**80**	**85**	**90**	**95**	**100**	**106**	**112**	**118**	**125**	**132**	**140**	**150**	
100	0.11	0.12	0.13	0.15	0.16	0.18	0.20	0.22	0.23	0.25	0.27	0.29	0.32	0.34	0.36	0.39	0.42	0.46	
500	0.42	0.49	0.55	0.62	0.68	0.75	0.84	0.92	1.01	1.09	1.18	1.28	1.38	1.47	1.59	1.71	1.84	2.00	
720	**0.58**	**0.68**	**0.75**	**0.85**	**0.94**	**1.04**	**1.16**	**1.28**	**1.40**	**1.51**	**1.63**	**1.77**	**1.91**	**2.05**	**2.21**	**2.38**	**2.56**	**2.79**	
960	**0.73**	**0.86**	**0.96**	**1.08**	**1.21**	**1.34**	**1.49**	**1.65**	**1.80**	**1.96**	**2.11**	**2.29**	**2.48**	**2.66**	**2.87**	**3.08**	**3.32**	**3.61**	
1000	0.76	0.89	0.99	1.12	1.25	1.38	1.55	1.71	1.87	2.03	2.19	2.38	2.57	2.76	2.98	3.19	3.44	3.75	
1100	0.82	0.97	1.08	1.22	1.36	1.50	1.68	1.86	2.03	2.21	2.38	2.59	2.80	3.00	3.24	3.48	3.75	4.08	
1200	0.88	1.04	1.16	1.31	1.47	1.62	1.82	2.01	2.20	2.39	2.57	2.80	3.02	3.24	3.50	3.76	4.05	4.41	
1300	0.94	1.11	1.24	1.41	1.57	1.74	1.95	2.15	2.36	2.56	2.76	3.00	3.25	3.48	3.76	4.04	4.35	4.74	
1400	1.00	1.18	1.32	1.50	1.68	1.86	2.08	2.30	2.52	2.73	2.95	3.21	3.47	3.72	4.02	4.31	4.65	5.06	
1440	**1.03**	**1.21**	**1.35**	**1.54**	**1.72**	**1.90**	**2.13**	**2.35**	**2.58**	**2.80**	**3.02**	**3.29**	**3.55**	**3.82**	**4.12**	**4.42**	**4.77**	**5.19**	
1500	1.06	1.25	1.40	1.59	1.78	1.97	2.20	2.44	2.67	2.90	3.13	3.41	3.68	3.96	4.27	4.58	4.94	5.38	
1600	1.12	1.32	1.48	1.68	1.88	2.08	2.33	2.58	2.83	3.07	3.32	3.61	3.90	4.19	4.52	4.85	5.23	5.70	
1700	1.17	1.39	1.55	1.77	1.98	2.19	2.46	2.72	2.98	3.24	3.50	3.81	4.11	4.42	4.77	5.12	5.51	6.01	
1800	1.23	1.46	1.63	1.85	2.08	2.30	2.58	2.86	3.13	3.40	3.68	4.00	4.32	4.64	5.01	5.38	5.80	6.31	
1900	1.28	1.52	1.70	1.94	2.18	2.41	2.70	2.99	3.28	3.57	3.85	4.19	4.53	4.87	5.25	5.64	6.07	6.61	
2000	1.34	1.59	1.78	2.03	2.27	2.52	2.82	3.13	3.43	3.73	4.03	4.38	4.74	5.09	5.49	5.89	6.35	6.91	
2100	1.39	1.65	1.85	2.11	2.37	2.63	2.94	3.26	3.58	3.89	4.20	4.57	4.94	5.31	5.73	6.15	6.62	7.21	
2200	1.44	1.72	1.92	2.19	2.46	2.73	3.06	3.39	3.72	4.05	4.37	4.76	5.14	5.52	5.96	6.40	6.89	7.50	
2300	1.49	1.78	1.99	2.28	2.56	2.84	3.18	3.53	3.87	4.21	4.54	4.94	5.34	5.74	6.19	6.64	7.15	7.78	
2400	1.55	1.84	2.06	2.36	2.65	2.94	3.30	3.66	4.01	4.36	4.71	5.13	5.54	5.95	6.42	6.89	7.42	8.07	
2500	1.60	1.90	2.13	2.44	2.74	3.04	3.41	3.78	4.15	4.52	4.88	5.31	5.73	6.16	6.65	7.13	7.67	8.34	
2600	1.65	1.96	2.20	2.52	2.83	3.14	3.53	3.91	4.29	4.67	5.04	5.49	5.93	6.36	6.87	7.37	7.93	8.62	
2700	1.69	2.02	2.27	2.60	2.92	3.24	3.64	4.04	4.43	4.82	5.20	5.66	6.12	6.57	7.09	7.60	8.18	8.89	
2800	1.74	2.08	2.34	2.67	3.01	3.34	3.75	4.16	4.57	4.97	5.37	5.84	6.31	6.77	7.30	7.83	8.42	9.15	
2880	**1.78**	**2.13**	**2.39**	**2.74**	**3.08**	**3.42**	**3.84**	**4.26**	**4.67**	**5.09**	**5.49**	**5.98**	**6.46**	**6.93**	**7.48**	**8.01**	**8.62**	**9.36**	
2900	1.79	2.14	2.40	2.75	3.10	3.44	3.86	4.28	4.70	5.11	5.52	6.01	6.49	6.97	7.52	8.06	8.67	9.41	
3000	1.84	2.20	2.47	2.83	3.18	3.54	3.97	4.41	4.84	5.26	5.68	6.18	6.68	7.17	7.73	8.28	8.91	9.67	
3200	1.93	2.31	2.60	2.98	3.35	3.73	4.19	4.65	5.10	5.55	5.99	6.52	7.04	7.55	8.14	8.72	9.37	10.17	
3400	2.02	2.42	2.73	3.13	3.52	3.91	4.40	4.88	5.36	5.83	6.29	6.85	7.39	7.93	8.54	9.15	9.83	10.65	
3600	2.11	2.53	2.85	3.27	3.69	4.10	4.61	5.11	5.61	6.10	6.59	7.17	7.73	8.29	8.93	9.56	10.26	11.11	
3800	2.19	2.64	2.97	3.41	3.85	4.28	4.81	5.34	5.86	6.37	6.88	7.48	8.07	8.65	9.31	9.96	10.68	11.55	30
4000	2.28	2.74	3.09	3.55	4.00	4.45	5.01	5.56	6.10	6.63	7.16	7.78	8.39	8.99	9.67	10.34	11.08	11.97	
4200	2.36	2.84	3.20	3.68	4.16	4.62	5.20	5.77	6.33	6.89	7.43	8.07	8.70	9.32	10.02	10.71	11.46	12.37	
4300	2.40	2.89	3.26	3.75	4.23	4.71	5.30	5.88	6.45	7.01	7.56	8.22	8.86	9.48	10.19	10.88	11.65	12.56	
4400	2.44	2.94	3.32	3.81	4.31	4.79	5.39	5.98	6.56	7.13	7.70	8.36	9.01	9.64	10.36	11.06	11.83	12.75	
4500	2.47	2.99	3.37	3.88	4.38	4.87	5.48	6.08	6.67	7.25	7.83	8.50	9.15	9.79	10.52	11.23	12.00	12.93	
4600	2.51	3.04	3.43	3.94	4.45	4.95	5.57	6.18	6.78	7.37	7.95	8.63	9.30	9.95	10.68	11.39	12.17	13.10	
4800	2.59	3.13	3.53	4.07	4.59	5.11	5.75	6.38	7.00	7.61	8.20	8.90	9.58	10.24	10.99	11.71	12.50	13.43	
5000	2.66	3.22	3.64	4.19	4.73	5.27	5.93	6.57	7.21	7.83	8.44	9.16	9.85	10.52	11.28	12.01	12.80	13.74	40
5200	2.73	3.31	3.74	4.31	4.87	5.42	6.10	6.76	7.41	8.05	8.67	9.40	10.11	10.79	11.56	12.29	13.09	14.01	
5400	2.80	3.40	3.84	4.42	5.00	5.57	6.26	6.94	7.61	8.26	8.90	9.64	10.35	11.05	11.82	12.56	13.35	14.27	
5600	2.86	3.48	3.93	4.54	5.13	5.71	6.42	7.12	7.80	8.46	9.11	9.86	10.59	11.29	12.07	12.80	13.59	14.49	
5800	2.93	3.56	4.03	4.64	5.25	5.85	6.58	7.29	7.98	8.66	9.32	10.08	10.81	11.51	12.29	13.03	13.81	14.69	
6000	2.99	3.64	4.12	4.75	5.37	5.98	6.72	7.45	8.16	8.85	9.51	10.28	11.02	11.73	12.51	13.23	14.00	14.86	

POWER RATINGS - QXPB QUATTRO PLUS WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																			Belt Speed (m/s)
	112	**118**	**125**	**132**	**140**	**150**	**160**	**170**	**180**	**190**	**200**	**212**	**224**	**236**	**250**	**265**	**280**	**300**	**315**	
100	0.57	0.63	0.70	0.77	0.85	0.95	1.05	1.16	1.26	1.36	1.46	1.58	1.69	1.81	1.95	2.10	2.25	2.44	2.59	
500	2.35	2.64	2.96	3.29	3.66	4.13	4.59	5.05	5.51	5.96	6.42	6.96	7.50	8.04	8.67	9.33	10.00	10.88	11.54	
720	**3.23**	**3.63**	**4.09**	**4.55**	**5.07**	**5.72**	**6.37**	**7.02**	**7.66**	**8.30**	**8.94**	**9.70**	**10.45**	**11.20**	**12.08**	**13.01**	**13.93**	**15.15**	**16.06**	
960	**4.14**	**4.66**	**5.26**	**5.86**	**6.54**	**7.39**	**8.23**	**9.07**	**9.91**	**10.74**	**11.56**	**12.55**	**13.53**	**14.50**	**15.62**	**16.81**	**18.00**	**19.56**	**20.72**	
1000	4.28	4.82	5.45	6.07	6.78	7.66	8.54	9.41	10.27	11.13	11.99	13.01	14.02	15.03	16.19	17.43	18.65	20.27	21.46	
1100	4.64	5.23	5.91	6.59	7.37	8.33	9.28	10.23	11.18	12.11	13.04	14.15	15.25	16.34	17.60	18.94	20.26	22.00	23.29	
1200	5.00	5.63	6.37	7.11	7.95	8.99	10.02	11.04	12.06	13.07	14.07	15.27	16.45	17.62	18.98	20.41	21.83	23.69	25.06	
1300	5.34	6.03	6.82	7.61	8.51	9.63	10.74	11.84	12.93	14.01	15.09	16.36	17.63	18.88	20.32	21.85	23.35	25.33	26.78	
1400	5.68	6.41	7.27	8.11	9.07	10.26	11.45	12.62	13.78	14.93	16.08	17.43	18.78	20.10	21.63	23.24	24.83	26.91	28.43	
1440	**5.82**	**6.57**	**7.44**	**8.31**	**9.29**	**10.52**	**11.73**	**12.93**	**14.12**	**15.30**	**16.47**	**17.86**	**19.23**	**20.58**	**22.15**	**23.79**	**25.41**	**27.52**	**29.07**	
1500	6.01	6.79	7.70	8.60	9.62	10.89	12.14	13.39	14.62	15.84	17.05	18.48	19.90	21.30	22.91	24.60	26.26	28.43	30.02	
1600	6.34	7.17	8.13	9.08	10.16	11.50	12.82	14.14	15.44	16.72	18.00	19.50	20.99	22.46	24.14	25.91	27.64	29.89	31.54	
1700	6.66	7.53	8.54	9.55	10.69	12.10	13.49	14.87	16.24	17.59	18.92	20.50	22.06	23.59	25.34	27.18	28.97	31.30	32.99	
1800	6.97	7.89	8.96	10.01	11.21	12.69	14.15	15.60	17.02	18.43	19.83	21.47	23.09	24.68	26.50	28.40	30.25	32.63	34.36	30
1900	7.28	8.24	9.36	10.46	11.72	13.26	14.79	16.30	17.79	19.26	20.71	22.42	24.10	25.74	27.61	29.57	31.47	33.90	35.66	
2000	7.58	8.59	9.75	10.91	12.21	13.83	15.42	16.99	18.54	20.06	21.57	23.33	25.07	26.76	28.69	30.69	32.63	35.10	36.88	
2100	7.88	8.93	10.14	11.34	12.70	14.38	16.03	17.66	19.27	20.85	22.40	24.22	26.01	27.75	29.72	31.76	33.73	36.23	38.01	
2200	8.17	9.26	10.52	11.77	13.18	14.92	16.63	18.32	19.98	21.61	23.21	25.08	26.91	28.69	30.70	32.78	34.77	37.28	39.06	
2300	8.45	9.58	10.89	12.18	13.65	15.45	17.22	18.96	20.67	22.35	23.99	25.91	27.78	29.60	31.64	33.74	35.75	38.26	40.02	
2400	8.72	9.90	11.25	12.59	14.10	15.96	17.79	19.58	21.34	23.06	24.74	26.71	28.61	30.46	32.53	34.65	36.65	39.15	40.88	40
2500	8.99	10.21	11.61	12.99	14.55	16.47	18.35	20.19	21.99	23.75	25.47	27.47	29.41	31.28	33.37	35.49	37.49	39.95	41.64	
2600	9.26	10.51	11.95	13.38	14.98	16.95	18.89	20.77	22.62	24.42	26.17	28.21	30.17	32.05	34.15	36.27	38.26	40.67	42.31	
2700	9.51	10.80	12.29	13.75	15.41	17.43	19.41	21.34	23.22	25.06	26.84	28.90	30.89	32.78	34.88	36.99	38.95	41.30	42.87	
2800	9.76	11.09	12.62	14.12	15.82	17.89	19.92	21.89	23.81	25.67	27.48	29.57	31.56	33.46	35.56	37.64	39.56	41.84	43.32	
2880	**9.96**	**11.31**	**12.87**	**14.41**	**16.14**	**18.25**	**20.31**	**22.31**	**24.26**	**26.14**	**27.97**	**30.07**	**32.07**	**33.97**	**36.06**	**38.12**	**39.99**	**42.19**	**43.60**	
2900	10.00	11.37	12.94	14.48	16.22	18.34	20.41	22.42	24.37	26.26	28.09	30.19	32.20	34.10	36.18	38.23	40.10	42.27	43.66	
3000	10.24	11.64	13.25	14.83	16.60	18.77	20.88	22.92	24.91	26.82	28.67	30.78	32.79	34.68	36.73	38.75	40.55	42.61	43.89	
3200	10.69	12.15	13.84	15.49	17.34	19.59	21.77	23.88	25.91	27.86	29.72	31.85	33.84	35.69	37.67	39.56	41.20	42.98		
3400	11.11	12.64	14.39	16.11	18.02	20.35	22.59	24.74	26.81	28.77	30.64	32.75	34.70	36.48	38.34	40.07	41.49			
3600	11.50	13.09	14.91	16.68	18.66	21.04	23.33	25.52	27.60	29.57	31.42	33.48	35.36	37.04	38.75	40.25				
3800	11.86	13.50	15.38	17.21	19.23	21.67	23.99	26.20	28.28	30.23	32.05	34.04	35.81	37.36	38.87					
3900	12.03	13.70	15.60	17.45	19.50	21.96	24.29	26.50	28.58	30.51	32.30	34.25	35.96	37.43						
4000	12.19	13.88	15.81	17.68	19.75	22.23	24.57	26.78	28.84	30.76	32.52	34.41	36.05							
4200	12.48	14.22	16.20	18.11	20.21	22.71	25.06	27.26	29.29	31.14	32.82	34.58								
4400	12.74	14.52	16.54	18.48	20.60	23.12	25.46	27.62	29.60	31.38	32.95									
4600	12.97	14.78	16.83	18.79	20.93	23.45	25.76	27.88	29.78	31.46										
4800	13.16	15.00	17.07	19.05	21.20	23.69	25.97	28.02	29.83											
5000	13.31	15.18	17.27	19.25	21.39	23.86	26.08													



POWER RATINGS - QXPA QUATTRO PLUS WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																		Belt Speed (m/s)
	80	**85**	**90**	**95**	**100**	**106**	**112**	**118**	**125**	**132**	**140**	**150**	**160**	**170**	**180**	**190**	**200**	**224**	
100	0.24	0.27	0.30	0.34	0.37	0.41	0.44	0.48	0.53	0.57	0.62	0.68	0.75	0.81	0.87	0.93	0.99	1.14	
500	0.98	1.13	1.27	1.42	1.56	1.74	1.91	2.09	2.29	2.49	2.71	3.00	3.28	3.56	3.84	4.12	4.40	5.06	
720	**1.34**	**1.55**	**1.75**	**1.96**	**2.16**	**2.41**	**2.65**	**2.89**	**3.18**	**3.46**	**3.78**	**4.18**	**4.57**	**4.97**	**5.36**	**5.75**	**6.14**	**7.07**	
960	**1.71**	**1.98**	**2.25**	**2.52**	**2.78**	**3.10**	**3.42**	**3.74**	**4.11**	**4.48**	**4.89**	**5.41**	**5.93**	**6.44**	**6.95**	**7.46**	**7.97**	**9.17**	
1000	1.77	2.05	2.33	2.61	2.89	3.22	3.55	3.88	4.26	4.64	5.08	5.62	6.15	6.68	7.21	7.74	8.26	9.51	
1100	1.91	2.22	2.53	2.83	3.14	3.50	3.86	4.22	4.64	5.05	5.53	6.12	6.70	7.28	7.86	8.43	9.00	10.35	
1200	2.06	2.39	2.72	3.05	3.38	3.78	4.17	4.56	5.01	5.46	5.97	6.61	7.24	7.87	8.49	9.11	9.72	11.18	
1300	2.20	2.56	2.91	3.27	3.62	4.05	4.47	4.89	5.38	5.86	6.41	7.09	7.77	8.44	9.11	9.77	10.43	11.99	
1400	2.34	2.72	3.10	3.48	3.86	4.32	4.77	5.22	5.74	6.25	6.84	7.57	8.29	9.01	9.72	10.43	11.13	12.79	
1440	**2.39**	**2.79**	**3.18**	**3.57**	**3.96**	**4.42**	**4.89**	**5.35**	**5.88**	**6.41**	**7.01**	**7.76**	**8.50**	**9.24**	**9.97**	**10.69**	**11.41**	**13.10**	
1500	2.47	2.88	3.29	3.70	4.10	4.58	5.06	5.54	6.09	6.64	7.27	8.04	8.81	9.57	10.33	11.08	11.82	13.57	
1600	2.61	3.04	3.47	3.90	4.33	4.84	5.35	5.86	6.44	7.03	7.69	8.51	9.32	10.12	10.92	11.71	12.49	14.33	
1700	2.74	3.20	3.65	4.11	4.56	5.10	5.64	6.17	6.79	7.41	8.10	8.97	9.82	10.67	11.51	12.33	13.15	15.08	
1800	2.87	3.35	3.83	4.31	4.79	5.36	5.92	6.48	7.13	7.78	8.51	9.42	10.32	11.20	12.08	12.94	13.80	15.81	
1900	2.99	3.50	4.01	4.51	5.01	5.61	6.20	6.79	7.47	8.15	8.91	9.86	10.80	11.73	12.64	13.54	14.44	16.52	
2000	3.12	3.65	4.18	4.71	5.23	5.86	6.48	7.09	7.80	8.51	9.31	10.30	11.28	12.24	13.19	14.13	15.06	17.22	
2100	3.24	3.80	4.35	4.90	5.45	6.10	6.75	7.39	8.13	8.87	9.70	10.73	11.75	12.75	13.74	14.71	15.67	17.90	
2200	3.36	3.94	4.52	5.09	5.66	6.34	7.02	7.68	8.46	9.22	10.09	11.16	12.21	13.25	14.27	15.27	16.26	18.56	
2300	3.48	4.09	4.69	5.28	5.87	6.58	7.28	7.97	8.77	9.57	10.47	11.57	12.66	13.73	14.79	15.82	16.84	19.19	
2400	3.60	4.23	4.85	5.47	6.08	6.81	7.54	8.26	9.09	9.91	10.84	11.98	13.11	14.21	15.30	16.36	17.40	19.81	
2500	3.72	4.37	5.01	5.65	6.29	7.05	7.80	8.54	9.40	10.25	11.20	12.38	13.54	14.68	15.79	16.88	17.95	20.41	30
2600	3.83	4.50	5.17	5.83	6.49	7.27	8.05	8.82	9.70	10.58	11.56	12.78	13.97	15.14	16.28	17.39	18.48	20.99	
2700	3.94	4.64	5.33	6.01	6.69	7.50	8.30	9.09	10.00	10.90	11.92	13.16	14.39	15.58	16.75	17.89	19.00	21.54	
2800	4.05	4.77	5.48	6.19	6.89	7.72	8.54	9.36	10.30	11.22	12.26	13.54	14.80	16.02	17.21	18.37	19.50	22.07	
2880	**4.14**	**4.87**	**5.60**	**6.32**	**7.04**	**7.89**	**8.73**	**9.57**	**10.53**	**11.47**	**12.54**	**13.84**	**15.12**	**16.36**	**17.57**	**18.75**	**19.89**	**22.48**	
2900	4.16	4.90	5.63	6.36	7.08	7.94	8.78	9.62	10.58	11.54	12.60	13.91	15.19	16.44	17.66	18.84	19.98	22.58	
3000	4.26	5.03	5.78	6.53	7.27	8.15	9.02	9.88	10.87	11.84	12.94	14.28	15.58	16.86	18.09	19.29	20.45	23.06	
3200	4.47	5.27	6.07	6.86	7.64	8.57	9.48	10.38	11.42	12.44	13.58	14.98	16.33	17.65	18.92	20.14	21.32	23.96	
3400	4.67	5.51	6.35	7.18	8.00	8.97	9.93	10.87	11.95	13.01	14.20	15.64	17.04	18.39	19.69	20.93	22.12	24.75	40
3600	4.86	5.75	6.62	7.49	8.34	9.36	10.35	11.34	12.46	13.56	14.78	16.27	17.71	19.08	20.40	21.65	22.85	25.43	
3800	5.04	5.97	6.88	7.79	8.68	9.73	10.76	11.78	12.94	14.08	15.34	16.86	18.33	19.72	21.05	22.30	23.48	25.99	
4000	5.22	6.18	7.13	8.07	9.00	10.09	11.16	12.21	13.40	14.57	15.86	17.42	18.90	20.31	21.63	22.88	24.04	26.44	
4200	5.38	6.38	7.37	8.34	9.30	10.43	11.53	12.61	13.84	15.03	16.35	17.93	19.42	20.83	22.15	23.37	24.50	26.76	
4400	5.54	6.58	7.60	8.60	9.59	10.75	11.89	12.99	14.25	15.47	16.81	18.40	19.90	21.30	22.60	23.79	24.86	26.95	
4600	5.69	6.76	7.82	8.85	9.87	11.06	12.22	13.35	14.63	15.87	17.22	18.83	20.32	21.71	22.97	24.12	25.13	27.00	
4800	5.83	6.94	8.02	9.08	10.13	11.35	12.54	13.69	14.99	16.24	17.61	19.21	20.69	22.05	23.27	24.36	25.30		
5000	5.96	7.10	8.21	9.31	10.37	11.62	12.83	14.00	15.32	16.58	17.95	19.54	21.00	22.32	23.49	24.51	25.36		
5200	6.09	7.25	8.40	9.51	10.60	11.87	13.10	14.29	15.62	16.89	18.25	19.83	21.26	22.53	23.63	24.56			
5400	6.20	7.40	8.57	9.71	10.82	12.11	13.35	14.55	15.89	17.16	18.51	20.07	21.45	22.67	23.69				
5600	6.31	7.53	8.72	9.88	11.01	12.32	13.58	14.79	16.13	17.39	18.73	20.25	21.59	22.73					
5800	6.40	7.65	8.87	10.05	11.19	12.52	13.79	15.00	16.34	17.59	18.91	20.39	21.66						
6000	6.49	7.76	9.00	10.19	11.35	12.69	13.97	15.18	16.51	17.75	19.04	20.46							

POWER RATINGS — QXPC QUATTRO PLUS WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																			Belt Speed (m/s)
	200	**212**	**224**	**236**	**250**	**265**	**280**	**300**	**315**	**335**	**355**	**375**	**400**	**425**	**450**	**475**	**500**	**530**	**560**	
100	2.09	2.31	2.53	2.75	3.01	3.28	3.55	3.92	4.19	4.55	4.90	5.26	5.71	6.15	6.59	7.03	7.47	8.00	8.52	
200	3.90	4.33	4.75	5.17	5.67	6.19	6.71	7.41	7.93	8.62	9.31	9.99	10.85	11.70	12.54	13.38	14.22	15.23	16.23	
500	8.81	9.81	10.81	11.80	12.96	14.19	15.42	17.05	18.26	19.87	21.47	23.06	25.04	27.00	28.95	30.88	32.80	35.08	37.34	
720	**12.10**	**13.50**	**14.90**	**16.29**	**17.90**	**19.61**	**21.32**	**23.57**	**25.25**	**27.48**	**29.68**	**31.86**	**34.56**	**37.23**	**39.87**	**42.48**	**45.05**	**48.09**	**51.08**	
800	13.25	14.79	16.33	17.85	19.62	21.50	23.37	25.85	27.68	30.11	32.52	34.90	37.84	40.74	43.60	46.42	49.20	52.47	55.67	
900	14.65	16.36	18.07	19.76	21.72	23.81	25.88	28.61	30.64	33.32	35.96	38.58	41.80	44.96	48.08	51.13	54.13	57.65	61.07	
960	**15.47**	**17.28**	**19.09**	**20.88**	**22.96**	**25.16**	**27.35**	**30.23**	**32.37**	**35.19**	**37.97**	**40.71**	**44.09**	**47.40**	**50.65**	**53.83**	**56.95**	**60.59**	**64.12**	
1000	16.01	17.89	19.76	21.62	23.77	26.05	28.31	31.29	33.50	36.41	39.28	42.11	45.58	48.99	52.32	55.58	58.76	62.48	66.07	30
1100	17.33	19.38	21.41	23.42	25.75	28.22	30.66	33.88	36.26	39.39	42.46	45.49	49.19	52.81	56.33	59.75	63.08	66.93	70.63	
1200	18.62	20.83	23.01	25.18	27.68	30.32	32.94	36.38	38.92	42.25	45.51	48.71	52.61	56.40	60.08	63.63	67.05	70.99	74.73	
1300	19.87	22.23	24.56	26.87	29.54	32.36	35.14	38.78	41.47	44.98	48.41	51.76	55.83	59.76	63.55	67.19	70.66	74.62	78.33	40
1400	21.08	23.59	26.07	28.52	31.34	34.32	37.25	41.09	43.91	47.58	51.16	54.64	58.85	62.88	66.74	70.41	73.89	77.79	81.39	
1440	**21.56**	**24.12**	**26.66**	**29.16**	**32.04**	**35.08**	**38.08**	**41.98**	**44.85**	**48.58**	**52.22**	**55.74**	**59.99**	**64.05**	**67.93**	**71.60**	**75.06**	**78.92**	**82.46**	
1500	22.26	24.91	27.52	30.11	33.08	36.21	39.28	43.29	46.23	50.05	53.75	57.33	61.64	65.73	69.62	73.27	76.69	80.48	83.88	
1600	23.39	26.18	28.93	31.64	34.75	38.02	41.22	45.39	48.43	52.37	56.17	59.83	64.19	68.31	72.17	75.76	79.07	82.64	85.77	
1700	24.49	27.40	30.28	33.10	36.34	39.74	43.07	47.37	50.50	54.54	58.41	62.12	66.50	70.60	74.38	77.85	80.98	84.27	87.02	
1800	25.54	28.58	31.57	34.51	37.87	41.39	44.82	49.24	52.44	56.55	60.47	64.20	68.56	72.58	76.23	79.52	82.40	85.31	87.59	
1900	26.55	29.71	32.81	35.85	39.33	42.95	46.46	50.98	54.24	58.40	62.34	66.05	70.34	74.24	77.71	80.74	83.31	85.75		
2000	27.52	30.79	34.00	37.13	40.70	44.41	48.01	52.60	55.90	60.08	64.00	67.66	71.84	75.56	78.79	81.50	83.68			
2100	28.44	31.82	35.12	38.34	42.00	45.79	49.44	54.09	57.41	61.58	65.46	69.03	73.05	76.53	79.45	81.78				
2200	29.32	32.79	36.18	39.48	43.21	47.07	50.77	55.44	58.76	62.89	66.69	70.15	73.94	77.13	79.68					
2300	30.15	33.71	37.18	40.54	44.34	48.24	51.97	56.66	59.94	64.01	67.70	70.99	74.52	77.35						
2400	30.94	34.58	38.11	41.53	45.38	49.32	53.06	57.72	60.96	64.93	68.47	71.56	74.76							
2500	31.67	35.38	38.98	42.44	46.33	50.28	54.02	58.63	61.81	65.64	69.00	71.84								
2600	32.35	36.13	39.77	43.28	47.18	51.14	54.85	59.39	62.47	66.14	69.26									
2700	32.98	36.81	40.50	44.03	47.94	51.88	55.54	59.98	62.95	66.41	69.27									
2800	33.56	37.43	41.15	44.69	48.60	52.50	56.10	60.40	63.23	66.45										
2880	**33.98**	**37.88**	**41.61**	**45.16**	**49.05**	**52.91**	**56.45**	**60.62**	**63.32**											
2900	34.08	37.99	41.72	45.27	49.15	53.00	56.52	60.65												
3000	34.54	38.48	42.22	45.75	49.60	53.38	56.79	60.72												
3200	35.29	39.25	42.97	46.44	50.17	53.74														
3400	35.80	39.73	43.38	46.74																
3600	36.04	39.91																		
3800	36.02																			

NOTES: Only Fenner pulleys should be used for belt speeds between 30 and 40 m/s. For belt speeds greather than 40 m/sec consult your authorised distributor.
Use the additional power per belt for speed ratio from pages 58 & 59

POWER RATINGS - XPZ CRE WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																		Belt Speed (m/s)
	56	**60**	**63**	**67**	**71**	**75**	**80**	**85**	**90**	**95**	**100**	**106**	**112**	**118**	**125**	**132**	**140**	**150**	
100	0.10	0.11	0.13	0.14	0.16	0.17	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.36	0.38	0.41	0.45	
500	0.38	0.45	0.50	0.57	0.64	0.71	0.79	0.88	0.96	1.04	1.12	1.22	1.32	1.42	1.53	1.65	1.78	1.94	
720	**0.51**	**0.61**	**0.68**	**0.78**	**0.87**	**0.97**	**1.09**	**1.20**	**1.32**	**1.44**	**1.55**	**1.69**	**1.83**	**1.97**	**2.12**	**2.28**	**2.46**	**2.69**	
960	**0.65**	**0.77**	**0.87**	**0.99**	**1.12**	**1.24**	**1.39**	**1.54**	**1.70**	**1.85**	**2.00**	**2.18**	**2.36**	**2.53**	**2.74**	**2.95**	**3.18**	**3.47**	
1000	0.67	0.80	0.90	1.03	1.15	1.28	1.44	1.60	1.76	1.91	2.07	2.26	2.44	2.63	2.84	3.05	3.30	3.60	
1100	0.72	0.86	0.97	1.11	1.25	1.39	1.56	1.74	1.91	2.08	2.25	2.45	2.66	2.86	3.09	3.32	3.58	3.91	
1200	0.77	0.92	1.04	1.19	1.34	1.50	1.68	1.87	2.06	2.24	2.43	2.65	2.86	3.08	3.33	3.58	3.87	4.22	
1300	0.82	0.99	1.11	1.27	1.44	1.60	1.80	2.00	2.20	2.40	2.60	2.84	3.07	3.30	3.57	3.84	4.15	4.52	
1400	0.87	1.04	1.18	1.35	1.53	1.70	1.92	2.13	2.35	2.56	2.77	3.02	3.27	3.52	3.81	4.10	4.42	4.82	
1440	**0.89**	**1.07**	**1.20**	**1.39**	**1.56**	**1.74**	**1.97**	**2.19**	**2.41**	**2.62**	**2.84**	**3.10**	**3.35**	**3.61**	**3.91**	**4.20**	**4.53**	**4.94**	
1500	0.91	1.10	1.24	1.43	1.62	1.80	2.03	2.26	2.49	2.72	2.94	3.21	3.47	3.74	4.05	4.35	4.69	5.12	
1600	0.96	1.16	1.31	1.51	1.71	1.90	2.15	2.39	2.63	2.87	3.11	3.39	3.67	3.95	4.28	4.60	4.96	5.41	
1700	1.00	1.22	1.38	1.58	1.79	2.00	2.26	2.51	2.77	3.02	3.27	3.57	3.87	4.16	4.50	4.84	5.22	5.70	
1800	1.05	1.27	1.44	1.66	1.88	2.10	2.37	2.64	2.90	3.17	3.43	3.75	4.06	4.37	4.73	5.08	5.48	5.98	
1900	1.09	1.33	1.50	1.73	1.96	2.19	2.48	2.76	3.04	3.32	3.59	3.92	4.25	4.57	4.95	5.32	5.74	6.25	
2000	1.13	1.38	1.56	1.81	2.05	2.29	2.58	2.88	3.17	3.46	3.75	4.10	4.44	4.77	5.16	5.55	5.99	6.53	
2100	1.18	1.43	1.62	1.88	2.13	2.38	2.69	3.00	3.30	3.61	3.91	4.27	4.62	4.97	5.38	5.78	6.23	6.79	
2200	1.22	1.48	1.68	1.95	2.21	2.47	2.79	3.11	3.43	3.75	4.06	4.43	4.80	5.17	5.59	6.01	6.48	7.05	
2300	1.26	1.53	1.74	2.02	2.29	2.56	2.90	3.23	3.56	3.89	4.21	4.60	4.98	5.36	5.80	6.23	6.71	7.31	
2400	1.29	1.58	1.80	2.08	2.37	2.65	3.00	3.34	3.69	4.03	4.36	4.76	5.16	5.55	6.00	6.45	6.95	7.56	
2500	1.33	1.63	1.86	2.15	2.44	2.74	3.10	3.46	3.81	4.16	4.51	4.92	5.33	5.74	6.20	6.66	7.18	7.81	
2600	1.37	1.68	1.91	2.22	2.52	2.82	3.20	3.57	3.93	4.30	4.66	5.08	5.50	5.92	6.40	6.87	7.40	8.05	
2700	1.41	1.73	1.97	2.28	2.60	2.91	3.29	3.68	4.05	4.43	4.80	5.24	5.67	6.10	6.59	7.08	7.62	8.29	
2800	1.44	1.77	2.02	2.35	2.67	2.99	3.39	3.78	4.17	4.56	4.94	5.39	5.84	6.28	6.79	7.28	7.84	8.52	
2880	**1.47**	**1.81**	**2.06**	**2.40**	**2.73**	**3.06**	**3.47**	**3.87**	**4.27**	**4.66**	**5.05**	**5.51**	**5.97**	**6.42**	**6.94**	**7.44**	**8.01**	**8.70**	
2900	1.48	1.82	2.07	2.41	2.74	3.07	3.48	3.89	4.29	4.69	5.08	5.54	6.00	6.45	6.97	7.48	8.05	8.75	
3000	1.51	1.86	2.13	2.47	2.82	3.16	3.58	3.99	4.41	4.81	5.22	5.69	6.16	6.63	7.16	7.68	8.26	8.97	
3200	1.58	1.95	2.23	2.59	2.96	3.32	3.76	4.20	4.63	5.06	5.48	5.98	6.48	6.96	7.51	8.06	8.66	9.39	
3400	1.64	2.03	2.33	2.71	3.09	3.47	3.94	4.40	4.85	5.30	5.74	6.26	6.78	7.28	7.86	8.42	9.04	9.79	
3600	1.70	2.12	2.42	2.83	3.23	3.62	4.11	4.59	5.07	5.53	5.99	6.54	7.07	7.59	8.18	8.76	9.40	10.17	
3800	1.76	2.19	2.51	2.94	3.35	3.77	4.28	4.78	5.27	5.76	6.23	6.80	7.35	7.88	8.49	9.09	9.74	10.52	30
4000	1.82	2.27	2.60	3.04	3.48	3.91	4.44	4.96	5.47	5.97	6.47	7.05	7.61	8.16	8.79	9.39	10.06	10.85	
4200	1.87	2.34	2.69	3.15	3.60	4.04	4.59	5.13	5.66	6.18	6.69	7.29	7.87	8.43	9.07	9.68	10.35	11.15	
4400	1.92	2.41	2.77	3.24	3.71	4.17	4.74	5.30	5.84	6.38	6.90	7.51	8.11	8.68	9.33	9.95	10.63	11.42	
4600	1.97	2.48	2.85	3.34	3.82	4.30	4.89	5.46	6.02	6.57	7.10	7.73	8.33	8.92	9.57	10.20	10.87	11.66	
4800	2.02	2.54	2.92	3.43	3.93	4.42	5.02	5.61	6.19	6.75	7.30	7.93	8.55	9.14	9.80	10.43	11.10	11.87	
5000	2.06	2.60	3.00	3.52	4.03	4.54	5.16	5.76	6.35	6.92	7.48	8.13	8.75	9.35	10.01	10.63	11.30	12.05	40
5200	2.10	2.66	3.06	3.60	4.13	4.65	5.28	5.90	6.50	7.09	7.65	8.31	8.94	9.53	10.20	10.81	11.47	12.20	
5400	2.14	2.71	3.13	3.68	4.22	4.76	5.40	6.03	6.65	7.24	7.81	8.48	9.11	9.71	10.36	10.97	11.61	12.31	
5600	2.17	2.76	3.19	3.76	4.31	4.86	5.52	6.16	6.78	7.38	7.96	8.63	9.26	9.86	10.51	11.11	11.73	12.40	
5800	2.21	2.81	3.25	3.83	4.40	4.95	5.63	6.28	6.91	7.52	8.10	8.77	9.40	10.00	10.64	11.22	11.82	12.44	
6000	2.24	2.85	3.30	3.90	4.48	5.04	5.73	6.39	7.03	7.64	8.23	8.90	9.53	10.11	10.74	11.31	11.87	12.45	

POWER RATINGS - XPB CRE WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																		Belt Speed (m/s)
	112	**118**	**125**	**132**	**140**	**150**	**160**	**170**	**180**	**190**	**200**	**212**	**224**	**236**	**250**	**285**	**290**	**300**	**315**	
100	0.51	0.57	0.64	0.71	0.79	0.89	0.99	1.09	1.18	1.28	1.38	1.49	1.61	1.72	1.85	1.99	2.14	2.32	2.46	
500	1.97	2.24	2.55	2.86	3.21	3.65	4.08	4.51	4.94	5.37	5.80	6.31	6.81	7.32	7.90	8.52	9.14	9.96	10.57	
720	**2.64**	**3.01**	**3.45**	**3.88**	**4.37**	**4.98**	**5.58**	**6.19**	**6.78**	**7.38**	**7.97**	**8.67**	**9.37**	**10.07**	**10.88**	**11.73**	**12.58**	**13.71**	**14.54**	
800	2.87	3.28	3.76	4.23	4.77	5.44	6.11	6.77	7.42	8.08	8.73	9.50	10.27	11.03	11.91	12.85	13.78	15.01	15.92	
900	3.14	3.60	4.13	4.66	5.26	6.00	6.74	7.48	8.21	8.93	9.65	10.51	11.36	12.20	13.18	14.21	15.23	16.58	17.58	
960	**3.30**	**3.79**	**4.35**	**4.91**	**5.55**	**6.34**	**7.12**	**7.90**	**8.67**	**9.43**	**10.19**	**11.10**	**12.00**	**12.89**	**13.92**	**15.01**	**16.09**	**17.50**	**18.55**	
1000	3.41	3.91		5.08	5.74	6.55	7.37	8.17	8.97	9.76	10.55	11.49	12.42	13.34	14.40	15.53	16.64	18.11	19.19	
1100	3.67	4.21	4.85	5.48	6.20	7.09	7.97	8.85	9.71	10.58	11.43	12.44	13.45	14.45	15.59	16.81	18.00	19.58	20.73	
1200	3.91	4.51	5.19	5.87	6.65	7.61	8.56	9.50	10.44	11.37	12.28	13.37	14.45	15.52	16.75	18.04	19.32	20.99	22.22	
1300	4.15	4.79	5.53	6.26	7.09	8.12	9.14	10.15	11.14	12.13	13.11	14.28	15.42	16.56	17.86	19.23	20.58	22.34	23.63	
1400	4.38	5.06	5.85	6.63	7.52	8.61	9.70	10.77	11.83	12.88	13.92	15.15	16.37	17.56	18.94	20.38	21.80	23.64	24.98	
1440	**4.47**	**5.17**	**5.98**	**6.78**	**7.68**	**8.81**	**9.92**	**11.01**	**12.10**	**13.18**	**14.24**	**15.49**	**16.73**	**17.95**	**19.35**	**20.83**	**22.27**	**24.14**	**25.50**	
1500	4.61	5.33	6.16	6.99	7.93	9.09	10.24	11.38	12.50	13.61	14.70	16.00	17.28	18.53	19.97	21.48	22.96	24.87	26.26	
1600	4.82	5.59	6.47	7.34	8.34	9.56	10.77	11.97	13.15	14.31	15.46	16.82	18.16	19.47	20.97	22.53	24.06	26.03	27.46	
1700	5.03	5.84	6.76	7.69	8.73	10.02	11.29	12.54	13.78	15.00	16.20	17.61	19.00	20.36	21.92	23.54	25.11	27.13	28.58	
1800	5.23	6.08	7.05	8.02	9.11	10.46	11.79	13.10	14.39	15.66	16.90	18.38	19.82	21.22	22.83	24.49	26.10	28.16	29.63	30
1900	5.43	6.31	7.33	8.34	9.48	10.89	12.27	13.63	14.97	16.29	17.59	19.11	20.59	22.04	23.69	25.39	27.03	29.11	30.59	
2000	5.61	6.53	7.60	8.65	9.84	11.30	12.74	14.15	15.54	16.91	18.24	19.81	21.34	22.82	24.50	26.23	27.89	29.98	31.46	
2100	5.79	6.75	7.86	8.95	10.18	11.70	13.19	14.66	16.09	17.50	18.87	20.48	22.05	23.56	25.27	27.02	28.69	30.78	32.24	
2200	5.96	6.96	8.11	9.24	10.52	12.09	13.63	15.14	16.62	18.06	19.47	21.12	22.72	24.26	25.99	27.75	29.42	31.49	32.93	
2300	6.13	7.16	8.35	9.52	10.84	12.46	14.05	15.60	17.12	18.60	20.04	21.72	23.35	24.91	26.65	28.42	30.08	32.12	33.52	
2400	6.28	7.35	8.58	9.79	11.15	12.82	14.45	16.05	17.60	19.12	20.59	22.30	23.94	25.51	27.26	29.02	30.67	32.66	34.00	40
2500	6.43	7.53	8.80	10.05	11.45	13.17	14.84	16.47	18.06	19.60	21.10	22.83	24.49	26.07	27.82	29.56	31.18	33.11	34.38	
2600	6.58	7.71	9.01	10.29	11.73	13.49	15.21	16.88	18.50	20.06	21.58	23.33	25.00	26.58	28.32	30.04	31.61	33.46	34.65	
2700	6.71	7.88	9.21	10.53	12.01	13.81	15.56	17.26	18.91	20.50	22.03	23.79	25.46	27.04	28.76	30.44	31.96	33.71	34.81	
2800	6.84	8.03	9.41	10.76	12.27	14.11	15.89	17.62	19.29	20.90	22.45	24.21	25.88	27.45	29.13	30.77	32.23	33.86	34.85	
2880	**6.93**	**8.15**	**9.55**	**10.93**	**12.47**	**14.34**	**16.15**	**17.90**	**19.58**	**21.20**	**22.76**	**24.52**	**26.18**	**27.73**	**29.39**	**30.99**	**32.38**	**33.91**	**34.80**	
2900	6.96	8.18	9.59	10.97	12.51	14.39	16.21	17.96	19.65	21.28	22.83	24.60	26.26	27.80	29.45	31.03	32.41	33.91	34.77	
3000	7.07	8.32	9.76	11.17	12.75	14.66	16.50	18.28	19.99	21.62	23.18	24.94	26.58	28.10	29.70	31.22	32.50	33.85	34.57	
3200	7.27	8.58	10.08	11.54	13.17	15.14	17.04	18.85	20.58	22.22	23.77	25.50	27.09	28.53	30.01	31.35	32.41	33.39	33.78	
3400	7.43	8.79	10.35	11.86	13.54	15.56	17.49	19.32	21.06	22.69	24.21	25.88	27.39	28.72	29.89	31.15	31.94	32.46	32.44	
3600	7.56	8.97	10.57	12.13	13.85	15.90	17.85	19.69	21.42	23.02	24.49	26.09	27.48	28.66	29.77	30.60	31.05	31.04	30.53	
3800	7.66	9.11	10.76	12.35	14.09	16.18	18.13	19.96	21.66	23.21	24.61	26.09	27.34	28.34	29.19	29.69	29.74	29.09	28.01	
4000	7.73	9.21	10.89	12.51	14.28	16.37	18.32	20.12	21.77	23.25	24.56	25.90	26.97	27.75	28.29	28.39	27.98	26.58	24.86	
4200	7.75	9.27	10.98	12.61	14.40	16.49	18.41	20.17	21.75	23.14	24.34	25.50	26.35	26.87	27.05	26.69	25.75	23.50	21.05	
4400	7.74	9.28	11.01	12.66	14.45	16.52	18.41	20.10	21.59	22.87	23.92	24.87	25.47	25.69	25.45	24.58	23.02	19.82	16.53	
4600	7.69	9.25	11.00	12.65	14.43	16.47	18.30	19.91	21.29	22.43	23.31	24.02	24.32	24.20	23.49	22.02	19.77	15.50	11.29	
4800	7.60	9.18	10.93	12.57	14.33	16.32	18.08	19.59	20.84	21.82	22.50	22.93	22.89	22.38	21.14	19.00	15.99	10.53	5.28	
5000	7.47	9.05	10.80	12.44	14.16	16.09	17.76	19.14	20.24	21.02	21.48	21.59	21.17	20.22	18.39	15.51	11.65	4.87	-1.52	



POWER RATINGS - XPA CRE WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																			Belt Speed (m/s)
	80	**85**	**90**	**95**	**100**	**106**	**112**	**118**	**125**	**132**	**140**	**150**	**160**	**170**	**180**	**190**	**200**	**212**	**224**	
100	0.22	0.25	0.28	0.32	0.35	0.39	0.43	0.47	0.52	0.57	0.62	0.69	0.75	0.82	0.88	0.95	1.01	1.09	1.17	
500	0.81	0.96	1.11	1.27	1.42	1.60	1.78	1.96	2.17	2.38	2.62	2.91	3.21	3.50	3.79	4.08	4.37	4.71	5.05	
720	**1.07**	**1.29**	**1.50**	**1.72**	**1.93**	**2.18**	**2.44**	**2.69**	**2.98**	**3.27**	**3.61**	**4.02**	**4.43**	**4.83**	**5.24**	**5.64**	**6.04**	**6.52**	**6.99**	
960	**1.33**	**1.61**	**1.89**	**2.17**	**2.45**	**2.78**	**3.11**	**3.44**	**3.82**	**4.20**	**4.63**	**5.16**	**5.69**	**6.22**	**6.74**	**7.26**	**7.78**	**8.39**	**9.00**	
1000	1.37	1.67	1.96	2.25	2.53	2.88	3.22	3.56	3.96	4.35	4.79	5.35	5.90	6.44	6.98	7.52	8.05	8.69	9.32	
1100	1.47	1.79	2.11	2.43	2.74	3.11	3.49	3.86	4.29	4.72	5.20	5.80	6.40	6.99	7.58	8.16	8.74	9.43	10.11	
1200	1.57	1.92	2.26	2.60	2.94	3.35	3.75	4.15	4.61	5.08	5.60	6.25	6.90	7.53	8.17	8.79	9.42	10.15	10.88	
1300	1.66	2.04	2.40	2.77	3.14	3.57	4.01	4.44	4.93	5.43	5.99	6.69	7.38	8.06	8.74	9.41	10.07	10.86	11.63	
1400	1.75	2.15	2.55	2.94	3.33	3.79	4.26	4.72	5.25	5.78	6.38	7.12	7.85	8.58	9.30	10.01	10.71	11.54	12.36	
1440	**1.79**	**2.20**	**2.60**	**3.00**	**3.40**	**3.88**	**4.35**	**4.83**	**5.37**	**5.91**	**6.53**	**7.29**	**8.04**	**8.78**	**9.52**	**10.24**	**10.96**	**11.81**	**12.65**	
1500	1.84	2.26	2.68	3.10	3.52	4.01	4.50	4.99	5.56	6.12	6.75	7.54	8.32	9.08	9.84	10.59	11.33	12.21	13.07	
1600	1.92	2.37	2.82	3.26	3.70	4.22	4.74	5.26	5.86	6.45	7.12	7.95	8.77	9.58	10.38	11.16	11.94	12.86	13.76	
1700	2.01	2.48	2.95	3.41	3.88	4.43	4.98	5.52	6.15	6.77	7.48	8.35	9.21	10.06	10.89	11.72	12.53	13.48	14.42	
1800	2.08	2.58	3.07	3.57	4.05	4.63	5.21	5.78	6.44	7.09	7.83	8.74	9.64	10.53	11.40	12.26	13.10	14.09	15.06	
1900	2.16	2.68	3.20	3.71	4.22	4.83	5.43	6.03	6.72	7.40	8.18	9.13	10.06	10.98	11.89	12.78	13.65	14.68	15.68	
2000	2.23	2.78	3.32	3.86	4.39	5.02	5.65	6.28	7.00	7.71	8.51	9.50	10.47	11.43	12.37	13.29	14.19	15.24	16.27	
2100	2.30	2.87	3.44	4.00	4.55	5.21	5.87	6.52	7.27	8.01	8.84	9.87	10.87	11.86	12.83	13.77	14.70	15.78	16.83	
2200	2.37	2.96	3.55	4.13	4.71	5.40	6.08	6.75	7.53	8.30	9.16	10.22	11.26	12.28	13.27	14.25	15.19	16.30	17.37	
2300	2.44	3.05	3.66	4.27	4.87	5.58	6.28	6.98	7.79	8.58	9.47	10.57	11.64	12.68	13.70	14.70	15.67	16.79	17.88	
2400	2.50	3.14	3.77	4.40	5.02	5.76	6.48	7.21	8.04	8.85	9.77	10.90	12.00	13.07	14.12	15.14	16.12	17.26	18.36	
2500	2.56	3.22	3.87	4.52	5.16	5.93	6.68	7.42	8.28	9.12	10.07	11.22	12.35	13.45	14.52	15.55	16.55	17.71	18.81	30
2600	2.61	3.30	3.97	4.64	5.31	6.09	6.87	7.63	8.52	9.38	10.35	11.54	12.69	13.81	14.90	15.95	16.96	18.12	19.23	
2700	2.67	3.37	4.07	4.76	5.45	6.25	7.05	7.84	8.75	9.63	10.63	11.84	13.02	14.16	15.26	16.33	17.35	18.52	19.62	
2800	2.72	3.45	4.17	4.88	5.58	6.41	7.23	8.04	8.97	9.88	10.90	12.13	13.33	14.49	15.61	16.68	17.71	18.88	19.98	
2880	**2.76**	**3.50**	**4.24**	**4.97**	**5.68**	**6.53**	**7.37**	**8.20**	**9.14**	**10.07**	**11.10**	**12.36**	**13.58**	**14.75**	**15.87**	**16.95**	**17.98**	**19.15**	**20.24**	
3000	2.82	3.59	4.35	5.10	5.84	6.71	7.57	8.42	9.39	10.34	11.40	12.69	13.92	15.11	16.25	17.33	18.36	19.52	20.59	
3200	2.90	3.71	4.51	5.30	6.08	6.99	7.89	8.78	9.79	10.77	11.87	13.19	14.45	15.66	16.81	17.89	18.91	20.04	21.07	
3400	2.98	3.83	4.66	5.49	6.30	7.25	8.19	9.11	10.15	11.17	12.29	13.64	14.93	16.15	17.29	18.36	19.35	20.43	21.39	40
3600	3.05	3.93	4.80	5.66	6.50	7.49	8.46	9.41	10.49	11.53	12.68	14.05	15.34	16.56	17.69	18.73	19.68	20.69	21.56	
3800	3.10	4.02	4.93	5.82	6.69	7.71	8.71	9.69	10.79	11.85	13.02	14.40	15.69	16.89	18.00	19.00	19.89	20.81	21.57	
4000	3.14	4.10	5.04	5.96	6.86	7.91	8.94	9.93	11.05	12.13	13.31	14.70	15.98	17.15	18.21	19.16	19.98	20.79	21.40	
4200	3.18	4.16	5.13	6.08	7.00	8.09	9.13	10.15	11.29	12.38	13.56	14.93	16.19	17.33	18.34	19.21	19.93	20.61	21.06	
4400	3.20	4.22	5.21	6.18	7.13	8.24	9.30	10.33	11.48	12.58	13.76	15.11	16.34	17.42	18.36	19.14	19.75	20.27	20.52	
4600	3.21	4.25	5.28	6.27	7.24	8.36	9.45	10.49	11.64	12.74	13.90	15.23	16.41	17.42	18.27	18.95	19.43	19.76	19.80	
4800	3.21	4.28	5.32	6.34	7.33	8.47	9.56	10.61	11.76	12.85	13.99	15.28	16.40	17.34	18.08	18.63	18.97	19.08	18.86	
5000	3.19	4.29	5.36	6.39	7.39	8.54	9.65	10.69	11.84	12.91	14.03	15.27	16.31	17.15	17.78	18.18	18.35	18.22	17.72	
5200	3.16	4.28	5.37	6.42	7.43	8.60	9.70	10.75	11.88	12.93	14.01	15.19	16.14	16.87	17.36	17.60	17.57	17.17	16.35	
5400	3.12	4.27	5.37	6.43	7.45	8.62	9.72	10.76	11.88	12.90	13.94	15.03	15.88	16.49	16.82	16.87	16.63	15.93	14.76	
5600	3.07	4.23	5.35	6.42	7.45	8.62	9.72	10.74	11.83	12.82	13.80	14.80	15.54	15.99	16.15	16.00	15.52	14.48	12.93	
5800	3.01	4.18	5.31	6.39	7.42	8.59	9.67	10.68	11.74	12.68	13.60	14.50	15.10	15.39	15.36	14.98	14.23	12.83	10.85	
6000	2.93	4.12	5.25	6.34	7.37	8.52	9.60	10.58	11.60	12.49	13.34	14.12	14.57	14.68	14.43	13.80	12.76	10.96	8.52	

POWER RATINGS - XPC CRE WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																			Belt Speed (m/s)
	200	**212**	**224**	**236**	**250**	**265**	**280**	**300**	**315**	**335**	**355**	**375**	**400**	**425**	**450**	**475**	**500**	**530**	**560**	
100	1.75	1.97	2.20	2.43	2.69	2.98	3.26	3.63	3.91	4.28	4.65	5.02	5.47	5.93	6.38	6.83	7.28	7.82	8.36	
500	6.71	7.73	8.74	9.75	10.92	12.16	13.40	15.04	16.27	17.89	19.49	21.09	23.07	25.03	26.98	28.90	30.81	33.07	35.31	
720	**8.95**	**10.36**	**11.77**	**13.16**	**14.78**	**16.50**	**18.21**	**20.46**	**22.14**	**24.35**	**26.54**	**28.71**	**31.38**	**34.02**	**36.61**	**39.16**	**41.68**	**44.64**	**47.53**	
800	9.70	11.25	12.79	14.32	16.10	17.98	19.85	22.31	24.14	26.55	28.93	31.28	34.18	37.02	39.82	42.56	45.25	48.40	51.48	
900	10.60	12.32	14.02	15.72	17.68	19.76	21.81	24.52	26.53	29.18	31.78	34.35	37.49	40.58	43.59	46.53	49.40	52.75	55.99	
960	**11.11**	**12.93**	**14.73**	**16.52**	**18.59**	**20.78**	**22.95**	**25.80**	**27.91**	**30.69**	**33.42**	**36.10**	**39.38**	**42.59**	**45.72**	**48.76**	**51.72**	**55.16**	**58.46**	
1000	11.45	13.33	15.20	17.05	19.19	21.45	23.69	26.63	28.81	31.67	34.47	37.23	40.60	43.88	47.08	50.18	53.19	56.67	60.00	30
1100	12.25	14.29	16.31	18.31	20.62	23.06	25.47	28.63	30.96	34.02	37.01	39.93	43.49	46.94	50.27	53.49	56.58	60.12	63.47	
1200	13.01	15.20	17.37	19.51	21.98	24.59	27.16	30.52	32.99	36.22	39.37	42.43	46.14	49.72	53.15	56.43	59.55	63.08	66.37	
1300	13.72	16.06	18.37	20.65	23.27	26.03	28.75	32.29	34.89	38.26	41.55	44.72	48.55	52.21	55.68	58.97	62.07	65.51	68.65	40
1400	**14.39**	**16.87**	**19.31**	**21.72**	**24.48**	**27.39**	**30.23**	**33.94**	**36.64**	**40.15**	**43.54**	**46.80**	**50.70**	**54.39**	**57.86**	**61.10**	**64.10**	**67.37**	-	
1440	14.64	17.17	19.67	22.12	24.94	27.90	30.80	34.56	37.30	40.85	44.28	47.57	51.48	55.17	58.63	61.83	64.77	67.95	-	
1500	15.01	17.62	20.19	22.71	25.61	28.64	31.61	35.46	38.25	41.86	45.33	48.65	52.58	56.25	59.66	62.79	65.62	-	-	
1600	15.58	18.31	21.00	23.64	26.65	29.81	32.88	36.84	39.71	43.40	46.91	50.25	54.16	57.77	61.05	64.01	-	-	-	
1700	16.10	18.95	21.75	24.49	27.61	30.87	34.03	38.09	41.02	44.75	48.28	51.60	55.44	58.92	62.03	-	-	-	-	
1800	16.57	19.53	22.43	25.26	28.48	31.83	35.07	39.20	42.16	45.90	49.42	52.68	56.40	59.70	-	-	-	-	-	
1900	16.99	20.05	23.04	25.96	29.26	32.68	35.97	40.15	43.12	46.86	50.32	53.49	57.03	-	-	-	-	-	-	
2000	17.35	20.51	23.58	26.57	29.94	33.42	36.75	40.95	43.91	47.60	50.96	54.00	-	-	-	-	-	-	-	
2100	17.66	20.90	24.05	27.10	30.53	34.05	37.40	41.59	44.51	48.11	51.35	-	-	-	-	-	-	-	-	
2200	17.92	21.23	24.44	27.54	31.01	34.55	37.90	42.06	44.92	48.40	-	-	-	-	-	-	-	-	-	
2300	18.11	21.49	24.75	27.89	31.39	34.93	38.26	42.35	45.13	-	-	-	-	-	-	-	-	-	-	
2400	18.25	21.68	24.98	28.15	31.65	35.19	38.47	42.46	45.13	-	-	-	-	-	-	-	-	-	-	
2500	18.32	21.80	25.13	28.31	31.81	35.31	38.53	42.38	-	-	-	-	-	-	-	-	-	-	-	
2600	18.33	21.84	25.19	28.37	31.85	35.29	38.43	-	-	-	-	-	-	-	-	-	-	-	-	
2700	18.28	21.81	25.16	28.33	31.76	35.13	38.16	-	-	-	-	-	-	-	-	-	-	-	-	
2800	18.16	21.70	25.05	28.18	31.56	34.82	-	-	-	-	-	-	-	-	-	-	-	-	-	
2880	**18.01**	**21.56**	**24.88**	**27.98**	**31.30**	**34.47**	-	-	-	-	-	-	-	-	-	-	-	-	-	
2900	17.97	21.51	24.83	27.92	31.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3000	17.71	21.24	24.53	27.56	30.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTES: Only Fenner pulleys should be used for belt speeds between 30 and 40 m/s.
For belt speeds greather than 40 m/sec consult your authorised distributor.
Use the additional power per belt for speed ratio from pages 58 & 59

POWER RATINGS - SPZ WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)												Belt Speed (m/s)
	63	**67**	**71**	**75**	**80**	**85**	**90**	**95**	**100**	**112**	**125**	**140**	
100	0.12	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.25	0.30	0.35	0.40	
500	0.45	0.52	0.59	0.66	0.74	0.82	0.91	0.99	1.07	1.27	1.48	1.73	
720	**0.61**	**0.70**	**0.80**	**0.89**	**1.01**	**1.13**	**1.25**	**1.36**	**1.48**	**1.76**	**2.05**	**2.39**	
800	0.66	0.77	0.87	0.98	1.11	1.24	1.37	1.50	1.62	1.93	2.25	2.63	
900	0.73	0.85	0.96	1.08	1.23	1.37	1.51	1.66	1.80	2.14	2.50	2.92	
960	**0.77**	**0.89**	**1.02**	**1.14**	**1.29**	**1.45**	**1.60**	**1.75**	**1.90**	**2.26**	**2.65**	**3.09**	
1000	0.79	0.92	1.05	1.18	1.34	1.50	1.66	1.81	1.97	2.34	2.74	3.20	
1100	0.85	1.00	1.14	1.28	1.45	1.63	1.80	1.97	2.14	2.55	2.98	3.48	
1200	0.92	1.07	1.22	1.37	1.56	1.75	1.94	2.12	2.31	2.75	3.22	3.75	
1300	0.98	1.14	1.30	1.47	1.67	1.87	2.07	2.27	2.47	2.94	3.45	4.02	
1400	1.03	1.21	1.39	1.56	1.78	1.99	2.21	2.42	2.63	3.14	3.68	4.29	10
1440	**1.06**	**1.24**	**1.42**	**1.60**	**1.82**	**2.04**	**2.26**	**2.48**	**2.70**	**3.22**	**3.77**	**4.40**	
1500	1.09	1.28	1.47	1.65	1.88	2.11	2.34	2.57	2.79	3.33	3.90	4.55	
1600	1.15	1.35	1.54	1.74	1.99	2.23	2.47	2.71	2.95	3.52	4.12	4.81	
1700	1.20	1.41	1.62	1.83	2.09	2.34	2.60	2.85	3.11	3.70	4.34	5.06	
1800	1.25	1.48	1.70	1.92	2.19	2.46	2.73	2.99	3.26	3.89	4.55	5.31	
1900	1.31	1.54	1.77	2.00	2.29	2.57	2.85	3.13	3.41	4.07	4.77	5.56	
2000	1.36	1.60	1.84	2.08	2.38	2.68	2.97	3.27	3.56	4.24	4.97	5.80	
2100	1.41	1.66	1.92	2.17	2.48	2.79	3.10	3.40	3.70	4.42	5.18	6.03	
2200	1.46	1.72	1.99	2.25	2.57	2.90	3.21	3.53	3.85	4.59	5.38	6.27	
2300	1.51	1.78	2.06	2.33	2.67	3.00	3.33	3.66	3.99	4.76	5.58	6.49	
2400	1.55	1.84	2.13	2.41	2.76	3.10	3.45	3.79	4.13	4.92	5.77	6.72	
2500	1.60	1.90	2.19	2.49	2.85	3.21	3.56	3.92	4.26	5.09	5.96	6.94	
2600	1.65	1.95	2.26	2.56	2.94	3.31	3.68	4.04	4.40	5.25	6.15	7.15	
2700	1.69	2.01	2.32	2.64	3.02	3.41	3.79	4.16	4.53	5.41	6.33	7.36	
2800	1.74	2.06	2.39	2.71	3.11	3.50	3.89	4.28	4.66	5.56	6.51	7.56	20
2880	**1.77**	**2.11**	**2.44**	**2.77**	**3.18**	**3.58**	**3.98**	**4.38**	**4.77**	**5.69**	**6.65**	**7.72**	
2900	1.78	2.12	2.45	2.78	3.19	3.60	4.00	4.40	4.79	5.72	6.69	7.76	
3000	1.82	2.17	2.51	2.85	3.28	3.69	4.11	4.52	4.92	5.87	6.86	7.96	
3100	1.86	2.22	2.57	2.92	3.36	3.79	4.21	4.63	5.04	6.01	7.03	8.15	
3200	1.90	2.27	2.63	2.99	3.44	3.88	4.31	4.74	5.17	6.16	7.19	8.33	
3300	1.94	2.32	2.69	3.06	3.52	3.97	4.41	4.85	5.29	6.30	7.35	8.51	
3400	1.98	2.37	2.75	3.13	3.60	4.06	4.51	4.96	5.40	6.44	7.51	8.69	
3500	2.02	2.41	2.81	3.19	3.67	4.14	4.61	5.07	5.52	6.57	7.66	8.86	
3600	2.06	2.46	2.86	3.26	3.75	4.23	4.70	5.17	5.63	6.70	7.81	9.02	
3700	2.09	2.51	2.92	3.32	3.82	4.31	4.80	5.27	5.74	6.83	7.96	9.18	
3800	2.13	2.55	2.97	3.38	3.89	4.39	4.89	5.37	5.85	6.96	8.10	9.33	
3900	2.16	2.59	3.02	3.44	3.96	4.47	4.98	5.47	5.96	7.08	8.24	9.48	
4000	2.19	2.64	3.07	3.50	4.03	4.55	5.06	5.57	6.06	7.20	8.37	9.62	
4200	2.26	2.72	3.17	3.62	4.17	4.71	5.23	5.75	6.26	7.43	8.62	9.88	30
4400	2.32	2.80	3.27	3.73	4.29	4.85	5.39	5.93	6.45	7.64	8.85	10.12	
4600	2.38	2.87	3.35	3.83	4.42	4.99	5.55	6.09	6.63	7.85	9.07	10.34	
4800	2.43	2.94	3.44	3.93	4.53	5.12	5.69	6.25	6.79	8.03	9.26	10.52	
5000	2.48	3.01	3.52	4.03	4.64	5.24	5.83	6.40	6.95	8.20	9.44	10.68	
5200	2.53	3.07	3.60	4.11	4.75	5.36	5.96	6.54	7.10	8.36	9.59	10.82	
5400	2.57	3.13	3.67	4.20	4.84	5.47	6.08	6.66	7.23	8.50	9.72	10.92	40
5600	2.61	3.18	3.73	4.27	4.93	5.57	6.19	6.78	7.35	8.63	9.83	–	
5800	2.65	3.23	3.79	4.35	5.02	5.66	6.29	6.89	7.46	8.73	9.92	–	
6000	2.68	3.27	3.85	4.41	5.09	5.75	6.38	6.99	7.56	8.82	9.99	–	

POWER RATINGS - SPB WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)												Belt Speed (m/s)
	140	**150**	**160**	**170**	**180**	**190**	**200**	**212**	**224**	**236**	**250**	**280**	**315**	
100	0.73	0.82	0.92	1.01	1.10	1.20	1.29	1.40	1.51	1.62	1.74	2.01	2.33	
200	1.33	1.51	1.69	1.87	2.05	2.22	2.40	2.61	2.82	3.02	3.26	3.78	4.37	
300	1.89	2.15	2.41	2.67	2.93	3.18	3.44	3.74	4.04	4.35	4.70	5.44	6.30	
400	2.42	2.76	3.09	3.43	3.77	4.10	4.43	4.83	5.22	5.61	6.07	7.04	8.15	
500	2.92	3.33	3.75	4.16	4.57	4.98	5.39	5.87	6.36	6.84	7.39	8.58	9.94	
600	3.40	3.89	4.38	4.87	5.35	5.83	6.31	6.89	7.45	8.02	8.67	10.06	11.66	
700	3.86	4.43	4.99	5.55	6.11	6.66	7.21	7.87	8.52	9.17	9.92	11.50	13.32	10
720	**3.95**	**4.53**	**5.11**	**5.69**	**6.26**	**6.82**	**7.39**	**8.06**	**8.73**	**9.39**	**10.16**	**11.79**	**13.65**	
800	4.31	4.95	5.59	6.22	6.84	7.47	8.08	8.82	9.55	10.28	11.12	12.90	14.93	
900	4.75	5.46	6.16	6.86	7.56	8.25	8.93	9.75	10.56	11.36	12.29	14.25	16.47	
960	**5.00**	**5.75**	**6.50**	**7.24**	**7.98**	**8.71**	**9.43**	**10.29**	**11.15**	**11.99**	**12.97**	**15.03**	**17.37**	
1000	5.17	5.95	6.72	7.49	8.25	9.01	9.76	10.65	11.53	12.41	13.42	15.55	17.96	
1100	5.58	6.42	7.27	8.10	8.93	9.75	10.56	11.52	12.48	13.43	14.52	16.80	19.39	
1200	5.97	6.89	7.79	8.69	9.58	10.46	11.34	12.37	13.40	14.41	15.57	18.01	20.75	
1300	6.36	7.34	8.31	9.27	10.22	11.16	12.09	13.19	14.28	15.36	16.59	19.17	22.05	20
1400	6.73	7.77	8.81	9.83	10.84	11.84	12.82	13.99	15.14	16.27	17.57	20.28	23.28	
1440	**6.88**	**7.95**	**9.00**	**10.05**	**11.08**	**12.10**	**13.11**	**14.30**	**15.47**	**16.63**	**17.96**	**20.70**	**23.75**	
1500	7.09	8.20	9.29	10.37	11.44	12.49	13.53	14.76	15.97	17.15	18.51	21.33	24.43	
1600	7.44	8.61	9.76	10.90	12.02	13.12	14.21	15.50	16.76	18.00	19.41	22.33	25.51	
1700	7.78	9.01	10.21	11.40	12.58	13.73	14.87	16.21	17.52	18.81	20.27	23.27	26.51	
1800	8.11	9.39	10.65	11.90	13.12	14.32	15.50	16.89	18.25	19.58	21.08	24.15	27.43	
1900	8.43	9.76	11.08	12.37	13.64	14.88	16.11	17.54	18.94	20.31	21.85	24.97	28.27	30
2000	8.73	10.12	11.48	12.82	14.14	15.43	16.69	18.16	19.60	20.99	22.57	25.72	29.01	
2100	9.02	10.46	11.88	13.26	14.62	15.94	17.24	18.75	20.22	21.64	23.23	26.41	29.67	
2200	9.31	10.79	12.25	13.68	15.07	16.44	17.76	19.31	20.80	22.24	23.85	27.03	30.22	
2300	9.57	11.11	12.61	14.08	15.51	16.90	18.26	19.83	21.35	22.80	24.42	27.57	30.68	
2400	9.83	11.41	12.95	14.46	15.92	17.34	18.72	20.32	21.85	23.31	24.93	28.05	31.04	
2500	10.08	11.70	13.28	14.82	16.31	17.76	19.16	20.77	22.31	23.78	25.38	28.44	–	40
2600	10.31	11.97	13.59	15.16	16.68	18.14	19.56	21.19	22.73	24.19	25.78	28.76	–	
2700	10.53	12.23	13.88	15.47	17.02	18.50	19.93	21.56	23.11	24.56	26.12	28.99	–	
2800	10.73	12.47	14.15	15.77	17.33	18.83	20.27	21.90	23.44	24.87	26.40	–	–	
2880	**10.89**	**12.65**	**14.35**	**15.99**	**17.57**	**19.07**	**20.51**	**22.14**	**23.67**	**25.08**	**26.57**	–	–	
2900	10.93	12.69	14.40	16.04	17.62	19.13	20.57	22.20	23.72	25.12	26.61	–	–	
3000	11.10	12.90	14.63	16.30	17.89	19.40	20.84	22.46	23.96	25.33	26.76	–	–	

POWER RATINGS - SPA WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)													Belt Speed (m/s)
	90	**95**	**100**	**106**	**112**	**118**	**125**	**132**	**140**	**150**	**160**	**180**	**200**	
100	0.26	0.30	0.33	0.37	0.41	0.44	0.49	0.53	0.59	0.65	0.71	0.84	0.96	
200	0.47	0.53	0.60	0.67	0.75	0.82	0.91	0.99	1.09	1.21	1.33	1.57	1.81	
300	0.66	0.75	0.84	0.95	1.06	1.17	1.29	1.42	1.56	1.74	1.91	2.26	2.61	
400	0.84	0.96	1.08	1.22	1.36	1.50	1.66	1.83	2.01	2.24	2.47	2.93	3.38	
500	1.01	1.15	1.30	1.47	1.65	1.82	2.02	2.22	2.45	2.73	3.01	3.57	4.13	
600	1.16	1.34	1.51	1.72	1.92	2.13	2.37	2.60	2.87	3.21	3.54	4.20	4.85	
700	1.32	1.52	1.72	1.95	2.19	2.43	2.70	2.97	3.28	3.67	4.05	4.81	5.56	
720	**1.35**	**1.55**	**1.76**	**2.00**	**2.24**	**2.49**	**2.77**	**3.05**	**3.36**	**3.76**	**4.15**	**4.93**	**5.70**	
800	1.46	1.69	1.91	2.18	2.45	2.72	3.03	3.33	3.68	4.12	4.55	5.41	6.25	
900	1.60	1.86	2.11	2.41	2.70	3.00	3.35	3.69	4.08	4.56	5.04	5.99	6.92	
960	**1.69**	**1.95**	**2.22**	**2.54**	**2.85**	**3.17**	**3.53**	**3.90**	**4.31**	**4.82**	**5.33**	**6.33**	**7.32**	10
1000	1.74	2.02	2.29	2.62	2.95	3.28	3.66	4.03	4.46	4.99	5.52	6.56	7.58	
1100	1.87	2.18	2.48	2.84	3.19	3.55	3.96	4.37	4.83	5.41	5.98	7.12	8.23	
1200	2.00	2.33	2.65	3.04	3.43	3.81	4.26	4.70	5.20	5.83	6.44	7.66	8.86	
1300	2.12	2.48	2.83	3.24	3.66	4.07	4.55	5.02	5.56	6.23	6.89	8.19	9.47	
1400	2.24	2.62	2.99	3.44	3.88	4.32	4.83	5.34	5.91	6.63	7.33	8.71	10.07	
1440	**2.29**	**2.68**	**3.06**	**3.52**	**3.97**	**4.42**	**4.95**	**5.46**	**6.05**	**6.78**	**7.50**	**8.92**	**10.31**	
1500	2.36	2.76	3.16	3.63	4.10	4.57	5.11	5.65	6.26	7.01	7.76	9.22	10.65	
1600	2.47	2.90	3.32	3.82	4.32	4.81	5.39	5.95	6.60	7.39	8.18	9.72	11.22	
1700	2.58	3.03	3.47	4.00	4.53	5.05	5.65	6.25	6.93	7.76	8.59	10.20	11.77	
1800	2.69	3.16	3.63	4.18	4.73	5.28	5.91	6.54	7.25	8.12	8.99	10.67	12.31	
1900	2.79	3.29	3.78	4.36	4.93	5.51	6.17	6.82	7.56	8.48	9.38	11.13	12.83	20
2000	2.89	3.41	3.92	4.53	5.13	5.73	6.42	7.10	7.87	8.82	9.76	11.58	13.33	
2100	2.99	3.53	4.06	4.69	5.32	5.94	6.66	7.37	8.17	9.16	10.13	12.01	13.81	
2200	3.09	3.64	4.20	4.86	5.51	6.15	6.90	7.64	8.46	9.48	10.48	12.42	14.28	
2300	3.18	3.76	4.33	5.01	5.69	6.36	7.13	7.89	8.75	9.80	10.83	12.83	14.73	
2400	3.26	3.87	4.46	5.17	5.87	6.56	7.36	8.14	9.03	10.11	11.17	13.22	15.16	
2500	3.35	3.97	4.59	5.32	6.04	6.75	7.58	8.39	9.30	10.41	11.50	13.59	15.57	
2600	3.43	4.07	4.71	5.46	6.21	6.94	7.79	8.62	9.56	10.70	11.81	13.95	15.96	
2700	3.51	4.17	4.83	5.60	6.37	7.13	8.00	8.85	9.81	10.98	12.12	14.29	16.32	
2800	3.59	4.27	4.94	5.74	6.53	7.30	8.20	9.07	10.05	11.25	12.41	14.62	16.67	30
2880	**3.64**	**4.34**	**5.03**	**5.85**	**6.65**	**7.44**	**8.35**	**9.24**	**10.24**	**11.46**	**12.64**	**14.87**	**16.93**	
2900	3.66	4.36	5.05	5.87	6.68	7.48	8.39	9.29	10.29	11.51	12.69	14.93	17.00	
3000	3.73	4.45	5.16	6.00	6.83	7.64	8.58	9.49	10.52	11.76	12.96	15.22	17.30	
3100	3.79	4.53	5.26	6.12	6.97	7.81	8.76	9.69	10.74	12.00	13.21	15.50	17.58	
3200	3.86	4.61	5.36	6.24	7.11	7.96	8.93	9.89	10.94	12.23	13.46	15.76	17.84	
3300	3.92	4.69	5.45	6.36	7.24	8.11	9.10	10.07	11.15	12.44	13.69	16.00	18.07	
3400	3.98	4.77	5.55	6.47	7.37	8.25	9.26	10.24	11.34	12.65	13.90	16.23	18.28	
3500	4.03	4.84	5.63	6.57	7.49	8.39	9.41	10.41	11.52	12.84	14.11	16.43	18.46	
3600	4.08	4.90	5.72	6.67	7.61	8.52	9.56	10.57	11.69	13.03	14.30	16.61	18.62	
3700	4.13	4.97	5.79	6.77	7.72	8.65	9.70	10.72	11.85	13.20	14.47	16.78	18.75	
3800	4.17	5.03	5.87	6.86	7.82	8.76	9.83	10.86	12.00	13.36	14.63	16.93	18.86	40
3900	4.21	5.08	5.94	6.94	7.92	8.87	9.95	11.00	12.14	13.50	14.78	17.05	–	
4000	4.25	5.13	6.00	7.02	8.01	8.98	10.07	11.12	12.27	13.64	14.91	17.15	–	

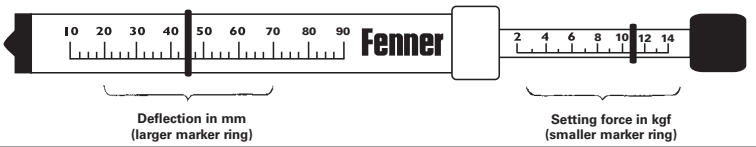
POWER RATINGS - SPC WEDGE BELTS

Rev/min of faster shaft	RATED POWER (kW) PER BELT FOR SMALL PULLEY PITCH DIA (mm)																	Belt Speed (m/s)
	224	**236**	**250**	**265**	**280**	**300**	**315**	**335**	**355**	**375**	**400**	**425**	**450**	**475**	**500**	**530**	**560**	
100	1.99	2.20	2.45	2.72	2.99	3.34	3.60	3.96	4.31	4.65	5.09	5.52	5.95	6.38	6.80	7.31	7.82	
200	3.59	4.00	4.48	4.99	5.49	6.17	6.67	7.33	8.00	8.66	9.48	10.30	11.11	11.92	12.72	13.68	14.64	
300	5.04	5.64	6.33	7.07	7.81	8.78	9.51	10.48	11.44	12.39	13.58	14.76	15.93	17.10	18.26	19.64	21.01	
400	6.40	7.17	8.07	9.04	9.99	11.26	12.20	13.45	14.70	15.93	17.47	18.99	20.50	22.00	23.48	25.25	27.00	10
500	7.67	8.62	9.72	10.90	12.06	13.61	14.76	16.28	17.80	19.30	21.16	23.00	24.82	26.63	28.42	30.54	32.64	
600	8.87	9.99	11.28	12.66	14.04	15.85	17.20	18.98	20.75	22.50	24.67	26.80	28.92	31.00	33.06	35.50	37.89	
700	10.00	11.29	12.77	14.35	15.92	17.98	19.52	21.55	23.56	25.54	27.99	30.40	32.77	35.11	37.40	40.11	42.75	20
720	**10.22**	**11.54**	**13.06**	**14.68**	**16.28**	**18.40**	**19.97**	**22.05**	**24.10**	**26.13**	**28.63**	**31.09**	**33.51**	**35.89**	**38.23**	**40.99**	**43.67**	
800	11.08	12.52	14.19	15.95	17.71	20.02	21.73	23.99	26.22	28.42	31.12	33.77	36.37	38.93	41.42	44.34	47.18	
900	12.10	13.69	15.53	17.48	19.41	21.95	23.82	26.30	28.73	31.12	34.05	36.92	39.71	42.44	45.09	48.18	51.15	
960	**12.68**	**14.36**	**16.30**	**18.35**	**20.38**	**23.05**	**25.02**	**27.61**	**30.16**	**32.66**	**35.71**	**38.69**	**41.58**	**44.39**	**47.12**	**50.27**	**53.29**	
1000	13.06	14.79	16.80	18.92	21.02	23.77	25.80	28.47	31.08	33.64	36.77	39.82	42.77	45.63	48.39	51.58	54.61	
1100	13.96	15.83	18.00	20.28	22.53	25.48	27.65	30.49	33.27	35.98	39.27	42.46	45.52	48.47	51.29	54.41	57.53	30
1200	14.81	16.81	19.12	21.55	23.95	27.08	29.38	32.37	35.29	38.12	41.54	44.82	47.96	50.94	53.77	56.82	59.87	
1300	15.59	17.72	20.17	22.74	25.27	28.56	30.97	34.09	37.12	40.05	43.56	46.90	50.05	52.92	55.79	58.69	61.59	40
1400	16.31	18.56	21.14	23.84	26.48	29.92	32.42	35.65	38.77	41.76	45.32	48.55	51.78	54.55	57.32	59.97	–	
1440	**16.59**	**18.88**	**21.50**	**24.25**	**26.94**	**30.43**	**32.96**	**36.23**	**39.37**	**42.38**	**45.91**	**49.11**	**52.32**	**54.92**	**57.73**	**60.25**	**–**	
1500	16.98	19.33	22.02	24.84	27.59	31.15	33.73	37.04	40.22	43.24	46.80	49.96	53.13	55.73	58.34	–	–	
1600	17.58	20.03	22.83	25.75	28.59	32.24	34.88	38.25	41.45	44.47	47.99	51.03	54.08	56.45	–	–	–	
1700	18.11	20.65	23.55	26.56	29.47	33.20	35.88	39.27	42.47	45.45	48.87	51.73	–	–	–	–	–	
1800	18.57	21.20	24.18	27.26	30.23	34.01	36.71	39.98	43.25	46.16	49.43	–	–	–	–	–	–	
1900	18.97	21.67	24.71	27.85	30.87	34.67	37.36	40.58	43.80	46.59	49.65	–	–	–	–	–	–	
2000	19.29	22.05	25.15	28.34	31.37	35.18	37.84	40.96	44.09	46.72	–	–	–	–	–	–	–	

NOTES: Only Fenner pulleys should be used for belt speeds between 30 and 40 m/s.
For belt speeds greather than 40 m/sec consult your authorised distributor.
Use the additional power per belt for speed ratio from pages 58 & 59

FENNER BELT TENSION INDICATOR

The high performance and efficiency of Fenner Precision Built belts requires correct tension. We recommend using the Fenner Belt Tension Indicator.



ADDITIONAL POWER RATINGS - SPZ, XPZ & QXPZ Belts

Rev/min of faster shaft	ADDITIONAL POWER (kW) PER BELT FOR SPEED RATIO									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.39 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02
500	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.08
720	**0.00**	**0.01**	**0.03**	**0.05**	**0.06**	**0.08**	**0.09**	**0.10**	**0.11**	**0.12**
800	0.00	0.01	0.03	0.05	0.07	0.08	0.10	0.11	0.12	0.13
900	0.00	0.01	0.03	0.06	0.08	0.10	0.11	0.13	0.14	0.14
960	**0.00**	**0.01**	**0.04**	**0.06**	**0.08**	**0.10**	**0.12**	**0.13**	**0.15**	**0.15**
1000	0.00	0.01	0.04	0.06	0.09	0.11	0.12	0.14	0.15	0.16
1100	0.00	0.01	0.04	0.07	0.10	0.12	0.14	0.15	0.17	0.18
1200	0.00	0.02	0.04	0.08	0.10	0.13	0.15	0.17	0.18	0.19
1300	0.00	0.02	0.05	0.08	0.11	0.14	0.16	0.18	0.20	0.21
1400	0.00	0.02	0.05	0.09	0.12	0.15	0.17	0.20	0.21	0.23
1440	**0.00**	**0.02**	**0.05**	**0.09**	**0.13**	**0.15**	**0.18**	**0.20**	**0.22**	**0.23**
1500	0.00	0.02	0.05	0.10	0.13	0.16	0.19	0.21	0.23	0.24
1600	0.00	0.02	0.06	0.10	0.14	0.17	0.20	0.22	0.24	0.26
1700	0.00	0.02	0.06	0.11	0.15	0.18	0.21	0.24	0.26	0.27
1800	0.00	0.02	0.07	0.12	0.16	0.19	0.22	0.25	0.27	0.29
1900	0.00	0.03	0.07	0.12	0.17	0.20	0.24	0.26	0.29	0.31
2000	0.00	0.03	0.07	0.13	0.17	0.21	0.25	0.28	0.30	0.32
2100	0.00	0.03	0.08	0.13	0.18	0.22	0.26	0.29	0.32	0.34
2200	0.00	0.03	0.08	0.14	0.19	0.23	0.27	0.31	0.33	0.35
2300	0.00	0.03	0.08	0.15	0.20	0.24	0.29	0.32	0.35	0.37
2400	0.00	0.03	0.09	0.15	0.21	0.25	0.30	0.33	0.36	0.39
2500	0.00	0.03	0.09	0.16	0.22	0.26	0.31	0.35	0.38	0.40
2600	0.00	0.04	0.10	0.17	0.23	0.28	0.32	0.36	0.40	0.42
2700	0.00	0.04	0.10	0.17	0.24	0.29	0.33	0.38	0.41	0.43
2800	0.00	0.04	0.10	0.18	0.24	0.30	0.35	0.39	0.43	0.45
2880	**0.00**	**0.04**	**0.11**	**0.18**	**0.25**	**0.30**	**0.36**	**0.40**	**0.44**	**0.45**
2900	0.00	0.04	0.11	0.19	0.25	0.31	0.36	0.40	0.44	0.47
3000	0.00	0.04	0.11	0.19	0.26	0.32	0.37	0.42	0.46	0.48
3100	0.00	0.04	0.11	0.20	0.27	0.33	0.38	0.43	0.47	0.50
3200	0.00	0.04	0.12	0.21	0.28	0.34	0.40	0.45	0.49	0.51
3300	0.00	0.04	0.12	0.21	0.29	0.35	0.41	0.46	0.50	0.53
3400	0.00	0.05	0.13	0.22	0.30	0.36	0.42	0.47	0.52	0.55
3500	0.00	0.05	0.13	0.22	0.31	0.37	0.43	0.49	0.53	0.56
3600	0.00	0.05	0.13	0.23	0.31	0.38	0.45	0.50	0.55	0.58
3700	0.00	0.05	0.14	0.24	0.32	0.39	0.46	0.52	0.56	0.60
3800	0.00	0.05	0.14	0.24	0.33	0.40	0.47	0.53	0.58	0.61
3900	0.00	0.05	0.14	0.25	0.34	0.41	0.48	0.54	0.59	0.63
4000	0.00	0.05	0.15	0.26	0.35	0.42	0.50	0.56	0.61	0.64
4200	0.00	0.06	0.15	0.27	0.37	0.44	0.52	0.59	0.64	0.68
4400	0.00	0.06	0.16	0.28	0.38	0.47	0.55	0.61	0.67	0.71
4600	0.00	0.06	0.17	0.30	0.40	0.49	0.57	0.64	0.70	0.74
4800	0.00	0.06	0.18	0.31	0.42	0.51	0.60	0.67	0.73	0.77
5000	0.00	0.07	0.18	0.32	0.44	0.53	0.62	0.70	0.76	0.80
5200	0.00	0.07	0.19	0.33	0.45	0.55	0.64	0.73	0.79	0.84
5400	0.00	0.07	0.20	0.35	0.47	0.57	0.67	0.75	0.82	0.87
5600	0.00	0.08	0.21	0.36	0.49	0.59	0.69	0.78	0.85	0.90
5800	0.00	0.08	0.21	0.37	0.51	0.61	0.72	0.81	0.88	0.93
6000	0.00	0.08	0.22	0.39	0.52	0.63	0.74	0.84	0.91	0.97

ADDITIONAL POWER RATINGS - SPB, XPB & QXPB BELTS

Rev/min of faster shaft	ADDITIONAL POWER (kW) PER BELT FOR SPEED RATIO									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.39 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.01	0.02	0.04	0.04	0.06	0.07	0.07	0.08	0.08
200	0.00	0.01	0.04	0.07	0.09	0.11	0.13	0.15	0.16	0.17
300	0.00	0.02	0.06	0.10	0.14	0.17	0.20	0.22	0.24	0.25
400	0.00	0.03	0.07	0.13	0.19	0.22	0.26	0.29	0.32	0.34
500	0.00	0.04	0.09	0.17	0.23	0.28	0.33	0.37	0.40	0.43
600	0.00	0.04	0.12	0.20	0.28	0.34	0.40	0.45	0.48	0.51
700	0.00	0.05	0.13	0.24	0.33	0.39	0.46	0.52	0.57	0.59
720	**0.00**	**0.05**	**0.14**	**0.25**	**0.33**	**0.41**	**0.48**	**0.54**	**0.59**	**0.62**
800	0.00	0.06	0.16	0.28	0.37	0.45	0.53	0.60	0.65	0.69
900	0.00	0.07	0.18	0.31	0.42	0.51	0.60	0.66	0.72	0.77
960	**0.00**	**0.07**	**0.19**	**0.32**	**0.44**	**0.54**	**0.62**	**0.70**	**0.77**	**0.81**
1000	0.00	0.07	0.19	0.34	0.46	0.56	0.66	0.74	0.81	0.86
1100	0.00	0.08	0.22	0.37	0.51	0.62	0.72	0.81	0.89	0.94
1200	0.00	0.09	0.23	0.41	0.56	0.68	0.79	0.89	0.97	1.03
1300	0.00	0.09	0.25	0.44	0.60	0.73	0.86	0.96	1.05	1.11
1400	0.00	0.10	0.28	0.48	0.65	0.79	0.93	1.04	1.13	1.20
1440	**0.00**	**0.10**	**0.28**	**0.48**	**0.66**	**0.79**	**0.94**	**1.06**	**1.15**	**1.21**
1500	0.00	0.10	0.29	0.51	0.69	0.84	0.99	1.11	1.21	1.28
1600	0.00	0.11	0.31	0.54	0.75	0.90	1.05	1.19	1.29	1.37
1700	0.00	0.12	0.34	0.58	0.79	0.95	1.12	1.26	1.37	1.45
1800	0.00	0.13	0.35	0.61	0.84	1.01	1.19	1.34	1.45	1.54
1900	0.00	0.13	0.37	0.65	0.88	1.07	1.25	1.41	1.54	1.63
2000	0.00	0.14	0.39	0.68	0.93	1.13	1.32	1.48	1.62	1.71
2100	0.00	0.15	0.41	0.72	0.98	1.18	1.39	1.56	1.69	1.79
2200	0.00	0.16	0.43	0.75	1.02	1.24	1.45	1.63	1.78	1.88
2300	0.00	0.16	0.45	0.78	1.07	1.29	1.51	1.71	1.86	1.97
2400	0.00	0.17	0.47	0.82	1.11	1.35	1.58	1.78	1.94	2.05
2500	0.00	0.18	0.49	0.85	1.16	1.41	1.65	1.86	2.02	2.14
2600	0.00	0.19	0.51	0.89	1.21	1.46	1.72	1.92	2.10	2.22
2700	0.00	0.19	0.53	0.92	1.25	1.52	1.78	1.99	2.18	2.31
2800	0.00	0.20	0.54	0.95	1.29	1.57	1.84	2.07	2.26	2.39
2880	**0.00**	**0.20**	**0.56**	**0.97**	**1.32**	**1.60**	**1.88**	**2.11**	**2.31**	**2.44**
2900	0.00	0.21	0.57	0.99	1.34	1.63	1.91	2.15	2.34	2.48
3000	0.00	0.22	0.59	1.02	1.39	1.69	1.98	2.23	2.42	2.57

NOTE: Only Fenner brand pulleys should be used where belt speed falls between 30 and 40 m/s.



ADDITIONAL POWER RATINGS - SPA, XPA & QXPA Belts

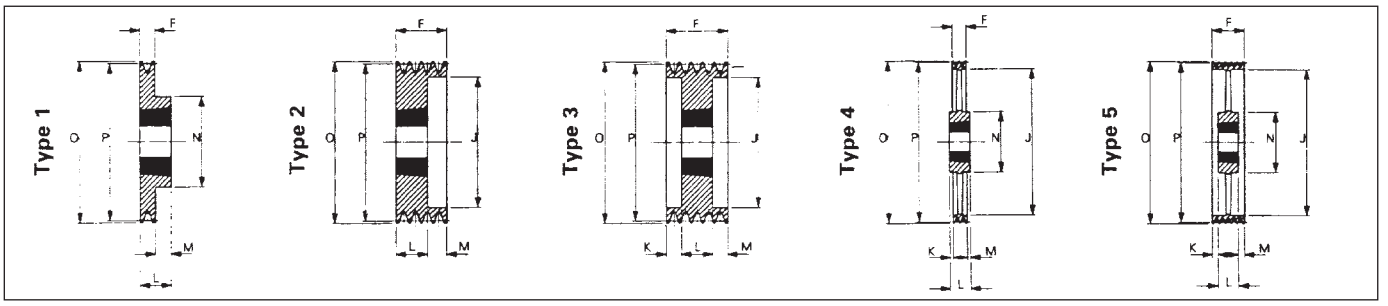
Rev/min of faster shaft	ADDITIONAL POWER (kW) PER BELT FOR SPEED RATIO									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.39 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04
200	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.08
300	0.00	0.01	0.03	0.05	0.07	0.08	0.10	0.11	0.12	0.12
400	0.00	0.01	0.04	0.07	0.09	0.11	0.13	0.14	0.16	0.16
500	0.00	0.02	0.05	0.08	0.11	0.14	0.16	0.18	0.19	0.21
600	0.00	0.02	0.06	0.10	0.13	0.16	0.19	0.21	0.23	0.25
700	0.00	0.02	0.07	0.12	0.16	0.19	0.22	0.25	0.27	0.29
720	**0.00**	**0.02**	**0.07**	**0.12**	**0.16**	**0.20**	**0.23**	**0.26**	**0.28**	**0.30**
800	0.00	0.03	0.08	0.13	0.18	0.22	0.25	0.29	0.31	0.33
900	0.00	0.03	0.08	0.15	0.20	0.24	0.29	0.32	0.35	0.37
960	**0.00**	**0.03**	**0.09**	**0.16**	**0.21**	**0.26**	**0.30**	**0.34**	**0.37**	**0.40**
1000	0.00	0.03	0.09	0.16	0.22	0.27	0.32	0.36	0.39	0.41
1100	0.00	0.04	0.10	0.18	0.25	0.30	0.35	0.39	0.43	0.45
1200	0.00	0.04	0.11	0.20	0.27	0.33	0.38	0.43	0.47	0.49
1300	0.00	0.04	0.12	0.21	0.29	0.35	0.41	0.46	0.51	0.54
1400	0.00	0.05	0.13	0.23	0.31	0.38	0.44	0.50	0.54	0.58
1440	**0.00**	**0.05**	**0.14**	**0.24**	**0.32**	**0.39**	**0.46**	**0.51**	**0.56**	**0.59**
1500	0.00	0.05	0.14	0.25	0.34	0.41	0.48	0.54	0.58	0.62
1600	0.00	0.06	0.15	0.26	0.36	0.43	0.51	0.57	0.62	0.66
1700	0.00	0.06	0.16	0.28	0.38	0.46	0.54	0.61	0.66	0.70
1800	0.00	0.06	0.17	0.30	0.40	0.49	0.57	0.64	0.70	0.74
1900	0.00	0.07	0.18	0.31	0.43	0.51	0.60	0.68	0.74	0.78
2000	0.00	0.07	0.19	0.33	0.45	0.54	0.64	0.71	0.78	0.82
2100	0.00	0.07	0.20	0.35	0.47	0.57	0.67	0.75	0.82	0.87
2200	0.00	0.08	0.21	0.36	0.49	0.60	0.70	0.79	0.86	0.91
2300	0.00	0.08	0.22	0.38	0.51	0.62	0.73	0.82	0.90	0.95
2400	0.00	0.08	0.23	0.39	0.54	0.65	0.76	0.86	0.93	0.99
2500	0.00	0.09	0.24	0.41	0.56	0.68	0.79	0.89	0.97	1.03
2600	0.00	0.09	0.24	0.43	0.58	0.70	0.83	0.93	1.01	1.07
2700	0.00	0.09	0.25	0.44	0.60	0.73	0.86	0.96	1.05	1.11
2800	0.00	0.10	0.26	0.46	0.63	0.76	0.89	1.00	1.09	1.15
2880	**0.00**	**0.10**	**0.27**	**0.47**	**0.64**	**0.78**	**0.91**	**1.03**	**1.12**	**1.19**
2900	0.00	0.10	0.27	0.48	0.65	0.79	0.92	1.04	1.13	1.20
3000	0.00	0.10	0.28	0.49	0.67	0.81	0.95	1.07	1.17	1.24
3100	0.00	0.11	0.29	0.51	0.69	0.84	0.98	1.11	1.21	1.28
3200	0.00	0.11	0.30	0.53	0.72	0.87	1.02	1.14	1.25	1.32
3300	0.00	0.11	0.31	0.54	0.74	0.89	1.05	1.18	1.28	1.36
3400	0.00	0.12	0.32	0.56	0.76	0.92	1.08	1.21	1.32	1.40
3500	0.00	0.12	0.33	0.58	0.78	0.95	1.11	1.25	1.36	1.44
3600	0.00	0.12	0.34	0.59	0.81	0.98	1.14	1.29	1.40	1.48
3700	0.00	0.13	0.35	0.61	0.83	1.00	1.18	1.32	1.44	1.53
3800	0.00	0.13	0.36	0.62	0.85	1.03	1.21	1.36	1.48	1.57
3900	0.00	0.13	0.37	0.64	0.87	1.06	1.24	1.39	1.52	1.61
4000	0.00	0.14	0.38	0.66	0.89	1.08	1.27	1.43	1.56	1.65

ADDITIONAL POWER RATINGS - SPC, XPC & QXPC Belts

Rev/min of faster shaft	ADDITIONAL POWER (kW) PER BELT FOR SPEED RATIO									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.39 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.02	0.06	0.11	0.14	0.17	0.20	0.23	0.25	0.26
200	0.00	0.04	0.12	0.21	0.29	0.35	0.41	0.46	0.50	0.53
300	0.00	0.07	0.18	0.32	0.43	0.52	0.61	0.69	0.75	0.79
400	0.00	0.09	0.24	0.42	0.57	0.70	0.81	0.92	1.00	1.06
500	0.00	0.11	0.30	0.53	0.72	0.87	1.02	1.15	1.25	1.32
600	0.00	0.13	0.36	0.63	0.86	1.04	1.22	1.37	1.50	1.59
700	0.00	0.15	0.42	0.74	1.00	1.22	1.43	1.60	1.75	1.85
720	**0.00**	**0.16**	**0.43**	**0.76**	**1.03**	**1.25**	**1.46**	**1.65**	**1.80**	**1.90**
800	0.00	0.17	0.48	0.84	1.15	1.39	1.63	1.83	2.00	2.11
900	0.00	0.20	0.54	0.95	1.29	1.56	1.85	2.06	2.25	2.38
960	**0.00**	**0.21**	**0.58**	**1.01**	**1.37**	**1.67**	**1.95**	**2.20**	**2.40**	**2.54**
1000	0.00	0.22	0.60	1.05	1.43	1.74	2.04	2.29	2.50	2.64
1110	0.00	0.24	0.66	1.16	1.57	1.91	2.24	2.52	2.75	2.91
1200	0.00	0.26	0.72	1.26	1.72	2.09	2.44	2.75	3.00	3.17
1300	0.00	0.28	0.78	1.37	1.86	2.26	2.65	2.98	3.25	3.44
1400	0.00	0.31	0.84	1.47	2.00	2.43	2.85	3.21	3.50	3.70
1440	**0.00**	**0.31**	**0.87**	**1.51**	**2.06**	**2.50**	**2.93**	**3.30**	**3.60**	**3.81**
1500	0.00	0.33	0.90	1.58	2.15	2.61	3.05	3.44	3.75	3.96
1600	0.00	0.35	0.96	1.68	2.29	2.78	3.26	3.67	4.00	4.23
1700	0.00	0.37	1.02	1.79	2.43	2.96	3.46	3.90	4.25	4.49
1800	0.00	0.39	1.08	1.89	2.58	3.13	3.66	4.12	4.50	4.76
1900	0.00	0.42	1.14	2.00	2.72	3.30	3.87	4.35	4.75	5.02
2000	0.00	0.44	1.20	2.10	2.86	3.48	4.07	4.58	5.00	5.29
2100	0.00	0.46	1.26	2.21	3.00	3.65	4.27	4.81	5.25	5.55
2200	0.00	0.48	1.32	2.31	3.15	3.83	4.48	5.04	5.50	5.82
2300	0.00	0.51	1.38	2.42	3.29	4.00	4.68	5.27	5.75	6.08
2400	0.00	0.53	1.44	2.52	3.43	4.18	4.88	5.50	6.00	6.35
2500	0.00	0.55	1.50	2.63	3.58	4.35	5.09	5.73	6.25	6.61
2600	0.00	0.57	1.56	2.73	3.72	4.52	5.29	5.95	6.50	6.88
2700	0.00	0.59	1.62	2.84	3.86	4.70	5.49	6.18	6.75	7.14
2800	0.00	0.62	1.68	2.94	4.00	4.87	5.70	6.41	7.00	7.41
2880	**0.00**	**0.64**	**1.74**	**3.05**	**4.15**	**5.05**	**5.90**	**6.64**	**7.25**	**7.67**
3000	0.00	0.66	1.80	3.15	4.29	5.22	6.11	6.87	7.50	7.94
3100	0.00	0.68	1.86	3.26	4.43	5.39	6.31	7.10	7.75	8.20
3200	0.00	0.70	1.92	3.36	4.58	5.57	6.51	7.33	8.00	8.46
3300	0.00	0.73	1.98	3.47	4.72	5.74	6.72	7.56	8.25	8.73
3400	0.00	0.75	2.04	3.57	4.86	5.92	6.92	7.79	8.50	8.99
3500	0.00	0.77	2.10	3.68	5.01	6.09	7.12	8.02	8.75	9.26
3600	0.00	0.79	2.16	3.78	5.15	6.26	7.33	8.24	9.00	9.52

NOTE: Only Fenner brand pulleys should be used where belt speed falls between 30 and 40 m/s.

Taper Lock® Pulleys for Z, SPZ, XPZ & QXPZ Belts

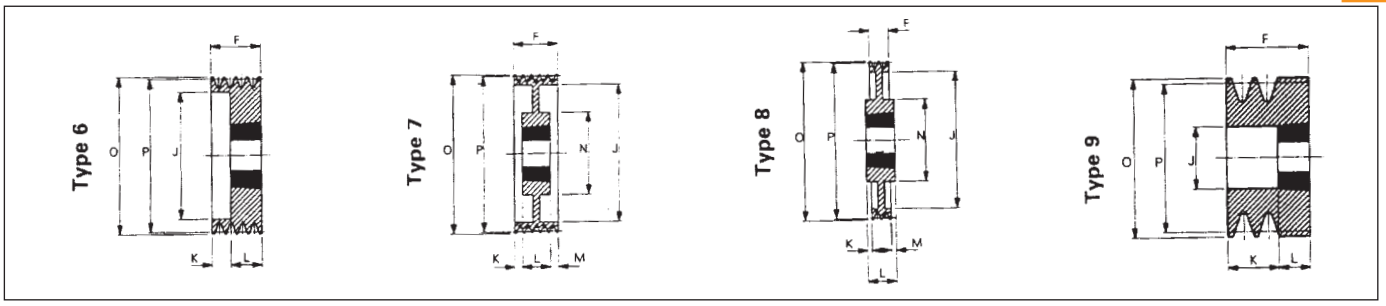


Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031Z0041	***56***	*1*	*1008*	*25*	*1*	*9*	*49*	*28*	*13*	*22*	–	–	*60*
Z0042	***56***	*2*	*1108*	*28*	*1 1/8*	*9*	*49*	*35*	*27*	*22*	–	–	*60*
031Z0051	***60***	*1*	*1008*	*25*	*1*	*9*	*22*	–	–	*22*	–	–	*64*
Z0052	***60***	*2*	*1108*	*28*	*1 1/8*	*9*	*28*	*36*	*27*	*22*	–	–	*64*
031Z0061	**63**	1	1108	28	1 1/8	1	16	–	–	22	6	56	67
Z0062	**63**	2	1108	28	1 1/8	2	28	40	–	22	6	–	67
Z0063	**63**	3	1108	28	1 1/8	2	40	40	–	22	18	–	67
031Z0071	**67**	1	1108	28	1 1/8	1	16	–	–	22	6	60	71
Z0072	**67**	2	1108	28	1 1/8	6	28	42	6	22	–	–	71
Z0073	**67**	3	1108	28	1 1/8	6	40	42	18	22	–	–	71
031Z0081	**71**	1	1108	28	1 1/8	1	16	–	–	22	6	60	75
Z0082	**71**	2	1108	28	1 1/8	6	28	42	6	22	–	–	75
Z0083	**71**	3	1108	28	1 1/8	6	40	42	18	22	–	–	75
031Z0091	**75**	1	1108	28	1 1/8	1	16	–	–	22	6	60	79
Z0092	**75**	2	1210	32	1 1/4	6	28	51	3	25	–	–	79
Z0093	**75**	3	1210	32	1 1/4	6	40	51	15	25	–	–	79
031Z0101	**80**	1	1210	32	1 1/4	1	16	–	–	25	9	75	84
Z0102	**80**	2	1210	32	1 1/4	6	28	51	3	25	–	–	84
Z0103	**80**	3	1210	32	1 1/4	6	40	51	15	25	–	–	84
Z0104	**80**	4	1210	32	1 1/4	6	52	51	27	25	–	–	84
031Z0111	**85**	1	1210	32	1 1/4	1	16	–	–	25	9	80	89
Z0112	**85**	2	1610	42	1 5/8	6	28	60	3	25	–	–	89
Z0113	**85**	3	1610	42	1 5/8	6	40	60	15	25	–	–	89
Z0114	**85**	4	1610	42	1 5/8	6	52	60	27	25	–	–	89
Z0115*	**85**	5	1610	42	1 5/8	6	64	60	39	25	–	–	89
031Z0121	**90**	1	1210	32	1 1/4	1	16	–	–	25	9	80	94
Z0122	**90**	2	1610	42	1 5/8	6	28	61	3	25	–	–	94
Z0123	**90**	3	1610	42	1 5/8	6	40	61	15	25	–	–	94
Z0124	**90**	4	1610	42	1 5/8	6	52	61	27	25	–	–	94
Z0125*	**90**	5	1610	42	1 5/8	6	64	61	39	25	–	–	94
031Z0131	**95**	1	1210	32	1 1/4	1	16	–	–	25	9	85	99
Z0132	**95**	2	1610	42	1 5/8	6	28	66	3	25	–	–	99
Z0133	**95**	3	1610	42	1 5/8	6	40	66	15	25	–	–	99
Z0134	**95**	4	1610	42	1 5/8	6	52	66	27	25	–	–	99
Z0135*	**95**	5	1610	42	1 5/8	6	64	66	39	25	–	–	99
031Z0141	**100**	1	1210	32	1 1/4	1	16	–	–	25	9	85	104
Z0142	**100**	2	1610	42	1 5/8	6	28	71	3	25	–	–	104
Z0143	**100**	3	1610	42	1 5/8	6	40	71	15	25	–	–	104
Z0144	**100**	4	1610	42	1 5/8	6	52	71	27	25	–	–	104
Z0145*	**100**	5	2012	50	2	6	64	71	32	32	–	–	104
031Z0151	**106**	1	1610	42	1 5/8	1	16	–	–	25	9	92	111
Z0152	**106**	2	1610	42	1 5/8	6	28	76	3	25	–	–	111
Z0153	**106**	3	1610	42	1 5/8	6	40	76	15	25	–	–	111
Z0154	**106**	4	1610	42	1 5/8	6	52	76	27	25	–	–	111
Z0155*	**106**	5	2012	50	2	6	64	76	32	32	–	–	111
031Z0161	**112**	1	1610	42	1 5/8	1	16	–	–	25	9	92	116
Z0162	**112**	2	1610	42	1 5/8	6	28	83	3	25	–	–	116
Z0163	**112**	3	2012	50	2	6	40	83	8	32	–	–	116
Z0164	**112**	4	2012	50	2	6	52	83	20	32	–	–	116
Z0165*	**112**	5	2012	50	2	6	64	83	32	32	–	–	116

Type 6NR pulleys are made to catalogue dimensions, but modern manufacturing techniques result in there being no recess behind the Taper Lock bush, the J dimension is then approximately equal to the small diameter of the Taper Lock bush.
Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used with Z V-belts, XPZ & QXPZ wedge belts only.
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.



Taper Lock® Pulleys for Z, SPZ, XPZ & QXPZ Belts



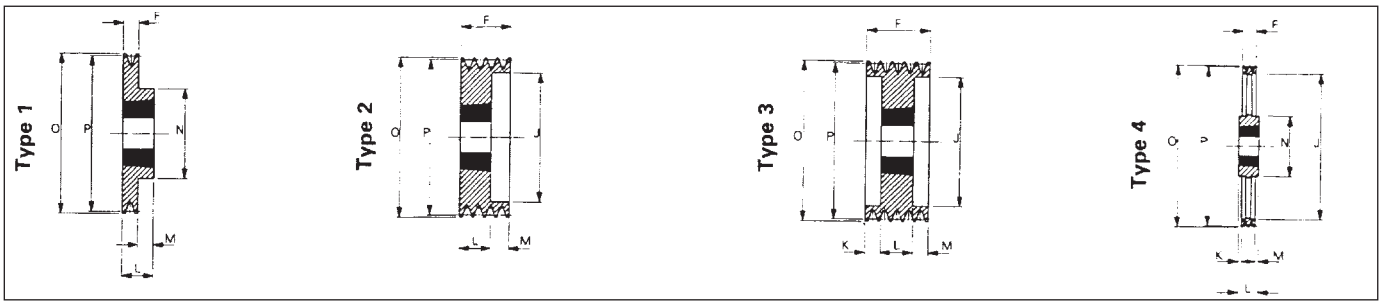
Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031Z0171	**118**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	123
Z0172	**118**	2	1610	42	1⅝	6	28	90	3.0	25	–	–	123
Z0173	**118**	3	2012	50	2	6	40	90	8.0	32	–	–	123
Z0174	**118**	4	2012	50	2	6	52	90	20.0	32	–	–	123
Z0175*	**118**	5	2012	50	2	6	64	90	32.0	32	–	–	123
031Z0181	**125**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	129
Z0182	**125**	2	1610	42	1⅝	6	28	96	3.0	25	–	–	129
Z0183	**125**	3	2012	50	2	2	40	96	–	32	8.0	–	129
Z0184	**125**	4	2012	50	2	2	52	96	–	32	20.0	–	129
Z0185*	**125**	5	2012	50	2	6	64	96	32.0	32	–	–	129
031Z0191	**132**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	137
Z0192	**132**	2	1610	42	1⅝	6	28	103	3.0	25	–	–	137
Z0193	**132**	3	2012	50	2	2	40	103	–	32	8.0	–	137
Z0194	**132**	4	2012	50	2	2	52	103	–	32	20.0	–	137
Z0195*	**132**	5	2517	60	2½	6	64	103	19.0	45	–	–	137
031Z0201	**140**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	144
Z0202	**140**	2	1610	42	1⅝	6	28	111	3.0	25	–	–	144
Z0203	**140**	3	2012	50	2	2	40	111	–	32	8.0	–	144
Z0204	**140**	4	2012	50	2	2	52	111	–	32	20.0	–	144
Z0205*	**140**	5	2517	60	2½	2	64	111	–	45	19.0	–	144
031Z0221	**160**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	164
Z0222	**160**	2	2012	50	2	1	28	–	–	32	4.0	112	164
Z0223	**160**	3	2012	50	2	2	40	131	–	32	8.0	–	164
Z0224	**160**	4	2517	60	2½	2	52	131	–	45	7.0	–	164
Z0225*	**160**	5	2517	60	2½	2	64	131	–	45	19.0	–	164
031Z0241	**180**	1	1610	42	1⅝	1	16	–	–	25	9.0	92	184
Z0242	**180**	2	2012	50	2	1	28	–	–	32	4.0	112	184
Z0243	**180**	3	2012	50	2	2	40	151	–	32	8.0	–	184
Z0244	**180**	4	2517	60	2½	2	52	151	–	45	7.0	–	184
Z0245*	**180**	5	2517	60	2½	2	64	151	–	45	19.0	–	184
031Z0261	**200**	1	2012	50	2	8	16	171	–	32	16.0	112	204
Z0262	**200**	2	2012	50	2	8	28	171	–	32	4.0	112	204
Z0263	**200**	3	2012	50	2	7	40	171	4.0	32	4.0	112	204
Z0264	**200**	4	2517	60	2½	7	52	171	3.5	45	3.5	124	204
Z0265*	**200**	5	2517	60	2½	7	64	171	9.5	45	9.5	124	204
031Z0301	**250**	1	2012	50	2	4	16	221	8.0	32	8.0	112	254
Z0302	**250**	2	2012	50	2	4	28	221	2.0	32	2.0	112	254
Z0303	**250**	3	2012	50	2	5	40	221	4.0	32	4.0	112	254
Z0304	**250**	4	2517	60	2½	5	52	221	3.5	45	3.5	124	254
Z0305*	**250**	5	2517	60	2½	5	64	221	9.5	45	9.5	124	254
031Z0331	**315**	1	2012	50	2	4	16	286	8.0	32	8.0	112	319
Z0332	**315**	2	2012	50	2	4	28	286	2.0	32	2.0	112	319
Z0333	**315**	3	2517	60	2½	4	40	286	2.5	45	2.5	124	319
Z0334	**315**	4	2517	60	2½	5	52	286	3.5	45	3.5	124	319
Z0335*	**315**	5	2517	60	2½	5	64	286	9.5	45	9.5	124	319
031Z0351	**400**	1	2012	50	2	4	16	371	8.0	32	8.0	112	404
Z0352	**400**	2	2517	60	2½	4	28	371	8.5	45	8.5	124	404
Z0353	**400**	3	2517	60	2½	4	40	371	2.5	45	2.5	124	404
Z0354	**400**	4	2517	60	2½	5	52	371	3.5	45	3.5	124	404
Z0355*	**400**	5	3020	75	3	5	64	371	6.5	51	6.5	146	404
031Z0372*	**500**	2	2517	60	2½	4	28	471	8.5	45	8.5	124	504
Z0373*	**500**	3	2517	60	2½	5	40	471	2.5	45	2.5	124	504
Z0374*	**500**	4	3020	75	3	5	52	471	0.5	51	0.5	146	504
Z0375*	**500**	5	3020	75	3	4	64	471	6.0	76	6.0	146	504
031Z0393*	**630**	3	2517	60	2½	4	40	601	2.5	45	2.5	124	634
Z0394*	**630**	4	3020	75	3	4	52	601	12.0	76	12.0	146	634
Z0395*	**630**	5	3020	75	3	4	64	601	6.0	76	6.0	146	634

Dimensions in millimetres unless otherwise stated.
* Non-preferred pulley sizes.

Intermediate diameters available on a non-stock basis, see page 68

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
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Taper Lock® Pulleys for A, SPA, XPA & QXPA Belts

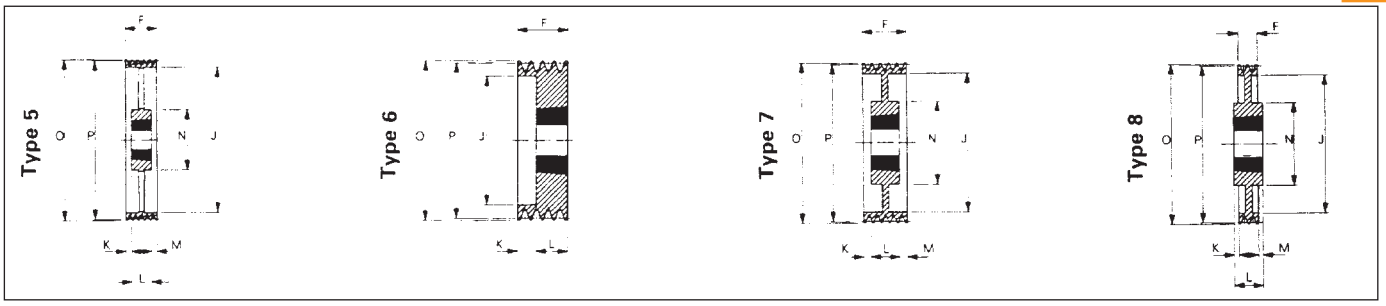


Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031A0101	***80***	*1*	*1210*	*32*	*1¼*	*1*	*20*	–	–	*25*	*5.0*	*75*	*86*
A0102	***80***	*2*	*1210*	*32*	*1¼*	*6*	*35*	*46*	*10.0*	*25*	–	–	*86*
A0103	***80***	*3*	*1210*	*32*	*1¼*	*6*	*50*	*46*	*25.0*	*25*	–	–	*86*
031A0111	***85***	*1*	*1210*	*32*	*1¼*	*1*	*20*	–	–	*25*	*5.0*	*80*	*91*
A0112	***85***	*2*	*1210*	*32*	*1¼*	*6*	*35*	*46*	*10.0*	*25*	–	–	*91*
A0113	***85***	*3*	*1210*	*32*	*1¼*	*6*	*50*	*46*	*25.0*	*25*	–	–	*91*
031A0121	**90**	1	1210	32	1¼	1	20	–	–	25	5.0	80	96
A0122	**90**	2	1610	42	1⅝	6	35	61	10.0	25	–	–	96
A0123	**90**	3	1610	42	1⅝	6	50	66	25.0	25	–	–	96
A0124	**90**	4	1610	42	1⅝	3	65	61	13.5	38	13.5	–	96
031A0131	**95**	1	1210	32	1¼	1	20	–	–	25	5.0	85	101
A0132	**95**	2	1610	42	1⅝	6	35	66	10.0	25	–	–	101
A0133	**95**	3	1610	42	1⅝	6	50	66	25.0	25	–	–	101
A0134	**95**	4	1610	42	1⅝	3	65	66	13.5	38	13.5	–	101
031A0141	**100**	1	1610	42	1⅝	1	20	–	–	25	5.0	85	106
A0142	**100**	2	1610	42	1⅝	6	35	71	10.0	25	–	–	106
A0143	**100**	3	1610	42	1⅝	2	50	71	–	25	25.0	–	106
A0144	**100**	4	1610	42	1⅝	2	65	71	–	38	27.0	–	106
A0145	**100**	5	1610	42	1⅝	2	80	71	–	38	42.0	–	106
A0146*	**100**	6	1610	42	1⅝	3	95	71	28.5	38	28.5	–	106
031A0151	**106**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	112
A0152	**106**	2	1610	42	1⅝	6	35	76	10.0	25	–	–	112
A0153	**106**	3	1610	42	1⅝	2	50	76	–	25	25.0	–	112
A0154	**106**	4	2012	50	2	6	65	76	33.0	32	–	–	112
A0155	**106**	5	2012	50	2	6	80	76	48.0	32	–	–	112
A0156*	**106**	6	2012	50	2	6	95	76	63.0	32	–	–	112
031A0161	**112**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	118
A0162	**112**	2	1610	42	1⅝	6	35	83	10.0	25	–	–	118
A0163	**112**	3	2012	50	2	6	50	83	18.0	32	–	–	118
A0164	**112**	4	2012	50	2	6	65	83	33.0	32	–	–	118
A0165	**112**	5	2012	50	2	6	80	83	48.0	32	–	–	118
A0166*	**112**	6	2012	50	2	6	95	83	63.0	32	–	–	118
031A0171	**118**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	124
A0172	**118**	2	1610	42	1⅝	6	35	90	10.0	25	–	–	124
A0173	**118**	3	2012	50	2	2	50	90	–	32	18.0	–	124
A0174	**118**	4	2012	50	2	2	65	90	–	32	33.0	–	124
A0175	**118**	5	2012	50	2	2	80	90	–	32	48.0	–	124
A0176*	**118**	6	2012	50	2	6	95	90	63.0	32	–	–	124
031A0181	**125**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	131
A0182	**125**	2	1610	42	1⅝	6	35	96	10.0	25	–	–	131
A0183	**125**	3	2012	50	2	2	50	96	–	32	18.0	–	131
A0184	**125**	4	2012	50	2	2	65	96	–	32	33.0	–	131
A0185	**125**	5	2012	50	2	3	80	96	24.0	32	24.0	–	131
A0186*	**125**	6	2012	50	2	3	95	96	31.5	32	31.5	–	131
031A0191	**132**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	138
A0192	**132**	2	2012	50	2	6	35	103	3.0	32	–	–	138
A0193	**132**	3	2012	50	2	2	50	103	–	32	18.0	–	138
A0194	**132**	4	2517	60	2½	2	65	103	–	45	20.0	–	138
A0195	**132**	5	2517	60	2½	3	80	103	17.5	45	17.5	–	138
A0196*	**132**	6	2517	60	2½	3	95	103	25.0	45	25.0	–	138
031A0201	**140**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	146
A0202	**140**	2	2012	50	2	6	35	111	3.0	32	–	–	146
A0203	**140**	3	2517	60	2½	6	50	111	5.0	45	–	–	146
A0204	**140**	4	2517	60	2½	2	65	111	–	45	20.0	–	146
A0205	**140**	5	2517	60	2½	3	80	111	17.5	45	17.5	–	146
A0206*	**140**	6	2517	60	2½	3	95	111	25.0	45	25.0	–	146
031A0211	**150**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	156
A0212	**150**	2	2012	50	2	6	35	121	3.0	32	–	–	156
A0213	**150**	3	2517	60	2½	6	50	121	5.0	45	–	–	156
A0214	**150**	4	2517	60	2½	2	65	121	–	45	20.0	–	156
A0215	**150**	5	2517	60	2½	3	80	121	17.5	45	17.5	–	156
A0216*	**150**	6	2517	60	2½	3	95	121	25.0	45	25.0	–	156

Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used A V-belts, XPA & QXPA wedge belts only.
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
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Taper Lock® Pulleys for A, SPA, XPA & QXPA Belts



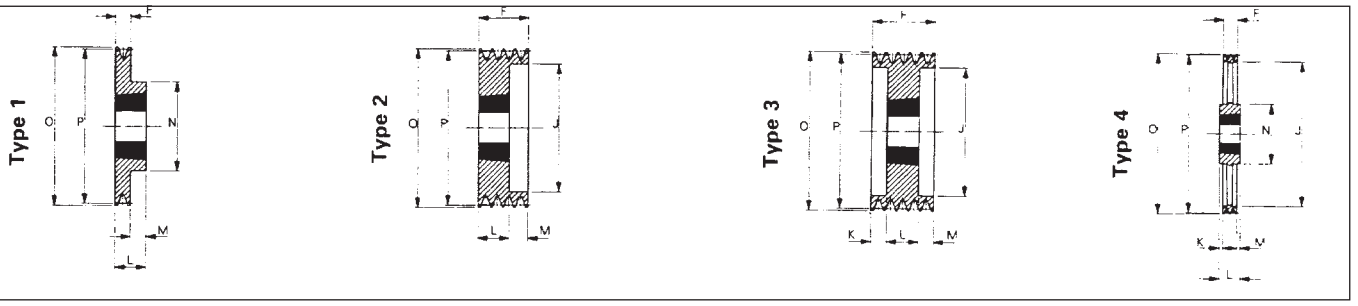
Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore Metric	Max. Bore Inch	Pulley Type	F	J	K	L	M	N	Outside Dia (O)
031A0221	**160**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	166
A0222	**160**	2	2012	50	2	7	35	125	1.5	32	1.5	108	166
A0223	**160**	3	2517	60	2½	6	50	128	5.0	45	–	–	166
A0224	**160**	4	2517	60	2½	2	65	128	–	45	20.0	–	166
A0225	**160**	5	2517	60	2½	3	80	128	17.5	45	17.5	–	166
A0226*	**160**	6	2517	60	2½	3	95	128	25.0	45	25.0	–	166
031A0241	**180**	1	1610	42	1⅝	1	20	–	–	25	5.0	92	186
A0242	**180**	2	2012	50	2	7	35	148	1.5	32	1.5	108	186
A0243	**180**	3	2517	60	2½	6	50	148	5.0	45	–	–	186
A0244	**180**	4	2517	60	2½	2	65	148	–	45	20.0	–	186
A0245	**180**	5	3020	75	3	3	80	148	14.5	51	14.5	–	186
A0246*	**180**	6	3020	75	3	3	95	148	22.0	51	22.0	–	186
031A0261	**200**	1	2012	50	2	8	20	162	–	32	12.0	108	206
A0262	**200**	2	2517	60	2½	8	35	162	5.0	45	5.0	123	206
A0263	**200**	3	2517	60	2½	7	50	162	2.5	45	2.5	123	206
A0264	**200**	4	3020	75	3	2	65	168	–	51	14.0	–	206
A0265	**200**	5	3020	75	3	3	80	168	14.5	51	14.5	–	206
A0266*	**200**	6	3020	75	3	3	95	168	22.0	51	22.0	–	206
031A0281	**224**	1	2012	50	2	8	20	189	–	32	12.0	112	230
A0282	**224**	2	2517	60	2½	8	35	189	–	45	10.0	124	230
A0283	**224**	3	2517	60	2½	7	50	189	2.5	45	2.5	124	230
A0284	**224**	4	3020	75	3	2	65	189	–	51	14.0	–	230
A0285	**224**	5	3020	75	3	2	80	189	–	51	29.0	–	230
A0286*	**224**	6	3020	75	3	3	95	189	22.0	51	22.0	–	230
031A0301	**250**	1	2012	50	2	8	20	215	6.0	32	6.0	112	256
A0302	**250**	2	2517	60	2½	8	35	215	5.0	45	5.0	124	256
A0303	**250**	3	2517	60	2½	7	50	215	2.5	45	2.5	124	256
A0304	**250**	4	3020	75	3	7	65	215	10.0	51	10.0	159	256
A0305	**250**	5	3020	75	3	7	80	215	17.5	51	17.5	159	256
A0306*	**250**	6	3020	75	3	7	95	215	22.0	51	22.0	159	256
031A0321	**280**	1	2012	50	2	8	20	245	–	32	12.0	112	286
A0322	**280**	2	2517	60	2½	8	35	245	–	45	10.0	124	286
A0323	**280**	3	2517	60	2½	7	50	245	2.5	45	2.5	124	286
A0324	**280**	4	3020	75	3	7	65	245	7.0	51	7.0	159	286
A0325	**280**	5	3525	100	4	7	80	245	4.5	89	4.5	178	286
A0326*	**280**	6	3525	100	4	7	95	245	15.0	65	15.0	178	286
031A0331	**315**	1	2012	50	2	4	20	280	–	32	12.0	112	321
A0332	**315**	2	2517	60	2½	4	35	280	–	45	10.0	124	321
A0333	**315**	3	3020	75	3	8	50	280	0.5	51	0.5	159	321
A0334	**315**	4	3020	75	3	7	65	280	8.0	51	8.0	159	321
A0335	**315**	5	3525	100	4	8	80	283	7.5	65	7.5	178	321
A0336*	**315**	6	3525	100	4	7	95	280	15.0	65	15.0	178	321
031A0351	**400**	1	2012	50	2	4	20	365	–	32	12.0	112	406
A0352	**400**	2	2517	60	2½	4	35	365	–	45	10.0	124	406
A0353	**400**	3	3020	75	3	4	50	365	0.5	51	0.5	159	406
A0354	**400**	4	3020	75	3	5	65	365	7.0	51	7.0	159	406
A0355	**400**	5	3525	100	4	4	80	365	7.5	65	7.5	178	406
A0356*	**400**	6	3525	100	4	5	95	368	15.0	65	15	178	406
031A0372	**500**	2	2517	60	2½	4	35	465	–	45	10.0	124	506
A0373	**500**	3	3020	75	3	4	50	465	0.5	51	0.5	159	506
A0374	**500**	4	3020	75	3	5	65	465	7.0	51	7.0	159	506
A0375	**500**	5	3525	100	4	4	80	465	7.5	65	7.5	178	506
A0376*	**500**	6	3525	100	4	5	95	465	15.0	65	15.0	178	506
031A0392*	**630**	2	3020	75	3	4	35	595	–	45	16.0	159	636
A0393	**630**	3	3020	75	3	4	50	595	0.5	89	0.5	178	636
A0394	**630**	4	3525	100	4	4	65	595	12.0	89	12.0	178	636
A0395	**630**	5	3525	100	4	4	80	595	7.5	65	7.5	178	636
A0396	**630**	6	4030	115	4½	4	95	595	9.5	76	9.5	216	636
031A0413*	**800**	3	3525	100	4	4	50	765	7.5	65	7.5	178	806
A0414*	**800**	4	3525	100	4	4	65	765	0.0	65	0.0	178	806
A0415*	**800**	5	4030	115	4½	4	80	765	2.0	76	2.0	216	806
A0416*	**800**	6	4030	115	4½	4	95	765	9.5	76	9.5	216	806

Dimensions in millimetres unless otherwise stated.
* Non-preferred pulley sizes.

Intermediate diameters available on a non-stock basis, see page 68

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock® Pulleys for B, SPB, XPB & QXPB Belts

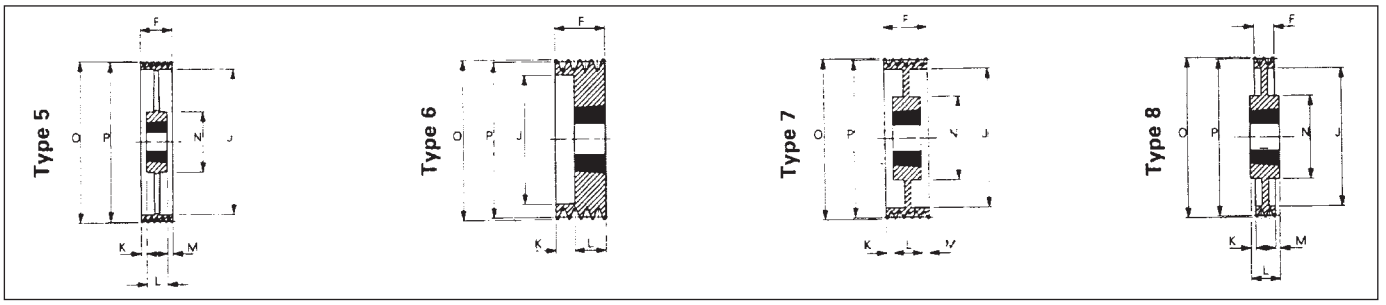


Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031B0162	***112***	*2*	*2012*	*50*	*2*	*2*	*44*	*72*	*–*	*25*	*19.0*	*–*	*119*
B0163	***112***	*3*	*2012*	*50*	*2*	*2*	*63*	*72*	*–*	*25*	*37.0*	*–*	*119*
031B0172	***118***	*2*	*2012*	*50*	*2*	*2*	*44*	*78*	*–*	*25*	*19.0*	*–*	*125*
B0173	***118***	*3*	*2012*	*50*	*2*	*2*	*63*	*78*	*–*	*25*	*37.0*	*–*	*125*
031B0182	***125***	*2*	*2012*	*50*	*2*	*2*	*44*	*82*	*–*	*32*	*12.0*	*–*	*132*
B0183	***125***	*3*	*2012*	*50*	*2*	*2*	*63*	*89*	*–*	*32*	*31.0*	*–*	*132*
B0184	***125***	*4*	*2012*	*50*	*2*	*3*	*82*	*82*	*25.0*	*32*	*25.0*	*–*	*132*
*B0185**	***125***	*5*	*2012*	*50*	*2*	*6*	*101*	*87*	*69.0*	*32*	*–*	*–*	*132*
031B0192	***132***	*2*	*2012*	*50*	*2*	*2*	*44*	*89*	*–*	*32*	*12.0*	*–*	*139*
B0193	***132***	*3*	*2012*	*50*	*2*	*2*	*63*	*89*	*–*	*32*	*31.0*	*–*	*139*
B0194	***132***	*4*	*2012*	*50*	*2*	*3*	*82*	*89*	*25.0*	*32*	*25.0*	*–*	*139*
*B0195**	***132***	*5*	*2517*	*60*	*2½*	*6*	*101*	*94*	*56.0*	*45*	*–*	*–*	*139*
031B0202	**140**	2	2012	50	2	2	44	97	–	32	12.0	–	147
B0203	**140**	3	2012	50	2	2	63	97	–	32	31.0	–	147
B0204	**140**	4	2517	60	2½	3	82	100	18.5	45	18.5	–	147
B0205	**140**	5	2517	60	2½	3	101	97	28.0	45	28.0	–	147
B0206	**140**	6	2517	60	2½	3	120	100	37.5	45	37.5	–	147
031B0212	**150**	2	2012	50	2	2	44	107	–	32	12.0	–	157
B0213	**150**	3	2517	60	2½	2	63	107	–	45	18.0	–	157
B0214	**150**	4	2517	60	2½	3	82	107	18.5	45	18.5	–	157
B0215	**150**	5	2517	60	2½	3	101	107	28.0	45	28.0	–	157
B0216	**150**	6	2517	60	2½	3	120	107	37.5	45	37.5	–	157
031B0222	**160**	2	2012	50	2	2	44	117	–	32	12.0	–	167
B0223	**160**	3	2517	60	2½	2	63	117	–	45	18.0	–	167
B0224	**160**	4	2517	60	2½	3	82	117	18.5	45	18.5	–	167
B0225	**160**	5	2517	60	2½	3	101	117	28.0	45	28.0	–	167
B0226	**160**	6	3020	75	3	3	120	117	34.5	51	34.5	–	167
031B0232	**170**	2	2012	50	2	2	44	127	–	32	12.0	–	177
B0233	**170**	3	2517	60	2½	2	63	127	–	45	18.0	–	177
B0234	**170**	4	2517	60	2½	3	82	127	18.5	45	18.5	–	177
B0235	**170**	5	3020	75	3	3	101	127	25.0	51	25.0	–	177
B0236	**170**	6	3020	75	3	3	120	127	34.5	51	34.5	–	177
031B0242	**180**	2	2517	60	2½	1	44	–	–	45	1.0	117	187
B0243	**180**	3	2517	60	2½	2	63	137	–	45	18.0	–	187
B0244	**180**	4	2517	60	2½	3	82	137	18.5	45	18.5	–	187
B0245	**180**	5	3020	75	3	3	101	137	25.0	51	25.0	–	187
B0246	**180**	6	3020	75	3	3	120	137	34.5	51	34.5	–	187
B0248*	**180**	8	3020	75	3	3	158	137	53.5	51	53.5	–	187
031B0252	**190**	2	2517	60	2½	1	44	–	–	45	1.0	117	197
B0253	**190**	3	2517	60	2½	2	63	147	–	45	18.0	–	197
B0254	**190**	4	2517	60	2½	3	82	147	18.5	45	18.5	–	197
B0255	**190**	5	3020	75	3	3	101	147	25.0	51	25.0	–	197
B0256	**190**	6	3020	75	3	3	120	147	34.5	51	34.5	–	197
B0258*	**190**	8	3020	75	3	3	158	147	53.5	51	53.5	–	197
031B0262	**200**	2	2517	60	2½	1	44	–	–	45	1.0	117	207
B0263	**200**	3	2517	60	2½	7	63	157	–	45	18.0	117	207
B0264	**200**	4	3020	75	3	3	82	157	15.5	51	15.5	–	207
B0265	**200**	5	3020	75	3	3	101	157	25.0	51	25.0	–	207
B0266	**200**	6	3020	75	3	3	120	157	34.5	51	34.5	–	207
B0268*	**200**	8	3525	100	4	3	158	157	46.5	65	46.5	–	207
031B0272	**212**	2	2517	60	2½	1	44	–	–	45	1.0	117	219
B0273	**212**	3	2517	60	2½	7	63	169	–	45	18.0	117	219
B0274	**212**	4	3020	75	3	3	82	169	15.5	51	15.5	–	219
B0275	**212**	5	3020	75	3	3	101	169	25.0	51	25.0	–	219
B0276	**212**	6	3525	100	4	3	120	169	28.0	65	28.0	–	219
B0278*	**212**	8	3525	100	4	3	158	169	46.5	65	46.5	–	219
031B0282	**224**	2	2517	60	2½	8	44	181	1.0	45	–	117	231
B0283	**224**	3	2517	60	2½	7	63	181	–	45	18.0	117	231
B0284	**224**	4	3020	75	3	3	82	181	15.5	51	15.5	–	231
B0285	**224**	5	3020	75	3	3	101	181	25.0	51	25.0	–	231
B0286	**224**	6	3525	100	4	3	120	181	28.0	65	28.0	–	231
B0288*	**224**	8	3525	100	4	3	158	181	46.5	65	46.5	–	231

Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used with B V- belts, XPB & QXPB wedge belts only.
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.



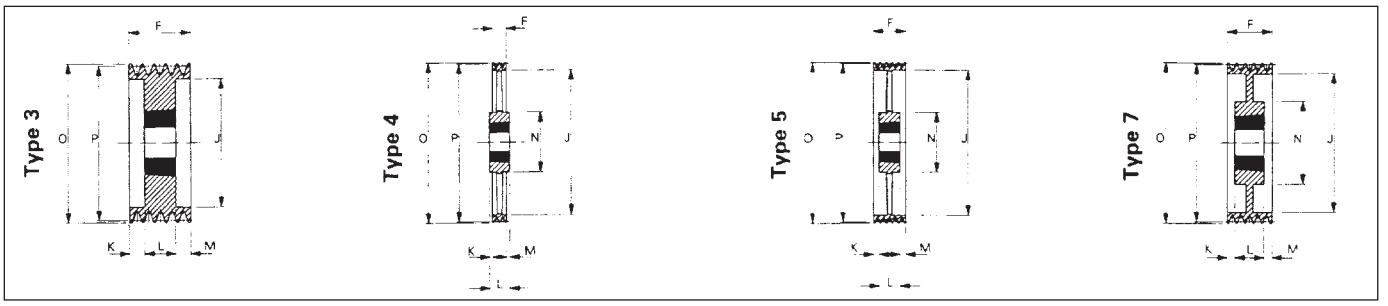
Taper Lock® Pulleys for B, SPB, XPB & QXPB Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore Metric	Max. Bore Inch	Pulley Type	F	J	K	L	M	N	Outside Dia (O)
031B0292	**236**	2	2517	60	2½	8	44	193	1.0	45	–	117	243
B0293	**236**	3	2517	60	2½	7	63	193	–	45	18.0	117	243
B0294	**236**	4	3020	75	3	3	82	193	15.5	51	15.5	–	243
B0295	**236**	5	3525	100	4	3	101	193	6.0	89	6.0	–	243
B0296	**236**	6	3525	100	4	3	120	193	28.0	65	28.0	–	243
B0298*	**236**	8	3525	100	4	3	158	193	46.5	65	46.5	–	243
031B0302	**250**	2	2517	60	2½	8	44	207	1.0	45	1.0	117	257
B0303	**250**	3	3020	75	3	7	63	207	–	51	12.0	144	257
B0304	**250**	4	3020	75	3	7	82	207	15.5	51	15.5	144	257
B0305	**250**	5	3525	100	4	3	101	207	6.0	89	6.0	–	257
B0306	**250**	6	3525	100	4	3	120	207	28.0	65	28.0	–	257
B0308*	**250**	8	3525	100	4	3	158	207	46.5	65	46.5	–	257
031B0322	**280**	2	2517	60	2½	8	44	237	1.0	45	–	117	287
B0323	**280**	3	3020	75	3	7	63	237	6.0	51	6.0	144	287
B0324	**280**	4	3020	75	3	7	82	237	15.5	51	15.5	144	287
B0325	**280**	5	3525	100	4	7	101	237	18.0	65	18.0	187	287
B0326	**280**	6	3525	100	4	7	120	237	27.5	65	27.5	187	287
B0328*	**280**	8	3525	100	4	7	158	237	46.5	65	46.5	187	287
031B0332	**315**	2	2517	60	2½	8	44	272	1.0	45	–	117	322
B0333	**315**	3	3020	75	3	7	63	272	6.0	51	6.0	144	322
B0334	**315**	4	3525	100	4	7	82	272	3.5	65	3.5	187	322
B0335	**315**	5	3525	100	4	7	101	272	18.0	65	18.0	187	322
B0336	**315**	6	3525	100	4	7	120	272	27.5	65	27.5	187	322
B0338*	**315**	8	3525	100	4	7	158	272	46.5	65	46.5	187	322
031B0342	**355**	2	3020	75	3	5	44	312	3.5	51	3.5	144	362
B0343	**355**	3	3020	75	3	8	63	312	6.0	51	6.0	144	362
B0344	**355**	4	3525	100	4	8	82	312	3.5	89	3.5	187	362
B0345	**355**	5	3525	100	4	5	101	312	18.0	65	18.0	187	362
B0346	**355**	6	3525	100	4	5	120	312	27.5	65	27.5	187	362
B0348*	**355**	8	3525	100	4	7	158	312	46.5	65	46.5	187	362
031B0352	**400**	2	3020	75	3	4	44	357	3.5	51	3.5	144	407
B0353	**400**	3	3525	100	4	8	63	357	1.0	65	1.0	187	407
B0354	**400**	4	3525	100	4	4	82	357	8.5	65	8.5	187	407
B0355	**400**	5	3525	100	4	7	101	357	18.0	65	18.0	187	407
B0356	**400**	6	3525	100	4	5	120	357	27.5	65	27.5	187	407
B0358*	**400**	8	3525	100	4	5	158	357	46.5	65	46.5	200	407
014B0362	**450**	2	3020	75	3	4	44	407	3.5	51	3.5	144	457
B0363	**450**	3	3525	100	4	4	63	407	1.0	65	1.0	187	457
B0364	**450**	4	3525	100	4	4	82	407	8.5	65	8.5	187	457
B0365	**450**	5	3525	100	4	5	101	407	18.0	65	18.0	187	457
B0366	**450**	6	3525	100	4	5	120	407	27.5	65	27.5	216	457
B0368*	**450**	8	3525	100	4	5	158	407	46.5	65	46.5	216	457
031B0372	**500**	2	3020	75	3	4	44	457	3.5	51	3.5	144	507
B0373	**500**	3	3525	100	4	4	63	457	1.0	65	1.0	187	507
B0374	**500**	4	3525	100	4	4	82	457	8.5	65	8.5	187	507
B0375	**500**	5	3525	100	4	5	101	457	18.0	65	18.0	187	507
B0376	**500**	6	3525	100	4	5	120	457	27.5	65	27.5	216	507
B0378*	**500**	8	3525	100	4	5	158	457	46.5	65	46.5	216	507
014B0382	**560**	2	3020	75	3	4	44	517	4.0	76	4.0	144	567
B0383	**560**	3	3525	100	4	4	63	517	1.0	65	1.0	187	567
B0384	**560**	4	3525	100	4	4	82	517	8.5	65	8.5	187	567
B0385	**560**	5	3525	100	4	4	101	517	18.0	65	18.0	216	567
B0386	**560**	6	3525	100	4	5	120	517	27.5	65	27.5	187	567
B0388*	**560**	8	4030	115	4½	5	158	517	41.0	76	41.0	242	567
031B0392	**630**	2	3020	75	3	4	44	587	3.5	51	3.5	144	637
B0393	**630**	3	3525	100	4	4	63	587	1.0	65	1.0	187	637
B0394	**630**	4	3525	100	4	4	82	587	8.5	65	8.5	187	637
B0395	**630**	5	3525	100	4	4	101	587	18.0	65	18.0	216	637
B0396	**630**	6	3525	100	4	5	120	587	27.5	65	27.5	216	637
B0398*	**630**	8	4030	115	4½	5	158	587	41.0	76	41.0	242	637
031B0413	**800**	3	3525	100	4	4	63	754	1.0	65	1.0	187	807
B0414	**800**	4	4030	115	4½	4	82	754	3.0	76	3.0	216	807
B0415	**800**	5	4030	115	4½	4	101	754	12.5	76	12.5	216	807
B0416	**800**	6	4535	125	5	5	120	754	15.5	89	15.5	242	807
B0418*	**800**	8	4535	125	5	5	158	754	34.5	89	34.5	242	807
031B0433*	**1000**	3	4030	115	4½	4	63	954	6.5	76	6.5	216	1007
B0434	**1000**	4	4030	115	4½	4	82	954	3.0	76	3.0	216	1007
B0435	**1000**	5	4535	125	5	4	101	954	6.0	89	6.0	242	1007
B0436	**1000**	6	4535	125	5	5	120	954	15.5	89	15.5	242	1007
B0438*	**1000**	8	4535	125	5	5	158	954	34.5	89	34.5	242	1007

Dimensions in millimetres unless otherwise stated. * Non-preferred pulley sizes. Intermediate diameters available on a non-stock basis, see page 69
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock® Pulleys for C, SPC, XPC & QXPC Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031C0263	***200***	3	2517	60	2½	3	85	144	20.0	45	20.0	–	210
C0264	***200***	4	3020	75	3	3	111	144	30.0	51	30.0	–	210
C0265	***200***	5	3525	100	4	3	136	144	35.5	65	35.5	–	210
C0266	***200***	6	3525	100	4	3	162	144	48.5	65	48.5	–	210
031C0273	***212***	3	3020	75	3	3	85	156	17.0	51	17.0	–	222
C0274	***212***	4	3020	75	3	3	111	156	30.0	51	30.0	–	222
C0275	***212***	5	3525	100	4	3	136	156	35.5	65	35.5	–	222
C0276	***212***	6	3525	100	4	3	162	156	48.5	65	48.5	–	222
031C0283	**224**	3	3020	75	3	3	85	168	17.0	51	17.0	–	234
C0284	**224**	4	3525	100	4	3	111	168	23.0	65	23.0	–	234
C0285	**224**	5	3525	100	4	3	136	168	35.5	65	35.5	–	234
C0286	**224**	6	3525	100	4	3	162	168	48.5	65	48.5	–	234
C0288	**224**	8	3525	100	4	3	213	168	74.0	65	74.0	–	234
031C0293	**236**	3	3020	75	3	3	85	180	17.0	51	17.0	–	246
C0294	**236**	4	3525	100	4	3	111	180	23.0	65	23.0	–	246
C0295	**236**	5	3525	100	4	3	136	180	35.5	65	35.5	–	246
C0296	**236**	6	3525	100	4	3	162	180	48.5	65	48.5	–	246
C0298	**236**	8	3525	100	4	3	213	180	74.0	65	74.0	–	246
031C0303	**250**	3	3020	75	3	3	85	194	17.0	51	17.0	–	260
C0304	**250**	4	3525	100	4	3	111	194	23.0	65	23.0	–	260
C0305	**250**	5	3525	100	4	3	136	194	35.5	65	35.5	–	260
C0306	**250**	6	3525	100	4	3	162	194	48.5	65	48.5	–	260
C0308	**250**	8	3525	100	4	3	213	194	74.0	65	74.0	–	260
031C0313	**265**	3	3525	100	4	1	85	209	10.0	65	10.0	179	275
C0314	**265**	4	3525	100	4	3	111	209	23.0	65	23.0	–	275
C0315	**265**	5	3525	100	4	3	136	209	35.5	65	35.5	–	275
C0316	**265**	6	3525	100	4	3	162	209	48.5	65	48.5	–	275
C0318	**265**	8	3525	100	4	3	213	209	74.0	65	74.0	–	275
031C0323	**280**	3	3525	100	4	1	85	224	10.0	65	10.0	187	290
C0324	**280**	4	3525	100	4	3	111	224	23.0	65	23.0	–	290
C0325	**280**	5	3525	100	4	3	136	224	35.5	65	35.5	–	290
C0326	**280**	6	3525	100	4	3	162	224	48.5	65	48.5	170	290
C0328	**280**	8	3525	100	4	3	213	224	74.0	65	74.0	–	290
031C0473	**300**	3	3525	100	4	8	85	244	10.0	65	10.0	187	310
C0474	**300**	4	3525	100	4	7	111	244	23.0	65	23.0	187	310
C0475	**300**	5	3525	100	4	7	136	244	35.5	65	35.5	187	310
C0476	**300**	6	3525	100	4	7	162	244	48.5	65	48.5	187	310
C0478	**300**	8	3525	100	4	7	213	244	74.0	65	74.0	216	310
031C0333	**315**	3	3525	100	4	8	85	259	10.0	65	10.0	187	325
C0334	**315**	4	3525	100	4	7	111	259	23.0	65	23.0	187	325
C0335	**315**	5	3525	100	4	7	136	259	35.5	65	35.5	187	325
C0336	**315**	6	3525	100	4	7	162	259	48.5	65	48.5	187	325
C0338	**315**	8	3525	100	4	7	213	259	74.0	65	74.0	216	325
031C0483	**335**	3	3525	100	4	8	85	279	10.0	65	10.0	187	345
C0484	**335**	4	3525	100	4	7	111	279	23.0	65	23.0	187	345
C0485	**335**	5	3525	100	4	7	136	279	35.5	65	35.5	187	345
C0486	**335**	6	3525	100	4	7	162	279	48.5	65	48.5	187	345
C0488	**335**	8	3525	100	4	7	213	279	74.0	65	74.0	216	345
031C0343	**355**	3	3525	100	4	8	85	299	10.0	65	10.0	187	365
C0344	**355**	4	3525	100	4	7	111	299	23.0	65	23.0	187	365
C0345	**355**	5	3525	100	4	7	136	299	35.5	65	35.5	187	365
C0346	**355**	6	3525	100	4	7	162	299	48.5	65	48.5	187	365
C0348	**355**	8	3525	100	4	7	213	299	74.0	65	74.0	216	365
031C0493	**375**	3	3525	100	4	8	85	319	10.0	65	10.0	187	385
C0494	**375**	4	3525	100	4	7	111	319	23.0	65	23.0	187	385
C0495	**375**	5	3525	100	4	7	136	319	35.5	65	35.5	187	385
C0496	**375**	6	3525	100	4	7	162	319	48.5	65	48.5	216	385
C0498	**375**	8	4030	115	4½	7	213	319	68.5	76	68.5	242	385

Dimensions in millimetres unless otherwise stated.
* Non-preferred pulley sizes.
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication.
Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Pitch diameters in italic type indicate pulleys to be used with C V belts, XPC & QXPC wedge belts only.

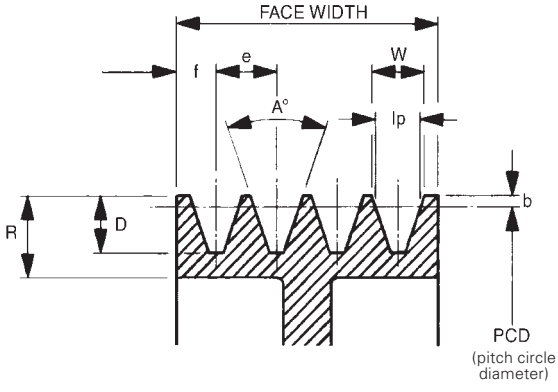


Taper Lock® Pulleys for C, SPC, XPC & QXPC Belts

Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore Metric	Max. Bore Inch	Pulley Type	F	J	K	L	M	N	Outside Dia (O)
031C0353	**400**	3	3525	100	4	4	85	344	10.0	65	10.0	187	410
C0354	**400**	4	3525	100	4	5	111	344	23.0	65	23.0	187	410
C0355	**400**	5	3525	100	4	5	136	344	35.5	65	35.5	187	410
C0356	**400**	6	3525	100	4	7	162	344	48.5	65	48.5	216	410
C0358	**400**	8	4030	115	4½	7	213	344	68.5	76	68.5	242	410
031C0503	**425**	3	3525	100	4	4	85	369	10.0	65	10.0	187	435
C0504	**425**	4	3525	100	4	5	111	369	23.0	65	23.0	187	435
C0505	**425**	5	3525	100	4	5	136	369	35.5	65	35.5	216	435
C0506	**425**	6	4535	125	5	7	162	369	36.5	89	36.5	242	435
C0508	**425**	8	4535	125	5	7	213	369	62.0	89	62.0	267	435
031C0363	**450**	3	3525	100	4	4	85	394	10.0	65	10.0	187	460
C0364	**450**	4	3525	100	4	5	111	394	23.0	65	23.0	187	460
C0365	**450**	5	3525	100	4	5	136	394	35.5	65	35.5	216	460
C0366	**450**	6	4535	125	5	7	162	394	36.5	89	36.5	242	460
C0368	**450**	8	4535	125	5	7	213	394	62.0	89	62.0	267	460
031C0513	**475**	3	3525	100	4	4	85	419	10.0	65	10.0	187	485
C0514	**475**	4	3525	100	4	5	111	419	23.0	65	23.0	187	485
C0515	**475**	5	3525	100	4	5	136	419	35.5	65	35.5	216	485
C0516	**475**	6	4535	125	5	7	162	419	36.5	89	36.5	242	485
C0518	**475**	8	4535	125	5	7	213	419	62.0	89	62.0	267	485
031C0373	**500**	3	3525	100	4	4	85	444	10.0	65	10.0	187	510
C0374	**500**	4	3525	100	4	5	111	444	23.0	65	23.0	187	510
C0375	**500**	5	3525	100	4	5	136	444	35.5	65	35.5	216	510
C0376	**500**	6	4535	125	5	5	162	444	36.5	89	36.5	242	510
C0378	**500**	8	4535	125	5	7	213	444	62.0	89	62.0	267	510
031C0523	**530**	3	3525	100	4	4	85	474	10.0	65	10.0	187	540
C0524	**530**	4	3525	100	4	5	111	474	23.0	65	23.0	187	540
C0525	**530**	5	4535	125	5	5	136	474	23.5	89	23.5	216	540
C0526	**530**	6	4535	125	5	5	162	474	36.5	89	36.5	242	540
C0528	**530**	8	4535	125	5	7	213	474	62.0	89	62.0	267	540
031C0383	**560**	3	3525	100	4	4	85	504	10.0	65	10.0	216	570
C0384	**560**	4	3525	100	4	5	111	504	23.0	65	23.0	216	570
C0385	**560**	5	4535	125	5	5	136	504	23.5	89	23.5	242	570
C0386	**560**	6	4535	125	5	5	162	504	36.5	89	36.5	267	570
C0388	**560**	8	4535	125	5	5	213	504	62.0	89	62.0	267	570
031C0393	**630**	3	4030	115	4½	4	85	574	4.5	76	4.5	246	640
C0394	**630**	4	4030	115	4½	4	111	574	17.5	76	17.5	242	640
C0395	**630**	5	4535	125	5	5	136	574	23.5	89	23.5	267	640
C0396	**630**	6	4535	125	5	5	162	574	36.5	89	36.5	267	640
C0398	**630**	8	4535	125	5	5	213	574	62.0	89	62.0	267	640
031C0413	**800**	3	4535	125	5	4	85	737	2.0	89	2.5	242	810
C0414	**800**	4	5040	125	5	4	111	737	4.5	102	4.5	267	810
C0415	**800**	5	5040	125	5	5	136	737	17.0	102	17.0	267	810
C0416	**800**	6	5040	125	5	5	162	737	30.0	102	30.0	267	810
C0418	**800**	8	5040	125	5	5	213	737	55.5	102	55.5	267	810
031C0433	**1000**	3	5040	125	5	4	85	937	8.5	102	8.5	267	1010
C0434	**1000**	4	5040	125	5	4	111	937	4.5	102	4.5	267	1010
C0435	**1000**	5	5040	125	5	5	136	937	17.0	102	17.0	267	1010
C0436	**1000**	6	5040	125	5	5	162	937	30.0	102	30.0	267	1010
C0438	**1000**	8	5040	125	5	5	213	937	55.5	102	55.5	267	1010
031C0443	**1250**	3	5040	125	5	4	85	1187	8.5	102	8.5	267	1260
C0444	**1250**	4	5040	125	5	4	111	1187	4.5	102	4.5	267	1260
C0445	**1250**	5	5040	125	5	5	136	1187	17.0	102	17.0	267	1260
C0446	**1250**	6	5040	125	5	5	162	1187	30.0	102	30.0	267	1260
C0448	**1250**	8	5040	125	5	5	213	1187	55.5	102	55.5	267	1260

Dimensions in millimetres unless otherwise stated.
Intermediate diameters available on a non-stock basis, see page 69
All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.
These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

PULLEY GROOVE DIMENSIONS



Belt Section	Pulley PCD	A° ± 0.5°	D +0.03 -0.0	e* ± 0.15	f ± 0.3	b ± 0.13	lp	W	R NOM
SPZ Dual Groove	Up to 80 Over 80	34 38	11.0	12	8	2.0	8.5	9.7 9.9	17.25
SPA Dual Groove	Up to 118 Over 118	34 38	13.75	15	10	2.75	11	12.7 12.9	21.25
SPB Dual Groove	Up to 190 Over 190	34 38	17.5	19	12.5	3.5	14	16.1 16.4	27.25
SPC Dual Groove	Up to 315 Over 315	34 38	23.8	25.5	17	4.8	19	21.9 22.3	37.25

*e dimension – the tolerance shown is between any two grooves.

Additional Taper Lock® Pulley Sizes

ADDITIONAL SPZ PULLEY SIZES

Product Code	Description	Bush Size
031Z0064	SPZ 63 X 4	1108
031Z0074	SPZ 67 X 4	1108
031Z0084	SPZ 71 X 4	1108
031Z0094	SPZ 75 X 4	1210
031Z0126	SPZ 90 X 6	1610
031Z0136	SPZ 95 X 6	1610
031Z0146	SPZ 100 X 6	2012
031Z0156	SPZ 106 X 6	2012
031Z0166	SPZ 112 X 6	2012
031Z0176	SPZ 118 X 6	2517
031Z0186	SPZ 125 X 6	2517
031Z0196	SPZ 132 X 6	2517
031Z0206	SPZ 140 X 6	2517
031Z0211	SPZ 150 X 1	1610
031Z0212	SPZ 150 X 2	2012
031Z0213	SPZ 150 X 3	2012
031Z0214	SPZ 150 X 4	2517
031Z0215	SPZ 150 X 5	2517
031Z0216	SPZ 150 X 6	2517
031Z0226	SPZ 160 X 6	2517
031Z0231	SPZ 170 X 1	1610
031Z0232	SPZ 170 X 2	2012
031Z0233	SPZ 170 X 3	2012
031Z0234	SPZ 170 X 4	2517
031Z0235	SPZ 170 X 5	2517
031Z0236	SPZ 170 X 6	2517
031Z0246	SPZ 180 X 6	2517
031Z0251	SPZ 190 X 1	1610
031Z0252	SPZ 190 X 2	2012
031Z0253	SPZ 190 X 3	2012
031Z0254	SPZ 190 X 4	2012
031Z0255	SPZ 190 X 5	2517
031Z0256	SPZ 190 X 6	2517
031Z0266	SPZ 200 X 6	2517
031Z0281	SPZ 224 X 1	2012
031Z0282	SPZ 224 X 2	2012
031Z0283	SPZ 224 X 3	2012
031Z0284	SPZ 224 X 4	2517
031Z0285	SPZ 224 X 5	2517
031Z0286	SPZ 224 X 6	2517
031Z0306	SPZ 250 X 6	2517
031Z0321	SPZ 280 X 1	2012
031Z0322	SPZ 280 X 2	2012
031Z0323	SPZ 280 X 3	2517
031Z0324	SPZ 280 X 4	2517
031Z0325	SPZ 280 X 5	2517
031Z0326	SPZ 280 X 6	2517
031Z0336	SPZ 315 X 6	2517
031Z0341	SPZ 355 X 1	2012
031Z0342	SPZ 355 X 2	2012
031Z0343	SPZ 355 X 3	2517
031Z0344	SPZ 355 X 4	2517
031Z0345	SPZ 355 X 5	2517
031Z0346	SPZ 355 X 6	2517
031Z0356	SPZ 400 X 6	3020
031Z0361	SPZ 450 X 1	2517
031Z0362	SPZ 450 X 2	2517
031Z0363	SPZ 450 X 3	2517
031Z0364	SPZ 450 X 4	3020
031Z0365	SPZ 450 X 5	3020
031Z0366	SPZ 450 X 6	3020
031Z0371	SPZ 500 X 1	2517
031Z0376	SPZ 500 X 6	3020
031Z0392	SPZ 630 X 2	2517
031Z0396	SPZ 630 X 6	3525

ADDITIONAL SPA PULLEY SIZES

Product Code	Description	Bush Size
031A0081	SPA 71 X 1	1108
031A0082	SPA 71 X 2	1108
031A0083	SPA 71 X 3	1108
031A0091	SPA 75 X 1	1108
031A0092	SPA 75 X 2	1108
031A0093	SPA 75 X 3	1108
031A0104	SPA 80 X 4	1210
031A0114	SPA 85 X 4	1210
031A0231	SPA 170 X 1	1610
031A0232	SPA 170 X 2	2012
031A0233	SPA 170 X 3	2517
031A0234	SPA 170 X 4	2517
031A0235	SPA 170 X 5	3020
031A0236	SPA 170 X 6	3020
031A0251	SPA 190 X 1	2012
031A0252	SPA 190 X 2	2012
031A0253	SPA 190 X 3	2517
031A0254	SPA 190 X 4	3020
031A0255	SPA 190 X 5	3020
031A0256	SPA 190 X 6	3020
031A0271	SPA 212 X 1	2012
031A0272	SPA 212 X 2	2517
031A0273	SPA 212 X 3	2517
031A0274	SPA 212 X 4	3020
031A0275	SPA 212 X 5	3020
031A0276	SPA 212 X 6	3020
031A0291	SPA 236 X 1	2012
031A0292	SPA 236 X 2	2517
031A0293	SPA 236 X 3	2517
031A0294	SPA 236 X 4	3020
031A0295	SPA 236 X 5	3020
031A0296	SPA 236 X 6	3020
031A0311	SPA 265 X 1	2012
031A0312	SPA 265 X 2	2517
031A0313	SPA 265 X 3	2517
031A0314	SPA 265 X 4	3020
031A0315	SPA 265 X 5	3020
031A0316	SPA 265 X 6	3020
031A0471	SPA 300 X 1	2012
031A0472	SPA 300 X 2	2517
031A0473	SPA 300 X 3	3020
031A0474	SPA 300 X 4	3020
031A0475	SPA 300 X 5	3525
031A0476	SPA 300 X 6	3525
031A0481	SPA 335 X 1	2012
031A0482	SPA 335 X 2	2517
031A0483	SPA 335 X 3	3020
031A0484	SPA 335 X 4	3020
031A0485	SPA 335 X 5	3525
031A0486	SPA 335 X 6	3525
031A0341	SPA 355 X 1	2012
031A0342	SPA 355 X 2	2517
031A0343	SPA 355 X 3	3020
031A0344	SPA 355 X 4	3020
031A0345	SPA 355 X 5	3525
031A0346	SPA 355 X 6	3525
031A0361	SPA 450 X 1	2012
031A0362	SPA 450 X 2	2517
031A0363	SPA 450 X 3	3020
031A0364	SPA 450 X 4	3020
031A0365	SPA 450 X 5	3525
031A0366	SPA 450 X 6	3525
031A0371	SPA 500 X 1	2517
031A0381	SPA 560 X 1	2517
031A0382	SPA 560 X 2	3020
031A0383	SPA 560 X 3	3020
031A0384	SPA 560 X 4	3525
031A0385	SPA 560 X 5	3525
031A0386	SPA 560 X 6	3525
031A0391	SPA 630 X 1	2517
031A0412	SPA 800 X 2	3525
031A1433	**SPA 1000 X 3**	**3535**
031A1434	**SPA 1000 X 4**	**4040**
031A1435	**SPA 1000 X 5**	**4545**
031A1436	**SPA 1000 X 6**	**4545**



Additional Taper Lock® Pulley Sizes

ADDITIONAL SPB PULLEY SIZES

Product Code	Description	Bush Size
031B0141	SPB 100 X 1	1610
031B0142	SPB 100 X 2	1610
031B0143	SPB 100 X 3	1610
031B0144	SPB 100 X 4	1210
031B0151	SPB 106 X 1	1610
031B0152	SPB 106 X 2	1610
031B0153	SPB 106 X 3	1610
031B0154	SPB 106 X 4	1610
031B0161	SPB 112 X 1	1610
031B0164	SPB 112 X 4	1610
031B0171	SPB 118 X 1	1610
031B0174	SPB 118 X 4	1610
031B0181	SPB 125 X 1	1610
031B0186	SPB 125 X 6	2012
031B0191	SPB 132 X 1	1610
031B0196	SPB 132 X 6	2012
031B0201	SPB 140 X 1	1610
031B0211	SPB 150 X 1	1610
031B0221	SPB 160 X 1	1610
031B0228	SPB 160 X 8	3020
031B1228	SPB 160 X 8	3030
031B0231	SPB 170 X 1	1610
031B0238	SPB 170 X 8	3020
031B0241	SPB 180 X 1	1610
031B0251	SPB 190 X 1	2012
031B0261	SPB 200 X 1	2012
031B0271	SPB 212 X 1	2012
031B0281	SPB 224 X 1	2012
031B0291	SPB 236 X 1	2012
031B0301	SPB 250 X 1	2012
031B0312	SPB 265 X 2	2517
031B0313	SPB 265 X 3	3020
031B0314	SPB 265 X 4	3020
031B0315	SPB 265 X 5	3525
031B0316	SPB 265 X 6	3525
031B0318	SPB 265 X 8	3525
031B0321	SPB 280 X 1	2012
031B0331	SPB 315 X 1	2012
031B0403	SPB 710 X 3	3525
031B0404	SPB 710 X 4	3525
031B0405	SPB 710 X 5	4030
031B0406	SPB 710 X 6	4535
031B0408	SPB 710 X 8	4535
031B0412	SPB 800 X 2	3525
031B0423	SPB 900 X 3	3525
031B0424	SPB 900 X 4	4030
031B0425	SPB 900 X 5	4535
031B0426	SPB 900 X 6	4535
031B0428	SPB 900 X 8	4535
031B0443	SPB 1250 X 3	5040
031B0444	SPB 1250 X 4	5040
031B0445	SPB 1250 X 5	5040
031B0446	SPB 1250 X 6	5040
031B0448	SPB 1250 X 8	5040
031B0471	SPB 300 X 1	2012
031B0472	SPB 300 X 2	2517
031B0473	SPB 300 X 3	3020
031B0474	SPB 300 X 4	3525
031B0475	SPB 300 X 5	3525
031B0476	SPB 300 X 6	3252
031B0478	SPB 300 X 8	3525
031C1470	SPC 300 X 10	4040
031B0482	SPB 335 X 2	3020
031B0483	SPB 335 X 3	3020
031B0484	SPB 335 X 4	3525
031B0485	SPB 335 X 5	3525
031B0486	SPB 335 X 6	3525
031B0488	SPB 335 X 8	3525

ADDITIONAL SPC PULLEY SIZES

Product Code	Description	Bush Size
031C0268	SPC 200 X 8	3525
031C0278	SPC 212 X 8	3525
031C1280	**SPC 224 X 10**	**4040**
031C0290	**SPC 236 X 10**	**4040**
031C1300	**SPC 250 X 10**	**4040**
031C1310	**SPC 265 X 10**	**4040**
031C1320	**SPC 280 X 10**	**4040**
031C1470	**SPC 300 X 10**	**4040**
031C1330	**SPC 315 X 10**	**4545**
031C1480	**SPC 335 X 10**	**4545**
031C1340	**SPC 355 X 10**	**4545**
031C1490	**SPC 375 X 10**	**4545**
031C1350	**SPC 400 X 10**	**5050**
031C1500	**SPC 425 X 10**	**5050**
031C1360	**SPC 450 X 10**	**5050**
031C1510	**SPC 475 X 10**	**5050**
031C1370	**SPC 500 X 10**	**5050**
031C1520	**SPC 530 X 10**	**5050**
031C1380	**SPC 560 X 10**	**5050**
031C1390	**SPC 630 X 10**	**5050**
031C1400	**SPC 710 X 10**	**5050**
031C0403	SPC 710 X 3	4030
031C0404	SPC 710 X 4	4535
031C0405	SPC 710 X 5	5040
031C0406	SPC 710 X 6	5040
031C0408	SPC 710 X 8	5040
031C1410	**SPC 800 X 10**	**5050**
031C0423	SPC 900 X 3	5040
031C0424	SPC 900 X 4	5040
031C0425	SPC 900 X 5	5040
031C0426	SPC 900 X 6	5040
031C0428	SPC 900 X 8	5040
031C0420	**SPC 900 X 10**	**5040**
031C1430	**SPC 1000 X 10**	**5050**
031C1440	**SPC 1250 X 10**	**5050**

These additional sizes of Taper Lock® vee pulleys are readily available but are not stocked at all distribution outlets.

Sizes in bold type use long series Taper Lock® bushes.

10 groove SPB pulleys with long series Taper Lock® bushes are also available in diameters from 200mm to 1250mm.

Fenner Concord Plus Banded Belts

- Eliminate belt whip, belt twist and belt turn over
- Ideal for drives with pulsating loads
- Available for ISO and RMA pulleys
- Heat and oil resistant

On applications where pulsating or shock loads cause instability in matched sets of Wedge or V-belts, Fenner Banded belts can provide the ideal solution.

By joining together a number of belts with a tie band the banded belt has sufficient lateral rigidity to eliminate problems caused by belts whipping or turning over, and by keeping the belts running into the grooves in a straight line excessive jacket wear is avoided resulting in longer belt life.

Fenner Banded belts can be used in Fenner Taper Lock pulleys manufactured to ISO standards but they are also available for RMA profile pulleys.

When ordering Banded belts it is important that the correct groove profile is selected. The groove spacing i.e. dimension 'e' is given in the following table.

Belt section	Pulley types	e (mm)
SPZ	ISO standard only	12.0
SPA		15.0
SPB		19.0
SPC		25.5
9J (Alpha, 3V)	RMA only	10.3
15J (Beta, 5V)		17.5
25J (Delta, 8V)		28.6
HA	RMA only	15.9
B	RMA and ISO	19.0
C		25.5
D	ISO only	37.0

Note

1) Pulleys and belts defined as ISO conform exactly to BS 3790:1981.

2) RMA denotes Rubber Manufacturers Association of America standards and often applies to agricultural machinery.

Anti-Static Properties

Fenner Concord Plus banded belts can be supplied with anti-static properties to order.

Tensioning

Banded belts should be installed with the same tension as for Power Plus wedge belts (page77).

The Fenner spring plunger belt tension indicator can be used, as for individual belts but with the same setting force MULTIPLIED by the number of belts in a band (2, 3, 4 or 5).

A piece of rigid bar placed across the band width can ensure even deflection of all belts in the band.

SELECTION

(a) Determine whether any pulsating loads will be present in the drive, which would cause excessive vibration.

(b) Using the wedge belt selection procedure, pages 38–39, select the number and size of belts and sizes of pulleys to suit the particular drive*.

(c) Select a banded belt length from page 71 nearest to the length found in step (b).

*RMA wedge belts and HA section V-belts are only intended for replacement purposes. New drives should be designed using ISO wedge or classical section belts.

If the exact length is not listed opposite, re-calculate the centre distance using the formula below:-

$$C = A + \sqrt{A^2 - B}$$

where: $$A = \frac{L}{4} - 0.3925 \quad (D+d)$$

$$B = \frac{(D-d)^2}{8}$$

C = centre distance in mm

D = pitch diameter of larger pulley in mm

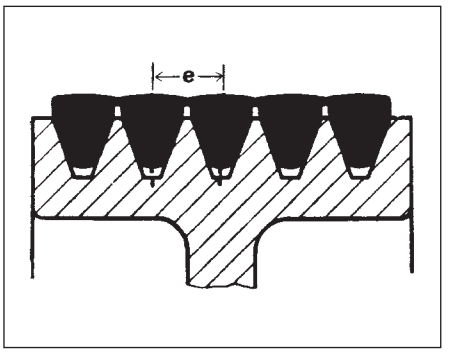
d = pitch diameter of smaller pulley in mm

L = pitch length of belt in mm

It is normal practice to use no more than five belts in one band. Accumulation of manufacturing tolerances on pulley groove pitch (dimension 'e') can result in incorrect belt seating when more than 5 belts are used in a single band.

Therefore when more than 5 belts are needed use two or more bands e.g. :-

6 belts - use 2 bands of 3
8 belts - use 2 bands of 4
9 belts - use 1 band of 4 and 1 band of 5



ORDERING INSTRUCTIONS

When ordering Banded Belts it is important to state the number of belts per band; the section and the belt length as follows:-

Banded 4 9J 2840 is 4 Banded 9J 2840
Banded 5 SPB 3170 is 5 Banded SPB 3170
Banded 2 C 3100 is 2 Banded C 3100

Complete the catalogue codes on page 71 by adding 2, 3, 4 or 5 indicating the number of belts in the band.

e.g.
Banded 4 9J 2840 is 212Z02844
Banded 5 SPB 3170 is 216B03175
Banded 2 C 3100 is 214C03102

Note: When ordering banded belts it is important to specify the correct pulley groove profile, as ISO and RMA grooves have different spacings (dimension e) for essentially the same belt section.

Fenner® Concord PLUS
Banded Belts
- Perfect solution for eliminating belt whip, belt twist and belt turnover
- Ideal for drives with pulsating loads



Fenner Concord Plus Banded Belts



WEDGE BELTS FOR ISO PULLEYS

SPZ 10 x 8 mm		SPA 13 x 10 mm		SPB 16 x 13 mm		SPC 22 x 18 mm	
Catalogue Code	Belt Length	Catalogue Code	Belt Length	Catalogue Code	Belt Length	Catalogue Code	Belt Length
216Z0127 –	1270	216A0100 –	1000	216B0141 –	1410	216C0265 –	2650
0132 –	1320	0112 –	1120	0160 –	1600	0280 –	2800
0134 –	1340	0125 –	1250	0180 –	1800	0300 –	3000
0140 –	1400	0140 –	1400	0200 –	2000	0315 –	3150
0142 –	1420	0150 –	1500	0202 –	2020	0335 –	3350
0147 –	1470	0160 –	1600	0212 –	2120	0355 –	3550
0150 –	1500	0140 –	1700	0224 –	2240	0375 –	3750
0152 –	1520	0180 –	1800	0236 –	2360	0400 –	4000
0156 –	1560	0190 –	1900	0250 –	2500	0425 –	4250
0160 –	1600	0200 –	2000	0265 –	2650	0450 –	4500
0170 –	1700	0212 –	2120	0280 –	2800	0475 –	4750
0180 –	1800	0224 –	2240	0300 –	3000	0500 –	5000
0190 –	1900	0236 –	2360	0315 –	3150	0530 –	5300
0200 –	2000	0250 –	2500	0335 –	3350	0560 –	5600
0212 –	2120	0265 –	2650	0355 –	3550	0600 –	6000
0224 –	2240	0280 –	2800	0375 –	3750	0630 –	6300
0236 –	2360	0300 –	3000	0400 –	4000	0670 –	6700
0250 –	2500	0315 –	3150	0425 –	4250	0710 –	7100
0265 –	2650	0335 –	3350	0450 –	4500	0750 –	7500
0280 –	2800	0355 –	3550	0475 –	4750	0800 –	8000
0300 –	3000	0375 –	3750	0500 –	5000	0850 –	8500
0315 –	3150	0400 –	4000	0530 –	5300	0900 –	9000
0335 –	3350	0425 –	4250	0560 –	5600	0950 –	9500
0375 –	3750	0450 –	4500	0600 –	6000	1000 –	10000
0400 –	4000			0630 –	6300	1060 –	10600
				0710 –	7100	1120 –	11200
				0750 –	7500	1180 –	11800
				0800 –	8000	1250 –	12500

WEDGE BELTS FOR RMA (AMERICAN STANDARD) PULLEYS

9J (ALPHA, 3V)		15J (BETA, 5V)		25J (DELTA, 8V)	
Catalogue Code	Belt Length	Catalogue Code	Belt Length	Catalogue Code	Belt Length
212Z0127 –	1270	212B0141 –	1410	212D0265	2650
0140 –	1400	0150 –	1500	0283	2830
0150 –	1500	0160 –	1600	0316	3160
0152 –	1520	0180 –	1800	0354	3540
0156 –	1560	0202 –	2020	0379	3790
0160 –	1600	0215 –	2150	0405	4050
0165 –	1650	0228 –	2280	0456	4560
0170 –	1700	0241 –	2410	0506	5060
0180 –	1800	0253 –	2530	0567	5670
0185 –	1850	0268 –	2680	0633	6330
0190 –	1900	0284 –	2840	0710	7100
0203 –	2030	0300 –	3000	0799	7990
0216 –	2160	0317 –	3170	0900	9000
0228 –	2280	0335 –	3350	1014	10140
0241 –	2410	0355 –	3550		
0254 –	2540	0380 –	3800		
0269 –	2690	0406 –	4060		
0284 –	2840	0431 –	4310		
0300 –	3000	0456 –	4560		
0317 –	3170	0482 –	4820		
0355 –	3550	0507 –	5070		
0375 –	3750	0538 –	5380		
0400 –	4000	0568 –	5680		
		0600 –	6000		
		0634 –	6340		
		0710 –	7100		
		0800 –	8000		

V-BELTS FOR RMA & ISO PULLEYS

HA*
13 x 8 mm
Range of pitch lengths 1300–4500

B**
17 x 11 mm
Range of pitch lengths 1310–7000

C**
22 x 14 mm
Range of pitch lengths 1950–10050

D †
32 x 19 mm
Range of pitch lengths 3130–14400

* RMA Pulleys only
** RMA & ISO Pulleys
† ISO Pulleys only

8 digit catalogue codes are made up in the same style as for wedge belts, but first 3 digits are 214.

Belt lengths are pitch lengths in millimetres.
Other belt lengths may be available – consult your local Authorised Distributor.
Note: The ISO 4184 standard now refers to 'datum' lengths, which are essentially the same as 'pitch' lengths.

PowerTwist Plus® Belting

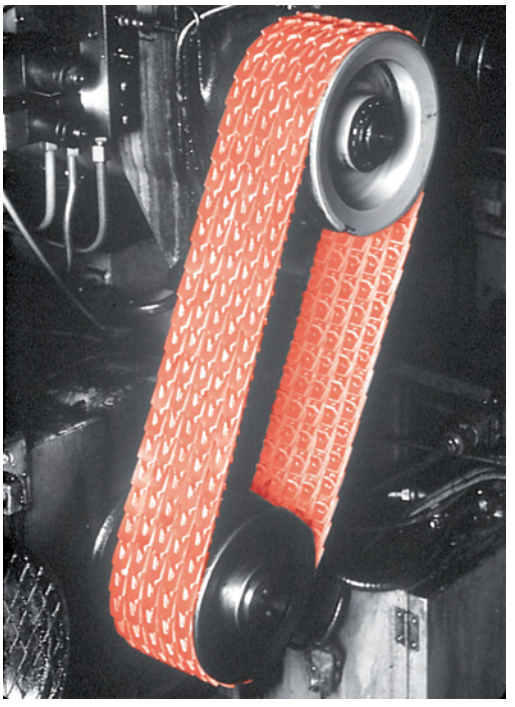
PowerTwist Plus belting incorporates the most up-to-date materials available, giving it unique qualities of resistance to many of the adverse working conditions that belts are subject to, and properties that were deficient in earlier designs of link belts. These link belts are complementary to the range of Fenner wedge and V-Belts and are extensively used in industrial, marine, agricultural and heating & ventilation applications.

ADVANTAGES OF POWERTWIST LINK BELTS

Adjustable to any length, adaptable to any drive

Fit the belts to the drive, not the drive to the belts.

Drive elements can be located most effectively and belts installed without removing bearings.



No Slippage

Quick, easy length adjustment minimises belt creep to guarantee full speed and full productivity of machines.

Minimum Inventory

Four boxes of link belting can replace hundreds of fixed length, endless V-Belts. Boxes can be stored easily, providing simplified visual control of inventory.

Vibration

Fenner link belts are manufactured to extemely close tolerances.

The design of the belt significantly reduces transmissible vibrations in some applications.

Long Lasting Construction

The extreme flexibility of these belts greatly reduces belt stress, heat build up and fatigue. The construction of the belts is designed to dissipate heat.

Maximum Power Delivery

On multiple belt drives it is easy to maintain correct tension on all belts. Each belt carries its required load, for maximum power delivery and longest life.

Temperature

Power Twist Plus will operate in temperatures from - 40 to 110^{O}C.

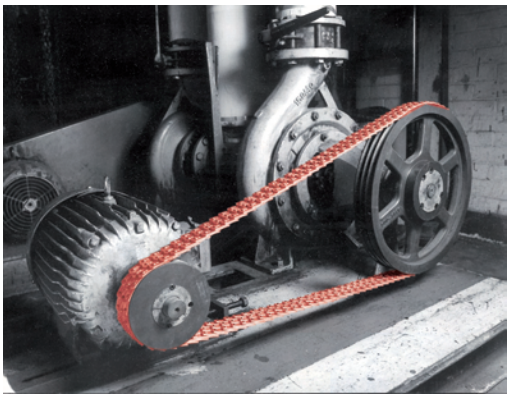
Water, Chemical & Oil Resistance

This belt will not degrade if immersed in water or if in contact with oil, grease, agricultural chemicals and common solvents.

Economical Lengths

PowerTwist belting is also available in economical lengths.

Boxed in 10 metre lengths, ideal for display or mobile maintenance engineers.



SPECIAL TYPES

Double V Section

For use on serpentine drives with both sides of the belt engaging in V pulley grooves.

AA; BB & CC sections.

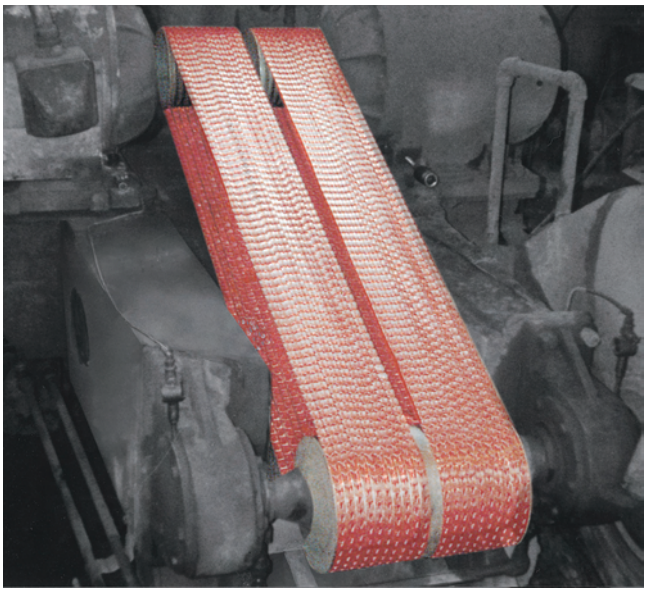
Ground Round

Designed specifically to replace round profile rubber or leather belts on "rope" drives.

8mm, 9.5mm, 12.5mm, 14mm & 19mm diameters.

High grip, or PTFE top layer coatings available for conveying applications.





PowerTwist Plus link V-Belts are manufactured from an exclusive, high strength urethane/polyester composite. This makes PowerTwist Plus an incredibly strong, yet flexible belt that will take on the roughest of working conditions.

PowerTwist Plus V-Belt's unique cross-lock design gives a raw edge cog construction which provides excellent durability and performance, delivering higher power ratings than almost any other link type V-Belts on the market. When the tension is applied to the belt, the cross-link design locks tightly thus producing the lowest stretch of any link V-Belt.

PowerTwist Plus V-Belts save time on installation because no special tools are required, all that is needed is a quick twist both to couple or uncouple the belt and this is easily achieved in seconds.

Available from stock in Z, A, B and C sections, for use in standard dual groove pulleys. See pages 60-67.

POWERTWIST PLUS POWER RATINGS

Rev/min of faster Rev/min	Rated Power (kW) Per Belt for Small Pulley Pitch Diameter (mm)																
	Z Section			A Section					B Section					C Section			
	56	71	90	80	90	95	106	125	125	150	170	190	212	200	215	224	250
950	0.15	0.22	0.32	0.84	1.06	1.17	1.41	1.82	2.19	3.11	3.84	4.54	5.30	6.46	7.42	7.99	9.62
1450	0.21	0.32	0.45	1.15	1.46	1.63	1.97	2.55	2.94	4.24	5.25	6.23	7.26	8.41	9.72	10.48	12.61
2850	0.34	0.52	0.72	1.77	2.32	2.60	3.17	4.12	4.18	6.17	7.61	-	-	-	-	-	-
600	0.10	0.16	0.22	0.59	0.74	0.81	0.98	1.25	1.55	2.17	2.66	3.15	3.66	4.63	5.29	5.69	6.82
800	0.13	0.19	0.28	0.74	0.93	1.03	1.23	1.58	1.93	2.73	3.36	3.97	4.63	5.73	6.56	7.07	8.49
1000	0.16	0.24	0.34	0.87	1.10	1.22	1.47	1.90	2.27	3.24	3.99	4.73	5.52	6.69	7.69	8.28	9.97
1200	0.18	0.28	0.39	1.00	1.27	1.41	1.70	2.20	2.59	3.71	4.58	5.43	6.34	7.53	8.68	9.36	11.27
1400	0.20	0.31	0.44	1.12	1.42	1.58	1.92	2.48	2.87	4.15	5.12	6.07	7.08	8.25	9.52	10.28	12.37
1600	0.22	0.34	0.48	1.22	1.57	1.74	2.12	2.75	3.13	4.53	5.62	6.66	7.76	8.85	10.23	11.04	13.27
1800	0.25	0.38	0.53	1.33	1.71	1.90	2.31	3.01	3.36	4.89	6.07	7.18	8.34	9.32	10.78	11.63	13.95
2000	0.27	0.41	0.57	1.42	1.84	2.05	2.50	3.24	3.58	5.22	6.47	7.65	8.87	9.66	11.19	12.06	-
2200	0.28	0.44	0.61	1.51	1.97	2.19	2.67	3.47	3.76	5.50	6.82	8.05	9.30	9.87	11.42	-	-
2400	0.31	0.46	0.65	1.60	2.08	2.33	2.83	3.68	3.92	5.76	7.13	8.39	-	-	-	-	-
2600	0.32	0.49	0.69	1.68	2.19	2.45	2.99	3.89	4.06	5.97	7.37	-	-	-	-	-	-
2800	0.34	0.51	0.72	1.75	2.30	2.57	3.13	4.07	4.16	6.14	7.57	-	-	-	-	-	-
3000	0.35	0.54	0.74	1.82	2.39	2.68	3.27	4.25	4.24	6.27	-	-	-	-	-	-	-
3200	0.37	0.56	0.76	1.89	2.48	2.77	3.39	4.41	4.30	-	-	-	-	-	-	-	-
3400	0.37	0.57	0.78	1.94	2.56	2.87	3.51	4.55	4.33	-	-	-	-	-	-	-	-
3600	0.69	0.59	0.80	1.99	2.63	2.95	3.62	4.68	4.32	-	-	-	-	-	-	-	-
3800	0.40	0.60	0.81	2.04	2.70	3.03	3.71	4.79	-	-	-	-	-	-	-	-	-
4000	0.40	0.61	0.81	2.08	2.76	3.10	3.80	-	-	-	-	-	-	-	-	-	-

SELECTION

To design a Fenner Power Twist Plus drive simply refer to the wedge belt selection procedure (pages 38-39) utilising the power ratings given above.

For applications that would benefit from the advantages of modern link belting, but require SP (wedge) type belt ratings, consult your local Authorised Distributor.

INSTALLATION

See page 78

Adjustable Pitch Pulleys & Bi-Loc Pulleys

GENERAL

The LP adjustable pulley is used in conjunction with standard Taper Lock dual groove pulleys, pages 60-69, and Fenner Classic V-belts to allow small adjustments to driven speed from fixed speed prime movers.

CONSTRUCTION

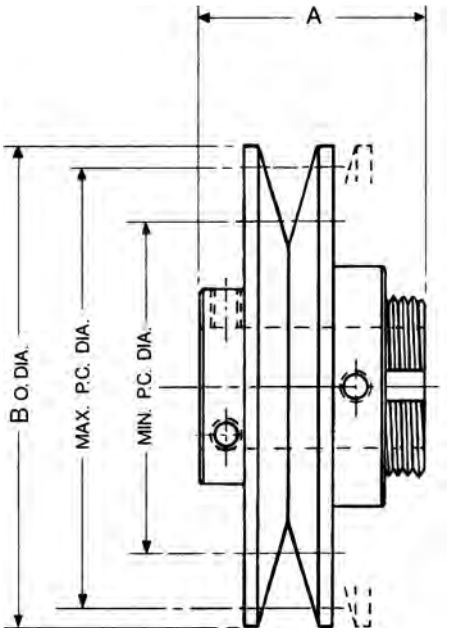
Made from grey cast iron, these pulleys have one fixed flank, and an opposite flank which can be adjusted by screw thread, with the drive stationary, and then fixed in position.

INSTALLATION & USE

Pulleys are supplied pilot bored for reboring/ keywaying as appropriate.

Drive centre distance adjustment is used to maintain correct belt tension if pulley diameter is changed.

Note that the belt centre line shifts when diameter changes. Driven pulley may need realignment.



DIMENSIONS OF LP ADJUSTABLE PULLEYS

Catalogue Code	Pulley Designation	Belt Section	Max PCD	Min PCD	A	D	Min bore	Max bore
048A0000	LP80/93A	Z	78	54	35	93	10	24
		A	85	60				
048B0000	LP95/108A	Z	92	68	35	108	10	28
		A	100	71				
048C0000	LP112/120A	Z	104	80	35	120	12	28
		A	112	85				
048D0000	LP132/138A	Z	122	100	38	138	16	42
		A	130	100				
048E0000	LP160/180B	A	158	128	45	180	18	48
		B	170	132				

Bores are to F7 limits, Dimensions in millimetres.
* Stock pulleys are minimum bore without shaft grub screw holes. They can be supplied bored to size with tapped holes on request.

POWER RATINGS (KW)

Catalogue Code	Pulley Designation	Belt Section	960 rev/min		1440 rev/min		2880 rev/min	
			Max pcd	Min pcd	Max pcd	Min pcd	Max pcd	Min pcd
048A0000	LP80/93A	Z	0.89	0.43	1.21	0.54	1.96	0.74
		A	1.11	0.41	1.49	0.50	2.20	0.55
048B0000	LP95/108A	Z	1.18	0.67	1.63	0.92	2.74	1.49
		A	1.60	0.73	2.19	0.89	3.38	1.07
048C0000	LP112/120A	Z	1.14	0.93	1.95	1.29	2.70	2.11
		A	1.98	1.11	2.74	1.49	4.28	2.20
048D0000	LP132/138A	Z	1.65	1.34	2.35	1.88	3.77	3.10
		A	2.51	1.60	3.50	2.19	5.56	3.38
048E0000	LP160/180B	A	3.20	2.40	4.50	3.40	7.10	5.30
		B	4.71	2.88	6.42	3.86	8.91	5.29

For other than smooth load 10 hours per day applications, the above powers should be derated by 25%.

BI-LOC PULLEYS

The Fenner Bi-Loc system employs lightweight cast iron pulleys with 'Quadruple Duty' Grooves for A/SPA and B/SPB section belts. Twin-tapered steel bushes with metric and Imperial bores are used to mount single, double or different diameter pulleys on one shaft. A shrunk-on fit is achieved without keys or grub screws. Only a spanner is needed for fitting and removal.

- Mount single, double or different diameter pulleys on one bush.
- Use retainer and screws for single pulley assembly.
- Use bolts for double groove pulley assembly.



Pitch Diameter		Out-side Dia. †	Bush No
A/SPA actual	B/SPB* nominal		
71	81	88	
75	85	92	
80	90	97	
85	95	102	
90	100	107	
95	105	112	1
100	110	117	Bore range
106	116	123	10 - 28mm
112	122	129	
118	128	135	
125	135	142	
132	142	149	
140	150	157	
150	160	167	
160	170	177	
180	190	197	
200	209	216	
224	233	240	2
250	259	266	Bore range
280	289	296	16 - 42mm
315	324	331	
355	364	371	
400	409	416	
450	459	466	

* for actual B/SPB pitch diameter deduct 0.25mm
† for actual outside diameter deduct 0.32mm



URETHANE BELTING

- Very high coefficient of friction.
- Reinforced urethanes with high load carrying capacity.
- High chemical resistance
  Heat, moisture and ultra-violet light resistant.
- Wide range of sections and material types available.
- Useful for power transmission and conveyor applications.
- Customised design available in-house
- Most materials FDA/USDA approved
- Joined by butt or overlap welding or special metal fasteners.



THE RANGE

Round Section	2 - 20mm diameter
	80, 85, 89, 90, 95 hardness grades
	Plain and textured surfaces
	'Quick Connect' hollow type with metal fasteners
Twisted O Rings	Many colours and clear
Other Sections	Trapezoidal 3L,Z, A, B, C, D, E sections
	Hexagonal AA, BB sections
	Crown top, ridge top, ribbed top, ribbed back etc,

Many colours

Solid PU or textile reinforced

APPLICATIONS

- Conveying light or delicate products
- Light power transmission
- Can-cable for canning lines
- Driving conveyor rolls
- Conveying abrasive materials

BUTT WELDING KITS

- Includes clamps, hot knife (240v - 110v available), flash cutter, shears - in a handy carrying case
- Overlap welding kit also available

NOTE: Quantity requirements can be supplied ready welded to size.



"ONE SHOT" TENSIONING

Fenner PB belts are Precision Built to ensure inherent length stability and matching during storage and on the drive. Over many years, the principle of "one-shot" tensioning has been verified by successful drives the world over.

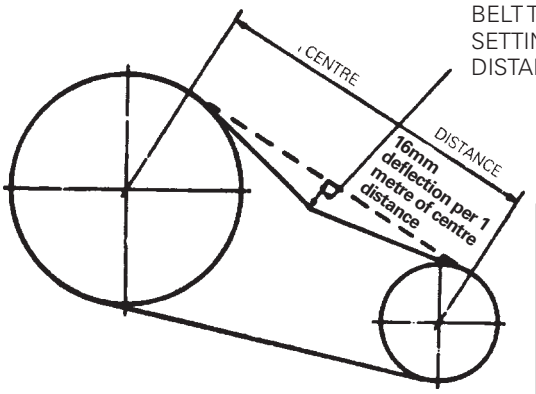
- Install the belts to be a snug fit around the pulleys.
- Spin the pulleys 3-4 revolutions to bed belts into the pulley grooves. (Note: if done manually, beware of finger entrapment between belts and pulleys)
- Tension the belts to the 1.25x setting forces from the table.
- Run the drive under load for 15-20 minutes.
- Stop the drive, check tension & reset to the basic value (standard V and wedge belts) if necessary.
  CRE Plus & Quattro Plus belts should be reset to the 1.25x value.

With a drive that is properly designed for the application there should be no need for further attention during the life of the belts.

For short centre distance drives where the deflection of the belt is too small to measure accurately it is recommended that both deflection and setting force be doubled.

Method of belt tensioning using Fenner Belt Tension Indicator

- Calculate the deflection in mm on a basis of 16mm per metre of centre distance. Centre distance (metres) x 16 = deflection (mm).
- Set the lower marker ring at the deflection distance required in mm on the lower scale.
- Set the upper marker ring against the bottom edge of the top tube.
- Place the belt tension indicator on top of the belt at the centre of span, and apply a force at right angles to the belt, deflecting it to the point where the lower marker ring is level with the top of an adjacent belt.
- Read off the setting force value indicated by the top edge of the upper marker ring.
- Compare this force to the kgf value shown in the table.
- If a Fenner Belt Tension Indicator is not available, a spring balance and rule will suffice.
- With banded belts (pages 70 and 71) use a bar across the band width to ensure even distribution of the force and DIVIDE the force measured by the number of belts in the band for comparison with the values in the table above. Alternatively, for the same deflection, use a setting force from the table above MULTIPLIED by the number of belts in the band.



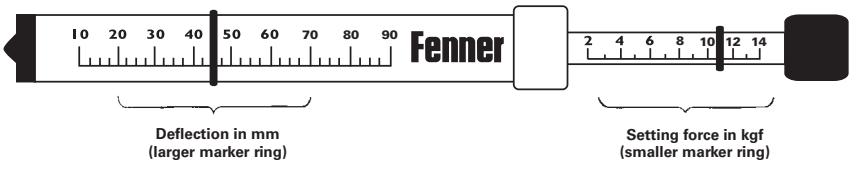
BELT TENSION INDICATOR APPLIES SETTING FORCE AT MID CENTRE DISTANCE

The setting forces below are designed to cover a wide range of drives. A precise setting force for individual applications can be calculated. Please consult your local Authorised Distributor or use the 'Fenner Select' design software at www.fptgroup.com

SETTING FORCES

Belt Section	Setting force to deflect belt 16 mm per metre of span				
	Small pulley diameter (mm)	Basic setting forces Newtons (N)	kilograms (kgf)	1.25 x setting forces Newtons (N)	kilograms (kgf)
SPZ	56 to 71	16	1.6	20	2.0
	75 to 90	18	1.8	22	2.2
	95 to 125	20	2.0	25	2.5
XPZ & QXPZ	over 125	22	2.2	28	2.8
SPA, HSPA	80 to 100	22	2.2	28	2.8
	106 to 140	30	3.0	38	3.9
XPA & QXPA	150 to 200	36	3.7	45	4.6
	over 200	40	4.0	50	5.1
SPB, HSPB	112 to 160	40	4.0	50	5.1
	170 to 224	50	5.1	62	6.3
XPB& QXPB	236 to 355	62	6.3	77	7.9
	over 355	65	6.6	81	8.3
SPC, HSPC	224 to 250	70	7.1	87	8.9
	265 to 355	92	9.4	115	12.0
& QXPC	over 375	115	12.0	144	15.0
8V	335 & above	150	15.0	190	19.0
Z	56 to 100	5 to 7.5	0.5 to 0.8		
A (& HA banded)	80 to 140	10 to 15	1.0 to 1.5		
B	125 to 200	20 to 30	2.0 to 3.1		
C	200 to 400	40 to 60	4.1 to 6.1		
D	355 to 600	70 to 105	7.1 to 10.7		

FENNER BELT TENSION INDICATOR



NOTES:

For single belt drives a straight edge should be placed across the two pulleys to act as a datum for measuring the amount of deflection.

If the measured force falls within the values given, the drive should be satisfactory. A measured force below the basic value indicates under-tensioning.

A new drive should be tensioned to the 1.25x value to allow for the normal drop in tension during the running-in period.

After the drive has been running for 15–20 minutes, under load the tension should be checked and re-adjusted, if necessary.

TROUBLE SHOOTING

Small radial cracks on belt side and base

Generally caused by slippage due to insufficient belt tension, but excessive heat and/or chemical fumes can also cause the same problem.

Belt swelling or softening

Caused by excessive contamination by oil, certain cutting fluids, water or rubber solvent.

Whip during running

Often caused by incorrect tensioning, particularly on long centre drives. If a slightly higher (or lower) tension does not cure the problem there may be a critical vibration frequency in the system which requires re-design or use of banded belts. Consult your local Authorised Distributor Technical Services.

Pulleys

Pulley groove wear can cause rapid belt failure. Check grooves for wear with a Fenner groove gauge.



Installation and Operaton of Wedge & V-Belt Drives

Although comparatively old in principle today's belt drive is an extremely efficient method of transmitting power between prime mover and machinery.

It owes its present high performance standards to many years of research and development by engineers and technologists, leading to significant refinements in materials and processes.

To derive maximum benefit from such advances it is important that the simple installation and operation procedures set out here are closely followed. Making these routines standard practice will ensure optimum performance and long, trouble-free life from Fenner belt drives.

INSTALLATION

■ PULLEYS

Before assembling the drive, check the pulley grooves are free from scores or sharp edges, and all dimensions conform to the relevant standard.

Drive installation is straightforward with Taper Lock – but follow all steps on the installation leaflet provided with every Taper Lock bush.

■ ALIGNMENT

Good alignment of pulleys is important to avoid belt flank wear. The diagrams opposite show some of the common alignment faults.

Pulley misalignment should not exceed 1/2 ^{0} angular and 10mm / metre drive centre distance, axial.

A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment - consult your local Authorised Distributor.

■ BELT INSTALLATION

When the pulleys have been correctly positioned on the shafts, the belts can be installed to complete the drive.

The drive centre distance should be reduced prior to the installation of the belts so that they may be fitted without the use of force. Under no circumstances must belts be prised into the grooves. Belts and pulley grooves can easily be damaged by using sharp tools to stretch the belts over the pulley rim.

The installation allowance given in the table opposite is the minimum recommended reduction in centre distance for the various belt sections and lengths to allow for correct fitting.

The take-up allowance given in the same table should be added on to the calculated centre distance to allow for belt stretch/bedding in.

■ GUARDS

Where guards are necessary it is desirable to use mesh materials to permit adequate ventilation.

Guards should be generously sized to allow for incidental belt flap.

■ TENSIONING PULLEYS

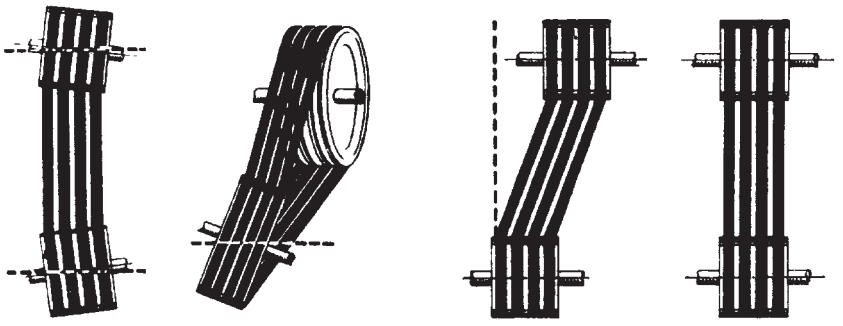
If tensioning (jockey) pulleys are to be used on wedge belt drives, they must be grooved pulleys working on the inside of the drive, preferably on the slack side. The pulley should be positioned as close as possible to the large pulley. Flat tensioning pulleys, bearing on the outside of the drive are permissible only with V and not with wedge belts. They should be positioned within one third of the centre distance from the small pulley.

The tensioning pulley must have at least the same diameter as the small pulley of the drive.

Tensioning pulley movemement must allow for passing the belts over the outside diameter of one of the drive pulleys on installation, and should also allow for belt stretch/bedding in.

The modern wedge belt drive is a highly efficient power transmission medium, but optimum performance will not be achieved without correct tension and alignment.

1 Angular misalignment
2 Composite misalignment
3 Axial misalignment
4 Correct installation - both shafts and pulleys are parallel and in alignment.



INSTALLATION AND TAKE-UP ALLOWANCE

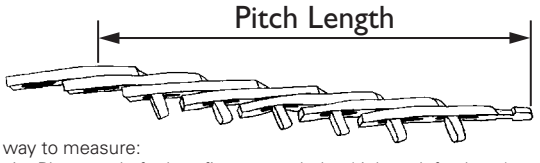
Belt Pitch Length (mm)	Installation Allowances					Take -up (mm)
	SPZ Z	SPA A	SPB B	SPC C	8V D	
410 to 530	20					5
530 to 840		25	30	50		10
850 to 1160						15
1170 to 1500						20
1510 to 1830						25
1840 to 2170						30
2180 to 2830					65	40
2840 to 3500						50
3520 to 4160						60
4170 to 5140						70
5220 to 6150						85
6180 to 7500						105
7600 to 8500						125
8880 to 10170						145
10600 to 12500						175

TAPER LOCK

All Fenner V and wedge belt pulleys use Taper Lock shaft fixing.

Detailed instructions for fitting and dismounting Taper Lock products are included with Taper Lock bushes.

1. HOW TO MEASURE



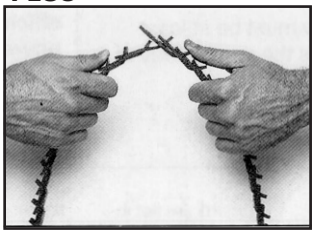
Correct way to measure:
PowerTwist Plus – end of tab to first empty holes (right to left, above)

Determine the required pitch length of the belt. Measure PowerTwist Plus from the second empty hole on the last link to the end tab. Subtract one link in every 24 for Z, A, B sections, one link in every 20 for C section. For multiple belt drives, count the number of links in the initial belt and make additional belts the same number of links. Lay the original belt on a table and lay the additional belts side by side to ensure the correct length and matched sets.

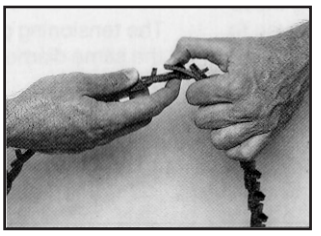
2. ASSEMBLY – POWERTWIST PLUS



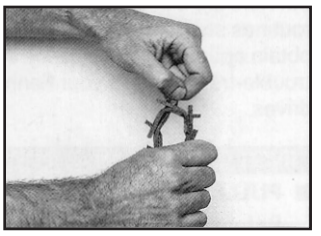
Always work with the belt inside out, tabs pointing outward



Place end tab through two links at once.



Flex belt further and insert second tab through end link by twisting tab with thumb.



Ensure tab returns to position across belt. Reverse belt so tabs run inside.

3. INSTALLATION

Make PowerTwist Plus belts to the correct pitch length and then install them as you would an endless belt.

1. Move motor to reduce centre distance.
2. Place all belts in correct position.

   Where it is necessary to thread belts through confined spaces, or around shafts without moving bearings, it is possible to make the belts "in site". Some reduction in pulley centre distance is still necessary for ease of assembly.
3. Move motor back into position, applying correct tension.
4. Secure motor tightly.

Method of Belt tensioning using Fenner Belt Tension indicator

1. Calculate the deflection distance in mm on a basis of 16mm per metre of span.

   Centre Distance (m) x 16 = Deflection (mm)
2. Set the lower marker ring at the deflection distance required in mm on the lower scale.
3. Set the upper marker ring against the bottom edge of the top tube.
4. Place the belt tension indicator on top of the belt at the centre of span, and apply a force at right angles to the belt deflecting it to the point where the lower marker ring is level with the top of an adjacent belt*.
5. Read off the force value indicated by the top edge of the upper marker ring.
6. Compare this force to the kgf value shown in the table opposite.
7. If a Fenner Belt Tension Indicator is not available, a spring balance and rule will suffice.

CAUTION

When properly installed, initial tension may appear excessive. Tension drops to normal when drive begins to run.

4. RETENSIONING

It is important to retension all drives after an initial run-in period. On fixed centre drives, it may be necessary to remove a link from each belt for proper retensioning.

TENSIONING FORCES

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulley Diameter (mm)	Newton (N)	Kilogram-force (kgf)
Z	56 to 90	10 to 15	1.0 to 1.5
A	80 to 140	15 to 20	1.5 to 2.0
B	125 to 200	25 to 35	2.6 to 3.6
C	200 to 400	45 to 65	4.6 to 6.6

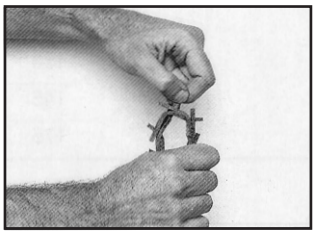
***NOTE:** For single belt drives a straight edge should be placed across the two pulleys to act as a datum for measuring the amount of deflection.

If the measured force falls within the values given, the drive should be satisfactory. A measured force below the lower value indicates under-tensioning.

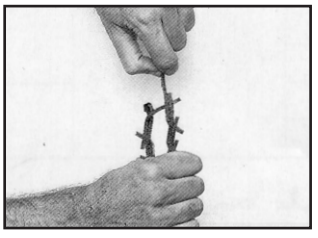
A new drive should be tensioned to the higher value to allow for the normal drop in tension during the running-in period.

After the drive has been running for 30 minutes, the tension should be checked and re-adjusted to the higher value, if necessary.

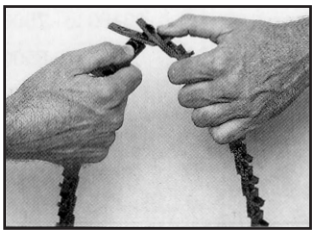
5. DISASSEMBLY – PowerTwist Plus



Turn belt inside out with tabs pointing outwards. Bend back as far as possible; hold with one hand. Twist one tab 90º parallel with slot.



Pull end of link over tab.



Rotate belt end with tab at 90º to line of belt.



Pull belt end through two links.



BELT DIMENSIONS & PHYSICAL PROPERTIES

Belt Section	PJ	PK	PL	PM
Rib pitch E (mm)	2.34	3.56	4.70	9.40
Belt thickness H (mm)	3.50	5.00	7.00	12.00
Mass/unit length/rib (g/m/rib)	8.20	19.50	32.00	110.00
Maximum belt* speed (m/sec)	60.00	55.00	50.00	40.00
Minimum pulley diameter (mm)	18.00	50.00	70.00	180.00

* Belt speeds above 40m/sec require special pulley materials – consult your local Authorised Distributor

STANDARD EFFECTIVE LENGTHS (MM & INCHES)

PJ		PK		PL		PM	
406	16.0	**673**	26.5	**1075**	42.5	**2693**	106.0
432	17.0	**698**	27.5	**1270**	50.0	**2832**	111.5
457	18.0	**710**	28.0	**1333**	52.5	**2921**	115.0
483	19.0	**740**	29.1	**1371**	54.0	**3010**	118.5
508	20.0	**775**	30.5	**1397**	55.0	**3124**	123.0
559	22.0	**805**	31.7	**1422**	56.0	**3327**	131.0
610	24.0	**841**	33.1	**1562**	61.5	**3531**	139.0
660	26.0	**870**	34.3	**1613**	63.5	**3734**	147.0
711	28.0	**884**	34.8	**1664**	65.5	**4089**	161.0
723	28.5	**915**	36.0	**1715**	67.5	**4191**	165.0
762	30.0	**926**	36.5	**1764**	69.5	**4470**	176.0
813	32.0	**954**	37.6	**1803**	71.0	**4648**	183.0
864	34.0	**970**	38.2	**1841**	72.5	**5029**	198.0
914	36.0	**1015**	40.0	**1943**	76.5	**5410**	213.0
960	38.0	**1030**	40.6	**1981**	78.0	**6121**	241.0
1016	40.0	**1080**	42.5	**2020**	79.5	**6883**	271.0
1092	43.0	**1146**	45.1	**2070**	81.5	**7646**	301.0
1105	43.5	**1165**	45.9	**2096**	82.5	**8408**	331.0
1123	44.0	**1230**	48.4	**2134**	84.0		
1130	44.5	**1295**	51.0	**2197**	86.5		
1150	45.0	**1387**	54.6	**2235**	88.0		
1168	46.0	**1425**	56.1	**2324**	91.5		
1200	47.0	**1460**	57.5	**2362**	93.0		
1244	49.0	**1530**	60.2	**2476**	97.5		
1270	50.0	**1560**	61.4	**2515**	99.0		
1280	50.5	**1658**	65.3	**2705**	106.5		
1321	52.0	**1725**	67.9	**2743**	108.0		
1355	53.0	**1760**	69.3	**2845**	112.0		
1397	55.0	**1795**	70.7	**2895**	114.0		
1428	56.0	**1863**	73.3	**2921**	115.0		
1473	58.0	**1900**	74.8	**2997**	116.0		
1549	61.0	**1980**	78.0	**3086**	121.5		
1600	63.0	**2050**	80.7	**3124**	123.0		
1651	65.0	**2145**	84.4	**3289**	129.5		
1663	65.5	**2257**	88.9	**3327**	131.0		
1752	69.0	**2330**	91.7	**3492**	137.5		
1854	73.0	**2440**	96.1	**3696**	145.5		
1910	75.0	**2523**	99.3	**4051**	159.5		
1956	77.0	**2612**	102.8				
1965	77.5	**2680**	105.5				
1992	78.5						
2083	82.0						
2210	87.0						

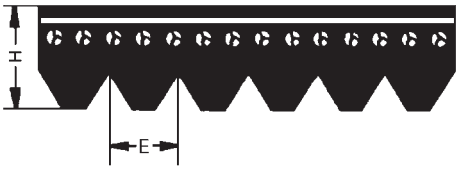
Effective belt lengths are used with pulley effective diameters in all centre distance calculations.

All the above belts can be supplied with rib numbers of at least 46.

Intermediate belt lengths are available - consult your local Authorised Distributor.

Belts should be designated by: number of ribs, section letters and effective length in mm

(e.g. 16 PL 2235)



The geometry of each section complies with ISO 9982.

Ribbed belt codes

Digits	Reference	Code
1,2&3	Product group	215
4	Belt section PJ,PK,PL,PM	J,K,L,M
5,6,7,8	Belt effective length mm e.g. 723mm=0723 1295mm=1295 for M section over 10000 use 1st 4 digits e.g. 12217mm =1221	0200 -9999

NOTE:

These 8 digit codes specify the section and effective length of a belt.

The number of ribs on any belt must be specified separately.

e.g. 16 PL 2235 = 215 L 2235, 16 ribs

Necessary drive data: Driving/driven shaft speeds (rev/min), absorbed drive power and/or motor power (kW), type of prime mover (inc. electric motor starting arrangements) and driven machine, machine shaft diameters (mm or ins.), required drive centre distance (mm), any other dimensional constraints.

(a) Service Factor

Select the service factor applicable to the drive from table 1 below. For a speed increasing drive multiply the basic service factor by the special factor in the top left box to achieve the full service factor.

(b) Design Power

Multiply the normal running (absorbed) power of the drive, or if not known, the motor power, by the service factor (a), to give the design power which is used as the basis for drive selection. This power should be calculated in kW.

(c) Ribbed Belt Section

Refer to table 2, page 81 and find the point of intersection of the faster drive shaft speed in rev/min, and the design power (b). This point will indicate required belt section and approximate small pulley diameters/rib numbers.

NOTE: PK section ribbed belts are normally used for automotive applications. For general industrial applications PJ, PL or PM section belts should be selected.

(d) Speed Ratio

Divide rev/min of faster shaft by that of the slower shaft to give required speed ratio.

(e) Minimum Small Pulley Diameter

Refer to table 5, page 81 to find the minimum recommended small pulley diameter, using design power (b) and the faster shaft speed.

(f) Pulley Effective* Diameters

Refer to table 6, page 82 to select pulley effective diameters giving close to the required speed ratio (d), using (e) as a guide to small pulley diameter.

Calculate the exact speed ratio and check acceptability

* Note: All pulley designations show effective (outside) diameters. Exact speed ratios are calculated using pitch diameters,– see under table 6, page 82.

(g) Belt Length and Centre Distance

Use the formulae below to establish which standard belt length (listed page 79) gives closest to the required drive centre distance.

(h) Combined Correction Factor

Refer to tables 3 & 4, page 81 to find power correction factors for belt length and for the arc of contact for the small pulley (the latter calculated using pulley diameters D & d, and centre distance C - all in mm).

Multiply these two factors together to give the combined correction factor.

(j) Basic/Additional Power per Rib

The main power rating tables on pages 82 & 83 show basic power per belt rib, in kW, at the intersection of faster shaft speed (LH column, in rev/min) with pulley diameter (across top, in mm). Additional power per rib due to speed ratio is shown in the smaller RH table. Values for shaft speeds not listed can be derived by interpolation.

(k) Corrected Power per Rib

Add the speed ratio increment to the basic power per rib (j) and multiply the the resultant kW value by the combined correction factor (h) to give the full power per rib.

(l) Number of Ribs Required

Divide design power (b) by the full power per rib (k) to give the number of belt ribs required. Round up to an even number and check whether standard pulleys are available.

(m) Pulleys

When pulley specification is established, consult your local Authorised Distributor to check availability of pulleys with Taper Lock bush shaft fixing, and associated bore size capacity.

BELT LENGTH & CENTRE DISTANCE FORMULAE

To determine belt length (L mm) for a given centre distance (C mm) using pulleys with small/large effective diameters d/D mm:

$$L = 2C + \frac{(D-d)^2}{4C} + 1.57\,(D+d)$$

-select the standard belt length nearest to L as calculated.

To determine centre distance for given effective pulley diameters and actual belt length:

$$C = A + \sqrt{A^2 - B}$$

where: $A = \frac{L}{4} - 0.3925\,(D + d)$ and $B = \frac{(D-d)^2}{8}$

TABLE 1: SERVICE FACTORS

SPECIAL CASES		TYPES OF PRIME MOVER					
		'Soft' starts			'Heavy' starts		
For speed increasing drives of: Speed ratio 1.00 – 1.24 multiply service factor by 1.00 Speed ratio 1.25 – 1.74 multiply service factor by 1.05 Speed ratio 1.75 – 2.49 multiply service factor by 1.11 Speed ratio 2.50 – 3.49 multiply service factor by 1.18 Speed ratio 3.50 and over multiply service factor by 1.25		Electric motors: AC – Star delta start DC – Shunt wound Internal combustion engines with 4 or more cylinders All prime movers fitted with centrifugal clutches, dry or fluid couplings or electronic soft start devices			Electric Motors: AC – Direct-on-line start DC – Series & compound wound Internal combustion engines with less than 4 cylinders Prime movers not fitted with soft start devices		
		Hours per day duty					
	TYPES OF DRIVEN MACHINE	10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
Class 1 Light Duty	Agitators (uniform density), blowers, exhausters and fans (up to 7.5 kW), centrifugal compressors and pumps, belt conveyors (uniformly loaded).	1.0	1.1	1.2	1.1	1.2	1.3
Class 2 Medium Duty	Agitators and mixers (variable density), blowers, exhausters and fans (over 7.5 kW), rotary compressors and pumps (other than centrifugal), belt conveyors (not uniformly loaded), generators and exciters, laundry machinery, lineshafts, machine tools, printing machinery, sawmill and woodworking machinery, screens (rotary).	1.1	1.2	1.3	1.2	1.3	1.4
Class 3 Heavy Duty	Brick machinery, bucket elevators, compressors and pumps (reciprocating), conveyors (heavy duty), hoists, mills (hammer), pulverisers, punches, presses, shears, quarry plant, rubber machinery, screens (vibrating), textile machinery.	1.2	1.3	1.4	1.4	1.5	1.6
Class 4 Extra Heavy Duty	Crushers (gyratory-jaw roll), mills (ball-rod-tube).	1.3	1.4	1.5	1.5	1.6	1.8

TABLE 2

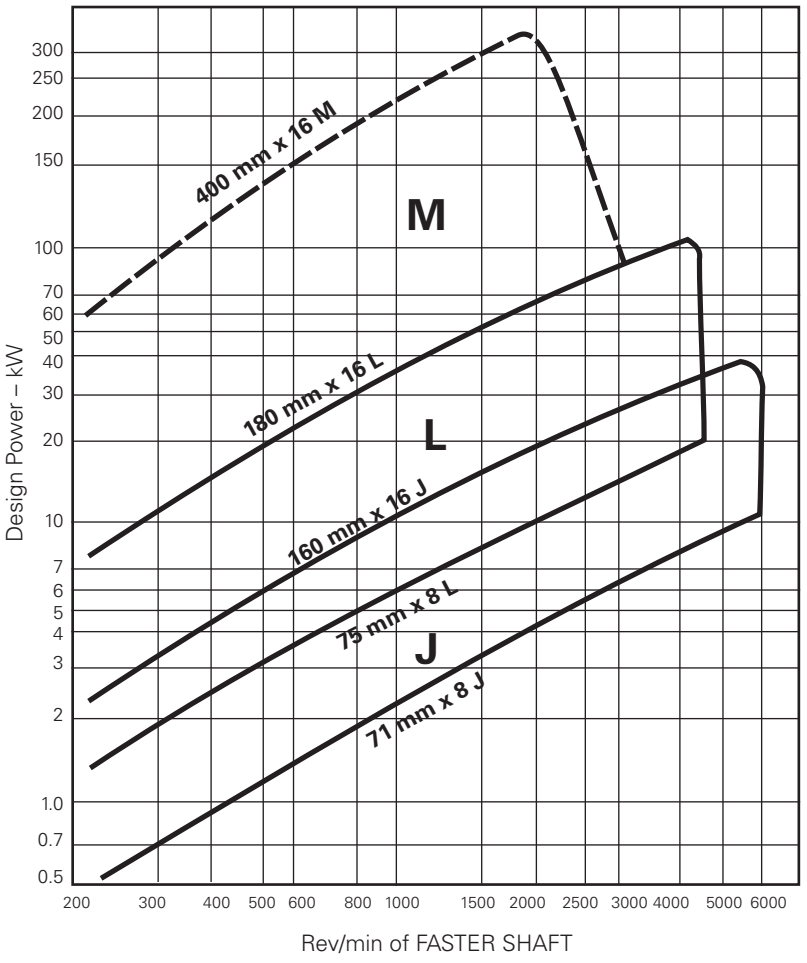


TABLE 3 – BELT LENGTH CORRECTION FACTOR

PITCH LENGTH		Cross Section		
mm	ins	PJ	PL	PM
610	24.0	0.89	–	–
660	26.0	0.90	–	–
711	28.0	0.92	–	–
762	30.0	0.93	–	–
813	32.0	0.95	–	–
864	34.0	0.97	–	–
914	36.0	0.98	–	–
965	38.0	0.99	–	–
1016	40.0	1.00	–	–
1092	43.0	1.01	–	–
1168	46.0	1.02	–	–
1270	50.0	1.05	0.89	–
1397	55.0	1.07	0.91	–
1550	61.0	1.09	–	–
1562	61.5	–	0.93	–
1664	65.0	–	0.94	–
1752	69.0	1.12	–	–
1765	69.5	–	0.96	–
1842	72.5	–	0.97	–
1956	77.0	1.15	–	–
1981	78.0	–	0.98	–
2134	84.0	–	1.01	–
2286	90.0	–	–	0.88
2324	91.5	–	1.02	–
2388	94.0	–	–	0.89
2515	99.0	–	1.04	0.90
2693	106.0	–	1.05	0.91
2921	115.0	–	1.07	0.93
3124	123.0	–	1.08	0.94
3327	131.0	–	1.10	0.96
3696	145.5	–	1.12	–
3734	147.0	–	–	0.98
4089	161.0	–	1.14	1.00
4191	165.0	–	1.14	1.00
4470	176.0	–	1.16	1.02
4648	183.0	–	–	1.03
5029	198.0	–	1.19	1.05
5385	212.0	–	1.20	–
5410	213.0	–	–	1.06
6121	241.0	–	–	1.09
6883	271.0	–	–	1.12
7646	301.0	–	–	1.14
8408	331.0	–	–	1.16
9169	361.0	–	–	1.18
9931	391.0	–	–	1.20

TABLE 4 – ARC OF CONTACT CORRECTION FACTORS

$\frac{D-d}{C}$	Arc of contact (degrees)	Correction Factor	$\frac{D-d}{C}$	Arc of contact (degrees)	Factor
0.00	180	1.00	0.50	151	0.93
0.05	177	0.99	0.55	148	0.92
0.10	174	0.99	0.60	145	0.91
0.15	171	0.98	0.65	142	0.90
0.20	169	0.97	0.70	139	0.89
0.25	166	0.97	0.75	136	0.88
0.30	163	0.96	0.80	133	0.87
0.35	160	0.95	0.85	130	0.86
0.40	157	0.94	0.90	127	0.85
0.45	154	0.93	0.95	123	0.83

TABLE 5

Speed of motor shaft rev/min	Recommended Minimum Motor Pulley Diameter (mm)																					
	Design Power (kW)																					
	0.55	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11.0	15.0	18.5	22.0	30.0	37.0	45.0	55.0	75.0	93.0	112	130	150
720	50	50	67	70	75	85	95	106	118	132	150	160	165	180	190	200	224	250	280	315	315	315
960	45	50	56	63	70	75	85	90	100	118	125	132	150	165	180	190	212	224	250	280	315	315
1440	40	45	50	63	67	71	80	85	90	100	118	125	132	150	165	170	190	200	224	250	280	280
2880	40	45	50	56	63	67	71	75	80	90	95	100	118	125	132	150	160	165	180	190	200	224

Power Ratings - PJ Ribbed Belts

TABLE 6

SPEED RATIO CHART

Drive (motor) pulley eff. dia. mm	71	75	80	85	90	95	100	106	112	118	125	132	140	150	160	170	180
Driven pulley eff. dia mm																	
71	**1.00**																
75	**1.05**	**1.00**															
80	**1.12**	**1.06**	**1.00**														
85	**1.19**	**1.13**	**1.06**	**1.00**													
90	**1.26**	**1.19**	**1.12**	**1.06**	**1.00**												
95	**1.32**	**1.25**	**1.18**	**1.11**	**1.05**	**1.00**											
100	**1.39**	**1.32**	**1.24**	**1.17**	**1.11**	**1.05**	**1.00**										
106	**1.47**	**1.39**	**1.31**	**1.24**	**1.17**	**1.11**	**1.06**	1.00									
112	**1.55**	**1.47**	**1.38**	**1.31**	**1.24**	**1.17**	**1.12**	**1.05**	1.00								
118	1.63	1.55	1.46	1.37	1.30	1.23	1.17	1.11	1.05	1.00							
125	**1.72**	**1.64**	**1.54**	**1.45**	**1.37**	**1.30**	**1.24**	**1.17**	**1.11**	**1.06**	1.00						
132	1.82	1.73	1.62	1.53	1.45	1.38	1.31	1.24	1.17	1.12	1.05	1.00					
140	**1.93**	**1.83**	**1.72**	**1.62**	**1.53**	**1.46**	**1.39**	**1.31**	**1.24**	**1.18**	**1.12**	**1.06**	1.00				
150	2.06	1.96	1.84	1.73	1.64	1.56	1.48	1.40	1.33	1.26	1.19	1.13	1.07	1.00			
160	**2.19**	**2.08**	**1.96**	**1.85**	**1.75**	**1.66**	**1.58**	**1.49**	**1.42**	**1.35**	**1.27**	**1.21**	**1.14**	**1.07**	1.00		
170	2.33	2.21	2.08	1.96	1.86	1.76	1.68	1.58	1.50	1.43	1.35	1.28	1.21	1.13	1.06	1.00	
180	**2.46**	**2.34**	**2.20**	**2.07**	**1.96**	**1.86**	**1.77**	**1.68**	**1.59**	**1.51**	**1.43**	**1.35**	**1.28**	**1.20**	**1.12**	**1.06**	1.00
190	2.60	2.46	2.32	2.19	2.07	1.96	1.87	1.77	1.68	1.59	1.51	1.43	1.35	1.26	1.18	1.12	1.05
200	**2.73**	**2.59**	**2.44**	**2.30**	**2.18**	**2.07**	**1.97**	**1.86**	**1.76**	**1.67**	**1.58**	**1.50**	**1.42**	**1.33**	**1.24**	**1.17**	**1.11**
212	2.89	2.75	2.58	2.44	2.30	2.19	2.08	1.97	1.87	1.77	1.68	1.59	1.50	1.40	1.32	1.24	1.17
224	**3.05**	**2.90**	**2.72**	**2.57**	**2.43**	**2.31**	**2.20**	**2.08**	**1.97**	**1.87**	**1.77**	**1.68**	**1.59**	**1.48**	**1.39**	**1.31**	**1.24**
236	3.21	3.05	2.87	2.71	2.56	2.43	2.31	2.19	2.07	1.97	1.86	1.77	1.67	1.56	1.46	1.38	1.31
250	**3.40**	**3.23**	**3.04**	**2.86**	**2.71**	**2.57**	**2.45**	**2.32**	**2.19**	**2.09**	**1.97**	**1.87**	**1.77**	**1.65**	**1.55**	**1.46**	**1.38**
280	3.81	3.61	3.40	3.20	3.03	2.88	2.74	2.59	2.45	2.33	2.21	2.09	1.98	1.85	1.73	1.63	1.54
315	**4.28**	**4.06**	**3.81**	**3.60**	**3.41**	**3.23**	**3.08**	**2.91**	**2.76**	**2.62**	**2.48**	**2.35**	**2.22**	**2.07**	**1.95**	**1.84**	**1.74**
355	4.81	4.57	4.29	4.05	3.83	3.64	3.46	3.27	3.10	2.95	2.79	2.65	2.50	2.34	2.19	2.07	1.95
400	**5.42**	**5.14**	**4.83**	**4.56**	**4.32**	**4.10**	**3.90**	**3.68**	**3.49**	**3.32**	**3.14**	**2.98**	**2.81**	**2.63**	**2.47**	**2.33**	**2.20**
450	6.09	5.78	5.43	5.12	4.85	4.60	4.38	4.14	3.93	3.73	3.53	3.35	3.16	2.95	2.77	2.61	2.47
500	**6.26**	**6.41**	**6.03**	**5.69**	**5.39**	**5.11**	**4.86**	**4.60**	**4.36**	**4.14**	**3.92**	**3.72**	**3.51**	**3.28**	**3.08**	**2.90**	**2.74**
630	8.50	8.07	7.59	7.16	6.78	6.43	6.12	5.79	5.48	5.21	4.93	4.68	4.41	4.13	3.87	3.65	3.45
800	10.79	10.24	9.62	9.08	8.59	8.16	7.76	7.34	6.96	6.61	6.25	5.93	5.60	5.23	4.91	4.63	4.38

The above chart gives approximate speed ratios between pulleys of the shown effective diameters. For exact drive ratio values. calculate the mathematical ratio between any 2 effective dias. (De) converted to pitch dias. (Dp) as follows: J section Dp = De + 2 mm
L section Dp = De + 5mm

PJ RIBBED BELT RATINGS

Basic power rating per rib (kW) for small pulley effective diameter (mm) **PJ Section**											
Rev/min faster shaft	**71**	**75**	**80**	**85**	**90**	**95**	**100**	**112**	**125**	**140**	**160**
100	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.07
200	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.12	0.13
400	0.11	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.20	0.22	0.26
600	0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.26	0.29	0.33	0.38
720	**0.19**	**0.20**	**0.22**	**0.23**	**0.25**	**0.26**	**0.27**	**0.31**	**0.35**	**0.39**	**0.45**
800	0.21	0.22	0.24	0.25	0.27	0.29	0.30	0.34	0.38	0.43	0.50
960	**0.25**	**0.26**	**0.28**	**0.30**	**0.32**	**0.34**	**0.36**	**0.41**	**0.46**	**0.51**	**0.59**
1000	0.26	0.27	0.29	0.31	0.33	0.35	0.37	0.42	0.47	0.53	0.61
1200	0.31	0.33	0.35	0.37	0.40	0.42	0.45	0.50	0.56	0.63	0.72
1440	**0.36**	**0.39**	**0.41**	**0.44**	**0.47**	**0.50**	**0.43**	**0.60**	**0.67**	**0.75**	**0.86**
1600	0.4	0.43	0.46	0.49	0.52	0.55	0.58	0.66	0.74	0.83	0.94
1800	0.45	0.45	0.51	0.55	0.58	0.62	0.65	0.73	0.82	0.92	1.05
2000	0.49	0.53	0.56	0.60	0.64	0.68	0.72	0.81	0.90	1.01	1.15
2200	0.54	0.57	0.62	0.66	0.70	0.74	0.78	0.88	0.98	1.10	1.25
2400	0.59	0.62	0.67	0.71	0.76	0.80	0.85	0.95	1.06	1.19	1.35
2600	0.63	0.67	0.72	0.77	0.82	0.86	0.91	1.02	1.14	1.28	1.45
2880	**0.69**	**0.74**	**0.79**	**0.84**	**0.89**	**0.95**	**1.00**	**1.12**	**1.25**	**1.39**	**1.57**
3000	0.72	0.76	0.82	0.87	0.93	0.98	1.04	1.16	1.29	1.44	1.63
3500	0.84	0.88	0.94	1.00	1.06	1.12	1.18	1.32	1.47	1.63	1.83
4000	0.93	0.99	1.06	1.13	1.20	1.26	1.33	1.48	1.64	1.80	2.01
4500	1.03	1.09	1.17	1.25	1.32	1.39	1.46	1.62	1.79	1.96	2.16
5000	1.13	1.20	1.28	1.36	1.44	1.51	1.59	1.76	1.92	2.10	2.27
6000	1.31	1.39	1.48	1.57	1.65	1.73	1.81	1.98	2.14	2.27	2.40

Additional power (kW) per rib due to speed ratio				
1.00 to 1.05	1.05 to 1.16	1.17 to 1.40	1.41 to 1.65	above 1.66
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.01
0	0.00	0.00	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.00	0.01	0.01	0.01
0	0.01	0.01	0.01	0.01
0	0.01	0.01	0.02	0.02
0	0.01	0.01	0.02	0.02
0	0.01	0.01	0.02	0.02
0	0.01	0.02	0.02	0.02
0	0.01	0.02	0.02	0.03
0	0.01	0.02	0.02	0.03
0	0.01	0.02	0.03	0.03
0	0.01	0.02	0.03	0.04
0	0.01	0.03	0.04	0.04
0	0.01	0.03	0.04	0.05
0	0.02	0.03	0.05	0.06



Power Ratings - PL & PM Ribbed Belts

PL RIBBED BELT RATINGS

Basic power rating per rib (kW) for small pulley effective diameter (mm) **PL Section**												
Rev/min faster shaft	**75**	**80**	**85**	**90**	**95**	**100**	**106**	**112**	**125**	**140**	**160**	**180**
100	0.08	0.09	0.10	0.11	0.12	0.12	0.14	0.15	0.17	0.19	0.23	0.26
200	0.15	0.17	0.19	0.20	0.22	0.24	0.26	0.28	0.32	0.37	0.44	0.50
400	0.29	0.32	0.35	0.38	0.42	0.45	0.49	0.53	0.61	0.71	0.84	0.96
600	0.41	0.46	0.51	0.56	0.60	0.65	0.71	0.77	0.89	1.03	1.22	1.40
720	**0.49**	**0.54**	**0.60**	**0.66**	**0.71**	**0.77**	**0.84**	**0.91**	**1.05**	**1.22**	**1.44**	**1.66**
800	0.53	0.60	0.66	0.72	0.79	0.85	0.92	1.00	1.16	1.34	1.58	1.82
960	**0.63**	**0.70**	**0.78**	**0.85**	**0.93**	**1.00**	**1.09**	**1.18**	**1.37**	**1.58**	**1.87**	**2.15**
1000	0.65	0.73	0.81	0.88	0.96	1.04	1.13	1.22	1.42	1.64	1.94	2.23
1200	0.76	0.86	0.95	1.04	1.13	1.22	1.33	1.44	1.67	1.94	2.29	2.63
1440	**0.90**	**1.01**	**1.11**	**1.22**	**1.33**	**1.44**	**1.57**	**1.69**	**1.97**	**2.28**	**2.69**	**3.08**
1600	0.98	1.10	1.22	1.34	1.46	1.56	1.72	1.86	2.16	2.50	2.94	3.38
1800	1.09	1.22	1.35	1.49	1.62	1.75	1.91	2.06	2.39	2.77	3.26	3.73
2000	1.19	1.34	1.48	1.63	1.77	1.92	2.09	2.26	2.62	3.03	3.56	4.07
2200	1.29	1.45	1.61	1.79	1.92	2.08	2.26	2.45	2.84	3.28	3.84	4.38
2400	1.39	1.56	1.73	1.90	2.07	2.24	2.44	2.63	3.05	3.52	4.12	4.69
2600	1.48	1.67	1.85	2.03	2.21	2.39	2.60	2.81	3.24	3.75	4.38	4.97
2880	**1.61**	**1.81**	**2.01**	**2.21**	**2.41**	**2.60**	**2.83**	**3.05**	**3.53**	**4.05**	**4.71**	**5.32**
3000	1.67	1.87	2.08	2.28	2.49	2.68	2.92	3.15	3.64	4.18	4.85	5.46
3500	1.88	2.11	2.35	2.57	2.80	3.01	3.28	3.53	4.07	4.64	5.34	5.95
4000	2.07	2.33	2.59	2.84	3.09	3.33	3.61	3.88	4.44	5.03	5.72	6.28
4500	2.25	2.53	2.81	3.08	3.34	3.59	3.89	4.17	4.74	5.32	5.96	6.43

Additional power (kW) per rib due to speed ratio				
1.00 to 1.06	1.07 to 1.16	1.17 to 1.40	1.41 to 1.74	above 1.75
0.00	0.00	0.01	0.01	0.01
0.00	0.01	0.01	0.02	0.02
0.00	0.01	0.03	0.03	0.04
0.00	0.02	0.04	0.05	0.06
0.00	0.02	0.05	0.06	0.07
0.00	0.03	0.05	0.06	0.08
0.00	0.03	0.06	0.08	0.09
0.00	0.04	0.06	0.08	0.09
0.00	0.04	0.07	0.10	0.11
0.00	0.05	0.09	0.12	0.14
0.00	0.05	0.10	0.13	0.15
0.00	0.06	0.11	0.15	0.17
0.00	0.06	0.12	0.16	0.19
0.00	0.08	0.14	0.18	0.21
0.00	0.08	0.14	0.19	0.23
0.00	0.09	0.16	0.21	0.25
0.00	0.10	0.17	0.23	0.27
0.00	0.10	0.18	0.24	0.28
0.00	0.12	0.21	0.28	0.33
0.00	0.13	0.24	0.32	0.38
0.00	0.15	0.27	0.36	0.43

PM RIBBED BELT RATINGS

Basic power rating per rib (kW) for small pulley effective diameter (mm) **PM Section**										
Rev/min faster shaft	**180**	**190**	**200**	**212**	**224**	**250**	**280**	**315**	**355**	**400**
100	0.63	0.69	0.74	0.81	0.87	1.01	1.18	1.36	1.57	1.81
200	1.19	1.29	1.40	1.52	1.65	1.92	2.23	2.58	2.98	3.45
400	2.22	2.42	2.62	2.86	3.10	3.61	4.20	4.86	5.63	6.50
600	3.18	3.47	3.76	4.11	4.46	5.20	6.05	6.99	8.08	9.32
720	**3.73**	**4.07**	**4.42**	**4.83**	**5.23**	**6.11**	**7.10**	**8.20**	**9.47**	**10.89**
800	4.08	4.46	4.84	5.29	5.74	6.69	7.77	8.97	10.35	11.88
960	**4.77**	**5.22**	**5.66**	**6.19**	**6.71**	**7.82**	**9.07**	**10.45**	**12.01**	**13.72**
1000	4.94	5.40	5.86	6.40	6.94	8.09	9.38	10.80	12.40	14.15
1200	5.75	6.28	6.81	7.44	8.06	9.38	10.85	12.44	14.21	16.09
1440	**6.65**	**7.27**	**7.88**	**8.60**	**9.30**	**10.79**	**12.42**	**14.15**	**16.02**	**17.91**
1600	7.21	7.87	8.53	9.30	10.05	11.63	13.33	15.11	16.97	18.77
1800	7.85	8.57	9.28	10.10	10.90	12.56	14.31	16.09	17.86	19.41
2000	8.44	9.20	9.94	10.81	11.64	13.34	15.09	16.79	18.36	
2200	8.95	9.75	10.52	11.42	12.27	13.97	15.66	17.20		
2400	9.40	10.22	11.01	11.91	12.77	14.42	15.99	17.29		
2600	9.78	10.61	11.40	12.30	13.13	14.70	16.08			
2880	**10.17**	**11.00**	**11.77**	**12.62**	**13.39**	**14.75**				
3000	10.28	11.10	11.86	12.68	13.41	14.64				

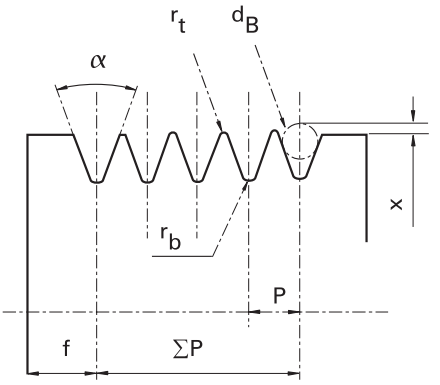
Additional power (kW) per rib due to speed ratio				
1.00 to 1.04	1.05 to 1.14	1.15 to 1.48	1.49 to 2.00	above 2.01
0.00	0.01	0.04	0.05	0.07
0.00	0.03	0.08	0.10	0.14
0.01	0.06	0.16	0.21	0.27
0.02	0.09	0.24	0.31	0.41
0.03	0.11	0.29	0.37	0.49
0.03	0.12	0.32	0.42	0.54
0.03	0.14	0.38	0.50	0.65
0.04	0.15	0.4	0.52	0.68
0.04	0.18	0.49	0.63	0.81
0.05	0.23	0.58	0.75	0.97
0.06	0.24	0.65	0.84	1.08
0.07	0.27	0.73	0.94	1.22
0.07	0.31	0.81	1.05	1.35
0.08	0.35	0.89	1.15	1.49
0.08	0.37	0.97	1.25	1.62
0.09	0.40	1.05	1.36	1.76
0.11	0.44	1.16	1.46	1.89
0.11	0.46	1.21	1.57	2.03

The following recommendations for installing a ribbed belt drive will help ensure correct working conditions and optimum service life.

RIBBED BELT PULLEY GROOVE DIMENSIONS

Pulleys are manufactured to ISO 9982 – Pulleys and V-Ribbed Belts for Industrial Applications

PULLEY SECTION		PJ	PK	PL	PM
α	(°)	40 ± 0.5	40 ± 0.5	40 ± 0.5	40 ± 0.5
P	(mm)	2.34 ± 0.03	3.56 ± 0.05	4.70 ± 0.05	9.40 ± 0.08
Tolerance for ΣP		± 0.3	± 0.3	± 0.3	± 0.3
rt min.	(mm)	0.20	0.25	0.40	0.75
rb max.	(mm)	0.40	0.50	0.40	0.75
f min.	(mm)	1.8	2.5	3.3	64
dB	(mm)	1.5 ± 0.01	2.5 ± 0.01	3.5 ± 0.01	7.0 ± 001
2X	(mm)	0.23	0.99	2.36	4.53



SHAFT ALIGNMENT

The maximum axial misalignment allowed is 3 mm per metre centre distance, to a maximum of 15 mm.

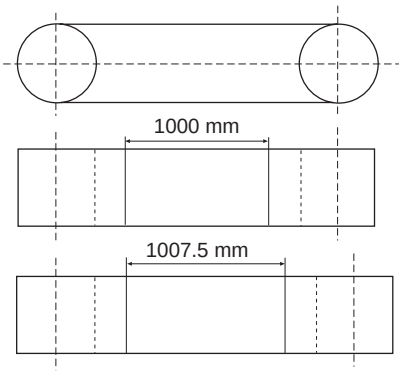
Make sure that angular misalignment is kept within 2°. With flat pulleys, acting as idlers for power take-off, do not exceed 1°.

A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment - consult your local Authorised Distributor.

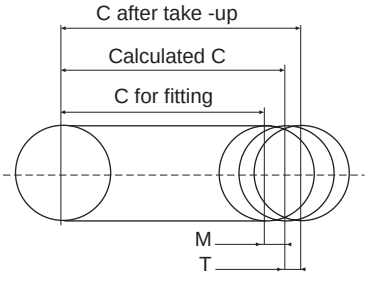
TENSIONING THE BELT

Ribbed belts must be tensioned correctly and with great care. Under or over-tensioning can cause functional problems and lead to premature belt failure. We recommend the elongation method, which is simple and requires no special equipment, in most cases.

(For narrow belts - less than 40 mm wide - it is possible to use the Fenner Belt Tension Indicator).



1. Fit the belt on the pulleys with no tension,
2. Draw two lines perpendicularly across the belt back approx 80% of the belt span apart (or one metre apart for very long spans),
3. Increase the distance between the two lines by 0.5 to 0.75% i.e. by 5 to 7.5 mm for an initial spacing of 1000 mm.
4. Run the drive under load for about 10 minutes,
5. Check the tension of the belt (i.e. the spacing between the two lines) and readjust if necessary.



GENERAL

Pulleys should be mounted as close as possible to bearings, to reduce overhung load.

Pulley grooves should be in good condition, clean, and free from sharp edges.

Ensure that drive machinery is securely fastened after belt installation or adjustments.

Guards should be generously sized and well ventilated.

CENTRE DISTANCE ADJUSTMENT: FITTING AND TAKE-UP RECOMMENDATIONS

Belt Length (mm)	PJ		PK		PL		PM	
	M	T	M	T	M	T	M	T
> 750	-10	+10	-11	+13				
750 to 1200	-10	+15	-12	+16	-15	+20		
1200 to 2000	-15	+20	-16	+22	-20	+25		
2000 to 3500	-20	+30	-23	+32	-30	+35	-40	+50
3500 to 6000					-40	+50	-50	+70
> 6000							-100	+130

TAPER LOCK

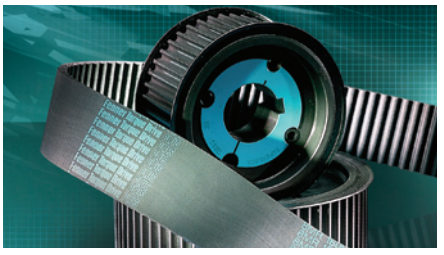
Ribbed belt pulleys are available using Taper Lock shaft fixing.

For detailed instructions on the fitting and dismounting of Taper Lock products see Shaft Fixings page 126-127. (TBC)



Fenner® SYNCHRONOUS BELT DRIVES

This state of the art, integrated range of synchronous belt drive components is capable of meeting almost any applicational requirement.



- Comprehensive range of belt styles including timing belts, HTD belts and Torque Drive Plus 3 (TDP3)
- TDP3 anti-static as standard
- Absolute drive synchronism - no slippage
- Stock sizes to suit all applications
- ISO compliance

Synchronous Belt Drives Design Data Required

- **Type of prime mover, or driving m/c**
- **Electric motor starting arrangement**
- **Rotational speed of prime mover**
- **Power rating of prime mover**
- **Type of driven machine**
- **Rotational speed of driven machine**
- **Power absorbed by driven machine**
- **Hours/day duty & start/stop frequency**
- **Both driven & driver machine shaft diameters**
- **Centre distance & space restraints**
  - fixed centres?
- **Space restraints**
- **Any environmental issues**
  - ambient temperature
  - noise limits
  - water, oil mist etc.

SYNCHRONOUS BELT DRIVES

	Page
TDP3 Belts	86
TDP3 Drive Design	88
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HTD Drive Design	92
Centre Distances TDP3 & HTD	94
TDP3 & HTD Pulleys	102
Timing Belts & Drives	105
Timing Pulleys Dimensions	106
Installation Instructions - All Drives	108

Torque Drive PLUS®3

Fenner®

The compact, quiet, powerful solution

The outstanding performance of this third generation belt drive delivers load transmission similar to a chain drive but with less noise, no lubrication, and on standard HTD pulleys.

Manufactured using the latest materials and production technology, Fenner Torque Drive PLUS 3 continues to push the boundaries of possibility.

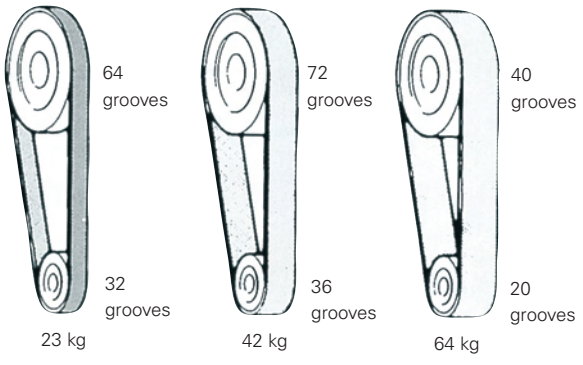
- Delivers the highest power rating from a rubber/glass fibre belt construction
- Compact drive packages
- Offers minimum backlash for precise positioning
- Operates with minimum noise levels
- Runs optimally on standard HTD pulleys



www.fptgroup.com

Drive Package Comparison

Torque Drive PLUS 3 belts allow design of lighter, more compact, more cost effective drive packages.

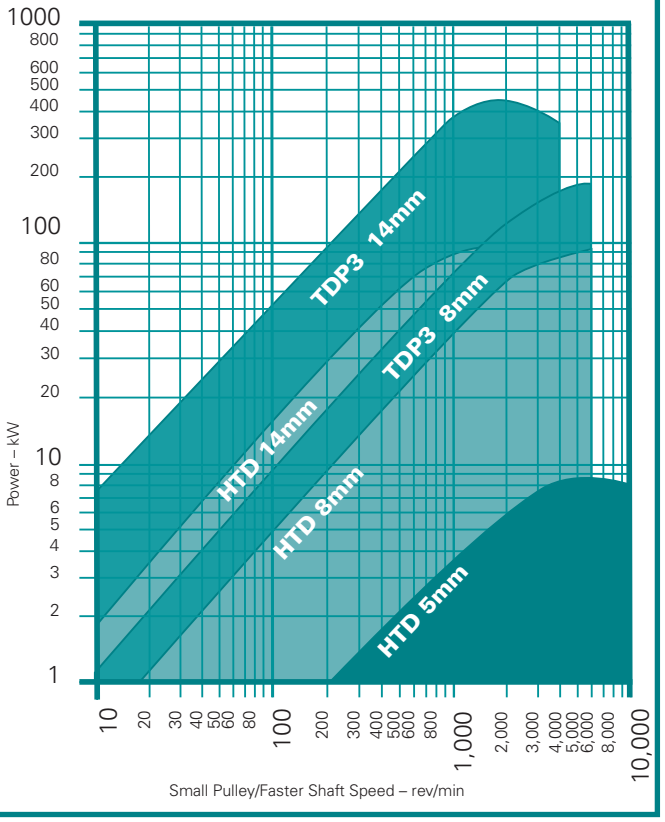


Drive Condition

Driver: 45 kW motor
1460 rev/min
16 hrs/day

Driven: Rotary gear pump
730 rev/min ± 5%

COMPARISON OF HTD, TORQUE DRIVE PLUS3 DRIVE POWER RATINGS

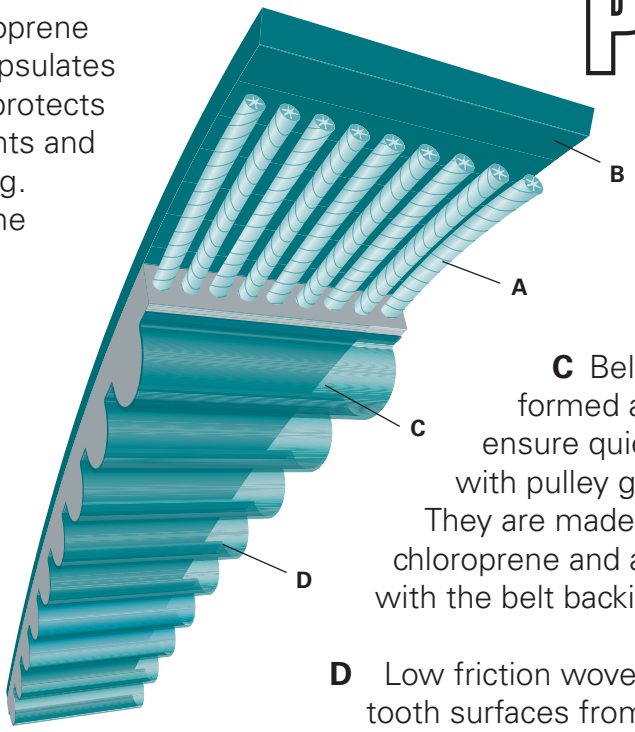




Torque Drive PLUS® 3

A Helically wound glass-fibre tensile member gives high tensile modulus and excellent fatigue life.

B Flexible, durable chloroprene backing polymer, encapsulates the tensile cords and protects them from contaminants and mechanical damage e.g. from idler pulleys on the back of the belt.



C Belt teeth are precisely formed and accurately spaced to ensure quiet, efficient engagement with pulley grooves. They are made of medium hardness chloroprene and are bonded integrally with the belt backing.

D Low friction woven nylon facing protects tooth surfaces from wear and aids quiet, efficient running.

TORQUE DRIVE PLUS *3* BELTS

The three principal dimensions of a belt are:

pitch **pitch length** **width**

and are used in this order as a designation e.g. 8MXP-1120-30.

Belt pitch is the distance in millimetres between two adjacent tooth centres as measured on the pitch line of the belt.

Belt pitch length is the total length of the belt (circumference) in millimetres as measured along the pitch line. The theoretical pitch line of a belt lies within the tensile member.

TEMPERATURE

Torque Drive Plus *3* belt performance is generally unaffected in ambient temperatures between –25°C and +100°C. Temperatures beyond these extremes should be referred to your local Authorised Distributor.

ANTI-STATIC AS STANDARD

Fenner Torque Drive PLUS 3 belts are static conductive to the definitive ISO 9563 standard.

8mm PITCH (8MXP) BELTS

Pitch Length mm	20mm WIDE Cat. Code	30mm WIDE Cat. Code	50mm WIDE Cat. Code	85mm WIDE Cat. Code
480	286J0048	286K0048	286L0048	286M0048
560	56	56	56	56
600	60	60	60	60
640	64	64	64	64
720	72	72	72	72
800	80	80	80	80
880	88	88	88	88
960	96	96	96	96
1040	104	104	104	104
1120	112	112	112	112
1200	120	120	120	120
1280	128	128	128	128
1440	144	144	144	144
1600	160	160	160	160
1760	176	176	176	176
1800	180	180	180	180
2000	200	200	200	200
2400	240	240	240	240
2600	260	260	260	260
2800	280	280	280	280

14mm PITCH (14MXP) BELTS

Pitch Length mm	40mm WIDE Cat. Code	55mm WIDE Cat. Code	85mm WIDE Cat. Code	115mm WIDE Cat. Code	170mm WIDE Cat. Code
966	286N0096	286P0096	286R0096	286S0096	286T0096
1190	119	119	119	119	119
1400	140	140	140	140	140
1610	161	161	161	161	161
1778	177	177	177	177	177
1890	189	189	189	189	189
2100	210	210	210	210	210
2310	231	231	231	231	231
2450	245	245	245	245	245
2590	259	259	259	259	259
2800	280	280	280	280	280
3150	315	315	315	315	315
3500	350	350	350	350	350
3850	385	385	385	385	385
4326	432	432	432	432	432
4578	457	457	457	457	457

TDP*3* DRIVE SELECTION PROCEDURE

1) Determine Drive Requirements

a) The nature of the driving machine (usually the prime mover) and the driven machine and the duty cycle in hrs./day.
b) The rotational speeds of the driving and driven machines.
c) The power capability and starting arrangements of the prime mover and the power absorbed by the driven machines.
d) The required drive centre distance and the machine shaft diameters.

2) Calculate Design Power

Select a service factor from the table – page 90. Include an additional factor if the drive is speed increasing.

Multiply normal running (absorbed) power by the service factor to give **design power – kW.**

3) Belt Pitch

Use the **belt pitch** selection guide - page 89 to select 8mm or 14mm pitch according to the point of intersection of the small pulley (faster shaft) rotational speed and the design power.

If the intersection lies close to the 8/14mm pitch boundary, either pitch may be appropriate, attempt the design procedure on 8mm pitch first but be aware that later criteria may make 14mm necessary.

4) Speed Ratio

Divide the rotational speed of the faster shaft (rev/min) by that of the slower shaft to determine **speed ratio.**

5) Pulley Selection

Refer to the drive tables (pages 96 to 101) for the appropriate belt pitch. From the first column select the required speed ratio and consult the next two columns for appropriate **pulley groove numbers.**

Where alternative groove number pairs are available be aware that criteria in steps 6 & 7 may influence the ultimate selection.

Consider any drive dimensional limitations by reference to pulley dimension tables on pages 102 to 104, noting that pulleys with up to 72 grooves may have flanges that determine the o/dia.

6) Belt Length & Centre Distance

Read along the line in the drive table for the selected pulley groove number pair and select the centre distance closest to that required. The standard **belt length** giving that **centre distance** is at the head of the column.

If centre distance is critical, be aware that alternative groove number pairs may offer a closer value with standard belt lengths.

7) Power Rating & Belt Width

Refer to the **power rating** table on page 89 for the chosen belt pitch, locate the small pulley groove number/rotational speed combination, and note the **power rating** (for the narrowest standard belt width).

Multiply this rating by the belt length factor for the chosen belt length, from the listing beneath the main table.

Divide the **design power** by the length corrected power rating, to give required belt width factor. Refer to the width factors below the rating table and select the belt width with a factor equal to or greater than required.

8) Shaft Sizes

Check the **bore capacity** of the chosen pulleys against the pulley dimension tables on pages 102 & 104.

If the pulleys will not accomodate the drive **shafts** it will be necessary to consider other pulley combinations, possibly using an alternative belt pitch.

NOTE

An optimum drive will use a belt of width factor just greater than that required. If alternative groove number pairs can give close to the required speed ratio, slightly larger pulley groove numbers may allow a narrower belt, or slightly smaller groove numbers may be possible with the same belt width.
Larger diameter pulleys typically reduce bearing and shaft loads.
Avoid drives where the belt width exceeds the small pulley diameter.

EXAMPLE

1) Drive Requirements

a) AC cage rotor electric motor driving to a rotary gear pump. 24 hr/day.
b) 1450 rev/min motor, pump to run at 740rev/min +/–5%.
c) 60 kW motor, soft start – no pump absorbed power given.
d) Centres 800/850mm, motor shaft 60mm, pump shaft 75mm.

2) Design Power

Service factor for medium duty, soft start, 24 hr/day = 1.7.

Design power = 1.7 x 60 = 102 kW.

3) Belt Pitch

Pitch selection chart shows intersection of 1450 rev/min and 102 kW to be within the capability of 14mm pitch.

4) Speed Ratio

1450/740 = 1.97:1

A 2:1 ratio satisfies the +/–5% criterion.

5) Pulley Selection

From page 100, 32 to 64 grooves is one combination giving 2:1 ratio.

6) Belt Length & Centre Distance

A belt length of 2310mm gives centres of 816mm.

7) Power Rating & Belt Width

The power rating table shows a value of 46.74 kW for a 32 groove pulley at 1450 rev/min for a 40mm wide belt.

Belt length factor for a 2310mm belt = 1.0 - no change to power ratings.

102/46.74 = 2.18. Next larger standard width factor = 2.31 for 85mm wide belt.

8) Shaft Sizes

The 32-14M-85 pulley uses a 2517 Taper Lock bush, max. bore 60mm – OK.

The 64-14M-85 pulley uses a 3525 Taper Lock bush, max. bore 100mm – OK.

DRIVE SPECIFICATION

Motor pulley:	32-14M-85 HTD pulley.
Taper Lock bush:	2517/60mm.
Driven pulley:	64-14M-85 HTD pulley.
Taper Lock bush:	3525/75mm.
Belt:	14MXP - 2310-85 Torque Drive Plus *3* belt.

DRIVE ORDERING INSTRUCTIONS

A complete drive usually consists of five components:

two pulleys, two Taper Lock bushes & one belt.

1. Pulleys. Standard HTD pulleys. Codes are shown on the dimension tables, pages 102 to 104
2. Taper Lock bushes. Bush sizes are shown on the pulley dimension tables. Bush codes are on Shaft Fixings pages 126 & 127.
3. Belts. Belt codes are shown on page 87.

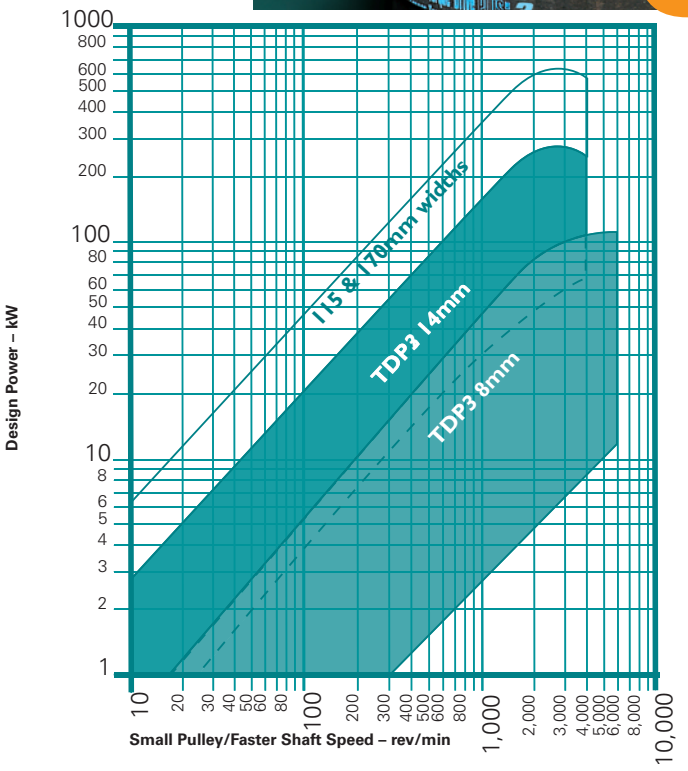
The drive selection above would be ordered as:

Driving pulley	32-14M-85	Code 043R0032.
Taper Lock bush	2517/60mm	Code 029M0060.
Driven pulley	64-14M-85	Code 043R0064.
Taper Lock bush	3525/75mm	Code 029J0075.
Belt	14MXP-2320-85	Code 286R0231.



BELT PITCH SELECTION GUIDE

Torque Drive PLUS® 3



POWER RATINGS (KW) FOR 20MM WIDE 8MXP BELT

Rev/min of small pulley	Number of grooves														
	22	24	26	28	30	32	34	36	38	40	44	48	56	64	72
100	0.43	0.50	0.57	0.65	0.73	0.81	0.89	0.97	1.06	1.14	1.30	1.45	1.71	1.88	1.94
200	0.83	0.97	1.11	1.26	1.41	1.57	1.72	1.88	2.04	2.19	2.50	2.79	3.27	3.59	3.71
300	1.23	1.43	1.64	1.85	2.07	2.30	2.53	2.76	2.99	3.21	3.66	4.07	4.76	5.22	5.37
400	1.61	1.88	2.15	2.43	2.72	3.01	3.31	3.61	3.91	4.20	4.78	5.31	6.21	6.78	6.97
500	1.99	2.32	2.65	3.00	3.35	3.71	4.08	4.44	4.81	5.17	5.87	6.52	7.60	8.29	8.51
600	2.37	2.75	3.14	3.55	3.97	4.40	4.83	5.26	5.69	6.11	6.93	7.69	8.96	9.76	9.99
720	**2.82**	**3.27**	**3.73**	**4.22**	**4.71**	**5.21**	**5.73**	**6.23**	**6.74**	**7.24**	**8.20**	**9.09**	**10.57**	**11.49**	**11.74**
800	3.10	3.60	4.11	4.64	5.19	5.74	6.29	6.85	7.40	7.95	8.99	9.96	11.56	12.54	12.79
960	**3.65**	**4.23**	**4.83**	**5.45**	**6.08**	**6.72**	**7.37**	**8.01**	**8.65**	**9.28**	**10.50**	**11.62**	**13.44**	**14.54**	**14.80**
1000	3.82	4.42	5.05	5.70	6.36	7.03	7.71	8.38	9.05	9.71	10.97	12.13	14.02	15.16	15.41
1200	4.52	5.23	5.97	6.73	7.50	8.29	9.08	9.86	10.64	11.40	12.86	14.20	16.36	17.63	17.85
1450	**5.38**	**6.21**	**7.08**	**7.98**	**8.89**	**9.81**	**10.73**	**11.64**	**12.55**	**13.43**	**15.12**	**16.66**	**19.11**	**20.51**	**20.67**
1600	5.57	6.43	7.33	8.25	9.18	10.12	11.07	12.00	12.93	13.83	15.55	17.12	19.58	20.95	21.07
1800	6.54	7.55	8.59	9.66	10.75	11.84	12.94	14.02	15.09	16.13	18.10	19.89	22.67	24.17	24.21
2000	7.18	8.29	9.43	10.59	11.77	12.96	14.15	15.32	16.47	17.59	19.71	21.62	24.56	26.08	26.02
2500	8.74	10.07	11.43	12.82	14.22	15.62	17.01	18.39	19.73	21.02	23.46	25.60	28.82	30.30	29.91
2850	**9.79**	**11.26**	**12.76**	**14.29**	**15.83**	**17.37**	**18.89**	**20.38**	**21.83**	**23.24**	**25.84**	**28.11**	**31.42**	**32.79**	**32.10**
3000	10.23	11.76	13.32	14.91	16.50	18.09	19.66	21.20	22.70	24.14	26.80	29.12	32.44	33.74	32.91
3500	11.65	13.36	15.10	16.87	18.63	20.38	22.10	23.78	25.40	26.94	29.77	32.18	35.46	36.43	35.06
4000	13.00	14.88	16.78	18.70	20.61	22.49	24.34	26.12	27.83	29.45	32.37	34.79	37.88	38.39	36.37
4500	14.28	16.31	18.36	20.41	22.44	24.44	26.37	28.23	30.00	31.66	34.61	36.98	39.71	39.63	36.86
5000	15.50	17.66	19.83	22.00	24.13	26.21	28.21	30.12	31.92	33.59	36.49	38.73	40.98	40.16	36.55
5500	16.65	18.93	21.21	23.47	25.68	27.81	29.86	31.79	33.58	35.23	38.02	40.06	41.68	40.00	35.44
6000	17.74	20.12	22.49	24.82	27.08	29.26	31.31	33.24	35.00	36.60	39.21	40.98	41.82	39.16	33.56

BELT LENGTH CORRECTION FACTORS (multiplier)

Belt length mm	384 - 600	640 - 880	960 - 1200	1280 - 1760	1800 - 4400
Length factor	0.8	0.9	1.0	1.1	1.2

BELT WIDTH FACTORS

Belt width mm	20	30	50	85
Width factor	1.00	1.58	2.73	4.76

POWER RATINGS (KW) FOR 40MM WIDE 14MXP BELT

Rev/min of small pulley	Number of grooves											
	28	29	30	32	34	36	38	40	44	48	56	64
10	0.44	0.47	0.50	0.55	0.60	0.65	0.69	0.74	0.88	0.92	1.10	1.29
20	0.85	0.90	0.96	1.06	1.15	1.24	1.33	1.42	1.69	1.78	2.13	2.48
50	1.99	2.12	2.24	2.48	2.71	2.92	3.14	3.35	3.98	4.20	5.03	5.87
100	3.77	4.03	4.27	4.73	5.16	5.58	5.99	6.40	7.60	8.00	9.59	11.18
200	7.09	7.58	8.04	8.91	9.72	10.52	11.29	12.06	14.30	15.06	18.02	20.95
300	10.19	10.91	11.57	12.82	14.00	15.13	16.25	17.34	20.55	21.61	25.78	29.88
400	13.13	14.06	14.92	16.52	18.04	19.50	20.92	22.31	26.40	27.73	32.98	38.10
500	15.93	17.06	18.11	20.05	21.88	23.64	25.34	27.02	31.89	33.48	39.68	45.67
600	18.61	19.93	21.16	23.42	25.54	27.58	29.55	31.48	37.06	38.87	45.91	52.63
720	21.78	23.34	24.77	27.40	29.87	32.22	34.50	36.72	43.13	45.20	53.17	60.71
800	23.65	25.33	26.88	29.73	32.38	34.90	37.34	39.71	46.51	48.69	57.04	64.84
960	27.20	29.20	30.90	34.20	37.20	40.00	42.70	45.33	52.90	55.30	64.30	72.60
1000	28.30	30.30	32.14	35.50	38.60	41.55	44.38	47.11	54.64	57.29	66.51	74.85
1200	32.59	34.88	36.97	40.78	44.28	47.57	50.70	53.71	62.11	64.73	74.38	82.77
1450	37.49	40.10	42.46	46.74	50.62	54.24	57.65	60.90	69.77	72.47	82.07	89.83
1600	40.20	42.97	45.47	49.98	54.04	57.81	61.34	64.66	73.62	76.30	85.57	92.58
1800	43.54	46.50	49.72	53.93	58.18	62.08	65.69	69.07	77.83	80.50	88.95	94.56
2000	46.59	49.71	52.51	57.46	61.84	65.80	69.43	72.78	81.29	83.66	90.90	94.63
2200	49.35	52.61	55.51	60.59	65.02	68.99	72.57	75.81	83.74	85.81	91.44	92.82
2500	52.95	56.35	59.33	64.49	68.89	72.72	76.09	79.04	85.59	87.06	89.47	86.40
2850	56.46	59.94	62.96	68.05	72.25	75.77	78.71	81.12	85.46	85.99	83.65	
3000	57.70	61.20	64.20	69.21	73.26	76.58	79.26	81.37	84.54	84.58	79.82	
3500	60.83	64.23	67.06	71.55	74.87	77.27	78.85	79.68	77.95	76.02		
4000	62.41	65.54	68.03	71.64	73.86	74.94	75.01	74.12	66.07			

BELT LENGTH CORRECTION FACTORS (multiplier)

Belt length mm	966 - 1190	1400-1610	1778-1890	2100-2450	2590-3360	3500-6860
Length factor	0.80	0.90	0.95	1.00	1.05	1.10

BELT WIDTH FACTORS

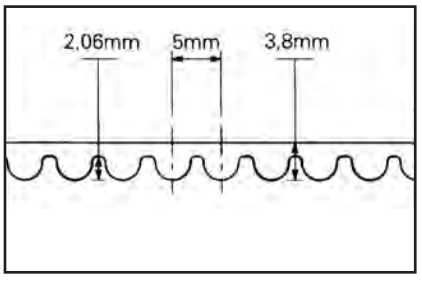
Belt width mm	40	55	85	115	170
Width factor	1.00	1.44	2.31	3.18	4.78

SERVICE FACTORS - for selecting both Torque Drive Plus *3* and HTD drives.

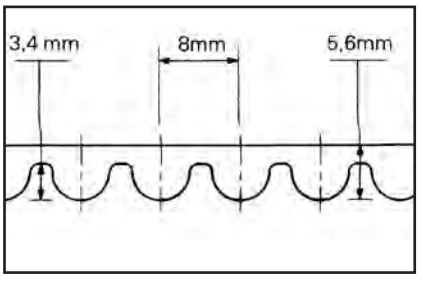
TYPES OF DRIVEN MACHINE	TYPES OF PRIME MOVER					
SPECIAL CASES **For speed increasing drives of:** **1.00 - 1.24 - no additional factor** **1.25 - 1.74 - add 0.1** **1.75 - 2.49 - add 0.2** **2.50 - 3.49 - add 0.3** **3.50 and greater - add 0.4** **Seasonal / intermittent use - subtract 0.2** **Idler pulley used on drive - add 0.2**	'Soft' Starts			'Heavy' Starts		
	AC electric motors – star / delta start – synchronous – split wound – inverter control DC electric motors – shunt wound – stepper motors I/C engines with 4 or more cylinders. Prime movers with centrifugal clutches or fluid couplings.			AC electric motors – DOL start – single phase – slip ring DC electric motors – series wound – compound – servo motors I/C engines with < 4 cylinders		
	Hours per day duty			Hours per day duty		
	10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
LIGHT DUTY Agitators (uniform density), Bakery machinery: Dough mixers, Blowers except positive displacement. Centrifugal pumps and compressors. Belt conveyors, (uniformly loaded). Exhausters. Fans up to 7.5 kW. Paper machinery: Agitators, calenders, dryers, Printing machinery: Linotype machines, cutters, folders. Screens: Drum, conical. Woodworking machinery: Lathes, band saws.	1.2	1.4	1.6	1.6	1.8	2.0
MEDIUM DUTY Agitators and Mixers (variable density), Belt conveyors (not uniformly loaded), Brick and clay machinery, augers, mixers, granulators. Fans over 7.5 kW. Generators, Line shafts. Laundry machinery. Punches, presses, shears. Printing machinery: Presses, newspaper, rotary embossing, flat bed magazine. Pumps: Positive displacement, rotary. Screens, vibrating. Machine tools.	1.3	1.5	1.7	1.7	1.9	2.1
HEAVY DUTY Blowers, positive displacement. Bucket elevators Centrifuges. Conveyors: Drag, pan, screw. Paper machinery: Beaters, jordans, mash pumps, pulpers. Pumps, piston. Pulverizers. Woodworking machinery. Textile machinery. Exiters.	1.5	1.7	1.9	1.9	2.1	2.3
EXTRA HEAVY DUTY Brick machinery, pug mills. Compressors, piston. Crushers: Gyratory, jaw roll. Hoists. Mills: Ball, rod, tube, rubber. Rubber machinery: Calenders, extruders, mills.	1.7	1.9	2.1	2.1	2.3	2.5

BELT DIMENSIONS

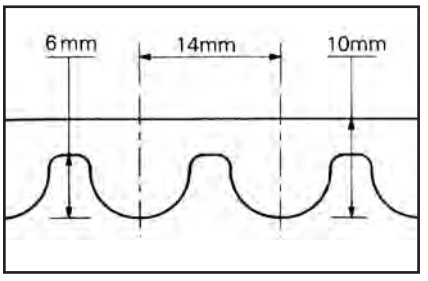
5M HTD

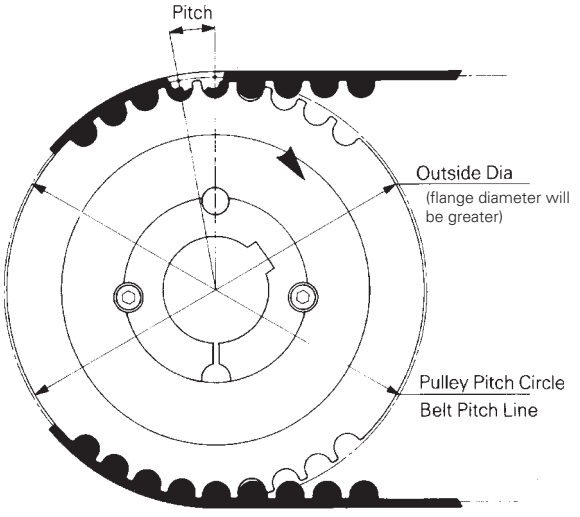


8MXP & 8M HTD



14MXP & 14M HTD





PULLEYS

The three principal dimensions of a pulley are:

number of grooves pitch width

and are used in this order as a designation e.g. 72-8M-50.

On the pulley, pitch is the distance between groove centres and is measured on the pulley pitch circle.

The pitch circle of the pulley coincides with the pitch line of the belt running in it. The pulley pitch diameter is always greater than its outer diameter.

Torque Drive Plus *3* belts run with standard Fenner Taper Lock HTD pulleys.

Standard pulley dimensions are listed in the tables on s 102 to 104.



FENNER HTD

This development of the original Timing Drive is offered in a range of pitches 5mm, 8mm and 14mm. Comprehensive choice of belt widths and lengths combine with an optimised range of Taper Lock pulleys to suit general industrial needs.

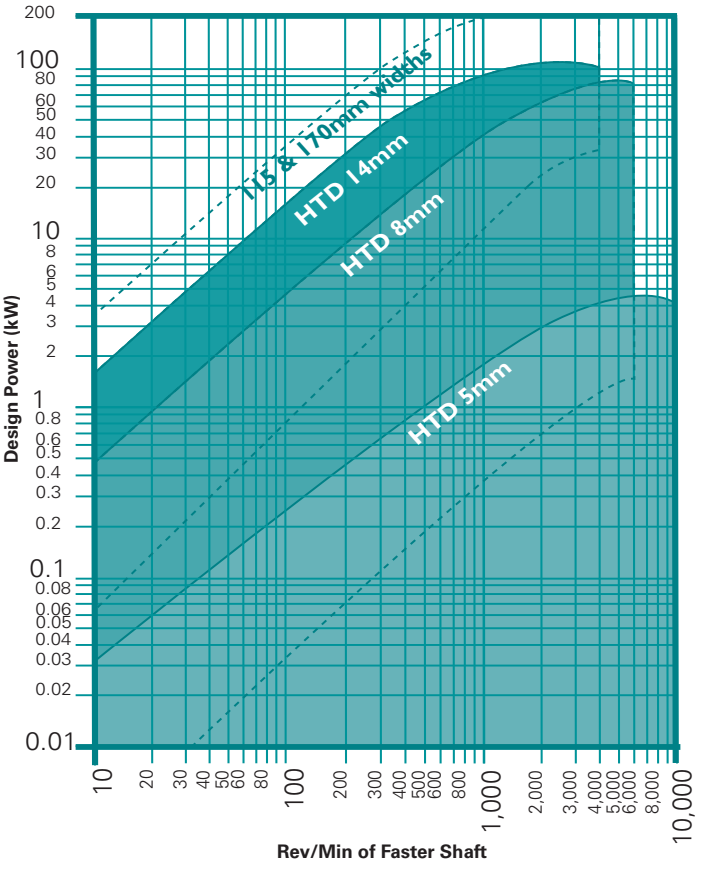
Drives can be designed by simple catalogue selection methods to give more compact drives, less noise and lower bearing loads than with classical Timing Drives.

The Fenner HTD drive system conforms to the ISO 13050 standard

Fenner HTD drives offer the technical and economical benefits of an established product range with proven performance and world wide availability.

Fenner HTD belts have a curvlinear tooth form giving a more uniform distribution of shear stresses within the teeth and a transition of tooth loads to the tensile members in the belt which significantly improves upon classical Timing Belts.

BELT PITCH SELECTION CHART



TEMPERATURE

HTD belt performance is generally unaffected in ambient temperatures between –25°C and +100°C.

Temperatures beyond these extremes should be referred to your local Authorised Distrbutor.

For storage, belts should be protected from moisture, temperature extremes, direct sunlight and high ozone concentrations.

Belts should be stored avoiding sharp bends or crimping, which would damage the belts.

5mm (5M) PITCH HTD BELTS

Pitch Length mm	9mm WIDE	15mm WIDE
	Catalogue Code	Catalogue Code
305	278E0030	278F0030
325	032	032
350	035	035
400	040	040
450	045	045
500	050	050
575	057	057
640	064	064
700	070	070
800	080	080
890	089	089
980	098	098
1100	110	110
1200	120	120
1420	142	142
1595	159	159
1800	180	180
2000	200	200
2250	225	225
2525	252	252

8mm (8M) PITCH HTD BELTS

Pitch Length mm	20mm WIDE	30mm WIDE	50mm WIDE	85mm WIDE
	Catalogue Code	Catalogue Code	Catalogue Code	Catalogue Code
480	278J0048	278K0048	278L0048	278M0048
560	0056	0056	0056	0056
600	0060	0060	0060	0060
640	0064	0064	0064	0064
720	0072	0072	0072	0072
800	0080	0080	0080	0080
880	0088	0088	0088	0088
960	0096	0096	0096	0096
1040	0104	0104	0104	0104
1120	0112	0112	0112	0112
1200	0120	0120	0120	0120
1280	0128	0128	0128	0128
1440	0144	0144	0144	0144
1600	0160	0160	0160	0160
1760	0176	0176	0176	0176
1800	0180	0180	0180	0180
2000	0200	0200	0200	0200
2400	0240	0240	0240	0240
2600	0260	0260	0260	0260
2800	0280	0280	0280	0280

14mm (14M) PITCH HTD BELTS

Pitch Length mm	40mm WIDE	55mm WIDE	85mm WIDE	115mm WIDE*	170mm WIDE
	Catalogue Code	Catalogue Code	Catalogue Code	Catalogue Code	Catalogue Code
966	278N0096	278P0096	278R0096	278S0096	278T0096
1190	0119	0119	0119	0119	0119
1400	0140	0140	0140	0140	0140
1610	0161	0161	0161	0161	0161
1778	0177	0177	0177	0177	0177
1890	0189	0189	0189	0189	0189
2100	0210	0210	0210	0210	0210
2310	0231	0231	0231	0231	0231
2450	0245	0245	0245	0245	0245
2590	0259	0259	0259	0259	0259
2800	0280	0280	0280	0280	0280
3150	0315	0315	0315	0315	0315
3500	0350	0350	0350	0350	0350
3850	0385	0385	0385	0385	0385
4326	0432	0432	0432	0432	0432
4578	0457	0457	0457	0457	0457

SELECTION PROCEDURE

(a) Speed Ratio

Divide the rev/min of the faster shaft by the rev/min of the slower shaft to obtain the **speed ratio**.

(b) Service Factor

From the table (page 90) select the **service factor** which is applicable to the drive. If the drive is speed increasing an additional factor may be required.

(c) Design Power

Multiply the normal running power (kW) by the service factor. This gives the **design power** which is used as the basis for selecting the drive.

(d) Belt Pitch

Refer to the belt pitch selection chart on page 91. Choose the recommended **belt pitch** according to the point of intersection of the design power and the rev/min of the faster shaft.

(e) Pulley Selection

Refer to the drive tables (pages 94 to 101) for the pitch of belt selected in (d). From the first column select the required speed ratio. Reading along the same horizontal line the next two columns give the number of grooves on each pulley. Where more than one combination of pulleys is available consult the power ratings tables (page 93) and the list of stock belt widths (page 91). In conjunction with the design power found in (c) determine the most suitable **pulley pair**.

(f) Centre Distance

Using the relevant drive table read along the same horizontal line as that showing the pulley sizes, and select a **centre distance** nearest to that which is required. The belt required to give this centre distance is shown at the head of the column.

(g) Belt Length Correction Factor

From the table on page 93 note the **correction factor** for the pitch and length of belt chosen.

(h) Power Rating

Refer to the Power Ratings on page 93 for the pitch of belt being considered. Read down the left hand column to the speed of the small pulley in rev/min. On this line read across to the column headed by the number of grooves on the small pulley and note the basic power rating. Multiply this figure by the belt length correction factor (g) to obtain the actual power rating.

(j) Belt Width

Divide the Design Power found in step (c) by the actual power rating found in step (h) to obtain the belt width factor. Using the table below the power ratings, select a belt width which has a width factor equal to or greater than the figure found above.

(k) Pulley Bores

Refer to the pulley dimensions (pages 102 to 104) and check that the Taper Lock® Bush sizes in the pulleys selected can accommodate the shafts they are to fit.

(l) Pulley Ranges

If standard pulleys are to be used, (i.e. those combinations shown in the selection tables) on the majority of drives it will be found that at least one pulley is flanged as standard. If non-standard pulleys are to be used (i.e. combinations not shown in the selection tables) one pulley requires to be flanged, and it is usually more economical to flange the smaller one. If the centre distance exceeds 8 times the outside diameter of the small pulley, or if shafts are vertical, both pulleys should be flanged.

EXAMPLE

An HTD drive is required to drive a rotary pump at 685 rev/min. The prime mover is a 30kW, direct-on-line start AC motor, running at 1440 rev/min. The required centre distance is 450mm, and each shaft diameter is 55mm. Continuous duty.

(a) Speed Ratio

$\frac{1440}{685}$ = 2.10:1.

(b) Service Factor

From table (page 90) the service factor is 1.9.

(c) Design Power

Design Power = 30 x 1.9 = 57kW.

(d) Belt Pitch

From table on page 91, 14M is the most suitable pitch.

(e) Pulley Selection

A speed ratio of 2.11 can be found in the drive tables on page 100 utilising pulleys of 38 and 80 grooves.

(f) Centre Distance

Reading along the same line as the 2.11:1 Speed ratio, a centre distance of 467mm is found, and at the head of the column the belt length given is 1778mm.

(g) Belt Length Correction Factor

From table on page 93 Belt Length Correction Factor = 0.95.

(h) Power Rating

From the power rating table the basic capacity of a 38 groove pulley at 1440 rev/min is 25,70kW/40mm width. Actual power rating = 25.70 x 0.95 = 24.41 kW.

(j) Belt width

Belt Width Factor = $\frac{57}{24.41}$ = 2.33

From the width factor table beneath the power rating table it can be seen that the required width is 85mm.

(k) Pulley Bores

From the pulley dimension tables, both pulleys are fitted with Taper Lock® Bushes which will accommodate 55mm bores.

(l) Pulley Flanges

The 38 groove pulley is flanged as standard.

DRIVE SPECIFICATION
38 –14M –85mm
3020/55mm
80 – 14M – 85mm
3525/55mm
1778 –14M –85mm HTD belt giving 467mm centres.

ORDERING INSTRUCTIONS

A complete drive usually consists of five components: two pulleys, two Taper Lock bushes, and one belt.

(1) **Pulleys.** The eight digit pulley code is given on the dimension pages 102 to 104.

(2) **Taper Lock Bushes.** The eight digit codes are given on the Taper Lock Shaft Fixings pages 126 & 127.

(3) **Belt.** The belt code is given on page 91.

Example: The drive selection above would be ordered as :

Driving Pulley	38–14M–85mm	Code 043 R 0038
Taper Lock Bush	3020/55mm	Code 029 P 0055
Driven Pulley	80–14M–85mm	Code 043 R 0080
Taper Lock Bush	3525/55mm	Code 029 J 0055
Belt	1778–14M–85mm	Code 278 R 0177



POWER RATINGS (KW) FOR 15mm WIDE 5M BELT

Rev/min of small pulley	Number of grooves											
	28	**32**	**34**	**36**	**38**	**40**	**44**	**48**	**56**	**64**	**72**	**80**
20	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.06	0.06	0.06	0.08
40	0.04	0.06	0.06	0.06	0.06	0.08	0.08	0.09	0.09	0.11	0.13	0.15
60	0.06	0.08	0.08	0.09	0.09	0.09	0.11	0.13	0.15	0.17	0.19	0.23
100	0.09	0.11	0.13	0.13	0.15	0.17	0.19	0.21	0.25	0.28	0.32	0.36
200	0.21	0.25	0.26	0.28	0.30	0.32	0.38	0.43	0.51	0.59	0.64	0.72
300	0.26	0.32	0.36	0.38	0.42	0.43	0.51	0.57	0.68	0.77	0.87	0.96
400	0.34	0.40	0.43	0.47	0.51	0.55	0.62	0.70	0.83	0.95	1.06	1.17
500	0.40	0.47	0.51	0.55	0.59	0.64	0.72	0.81	0.96	1.10	1.25	1.38
600	0.45	0.55	0.59	0.62	0.68	0.72	0.81	0.93	1.10	1.25	1.42	1.57
720	**0.51**	**0.62**	**0.66**	**0.72**	**0.77**	**0.81**	**0.95**	**1.06**	**1.25**	**1.42**	**1.61**	**1.78**
800	0.57	0.66	0.72	0.77	0.83	0.89	1.00	1.13	1.34	1.53	1.72	1.91
960	**0.64**	**0.76**	**0.79**	**0.83**	**0.89**	**0.95**	**1.15**	**1.29**	**1.53**	**1.74**	**1.95**	**2.15**
1000	0.66	0.79	0.87	0.91	0.98	1.04	1.19	1.32	1.57	1.80	2.00	2.23
1200	0.76	0.89	0.96	1.04	1.12	1.19	1.34	1.49	1.78	2.02	2.27	2.46
1440	**0.87**	**1.02**	**1.12**	**1.19**	**1.27**	**1.36**	**1.53**	**1.70**	**2.00**	**2.29**	**2.57**	**2.84**
1600	0.95	1.12	1.19	1.29	1.36	1.46	1.64	1.83	2.11	2.46	2.76	3.06
2000	1.12	1.30	1.40	1.49	1.61	1.70	1.91	2.14	2.51	2.85	3.19	3.52
2400	1.27	1.47	1.59	1.70	1.83	1.97	2.17	2.40	2.84	3.21	3.57	3.93
2880	**1.44**	**1.70**	**1.83**	**1.97**	**2.08**	**2.19**	**2.44**	**2.70**	**3.16**	**3.57**	**4.01**	**4.33**
4000	1.81	2.12	2.27	2.40	2.55	2.70	3.01	3.31	3.80	4.23	4.61	4.91
5000	2.10	2.44	2.59	2.76	2.91	3.08	3.38	3.69	4.18	4.54	4.80	4.95
6000	2.36	2.70	2.87	3.04	3.19	3.36	3.67	3.93	4.35	4.55	4.59	4.46
8000	2.76	3.10	3.25	3.38	3.52	3.65	3.84	3.97	3.97	3.55		
10000	2.99	3.23	3.31	3.40	3.44	3.48	3.44	3.27				

BELT LENGTH CORRECTION FACTORS (multiplier)

Belt Length (mm)	305 - 400	450 - 500	575 - 800	890 -1200	1270 - 2250
Correction Factor	0.8	0.9	1.0	1.1	1.2

BELT WIDTH FACTORS

Belt width mm	9	15
Width factor	0.53	1.00

POWER RATINGS (KW) FOR 20mm WIDE 8M BELT

Rev/min of small pulley	Number of grooves															
	22	**24**	**26**	**28**	**30**	**32**	**34**	**36**	**38**	**40**	**44**	**48**	**56**	**64**	**72**	**80**
10	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.11
20	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11	0.11	0.12	0.14	0.16	0.18	0.20	0.23
50	0.08	0.09	0.11	0.13	0.16	0.18	0.21	0.23	0.27	0.28	0.31	0.34	0.40	0.45	0.51	0.56
100	0.16	0.19	0.22	0.27	0.31	0.36	0.41	0.47	0.54	0.56	0.62	0.68	0.79	0.90	1.02	1.13
200	0.33	0.37	0.45	0.53	0.62	0.72	0.82	0.93	1.05	1.13	1.24	1.34	1.54	1.73	1.93	2.12
300	0.49	0.53	0.65	0.77	0.90	1.04	1.19	1.34	1.51	1.64	1.78	1.93	2.21	2.50	2.77	3.05
400	0.65	0.71	0.84	0.99	1.16	1.34	1.54	1.74	1.96	2.12	2.31	2.50	2.87	3.23	3.59	3.94
500	0.81	0.89	1.02	1.21	1.42	1.64	1.88	2.13	2.40	2.59	2.82	3.05	3.50	3.94	4.37	4.80
600	0.98	1.07	1.21	1.43	1.68	1.94	2.21	2.51	2.82	3.05	3.32	3.59	4.11	4.63	5.13	5.63
720		**1.28**	**1.42**	**1.69**	**1.98**	**2.28**	**2.61**	**2.94**	**3.32**	**3.59**	**3.90**	**4.22**	**4.83**	**5.43**	**6.02**	**6.60**
800		1.42	1.56	1.85	2.17	2.50	2.86	3.24	3.64	3.94	4.28	4.63	5.30	5.95	6.60	7.23
960				**2.18**	**2.55**	**2.94**	**3.36**	**3.81**	**4.28**	**4.62**	**5.03**	**5.43**	**6.21**	**6.97**	**7.72**	**8.44**
1000				2.26	2.64	3.05	3.49	3.95	4.44	4.80	5.22	5.63	6.44	7.23	7.99	8.74
1200				2.65	3.11	3.59	4.09	4.63	5.21	5.63	6.12	6.60	7.53	8.44	9.32	10.17
1440					**3.65**	**4.21**	**4.80**	**5.43**	**6.12**	**6.60**	**7.16**	**7.72**	**8.79**	**9.83**	**10.82**	**11.79**
1600						4.61	5.26	5.95	6.70	7.23	7.84	8.44	9.61	10.72	11.79	12.80
2000						5.59	6.37	7.21	8.11	8.74	9.47	10.17	11.53	12.80	13.99	15.08
2500							7.69	8.69	9.77	10.52	11.36	12.17	13.70	15.08	16.32	17.40
2880							**8.63**	**9.76**	**10.98**	**11.82**	**12.73**	**13.59**	**15.18**	**16.58**	**17.76**	**18.69**
3500								11.36	12.75	13.70	14.68	15.60	17.20	18.47		
4000										15.08	16.09	16.99	18.47			

BELT LENGTH CORRECTION FACTORS (multiplier)

Belt Length (mm)	480 - 600	640 - 880	960 - 1200	1280 - 1760	1800 - 2800
Correction Factor	0.8	0.9	1.0	1.1	1.2

BELT WIDTH FACTORS

Belt width mm	20	30	50	85
Width factor	1.00	1.58	2.73	4.29

POWER RATINGS (KW) FOR 40MM WIDE 14M BELT

Rev/min of small pulley	Number of grooves										
	28	**29**	**30**	**32**	**34**	**36**	**38**	**40**	**44**	**48**	**56**
10	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.40	0.40	0.40	0.50
20	0.40	0.40	0.40	0.50	0.60	0.60	0.70	0.70	0.80	0.90	1.10
40	0.70	0.80	0.80	1.00	1.10	1.20	1.40	1.40	1.60	1.80	2.10
60	1.10	1.20	1.30	1.50	1.70	1.90	2.00	2.20	2.40	2.70	3.20
100	1.80	1.90	2.10	2.40	2.80	3.10	3.40	3.60	4.00	4.40	5.20
200	3.60	3.90	4.20	4.80	5.50	6.20	6.80	7.20	8.00	8.90	10.50
300	4.90	5.30	5.70	6.60	7.50	8.50	9.20	9.70	10.80	12.00	14.20
400	6.10	6.60	7.10	8.20	9.30	10.50	11.30	12.00	13.30	14.70	17.40
500	7.20	7.80	8.40	9.60	11.00	12.30	13.30	14.10	15.60	17.20	20.20
600	8.20	8.90	9.50	11.00	12.50	14.00	15.10	15.90	17.60	19.40	22.70
720	**9.30**	**10.10**	**10.80**	**12.50**	**14.10**	**15.80**	**17.00**	**18.00**	**18.80**	**21.80**	**25.40**
800	10.00	10.80	11.60	13.40	15.10	17.00	18.30	19.30	21.20	23.20	27.00
960	**11.30**	**12.20**	**13.10**	**15.00**	**17.00**	**19.10**	**20.50**	**21.60**	**23.70**	**25.80**	**29.80**
1000	11.60	12.50	13.50	15.40	17.50	19.60	21.00	22.10	24.30	26.50	30.50
1200	13.10	14.10	15.10	17.30	19.50	21.80	23.40	24.50	26.80	29.10	33.20
1440		**15.70**	**16.80**	**19.20**	**21.60**	**24.10**	**25.70**	**26.90**	**29.30**	**31.60**	**35.50**
1600			17.80	20.30	22.80	25.40	27.10	28.30	30.60	32.90	36.60
2000				22.50	25.20	28.00	29.60	30.80	32.80	34.70	37.30
2500					26.90	29.70	31.20	32.00	33.40	34.40	34.40
2880						**29.80**	**31.20**	**31.80**	**32.00**	**31.90**	

BELT LENGTH CORRECTION FACTORS (multiplier)

Belt Length (mm)	966 - 1190	1400 - 1610	1778 - 1890	2100 - 2450	2590 - 3150	3500 - 4578
Correction Factor	0.8	0.9	0.95	1.0	1.05	1.1

BELT WIDTH FACTORS

Belt width mm	40	55	85	115	170
Width factor	1.00	1.50	2.50	3.47	5.28

Note: The above table covers pulley sizes up to 56 grooves. Combinations are possible with larger sizes giving higher power ratings. Consult your local Authorised Distributor.

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 305 (61 teeth)	325 (65 teeth)	350 (70 teeth)	375 (75 teeth)	400 (80 teeth)	425 (85 teeth)	450 (90 teeth)	475 (95 teeth)	500 (100 teeth)	575 (115 teeth)	600 (120 teeth)	640 (128 teeth)	700 (140 teeth)	800 (160 teeth)	890 (178 teeth)	980 (196 teeth)	1100 (220 teeth)	1200 (240 teeth)	1420 (284 teeth)	Speed Ratio
1.00	28	28	83	93	105	118	130	143	155	168	180	218	230	250	280	330	375	420	480	530	640	1.00
1.00	32	32	73	83	95	108	120	133	145	158	170	208	220	240	270	320	365	410	470	520	630	1.00
1.00	34	34	–	78	90	103	115	128	140	153	165	203	215	235	265	315	360	405	465	515	625	1.00
1.00	36	36	–	–	85	98	110	123	135	148	160	198	210	230	260	310	355	400	460	510	620	1.00
1.00	38	38	–	–	80	93	105	118	130	143	155	193	205	225	255	305	350	395	455	505	615	1.00
1.00	40	40	–	–	–	88	100	113	125	138	150	188	200	220	250	300	345	390	450	500	610	1.00
1.00	44	44	–	–	–	78	90	103	115	128	140	178	190	210	240	290	335	380	440	490	600	1.00
1.00	48	48	–	–	–	–	–	93	105	118	130	168	180	200	230	280	325	370	430	480	590	1.00
1.00	56	56	–	–	–	–	–	–	–	98	110	148	160	180	210	260	305	350	410	460	570	1.00
1.00	64	64	–	–	–	–	–	–	–	–	–	128	140	160	190	240	285	330	390	440	550	1.00
1.00	72	72	–	–	–	–	–	–	–	–	–	–	120	140	170	220	265	310	370	420	530	1.00
1.00	80	80	–	–	–	–	–	–	–	–	–	–	–	–	150	200	245	290	350	400	510	1.00
1.05	38	40	–	–	–	90	102	115	127	140	152	190	203	222	252	302	347	392	452	502	612	1.05
1.06	36	38	–	–	82	95	107	120	132	145	157	195	208	227	257	307	352	397	457	507	617	1.06
1.06	34	36	–	75	87	100	112	125	137	150	162	200	213	232	262	312	357	402	462	512	622	1.06
1.06	32	34	70	80	92	105	117	130	142	155	167	205	218	237	267	317	362	407	467	517	627	1.06
1.09	44	48	–	–	–	–	–	98	110	123	135	172	185	205	235	285	330	375	435	485	595	1.09
1.10	40	44	–	–	–	82	95	108	120	133	145	182	195	215	245	295	340	385	445	495	605	1.10
1.11	36	40	–	–	80	92	105	118	130	143	155	192	205	225	255	305	350	395	455	505	615	1.11
1.11	72	80	–	–	–	–	–	–	–	–	–	–	–	–	160	210	255	300	360	410	520	1.11
1.12	34	38	–	–	85	97	110	123	135	148	160	197	210	230	260	310	355	400	460	510	620	1.12
1.13	32	36	–	77	90	103	115	128	140	153	165	202	215	235	265	315	360	405	465	515	625	1.13
1.13	64	72	–	–	–	–	–	–	–	–	–	–	130	150	180	230	275	320	380	430	540	1.13
1.13	80	90	–	–	–	–	–	–	–	–	–	–	–	–	–	187	232	277	337	387	497	1.13
1.14	28	32	77	87	100	113	125	135	150	163	175	212	225	245	275	325	370	415	475	525	635	1.14
1.14	56	64	–	–	–	–	–	–	–	–	–	137	150	170	200	250	295	340	400	450	560	1.14
1.16	38	44	–	–	–	85	97	110	122	135	147	185	197	217	247	297	342	387	447	497	607	1.16
1.17	48	56	–	–	–	–	–	–	–	107	120	157	170	190	220	270	315	360	420	470	580	1.17
1.18	34	40	–	–	82	95	107	120	132	145	157	195	207	227	257	307	352	397	457	507	617	1.18
1.19	32	38	–	75	87	100	112	125	137	150	162	200	212	232	262	312	357	402	462	512	622	1.19
1.20	40	48	–	–	–	77	90	102	115	127	140	177	190	210	240	290	335	380	440	490	600	1.20
1.21	28	34	75	85	97	110	122	135	147	160	172	210	222	242	272	322	367	412	472	522	632	1.21
1.22	36	44	–	–	–	87	100	112	125	137	150	187	200	220	250	300	345	390	450	500	610	1.22
1.25	32	40	–	–	85	97	110	122	135	147	160	197	210	230	260	310	355	400	460	510	620	1.25
1.25	64	80	–	–	–	–	–	–	–	–	–	–	119	139	170	220	265	310	370	420	530	1.25
1.25	72	90	–	–	–	–	–	–	–	–	–	–	–	–	147	197	242	287	347	397	507	1.25
1.26	38	48	–	–	–	80	92	105	117	130	142	180	192	212	242	292	337	382	442	492	602	1.26
1.27	44	56	–	–	–	–	–	87	100	112	125	162	175	195	225	275	320	365	425	475	585	1.29
1.29	28	36	72	82	95	107	120	132	145	157	170	207	220	240	270	320	465	410	470	520	630	1.29
1.29	56	72	–	–	–	–	–	–	–	–	–	127	139	159	190	240	285	330	390	440	550	1.29
1.29	34	44	–	–	–	90	102	115	127	140	152	190	202	222	252	302	347	392	452	502	612	1.29
1.33	36	48	–	–	–	82	95	107	120	132	145	182	195	215	245	295	340	385	445	495	605	1.33
1.33	48	64	–	–	–	–	–	–	–	97	109	147	160	180	210	260	305	350	410	460	570	1.33
1.36	28	38	70	80	92	105	117	130	142	155	167	205	217	237	267	317	362	407	467	517	627	1.36
1.38	32	44	–	–	79	92	105	117	130	142	155	192	205	225	255	305	350	395	455	505	615	1.38
1.40	40	56	–	–	–	–	–	92	104	117	129	167	180	200	230	280	325	370	430	480	590	1.40
1.40	80	112	–	–	–	–	–	–	–	–	–	–	–	–	–	–	203	249	309	359	469	1.40
1.41	64	90	–	–	–	–	–	–	–	–	–	–	–	–	156	206	252	297	357	407	517	1.41
1.41	34	48	–	–	–	84	97	109	122	135	147	185	197	217	247	297	342	387	447	497	607	1.41
1.43	28	40	–	77	89	102	115	127	140	152	165	202	215	235	265	315	360	405	465	515	625	1.43
1.43	56	80	–	–	–	–	–	–	–	–	–	–	129	149	179	229	274	319	380	430	540	1.43
1.45	44	64	–	–	–	–	–	–	–	101	114	152	164	194	214	265	310	355	415	465	575	1.45
1.47	38	56	–	–	–	–	–	94	107	119	132	169	182	202	232	282	327	372	432	482	592	1.47
1.50	32	48	–	–	–	87	99	112	124	137	149	187	200	220	250	300	345	390	450	500	610	1.50
1.50	48	72	–	–	–	–	–	–	–	–	–	136	149	169	199	249	294	339	400	450	560	1.50
1.56	36	56	–	–	–	–	–	96	109	122	134	172	184	204	234	283	330	375	435	485	595	1.56
1.56	72	112	–	–	–	–	–	–	–	–	–	–	–	–	–	167	213	238	319	369	475	1.56
1.57	28	44	–	–	84	97	109	122	134	147	159	197	210	230	260	310	355	400	460	510	620	1.57
1.60	40	64	–	–	–	–	–	–	–	106	118	156	169	189	219	269	314	359	420	470	580	1.60
1.61	56	90	–	–	–	–	–	–	–	–	–	–	–	135	165	216	261	306	367	417	527	1.61
1.64	44	72	–	–	–	–	–	–	–	–	–	141	153	174	204	254	299	344	404	454	565	1.64
1.65	34	56	–	–	–	–	–	98	111	124	136	174	187	207	237	297	332	377	437	487	597	1.65
1.67	48	80	–	–	–	–	–	–	–	–	–	125	138	158	198	239	284	329	389	439	549	1.67
1.68	38	64	–	–	–	–	–	–	–	108	121	159	171	191	222	272	317	362	422	472	582	1.68
1.70	80	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	215	276	327	438	1.70

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.



CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 305 (61 teeth)	325 (65 teeth)	350 (70 teeth)	375 (75 teeth)	400 (80 teeth)	425 (85 teeth)	450 (90 teeth)	475 (95 teeth)	500 (100 teeth)	575 (115 teeth)	600 (120 teeth)	640 (128 teeth)	700 (140 teeth)	800 (160 teeth)	890 (178 teeth)	980 (196 teeth)	1100 (220 teeth)	1200 (240 teeth)	1420 (284 teeth)	Speed Ratio
1.71	28	48	–	–	78	91	104	116	129	142	154	192	204	224	255	305	350	395	455	505	615	1.71
1.75	32	56	–	–	–	75	88	101	113	126	139	176	189	209	239	289	334	380	440	490	600	1.75
1.75	64	112	–	–	–	–	–	–	–	–	–	–	–	–	–	176	222	267	328	378	489	1.75
1.78	36	64	–	–	–	–	–	85	97	110	123	161	174	194	224	274	319	364	424	474	585	1.78
1.80	40	72	–	–	–	–	–	–	–	94	107	145	158	178	208	259	304	349	409	459	569	1.80
1.82	44	80	–	–	–	–	–	–	–	–	–	129	142	162	193	243	289	334	394	444	554	1.82
1.88	48	90	–	–	–	–	–	–	–	–	–	–	123	144	174	225	270	316	376	426	536	1.88
1.88	34	64	–	–	–	–	–	–	100	113	125	163	176	196	226	276	322	367	427	477	587	1.88
1.89	72	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	224	285	336	447	1.89
1.89	38	72	–	–	–	–	–	–	–	–	109	148	160	180	211	261	306	351	412	462	572	1.89
2.00	28	56	–	–	–	79	92	105	118	131	143	181	194	214	244	294	339	384	444	494	605	2.00
2.00	32	64	–	–	–	–	–	89	102	115	127	166	178	198	229	279	324	369	429	479	589	2.00
2.00	36	72	–	–	–	–	–	–	–	98	111	150	163	183	213	263	309	354	414	464	574	2.00
2.00	40	80	–	–	–	–	–	–	–	–	–	134	147	167	197	248	293	339	399	449	559	2.00
2.00	56	112	–	–	–	–	–	–	–	–	–	–	–	–	–	185	231	276	337	387	498	2.00
2.05	44	90	–	–	–	–	–	–	–	–	–	–	127	148	179	230	275	320	381	431	541	2.05
2.11	38	80	–	–	–	–	–	–	–	–	–	136	149	169	200	250	296	341	401	451	562	2.11
2.12	34	72	–	–	–	–	–	–	–	–	113	152	165	185	215	266	311	356	416	467	577	2.12
2.13	64	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	186	233	294	345	456	2.13
2.22	36	80	–	–	–	–	–	–	–	–	–	138	151	171	202	253	298	343	403	454	564	2.22
2.25	32	72	–	–	–	–	–	–	–	103	116	154	167	187	218	268	313	359	419	469	579	2.25
2.25	40	90	–	–	–	–	–	–	–	–	–	–	132	152	183	234	280	325	385	436	546	2.25
2.29	28	64	–	–	–	–	–	93	106	119	132	170	183	203	233	284	329	374	434	484	594	2.29
2.33	48	112	–	–	–	–	–	–	–	–	–	–	–	–	–	193	240	285	346	397	507	2.33
2.35	34	80	–	–	–	–	–	–	–	–	–	140	153	174	204	255	300	346	406	456	566	2.35
2.37	38	90	–	–	–	–	–	–	–	–	–	120	134	154	185	236	282	327	388	438	548	2.37
2.43	56	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	195	242	303	354	466	2.43
2.50	32	80	–	–	–	–	–	–	–	–	–	142	155	176	206	257	303	348	408	458	569	2.50
2.50	36	90	–	–	–	–	–	–	–	–	–	122	136	157	188	239	284	330	390	440	551	2.50
2.55	44	112	–	–	–	–	–	–	–	–	–	–	–	–	145	198	244	290	351	401	512	2.55
2.57	28	72	–	–	–	–	–	–	–	107	120	159	171	192	222	273	318	363	424	474	584	2.57
2.65	34	90	–	–	–	–	–	–	–	–	–	125	137	159	190	241	287	332	392	443	553	2.65
2.80	40	112	–	–	–	–	–	–	–	–	–	–	–	–	149	202	248	294	355	406	517	2.80
2.81	32	90	–	–	–	–	–	–	–	–	–	127	140	161	192	243	289	334	395	445	556	2.81
2.83	48	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	203	250	312	363	475	2.83
2.86	28	80	–	–	–	–	–	–	–	93	107	147	160	180	211	262	307	353	413	463	574	2.86
2.95	38	112	–	–	–	–	–	–	–	–	–	–	–	–	151	204	251	297	358	408	519	2.95
3.09	44	136	–	–	–	–	–	–	–	–	–	–	–	–	–	–	207	254	317	368	479	3.09
3.11	36	112	–	–	–	–	–	–	–	–	–	–	–	–	153	206	253	299	360	411	521	3.11
3.21	28	90	–	–	–	–	–	–	–	–	–	131	144	165	196	248	293	339	399	450	560	3.21
3.29	34	112	–	–	–	–	–	–	–	–	–	–	–	–	155	208	255	301	362	413	524	3.29
3.40	40	136	–	–	–	–	–	–	–	–	–	–	–	–	–	162	211	259	321	372	484	3.40
3.50	32	112	–	–	–	–	–	–	–	–	–	–	–	–	157	210	257	303	364	415	526	3.50
3.58	38	136	–	–	–	–	–	–	–	–	–	–	–	–	–	164	213	261	323	374	486	3.58
3.78	36	136	–	–	–	–	–	–	–	–	–	–	–	–	–	166	215	263	325	377	489	3.78
4.00	28	112	–	–	–	–	–	–	–	–	–	–	–	127	161	215	261	308	369	420	531	4.00
4.00	34	136	–	–	–	–	–	–	–	–	–	–	–	–	–	168	217	265	327	379	491	4.00
4.25	32	136	–	–	–	–	–	–	–	–	–	–	–	–	–	170	219	267	330	381	493	4.25
4.86	28	136	–	–	–	–	–	–	–	–	–	–	–	–	–	174	223	271	334	385	498	4.86

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.

Fenner Torque Drive Plus® *3* 8MXP & HTD 8M Drives

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 480 (60 teeth)	560 (70 teeth)	600 (75 teeth)	640 (80 teeth)	720 (90 teeth)	800 (100 teeth)	880 (110 teeth)	960 (120 teeth)	1040 (130 teeth)	1120 (140 teeth)	1200 (150 teeth)	1280 (160 teeth)	1440 (180 teeth)	1600 (200 teeth)	1760 (220 teeth)	1800 (225 teeth)	2000 (250 teeth)	2400 (300 teeth)	2600 (325 teeth)	2800 (350 teeth)	Speed Ratio
1.00	24	24	144	184	204	224	264	304	344	384	424	464	504	544	624	704	784	804	904	1104	1204	1304	1.00
1.00	26	26	136	176	196	216	256	296	336	376	416	456	496	536	616	696	776	796	896	1096	1196	1296	1.00
1.00	28	28	128	168	188	208	248	288	328	368	408	448	488	528	608	688	768	788	888	1088	1188	1288	1.00
1.00	30	30	120	160	180	200	240	280	320	360	400	440	480	520	600	680	760	780	880	1080	1180	1280	1.00
1.00	32	32	112	152	172	192	232	272	312	352	392	432	472	512	592	672	752	772	872	1072	1172	1272	1.00
1.00	34	34	104	144	164	184	224	264	304	344	384	424	464	504	584	664	744	764	864	1064	1164	1264	1.00
1.00	36	36	–	136	156	176	216	256	296	336	376	416	456	496	576	656	736	756	856	1056	1156	1256	1.00
1.00	38	38	–	128	148	168	208	248	288	328	368	408	448	488	568	648	728	748	848	1048	1148	1248	1.00
1.00	40	40	–	120	140	160	200	240	280	320	360	400	440	480	560	640	720	740	840	1040	1140	1240	1.00
1.00	44	44	–	–	–	144	184	224	264	304	344	384	424	464	544	624	704	724	824	1024	1124	1224	1.00
1.00	48	48	–	–	–	–	168	208	248	288	328	368	408	448	528	608	688	708	808	1008	1108	1208	1.00
1.00	56	56	–	–	–	–	–	176	216	256	296	336	376	416	496	576	656	676	776	976	1076	1176	1.00
1.00	64	64	–	–	–	–	–	–	184	224	264	304	344	384	464	544	624	644	744	944	1044	1144	1.00
1.00	72	72	–	–	–	–	–	–	–	–	232	272	312	352	432	512	592	612	712	912	1012	1112	1.00
1.00	80	80	–	–	–	–	–	–	–	–	–	240	280	320	400	480	560	580	680	880	980	1080	1.00
1.05	38	40	–	124	144	164	204	244	284	324	364	404	444	484	564	644	724	744	844	1044	1144	1244	1.05
1.06	36	38	–	132	152	172	212	252	292	332	372	412	452	492	572	652	732	752	852	1052	1152	1252	1.06
1.06	34	36	–	140	160	180	220	260	300	340	380	420	460	500	580	660	740	760	860	1060	1160	1260	1.06
1.06	32	34	108	148	168	188	228	268	308	348	388	428	468	508	588	668	748	768	868	1068	1168	1268	1.06
1.07	30	32	116	156	176	196	236	276	316	356	396	436	476	516	596	676	756	776	876	1076	1176	1276	1.07
1.07	28	30	124	164	184	204	244	284	324	364	404	444	484	524	604	684	764	784	884	1084	1184	1284	1.07
1.08	26	28	132	172	192	212	252	292	332	372	412	452	492	532	612	692	772	792	892	1092	1192	1292	1.08
1.08	24	26	140	180	200	220	260	300	340	380	420	460	500	540	620	700	780	800	900	1100	1200	1300	1.08
1.09	44	48	–	–	–	136	176	216	256	296	336	376	416	456	536	616	696	716	816	1016	1116	1216	1.09
1.10	40	44	–	–	132	152	192	232	272	312	352	392	432	472	552	632	712	732	832	1032	1132	1232	1.10
1.11	36	40	–	128	148	168	208	248	288	328	368	408	448	488	568	648	728	748	848	1048	1148	1248	1.11
1.11	72	80	–	–	–	–	–	–	–	–	216	256	296	336	416	496	576	596	696	896	996	1096	1.11
1.12	34	38	–	136	156	176	216	256	296	336	376	416	456	496	576	656	736	756	856	1056	1156	1256	1.12
1.13	32	36	104	144	164	184	224	264	304	344	384	424	464	504	584	664	744	764	864	1064	1164	1264	1.13
1.13	64	72	–	–	–	–	–	–	–	208	248	288	328	368	448	528	608	628	728	928	1028	1128	1.13
1.13	80	90	–	–	–	–	–	–	–	–	–	–	260	300	380	460	540	560	660	860	960	1060	1.13
1.13	30	34	112	152	172	192	232	272	312	352	392	432	472	512	592	672	752	772	872	1072	1172	1272	1.13
1.14	28	32	120	160	180	200	240	280	320	360	400	440	480	520	600	680	760	780	880	1080	1180	1280	1.14
1.14	56	64	–	–	–	–	–	–	200	240	280	320	360	400	480	560	640	660	760	960	1060	1160	1.14
1.15	26	30	128	168	188	208	248	288	328	368	408	448	488	528	608	688	768	788	888	1088	1188	1288	1.15
1.16	38	44	–	–	136	156	196	236	276	316	356	396	436	476	556	636	716	736	836	1036	1136	1236	1.16
1.17	24	28	136	176	196	216	256	296	336	376	416	456	496	536	616	696	776	796	896	1096	1196	1296	1.17
1.17	48	56	–	–	–	–	152	192	232	272	312	352	392	432	512	592	672	692	792	992	1092	1192	1.17
1.18	34	40	–	132	152	172	212	252	292	332	372	412	452	492	572	652	732	752	852	1052	1152	1252	1.18
1.19	32	38	–	140	160	180	220	260	300	340	380	420	460	500	580	660	740	760	860	1060	1160	1260	1.19
1.20	30	36	108	148	168	188	228	268	308	348	388	428	468	508	588	668	748	768	868	1068	1168	1268	1.20
1.20	40	48	–	–	–	144	184	224	264	304	344	384	424	464	544	624	704	724	824	1024	1124	1224	1.20
1.21	28	34	116	156	176	196	236	276	316	356	396	436	476	516	596	676	756	776	876	1076	1176	1276	1.21
1.22	36	44	–	120	140	160	200	240	280	320	360	400	440	480	560	640	720	740	840	1040	1140	1240	1.22
1.23	26	32	124	164	184	204	244	284	324	364	404	444	484	524	604	684	764	784	884	1084	1184	1284	1.23
1.25	24	30	132	172	192	212	252	292	332	372	412	452	492	532	612	692	772	792	892	1092	1192	1292	1.25
1.25	32	40	–	136	156	176	216	256	296	336	376	416	456	496	576	656	736	756	856	1056	1156	1256	1.25
1.25	64	80	–	–	–	–	–	–	–	–	231	271	311	351	432	512	592	612	712	912	1012	1112	1.25
1.25	72	90	–	–	–	–	–	–	–	–	–	235	275	315	395	475	556	576	676	876	976	1076	1.25
1.26	38	48	–	–	127	147	188	228	268	308	348	388	428	468	548	628	708	728	828	1028	1128	1228	1.26
1.27	30	38	103	144	164	184	224	264	304	344	384	424	464	504	584	664	744	764	864	1064	1164	1264	1.27
1.27	44	56	–	–	–	–	159	199	240	280	320	360	400	440	520	600	680	700	800	1000	1100	1200	1.27
1.29	28	36	112	152	172	192	232	272	312	352	392	432	472	512	592	672	752	772	872	1072	1172	1272	1.29
1.29	56	72	–	–	–	–	–	–	183	223	263	303	343	383	464	544	624	644	744	944	1044	1144	1.29
1.29	34	44	–	123	143	164	204	244	284	324	364	404	444	484	564	644	724	744	844	1044	1144	1244	1.29
1.31	26	34	120	160	180	200	240	280	320	360	400	440	480	520	600	680	760	780	880	1080	1180	1280	1.31
1.33	24	32	128	168	188	208	248	288	328	368	408	448	488	528	608	688	768	788	888	1088	1188	1288	1.33
1.33	30	40	–	139	159	180	220	260	300	340	380	420	460	500	580	660	740	760	860	1060	1160	1260	1.33
1.33	36	48	–	–	131	151	191	231	272	312	352	392	432	472	552	632	712	732	832	1032	1132	1232	1.33
1.33	48	64	–	–	–	–	–	175	215	255	295	335	375	416	496	576	656	676	776	976	1076	1176	1.33
1.36	28	38	107	147	168	188	228	268	308	348	388	428	468	508	588	668	748	768	868	1068	1168	1268	1.36
1.38	32	44	–	127	147	167	207	248	288	328	368	408	448	488	568	648	728	748	848	1048	1148	1248	1.38
1.38	26	36	115	155	176	196	236	276	316	356	396	436	476	516	596	676	756	776	876	1076	1176	1276	1.38
1.40	40	56	–	–	–	–	167	207	247	287	327	367	407	448	528	608	688	708	808	1008	1108	1208	1.40
1.40	80	112	–	–	–	–	–	–	–	–	–	–	–	–	334	414	494	514	615	815	915	1015	1.40

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.

Fenner Torque Drive Plus® *3* MXP & HTD 8M Drives



CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 480 (60 teeth)	560 (70 teeth)	600 (75 teeth)	640 (80 teeth)	720 (90 teeth)	800 (100 teeth)	880 (110 teeth)	960 (120 teeth)	1040 (130 teeth)	1120 (140 teeth)	1200 (150 teeth)	1280 (160 teeth)	1440 (180 teeth)	1600 (200 teeth)	1760 (220 teeth)	1800 (225 teeth)	2000 (250 teeth)	2400 (300 teeth)	2600 (325 teeth)	2800 (350 teeth)	Speed Ratio
1.41	64	90	–	–	–	–	–	–	–	–	–	250	290	330	411	491	571	591	691	891	991	1091	1.41
1.41	34	48	–	–	135	155	195	235	275	315	356	396	436	476	556	636	716	736	836	1036	1136	1236	1.41
1.42	24	34	123	164	184	204	244	284	324	364	404	444	484	524	604	684	764	784	884	1084	1184	1284	1.42
1.43	28	40	103	143	163	183	223	264	304	344	384	424	464	504	584	664	744	764	864	1064	1164	1264	1.43
1.43	56	80	–	–	–	–	–	–	–	206	246	286	327	367	447	527	607	627	727	927	1028	1128	1.43
1.45	44	64	–	–	–	–	–	182	223	263	303	343	383	423	503	583	664	684	784	984	1084	1184	1.45
1.46	26	38	111	151	171	191	231	272	312	352	392	432	472	512	592	672	752	772	872	1072	1172	1272	1.46
1.47	30	44	–	131	151	171	211	251	291	332	372	412	452	492	572	652	732	752	852	1052	1152	1252	1.47
1.47	38	56	–	–	–	–	170	211	251	291	331	371	411	451	532	612	692	712	812	1012	1112	1212	1.47
1.50	24	36	119	159	179	199	240	280	320	360	400	440	480	520	600	680	760	780	880	1080	1180	1280	1.50
1.50	32	48	–	118	139	159	199	239	279	319	359	399	440	480	560	640	720	740	840	1040	1140	1240	1.50
1.50	48	72	–	–	–	–	–	–	198	238	278	319	359	399	479	559	639	659	759	960	1060	1160	1.50
1.54	26	40	107	147	167	187	227	267	307	348	388	428	468	508	588	668	748	768	868	1068	1168	1268	1.54
1.56	36	56	–	–	–	134	174	214	255	295	335	375	415	455	535	615	696	716	816	1016	1116	1216	1.56
1.56	72	112	–	–	–	–	–	–	–	–	–	–	–	267	348	429	509	530	630	830	931	1031	1.56
1.57	28	44	–	134	155	175	215	255	295	335	375	416	456	496	576	656	736	756	856	1956	1156	1256	1.57
1.58	24	38	115	155	175	195	235	275	315	356	396	436	476	516	596	676	756	776	876	1076	1176	1276	1.58
1.60	30	48	–	122	142	162	203	243	283	323	363	403	443	483	564	644	724	744	844	1044	1144	1244	1.60
1.60	40	64	–	–	–	–	149	190	230	270	310	351	391	431	511	591	671	691	791	992	1092	1192	1.60
1.61	56	90	–	–	–	–	–	–	–	–	224	264	305	345	426	506	586	606	707	907	1007	1107	1.61
1.64	44	72	–	–	–	–	–	164	205	245	286	326	366	406	487	567	647	667	767	967	1067	1167	1.64
1.65	34	56	–	–	–	137	178	218	258	299	339	379	419	459	539	619	699	719	820	1020	1120	1220	1.65
1.67	24	40	110	151	171	191	231	271	311	351	391	432	472	512	592	672	752	772	872	1072	1172	1272	1.67
1.67	48	80	–	–	–	–	–	–	179	220	261	301	342	382	462	542	623	643	743	943	1043	1143	1.67
1.68	38	64	–	–	–	–	152	193	234	274	314	354	395	435	515	595	675	695	795	995	1095	1196	1.68
1.69	26	44	–	138	158	179	219	259	299	339	379	419	459	499	580	660	740	760	860	1060	1160	1260	1.69
1.71	28	48	–	125	146	166	206	247	287	327	367	407	447	487	567	647	728	748	848	1048	1148	1248	1.71
1.75	32	56	–	–	–	141	181	222	262	302	343	383	423	463	543	623	703	723	823	1024	1124	1224	1.75
1.75	64	112	–	–	–	–	–	–	–	–	–	–	240	281	363	444	524	545	645	846	946	1046	1.75
1.78	36	64	–	–	–	–	156	197	237	278	318	358	398	439	519	599	679	699	799	999	1099	1199	1.78
1.80	40	72	–	–	–	–	–	171	212	253	293	334	374	414	494	575	655	675	775	975	1075	1175	1.80
1.80	80	144	–	–	–	–	–	–	–	–	–	–	–	–	–	342	424	445	546	748	848	948	1.80
1.82	44	80	–	–	–	–	–	–	186	227	268	309	349	389	470	550	630	650	751	951	1051	1151	1.82
1.83	24	44	–	142	162	182	223	263	303	343	383	423	463	503	583	664	744	764	864	1064	1164	1264	1.83
1.85	26	48	–	129	149	170	210	250	291	331	371	411	451	491	571	651	731	751	852	1052	1152	1252	1.85
1.87	30	56	–	–	–	144	185	226	266	306	346	387	427	467	547	627	707	727	827	1027	1128	1228	1.87
1.88	48	90	–	–	–	–	–	–	–	197	238	279	320	360	441	521	602	622	722	922	1023	1123	1.88
1.88	34	64	–	–	–	–	159	200	241	281	322	362	402	442	523	603	683	703	803	1003	1103	1203	1.88
1.89	38	72	–	–	–	–	–	175	216	256	297	337	378	418	498	578	659	679	779	979	1079	1179	1.89
2.00	24	48	–	132	153	173	214	254	294	335	375	415	455	495	575	655	735	755	855	1056	1156	1256	2.00
2.00	28	56	–	–	127	148	189	229	270	310	350	390	431	471	551	631	711	731	831	1031	1131	1231	2.00
2.00	32	64	–	–	–	–	163	204	245	285	325	366	406	446	526	607	687	707	807	1007	1107	1207	2.00
2.00	36	72	–	–	–	–	–	178	219	260	301	341	381	422	502	582	662	682	783	983	1083	1183	2.00
2.00	40	80	–	–	–	–	–	–	193	234	275	316	356	397	477	558	638	658	758	959	1059	1159	2.00
2.00	56	112	–	–	–	–	–	–	–	–	–	–	254	295	377	458	539	559	660	861	961	1062	2.00
2.00	72	144	–	–	–	–	–	–	–	–	–	–	–	–	–	356	438	459	561	762	863	964	2.00
2.05	44	90	–	–	–	–	–	–	–	204	245	286	327	367	448	529	609	629	730	930	1030	1130	2.05
2.10	80	168	–	–	–	–	–	–	–	–	–	–	–	–	–	–	367	388	491	695	796	897	2.10
2.11	38	80	–	–	–	–	–	–	197	238	279	320	360	400	481	561	642	662	762	963	1063	1163	2.11
2.12	34	72	–	–	–	–	–	182	223	264	304	345	385	425	506	586	666	686	787	987	1087	1187	2.12
2.13	30	64	–	–	–	–	166	207	248	289	329	369	410	450	530	610	691	711	811	1011	1111	1211	2.13
2.15	26	56	–	–	130	151	192	233	273	314	354	394	434	474	555	635	715	735	835	1035	1135	1235	2.15
2.22	36	80	–	–	–	–	–	–	200	242	282	323	364	404	485	565	646	666	766	966	1067	1167	2.22
2.25	32	72	–	–	–	–	–	185	226	267	308	348	389	429	509	590	670	690	790	991	1091	1191	2.25
2.25	40	90	–	–	–	–	–	–	–	210	252	293	334	375	456	536	617	637	737	938	1038	1138	2.25
2.25	64	144	–	–	–	–	–	–	–	–	–	–	–	–	286	370	453	473	575	777	878	979	2.25
2.29	28	64	–	–	–	–	170	211	252	292	333	373	413	454	534	614	694	715	815	1015	1115	1215	2.29
2.33	24	56	–	–	134	155	196	236	277	317	358	398	438	478	559	639	719	739	839	1039	1139	1239	2.33
2.33	48	112	–	–	–	–	–	–	–	–	–	225	268	309	392	473	554	574	675	876	977	1077	2.33
2.33	72	168	–	–	–	–	–	–	–	–	–	–	–	–	–	–	380	401	505	709	811	912	2.33
2.35	34	80	–	–	–	–	–	161	204	245	286	327	367	408	488	569	649	669	770	970	1070	1171	2.35
2.37	38	90	–	–	–	–	–	–	–	214	255	297	338	378	459	540	620	641	741	942	1042	1142	2.37
2.40	30	72	–	–	–	–	146	188	230	271	311	352	392	433	513	594	674	694	794	995	1095	1195	2.40
2.40	80	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	432	640	742	844	2.40
2.46	26	64	–	–	–	131	173	215	255	296	337	377	417	457	538	618	698	718	819	1019	1119	1219	2.46

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 480 (60 teeth)	560 (70 teeth)	600 (75 teeth)	640 (80 teeth)	720 (90 teeth)	800 (100 teeth)	880 (110 teeth)	960 (120 teeth)	1040 (130 teeth)	1120 (140 teeth)	1200 (150 teeth)	1280 (160 teeth)	1440 (180 teeth)	1600 (200 teeth)	1760 (220 teeth)	1800 (225 teeth)	2000 (250 teeth)	2400 (300 teeth)	2600 (325 teeth)	2800 (350 teeth)	Speed Ratio
2.50	32	80	–	–	–	–	–	165	207	248	290	330	371	411	492	573	653	673	774	974	1074	1174	2.50
2.50	36	90	–	–	–	–	–	–	–	217	259	300	341	382	463	544	624	644	745	946	1046	1146	2.50
2.55	44	112	–	–	–	–	–	–	–	–	–	232	274	316	399	480	561	582	683	884	984	1085	2.55
2.57	28	72	–	–	–	–	150	192	233	274	315	356	396	436	517	597	678	698	798	998	1099	1199	2.57
2.57	56	144	–	–	–	–	–	–	–	–	–	–	–	–	299	384	467	487	589	792	893	994	2.57
2.63	64	168	–	–	–	–	–	–	–	–	–	–	–	–	–	–	394	415	519	724	825	927	2.63
2.65	34	90	–	–	–	–	–	–	178	220	262	304	345	385	467	547	628	648	749	949	1050	1150	2.65
2.67	24	64	–	–	–	134	177	218	259	300	340	381	421	461	542	622	702	722	822	1023	1123	1223	2.65
2.67	30	80	–	–	–	–	–	168	210	252	293	334	375	415	496	576	657	677	777	978	1078	1178	2.67
2.67	72	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	446	654	757	858	2.67
2.77	26	72	–	–	–	–	153	195	237	278	319	359	400	440	521	601	681	702	802	1002	1102	1203	2.77
2.80	40	112	–	–	–	–	–	–	–	–	–	238	281	323	406	487	569	589	690	891	992	1092	2.80
2.81	32	90	–	–	–	–	–	–	181	224	266	307	348	389	470	551	632	652	752	953	1053	1154	2.81
2.86	28	80	–	–	–	–	–	171	214	255	297	338	378	419	500	580	661	681	781	982	1082	1182	2.86
2.95	38	112	–	–	–	–	–	–	–	–	–	242	284	326	409	491	572	593	694	895	996	1096	2.95
3.00	24	72	–	–	–	–	156	199	240	281	322	363	403	444	524	605	685	705	806	1006	1106	1206	3.00
3.00	30	90	–	–	–	–	–	–	184	227	269	311	352	393	474	555	635	656	756	957	1057	1157	3.00
3.00	48	144	–	–	–	–	–	–	–	–	–	–	–	–	312	397	480	501	604	807	908	1009	3.00
3.00	56	168	–	–	–	–	–	–	–	–	–	–	–	–	–	320	407	428	533	738	840	941	3.00
3.00	64	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	350	459	668	771	873	3.00
3.08	26	80	–	–	–	–	–	174	217	259	300	341	382	422	503	584	664	685	785	986	1086	1186	3.08
3.11	36	112	–	–	–	–	–	–	–	–	–	245	288	330	413	495	576	596	697	899	999	1100	3.11
3.21	28	90	–	–	–	–	–	–	187	230	273	314	355	396	477	558	639	659	760	961	1061	1161	3.21
3.27	44	144	–	–	–	–	–	–	–	–	–	–	–	–	319	404	487	508	611	814	915	1016	3.27
3.29	34	112	–	–	–	–	–	–	–	–	204	248	291	333	416	498	579	600	701	903	1003	1104	3.29
3.33	24	80	–	–	–	–	–	178	220	262	304	345	385	426	507	588	668	688	789	989	1090	1190	3.33
3.43	56	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	340	363	472	682	785	887	3.43
3.46	26	90	–	–	–	–	–	–	191	234	276	318	359	400	481	562	643	663	764	985	1065	1165	3.46
3.50	32	112	–	–	–	–	–	–	–	–	207	251	294	337	420	502	583	603	705	906	1007	1107	3.50
3.50	48	168	–	–	–	–	–	–	–	–	–	–	–	–	–	333	420	442	547	752	854	956	3.50
3.60	40	144	–	–	–	–	–	–	–	–	–	–	–	–	325	411	494	515	618	821	922	1023	3.60
3.73	30	112	–	–	–	–	–	–	–	–	210	255	298	340	423	505	587	607	708	910	1011	1111	3.73
3.75	24	90	–	–	–	–	–	–	194	237	279	321	362	403	485	566	647	667	767	968	1069	1169	3.75
3.79	38	144	–	–	–	–	–	–	–	–	–	–	–	–	328	414	498	518	621	825	926	1027	3.79
3.82	44	168	–	–	–	–	–	–	–	–	–	–	–	–	–	339	427	448	553	760	862	963	3.82
4.00	28	112	–	–	–	–	–	–	–	–	213	258	301	343	427	509	590	611	712	914	1014	1115	4.00
4.00	36	144	–	–	–	–	–	–	–	–	–	–	–	–	331	417	501	522	625	829	930	1031	4.00
4.00	48	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	352	375	485	696	799	901	4.00
4.20	40	168	–	–	–	–	–	–	–	–	–	–	–	–	–	346	433	455	560	767	869	970	4.20
4.24	34	144	–	–	–	–	–	–	–	–	–	–	–	244	335	421	505	525	628	832	933	1035	4.24
4.31	26	112	–	–	–	–	–	–	–	–	216	261	304	347	430	512	594	614	716	917	1018	1119	4.31
4.36	44	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	358	381	492	703	806	908	4.36
4.42	38	168	–	–	–	–	–	–	–	–	–	–	–	–	–	349	437	459	564	770	872	974	4.42
4.50	32	144	–	–	–	–	–	–	–	–	–	–	–	247	338	424	508	529	632	836	937	1038	4.50
4.67	24	112	–	–	–	–	–	–	–	–	219	264	308	350	434	516	597	618	719	921	1022	1122	4.67
4.67	36	168	–	–	–	–	–	–	–	–	–	–	–	–	–	352	440	461	567	774	876	978	4.67
4.80	30	144	–	–	–	–	–	–	–	–	–	–	–	250	341	427	511	532	635	839	941	1042	4.80
4.80	40	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	365	388	498	710	813	916	4.90
4.94	34	168	–	–	–	–	–	–	–	–	–	–	–	–	–	355	443	465	570	777	879	981	4.94
5.05	38	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	368	391	502	713	816	919	5.05
5.14	28	144	–	–	–	–	–	–	–	–	–	–	–	253	344	431	515	536	639	843	944	1046	5.14
5.25	32	168	–	–	–	–	–	–	–	–	–	–	–	–	–	358	446	468	574	781	883	995	5.25
5.33	36	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	371	394	505	716	820	923	5.33
5.54	26	144	–	–	–	–	–	–	–	–	–	–	–	256	348	434	518	539	642	847	948	1049	5.54
5.60	30	168	–	–	–	–	–	–	–	–	–	–	–	–	–	361	450	471	577	784	887	988	5.60
5.65	34	192	–	–	–	=	–	–	–	–	–	–	–	–	–	–	374	397	508	720	823	926	5.65
6.00	24	144	–	–	–	–	–	–	–	–	–	–	–	259	351	437	522	542	646	850	952	1053	6.00
6.00	28	168	–	–	–	–	–	–	–	–	–	–	–	–	269	364	453	475	581	785	890	992	6.00
6.00	32	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	377	400	511	723	827	930	6.00
6.40	30	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	380	403	515	727	830	933	6.40
6.46	26	168	–	–	–	–	–	–	–	–	–	–	–	–	272	368	478	456	584	791	894	996	6.46
6.86	28	192	–	–	–	–	–	–	–	–	–	–	–	–	–	–	383	406	519	730	834	937	6.86

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.



Fenner Torque Drive Plus® *3* 14MXP & HTD 14M Drives

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 966 (69 teeth)	1190 (85 teeth)	1400 (100 teeth)	1610 (115 teeth)	1778 (127 teeth)	1890 (135 teeth)	2100 (150 teeth)	2310 (165 teeth)	2450 (175 teeth)	2590 (185 teeth)	2800 (200 teeth)	3150 (225 teeth)	3500 (250 teeth)	3850 (275 teeth)	4326 (309 teeth)	4578 (327 teeth)	Speed Ratio
1.00	28	28	287	399	504	609	693	749	854	959	1029	1099	1204	1379	1554	1729	1967	2093	1.00
1.00	29	29	280	392	497	602	686	742	847	952	1022	1092	1197	1372	1547	1722	1960	2086	1.00
1.00	30	30	273	385	490	595	679	735	840	945	1015	1085	1190	1365	1540	1715	1953	2079	1.00
1.00	32	32	259	371	476	581	665	721	826	931	1001	1071	1176	1351	1526	1701	1939	2065	1.00
1.00	34	34	245	357	462	567	651	707	812	917	987	1057	1162	1337	1512	1687	1925	2051	1.00
1.00	36	36	231	343	448	553	637	693	798	903	973	1043	1148	1323	1498	1673	1911	2037	1.00
1.00	38	38	217	329	434	539	623	679	784	889	959	1029	1134	1309	1484	1659	1897	2023	1.00
1.00	40	40	203	315	420	525	609	665	770	875	945	1015	1120	1295	1470	1645	1883	2009	1.00
1.00	44	44	–	287	392	497	581	637	742	847	917	987	1092	1267	1442	1617	1855	1981	1.00
1.00	48	48	–	259	364	469	553	609	714	819	889	959	1064	1239	1414	1589	1827	1953	1.00
1.00	56	56	–	–	308	413	497	553	658	763	833	903	1008	1183	1358	1533	1771	1897	1.00
1.03	29	30	276	388	493	598	682	738	843	948	1018	1088	1193	1368	1543	1718	1956	2082	1.00
1.04	28	29	283	395	500	605	689	745	850	955	1025	1095	1200	1375	1550	1725	1963	2089	1.04
1.05	38	40	210	322	427	532	616	672	777	882	952	1022	1127	1302	1477	1652	1890	2016	1.05
1.06	36	38	224	336	441	546	630	686	791	896	966	1036	1141	1316	1491	1666	1904	2030	1.06
1.06	34	36	238	350	455	560	644	700	805	910	980	1050	1155	1330	1505	1680	1918	2044	1.06
1.06	32	34	252	364	469	574	658	714	819	924	994	1064	1169	1344	1519	1694	1932	2058	1.06
1.07	30	32	266	378	483	588	672	728	833	938	1008	1078	1183	1358	1533	1708	1946	2072	1.07
1.07	28	30	280	392	497	602	686	742	847	952	1022	1092	1197	1372	1547	1722	1960	2086	1.07
1.09	44	48	–	273	378	483	567	623	728	833	903	973	1078	1253	1428	1603	1841	1967	1.09
1.10	40	44	–	301	406	511	595	651	756	861	931	1001	1106	1281	1456	1631	1869	1995	1.10
1.10	29	32	269	381	486	591	675	731	836	941	1011	1081	1186	1361	1536	1711	1949	2075	1.10
1.11	36	40	217	329	434	539	623	679	784	889	959	1029	1134	1309	1484	1659	1897	2023	1.11
1.12	34	38	231	343	448	553	637	693	798	903	973	1043	1148	1323	1498	1673	1911	2037	1.12
1.13	32	36	245	357	462	567	651	707	812	917	987	1057	1162	1337	1512	1687	1925	2051	1.13
1.13	30	34	259	371	476	581	665	721	826	931	1001	1071	1176	1351	1526	1701	1939	2065	1.13
1.14	28	32	273	385	490	595	679	735	840	945	1015	1085	1190	1365	1540	1715	1953	2079	1.14
1.14	56	64	–	–	–	385	469	525	630	735	805	875	980	1155	1330	1505	1743	1869	1.14
1.16	38	44	–	308	413	518	602	658	763	868	938	1008	1113	1288	1463	1638	1876	2002	1.16
1.17	48	56	–	–	336	441	525	581	686	791	861	931	1036	1211	1386	1561	1799	1925	1.17
1.17	29	34	262	374	479	584	668	724	829	934	1004	1074	1179	1354	1529	1704	1942	2068	1.17
1.18	34	40	224	336	441	546	630	686	791	896	966	1036	1141	1316	1491	1666	1904	2030	1.18
1.19	32	38	238	350	455	560	644	700	805	910	980	1050	1155	1330	1505	1680	1918	2044	1.19
1.20	30	36	252	364	469	574	658	714	819	924	994	1064	1169	1344	1519	1694	1932	2058	1.20
1.20	40	48	–	286	392	497	581	637	742	847	917	987	1092	1267	1442	1617	1855	1981	1.20
1.21	28	34	266	378	483	588	672	728	833	938	1008	1078	1183	1358	1533	1708	1946	2072	1.21
1.22	36	44	202	314	420	525	609	665	770	875	945	1015	1120	1295	1470	1645	1883	2009	1.22
1.24	29	36	255	367	472	577	661	717	822	927	997	1067	1172	1347	1522	1697	1935	2061	1.24
1.25	32	40	230	343	448	553	637	693	798	903	973	1043	1148	1323	1498	1673	1911	2037	1.25
1.26	38	48	–	293	398	504	588	644	749	854	924	994	1099	1274	1449	1624	1862	1988	1.26
1.27	30	38	244	357	462	567	651	707	812	917	987	1057	1162	1337	1512	1687	1925	2051	1.27
1.27	44	56	–	244	349	454	538	594	699	805	875	945	1050	1225	1400	1575	1813	1939	1.27
1.29	28	36	258	371	476	581	665	721	826	931	1001	1071	1176	1351	1526	1701	1939	2065	1.29
1.29	56	72	–	–	–	355	440	496	601	706	776	846	951	1126	1302	1477	1715	1841	1.29
1.29	34	44	209	321	426	532	616	672	777	882	952	1022	1127	1302	1477	1652	1890	2016	1.29
1.31	29	38	248	360	465	570	654	710	815	920	990	1060	1165	1340	1515	1690	1928	2054	1.31
1.33	30	40	237	349	454	560	644	700	805	910	980	1050	1155	1330	1505	1680	1918	2044	1.33
1.33	36	48	–	300	405	510	594	650	756	861	931	1001	1106	1281	1456	1631	1869	1995	1.33
1.33	48	64	–	–	306	411	496	552	657	762	832	902	1007	1182	1358	1533	1771	1897	1.33
1.36	28	38	251	363	468	574	658	714	819	924	994	1064	1169	1344	1519	1694	1932	2058	1.36
1.38	32	44	215	328	433	538	622	678	784	889	959	1029	1134	1309	1484	1659	1897	2023	1.38
1.38	29	40	240	353	458	563	647	703	808	913	983	1053	1158	1333	1508	1683	1921	2047	1.38
1.40	40	56	–	257	362	468	552	608	713	818	888	958	1063	1238	1414	1589	1827	1953	1.40
1.41	34	48	–	306	412	517	601	657	762	867	937	1008	1113	1288	1463	1638	1876	2002	1.41
1.43	28	40	244	356	461	566	650	706	812	917	987	1057	1162	1337	1512	1687	1925	2051	1.43

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Fenner Torque Drive Plus® *3* 14MXP & HTD 14M Drives

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 966 (69 teeth)	1190 (85 teeth)	1400 (100 teeth)	1610 (115 teeth)	1778 (127 teeth)	1890 (135 teeth)	2100 (150 teeth)	2310 (165 teeth)	2450 (175 teeth)	2590 (185 teeth)	2800 (200 teeth)	3150 (225 teeth)	3500 (250 teeth)	3850 (275 teeth)	4326 (309 teeth)	4578 (327 teeth)	Speed Ratio
1.43	56	80	–	–	–	325	410	466	571	677	747	817	922	1098	1273	1448	1686	1812	1.43
1.45	44	64	–	–	319	425	509	565	671	776	846	916	1021	1196	1371	1546	1784	1910	1.45
1.47	30	44	222	335	440	545	629	685	790	895	965	1036	1141	1316	1491	1666	1904	2030	1.47
1.47	38	56	–	263	369	474	559	615	720	825	895	965	1070	1245	1420	1595	1834	1960	1.47
1.50	32	48	200	313	418	524	608	664	769	874	944	1014	1119	1295	1470	1645	1883	2009	1.50
1.50	48	72	–	–	–	381	466	522	628	733	803	873	979	1154	1329	1504	1742	1868	1.50
1.52	29	44	225	338	443	548	633	689	794	899	969	1039	1144	1319	1494	1669	1907	2033	1.52
1.56	36	56	–	269	375	481	565	621	727	832	902	972	1077	1252	1427	1602	1840	1966	1.56
1.57	28	44	228	341	447	552	636	692	797	902	972	1042	1147	1323	1498	1673	1911	2037	1.57
1.60	30	48	206	319	425	530	615	671	776	881	951	1021	1126	1301	1476	1652	1890	2016	1.60
1.60	40	64	–	–	332	438	522	579	684	789	859	929	1035	1210	1385	1560	1798	1924	1.60
1.61	56	90	–	–	–	–	370	427	534	640	710	780	886	1061	1237	1412	1650	1776	1.61
1.64	44	72	–	–	287	394	479	535	641	746	817	887	992	1167	1343	1518	1756	1882	1.64
1.65	34	56	–	276	382	488	572	628	733	839	909	979	1084	1259	1434	1609	1847	1973	1.65
1.66	29	48	209	323	428	534	618	674	779	884	955	1025	1130	1305	1480	1655	1893	2019	1.66
1.67	48	80	–	–	–	350	435	492	598	703	774	844	949	1125	1300	1475	1714	1840	1.67
1.68	38	64	–	–	338	444	529	585	691	796	866	936	1041	1217	1392	1567	1805	1931	1.68
1.71	28	48	212	326	432	537	621	678	783	888	958	1028	1133	1308	1483	1658	1896	2023	1.71
1.75	32	56	–	282	388	494	579	635	740	845	915	986	1091	1266	1441	1616	1854	1980	1.75
1.78	36	64	–	–	344	451	535	592	697	803	873	943	1048	1223	1399	1574	1812	1938	1.78
1.80	40	72	–	–	300	407	492	548	654	760	830	900	1005	1181	1356	1531	1770	1896	1.80
1.82	44	80	–	–	–	362	448	505	611	717	787	857	963	1138	1314	1489	1727	1853	1.82
1.87	30	56	–	288	395	501	585	641	747	852	922	992	1097	1273	1448	1623	1861	1987	1.87
1.88	48	90	–	–	–	–	395	452	559	665	736	807	912	1088	1264	1439	1677	1804	1.88
1.88	34	64	–	243	351	457	542	598	704	809	879	950	1055	1230	1405	1581	1819	1945	1.88
1.89	38	72	–	–	306	413	498	555	661	766	837	907	1012	1188	1356	1538	1776	1902	1.89
1.93	29	56	–	291	389	504	588	645	750	855	926	996	1101	1276	1451	1626	1865	1991	1.93
2.00	28	56	–	294	401	507	592	648	753	859	929	999	1104	1279	1455	1630	1868	1994	2.00
2.00	32	64	–	249	357	464	548	605	710	816	886	956	1062	1237	1412	1587	1826	1952	2.00
2.00	36	72	–	–	312	419	505	561	667	773	843	913	1019	1194	1370	1545	1783	1909	2.00
2.00	40	80	–	–	–	374	460	517	624	730	800	870	976	1152	1327	1502	1741	1867	2.00
2.00	56	112	–	–	–	–	–	–	444	553	625	696	802	979	1155	1331	1570	1696	2.00
2.05	44	90	–	–	–	320	407	465	572	678	749	820	925	1101	1277	1452	1691	1817	2.05
2.11	38	80	–	–	–	380	467	524	630	736	807	877	983	1158	1334	1509	1747	1874	2.11
2.12	34	72	–	–	318	426	511	568	674	779	850	920	1026	1201	1376	1552	1790	1916	2.12
2.13	30	64	–	255	363	470	555	611	717	823	893	963	1068	1244	1419	1594	1832	1959	2.13
2.21	29	64	–	258	366	473	558	615	720	826	896	966	1072	1247	1422	1598	1836	1962	2.21
2.22	36	80	–	–	–	387	473	530	636	743	813	884	989	1165	1340	1516	1754	1880	2.22
2.25	32	72	–	–	324	432	517	574	680	786	856	927	1032	1208	1383	1558	1797	1923	2.25
2.25	40	90	–	–	–	331	419	477	584	691	762	833	938	1114	1290	1466	1704	1831	2.25
2.29	28	64	–	261	369	476	561	618	724	829	899	970	1075	1250	1426	1601	1839	1965	2.29
2.33	48	112	–	–	–	–	–	–	468	577	649	721	828	1005	1181	1358	1597	1723	2.33
2.35	34	80	–	–	282	393	479	536	643	749	820	890	996	1172	1347	1523	1761	1887	2.35
2.37	38	90	–	–	–	337	425	483	591	697	768	839	945	1121	1297	1472	1711	1837	2.37
2.40	30	72	–	–	330	438	524	580	687	792	863	933	1039	1214	1390	1565	1804	1930	2.40
2.48	29	72	–	–	333	441	527	584	690	796	866	937	1042	1218	1393	1569	1807	1933	2.48
2.50	32	80	–	–	288	399	485	542	649	755	826	897	1002	1178	1354	1529	1758	1894	2.50
2.50	36	90	–	–	–	343	431	489	597	704	775	845	951	1128	1303	1479	1718	1844	2.50
2.55	44	112	–	–	–	–	–	368	480	590	662	733	840	1018	1194	1371	1610	1736	2.55
2.57	28	72	–	–	336	444	530	587	693	799	869	940	1045	1221	1397	1572	1810	1937	2.57
2.57	56	144	–	–	–	–	–	–	–	–	485	561	671	852	1031	1209	1450	1577	2.57
2.65	34	90	–	–	–	349	437	495	603	710	781	852	958	1134	1310	1486	1724	1851	2.65
2.67	30	80	–	–	294	405	491	549	656	762	833	903	1009	1185	1360	1536	1775	1901	2.67
2.76	29	80	–	–	297	408	494	552	659	765	836	906	1012	1188	1364	1539	1778	1904	2.76
2.80	40	112	–	–	–	–	–	379	492	602	674	746	853	1031	1207	1384	1623	1750	2.80

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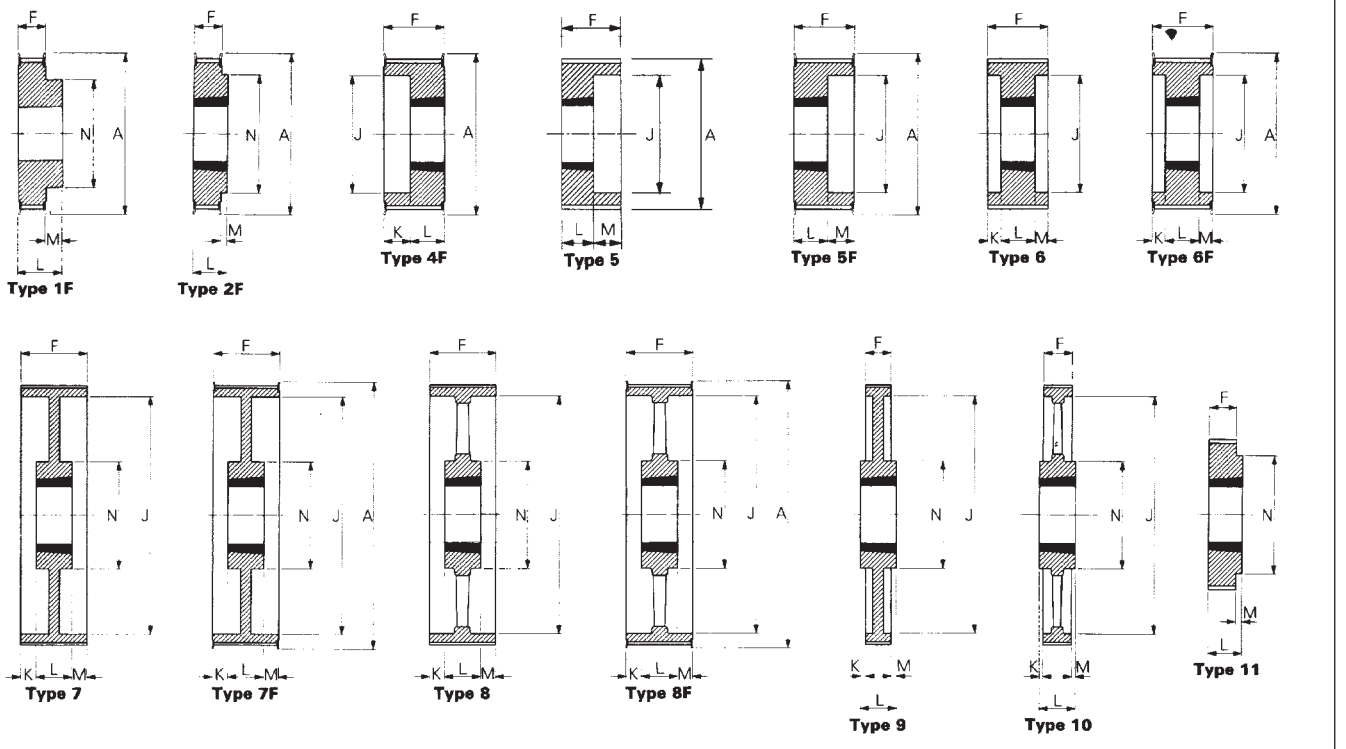
Fenner Torque Drive Plus® *3* 14MXP & HTD 14M Drives

CENTRE DISTANCE IN MILLIMETRES

Speed Ratio	Number of grooves on Driving Pulley	Number of grooves on Driven Pulley	Belt pitch length in millimetres 966 (69 teeth)	1190 (85 teeth)	1400 (100 teeth)	1610 (115 teeth)	1778 (127 teeth)	1890 (135 teeth)	2100 (150 teeth)	2310 (165 teeth)	2450 (175 teeth)	2590 (185 teeth)	2800 (200 teeth)	3150 (225 teeth)	3500 (250 teeth)	3850 (275 teeth)	4326 (309 teeth)	4578 (327 teeth)	Speed Ratio
2.81	32	90	–	–	–	354	443	501	609	716	787	858	964	1141	1317	1492	1731	1858	2.81
2.86	28	80	–	–	300	411	498	555	662	768	839	910	1015	1191	1367	1543	1781	1907	2.86
2.95	38	112	–	–	–	–	–	385	498	608	680	752	859	1037	1214	1390	1630	1756	2.95
3.00	30	90	–	–	–	360	449	507	615	723	794	865	971	1147	1323	1499	1738	1864	3.00
3.00	48	144	–	–	–	–	–	–	–	–	508	584	695	877	1056	1234	1475	1603	3.00
3.00	56	168	–	–	–	–	–	–	–	–	–	–	560	749	933	1113	1356	1484	3.00
3.10	29	90	–	–	–	363	452	510	619	726	797	868	974	1150	1327	1502	1741	1868	3.10
3.11	36	112	–	–	–	–	–	390	504	614	686	758	865	1043	1220	1397	1636	1763	3.11
3.21	28	90	–	–	–	366	455	513	622	729	800	871	977	1154	1330	1506	1745	1871	3.21
3.27	44	144	–	–	–	–	–	–	–	441	519	595	707	889	1069	1247	1488	1616	3.27
3.29	34	112	–	–	–	–	–	396	509	620	692	764	872	1050	1227	1403	1643	1769	3.29
3.43	56	192	–	–	–	–	–	–	–	–	–	–	–	635	826	1012	1259	1388	3.43
3.50	32	112	–	–	–	–	–	401	515	626	698	770	878	1056	1233	1410	1649	1776	3.50
3.50	48	168	–	–	–	–	–	–	–	–	–	–	583	773	957	1138	1381	1509	3.50
3.60	40	144	–	–	–	–	–	–	–	452	530	607	719	901	1081	1260	1501	1629	3.60
3.73	30	112	–	–	–	–	343	407	521	632	704	777	884	1062	1240	1416	1656	1783	3.73
3.79	38	144	–	–	–	–	–	–	–	457	536	612	725	907	1087	1266	1507	1635	3.79
3.82	44	168	–	–	–	–	–	–	–	–	–	–	594	784	969	1150	1394	1522	3.82
3.86	29	112	–	–	–	–	346	410	524	635	707	780	887	1065	1243	1419	1659	1786	3.86
4.00	28	112	–	–	–	–	349	413	527	638	710	783	890	1069	1246	1423	1662	1789	4.00
4.00	36	144	–	–	–	–	–	–	–	462	542	618	730	913	1094	1272	1514	1641	4.00
4.00	48	192	–	–	–	–	–	–	–	–	–	–	–	654	849	1035	1283	1413	4.00
4.20	40	168	–	–	–	–	–	–	–	–	–	–	605	796	981	1162	1406	1534	4.20
4.24	34	144	–	–	–	–	–	–	–	488	547	624	736	919	1100	1279	1520	1648	4.24
4.36	44	192	–	–	–	–	–	–	–	–	–	–	–	668	861	1047	1295	1425	4.36
4.42	38	168	–	–	–	–	–	–	–	–	–	488	610	802	986	1168	1412	1541	4.42
4.50	32	144	–	–	–	–	–	–	–	473	553	630	742	925	1106	1285	1527	1654	4.50
4.67	36	168	–	–	–	–	–	–	–	–	–	493	616	807	992	1174	1419	1547	4.67
4.80	30	144	–	–	–	–	–	–	–	479	558	635	748	931	1112	1291	1533	1661	4.80
4.80	40	192	–	–	–	–	–	–	–	–	–	–	–	678	872	1059	1307	1437	4.80
4.94	34	168	–	–	–	–	–	–	–	–	–	499	621	813	998	1180	1425	1553	4.94
4.97	29	144	–	–	–	–	–	–	–	481	561	638	751	934	1115	1294	1536	1664	4.97
5.05	38	192	–	–	–	–	–	–	–	–	–	–	–	684	878	1065	1313	1443	5.05
5.14	28	144	–	–	–	–	–	–	–	484	564	641	754	937	1118	1297	1539	1667	5.14
5.25	32	168	–	–	–	–	–	–	–	–	–	504	627	819	1004	1186	1431	1560	5.25
5.33	36	192	–	–	–	–	–	–	–	–	–	–	–	689	884	1071	1319	1449	5.33
5.60	30	168	–	–	–	–	–	–	–	–	–	509	632	825	1010	1192	1437	1566	5.60
5.65	34	192	–	–	–	–	–	–	–	–	–	–	–	695	889	1076	1325	1455	5.65
5.79	29	168	–	–	–	–	–	–	–	–	–	512	635	828	1013	1195	1440	1569	5.79
6.00	28	168	–	–	–	–	–	–	–	–	–	514	638	830	1016	1198	1443	1572	6.00
6.00	32	192	–	–	–	–	–	–	–	–	–	–	–	700	895	1082	1331	1462	6.00
6.40	30	192	–	–	–	–	–	–	–	–	–	–	–	706	901	1088	1337	1468	6.40
6.62	29	192	–	–	–	–	–	–	–	–	–	–	–	708	904	1091	1340	1471	6.62
6.86	28	192	–	–	–	–	–	–	–	–	–	–	–	711	906	1094	1343	1474	6.86

All centre distances are rounded values – Consult your local Authorised Distributor if centre distance is fixed.

Fenner Torque Drive Plus® *3* HTD Pulleys



5mm PITCH (5M) HTD PULLEYS (FOR USE WITH HTD BELTS ONLY)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043F0028	28	28–5M–15	1F	6mm*	19	3/4	44.56	43.42	49	22	–	–	30	8	31
043F0032	32	32–5M–15	1F	8mm*	22	7/8	50.93	49.79	56	22	–	–	30	8	38
043F0034	34	34–5M–15	2F	1008	25	1	54.11	52.97	57	22	–	–	22	0	0
043F0036	36	36–5M–15	2F	1108	28	1 1/8	57.30	56.15	60	22	–	–	22	0	0
043F0038	38	38–5M–15	2F	1108	28	1 1/8	60.48	59.34	67	22	–	–	22	0	0
043F0040	40	40–5M–15	2F	1108	28	1 1/8	63.66	62.52	71	22	–	–	22	0	0
043F0044	44	44–5M–15	2F	1108	28	1 1/8	70.03	68.89	75	22	–	–	22	0	0
043F0048	48	48–5M–15	2F	1210	32	1 1/4	76.39	75.25	83	22	–	–	25	3	59
043F0056	56	56–5M–15	2F	1210	32	1 1/4	89.13	87.98	93	22	–	–	25	3	75
043F0064	64	64–5M–15	2F	1210	32	1 1/4	101.86	100.72	106	22	–	–	25	3	80
043F0072	72	72–5M–15	11	1610	42	1 5/8	114.59	113.45	–	22	–	–	25	3	92
043F0080	80	80–5M–15	11	1610	42	1 5/8	127.32	126.18	–	22	–	–	25	3	92
043F0090	90	90–5M–15	10	1610	42	1 5/8	143.24	142.10	–	20.5	–	–	25	2.3	92
043F0112	112	112–5M–15	10	1610	42	1 5/8	178.25	177.11	–	20.5	–	–	25	2.3	110
043F0136	136	136–5M–15	10	2012	50	2	216.45	215.31	–	20.5	–	–	32	5.8	110

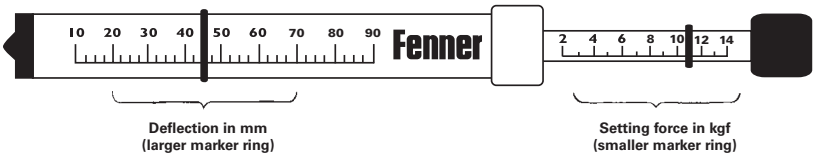
These pulleys are used for both 15mm wide and 9mm wide belts.
Dimensions in millimetres unless otherwise stated.
* Pilot bore only

Prime functional dimensions are correct at the time of publication.
Pulley types and non-functional dimensions may vary.

FENNER BELT TENSION INDICATOR

The high performance and efficiency of Fenner Synchronous belts requires correct tension. We recommend using the Fenner Belt Tension Indicator.

NOTE: To measure tension in synchronous belts, place a piece of rigid material across the belt width at mid-span, before applying the gauge.





Fenner Torque Drive Plus® 3 8MXP & HTD 8M Pulleys

8mm PULLEYS (20mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043J0022	22	22–8M–20	4F	1008	25	1	56.02	54.65	60	28	37	6	22	–	–
043J0024	24	24–8M–20	4F	1108	28	1 1/8	61.12	59.75	66	28	44	6	22	–	–
043J0026	26	26–8M–20	4F	1108	28	1 1/8	66.21	64.84	70	28	45	6	22	–	–
043J0028	28	28–8M–20	4F	1108	28	1 1/8	71.30	70.08	75	28	50	6	22	–	–
043J0030	30	30–8M–20	4F	1108	28	1 1/8	76.39	75.13	83	28	58	6	22	–	–
043J0032	32	32–8M–20	4F	1610	42	1 5/8	81.49	80.16	87	28	63	3	25	–	–
043J0034	34	34–8M–20	4F	1610	42	1 5/8	86.58	85.22	91	28	64	3	25	–	–
043J0036	36	36–8M–20	4F	1610	42	1 5/8	91.67	90.30	97	28	68	3	25	–	–
043J0038	38	38–8M–20	4F	1610	42	1 5/8	96.77	95.39	102	28	72	3	25	–	–
043J0040	40	40–8M–20	4F	1610	42	1 5/8	101.86	100.49	106	28	76	3	25	–	–
043J0044	44	44–8M–20	2F	2012	50	2	112.05	110.67	120	28	0	–	32	4	92
043J0048	48	48–8M–20	2F	2012	50	2	122.23	120.86	128	28	0	–	32	4	96
043J0056	56	56–8M–20	2F	2012	50	2	142.60	141.23	150	28	0	–	32	4	110
043J0064	64	64–8M–20	2F*	2012	50	2	162.97	161.60	168	28	137	–	32	4	110
043J0072	72	72–8M–20	2F*	2012	50	2	183.35	181.97	192	28	158	–	32	4	110
043J0080	80	80–8M–20	9	2012	50	2	203.72	202.35	–	28	180	0	32	4	110
043J0090	90	90–8M–20	9	2012	50	2	229.18	227.81	–	28	204	0	32	4	110

* These pulleys are recessed to a plate centre – under rim diameter J.

8mm PULLEYS (30mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043K0022	22	22–8M–30	4F	1008	25	1	56.02	54.65	60	38	37	16	22	0	–
043K0024	24	24–8M–30	4F	1108	28	1 1/8	61.12	59.75	66	38	44	16	22	0	–
043K0026	26	26–8M–30	4F	1108	28	1 1/8	66.21	64.84	70	38	44	16	22	0	–
043K0028	28	28–8M–30	4F	1210	32	1 1/4	71.30	70.08	75	38	50	13	25	0	–
043K0030	30	30–8M–30	2F	1615	42	1 5/8	76.39	75.13	83	38	0	0	38	0	–
043K0032	32	32–8M–30	2F	1615	42	1 5/8	81.49	80.16	87	38	0	0	38	0	–
043K0034	34	34–8M–30	2F	1615	42	1 5/8	86.58	85.22	91	38	0	0	38	0	–
043K0036	36	36–8M–30	2F	1615	42	1 5/8	91.67	90.30	97	38	0	0	38	0	–
043K0038	38	38–8M–30	2F	1615	42	1 5/8	96.77	95.39	102	38	0	0	38	0	–
043K0040	40	40–8M–30	2F	1615	42	1 5/8	101.86	100.49	106	38	0	0	38	0	–
043K0044	44	44–8M–30	4F	2012	50	2	112.05	110.67	120	38	86	6	32	0	–
043K0048	48	48–8M–30	4F	2012	50	2	122.23	120.86	128	38	90	6	32	0	–
043K0056	56	56–8M–30	6F	2012	50	2	142.60	141.23	150	38	110	3	32	3	–
043K0064	64	64–8M–30	2F*	2517	60	2 1/2	162.97	161.60	168	38	0	0	45	7	125
043K0072	72	72–8M–30	2F*	2517	60	2 1/2	183.35	181.97	192	38	158	0	45	7	125
043K0080	80	80–8M–30	9	2517	60	2 1/2	203.72	202.35	–	38	180	0	45	7	125
043K0090	90	90–8M–30	9	2517	60	2 1/2	229.18	227.81	–	38	204	0	45	7	125
043K0112	112	112–8M–30	9	2517	60	2 1/2	285.21	283.83	–	38	254	0	45	7	125
043K0144	144	144–8M–30	8	2517	60	2 1/2	366.69	365.32	–	38	336	0	45	7	125

8mm PULLEYS (50mm WIDE BELT)

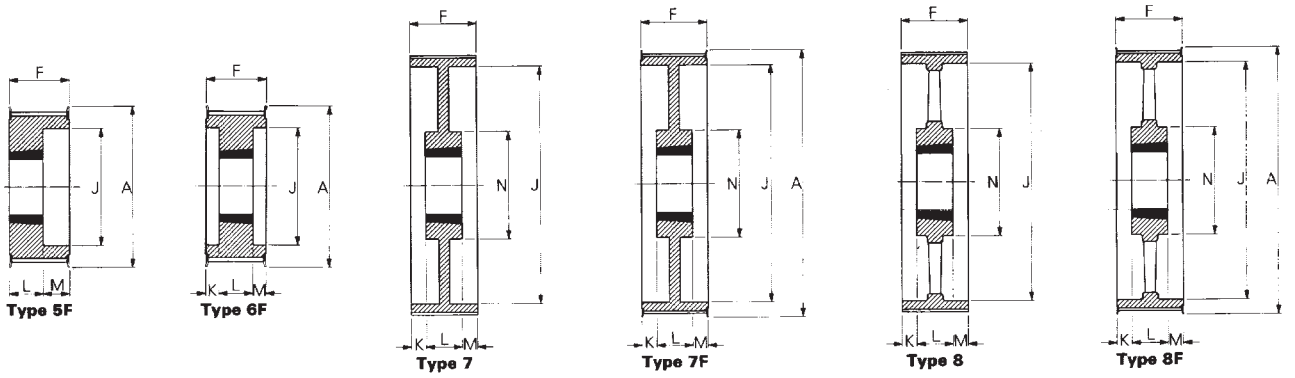
Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043L0028	28	28–8M–50	4F	1210	32	1 1/4	71.30	70.08	75	60	50	35.0	25	0.0	–
043L0030	30	30–8M–50	4F	1615	42	1 5/8	76.39	75.13	83	60	58	22.0	38	0.0	–
043L0032	32	32–8M–50	4F	1615	42	1 5/8	81.49	80.16	87	60	63	22.0	38	0.0	–
043L0034	34	34–8M–50	4F	1615	42	1 5/8	86.58	85.22	91	60	65	22.0	38	0.0	–
043L0036	36	36–8M–50	4F	1615	42	1 5/8	91.67	90.30	97	60	68	22.0	38	0.0	–
043L0038	38	38–8M–50	4F	1615	42	1 5/8	96.77	95.39	102	60	72	22.0	38	0.0	–
043L0040	40	40–8M–50	6F	2012	50	2	101.86	100.49	106	60	80	14.0	32	14.0	–
043L0044	44	44–8M–50	6F	2012	50	2	112.05	110.67	120	60	86	14.0	32	14.0	–
043L0048	48	48–8M–50	6F	2012	50	2	122.23	120.86	128	60	95	14.0	32	14.0	–
043L0056	56	56–8M–50	6F	2517	60	2 1/2	142.60	141.23	150	60	116	7.5	45	7.5	–
043L0064	64	64–8M–50	6F	2517	60	2 1/2	162.97	161.60	168	60	136	7.5	45	7.5	–
043L0072	72	72–8M–50	7F	2517	60	2 1/2	183.35	181.97	192	60	158	7.5	45	7.5	125
043L0080	80	80–8M–50	6	3020	75	3	203.72	202.35	–	60	180	4.5	51	4.5	–
043L0090	90	90–8M–50	7	3020	75	3	229.18	227.81	–	60	204	4.5	51	4.5	160
043L0112	112	112–8M–50	7	3020	75	3	285.21	283.83	–	60	254	4.5	51	4.5	170
043L0144	144	144–8M–50	8	3020	75	3	366.69	365.32	–	60	336	4.5	51	4.5	170
043L0168	168	168–8M–50	10	3525	100	4	427.81	426.44	–	60	395	2.5	65	2.5	198
043L0192	192	192–8M–50	10	3525	100	4	488.92	487.55	–	60	455	2.5	65	2.5	198

8mm PULLEYS (85mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043M0034	34	34–8M–85	6F	1615	42	1 5/8	86.58	85.22	91	95	65	28	38	28	–
043M0036	36	36–8M–85	6F	1615	42	1 5/8	91.67	90.30	97	95	68	28	38	28	–
043M0038	38	38–8M–85	6F	1615	42	1 5/8	96.77	95.39	102	95	72	28	38	28	–
043M0040	40	40–8M–85	6F	2012	50	2	101.86	100.49	106	95	80	31	32	31	–
043M0044	44	44–8M–85	6F	2012	50	2	112.05	110.67	120	95	86	31	32	31	–
043M0048	48	48–8M–85	6F	2517	60	2 1/2	122.23	120.86	128	95	97	25	45	25	–
043M0056	56	56–8M–85	6F	2517	60	2 1/2	142.60	141.23	150	95	116	25	45	25	–
043M0064	64	64–8M–85	6F	2517	60	2 1/2	162.97	161.60	168	95	136	25	45	25	–
043M0072	72	72–8M–85	6F	3020	75	3	183.35	181.97	192	95	150	22	51	22	–
043M0080	80	80–8M–85	6	3020	75	3	203.72	202.35	–	95	180	22	51	22	–
043M0090	90	90–8M–85	6	3020	75	3	229.18	227.81	–	95	204	22	51	22	–
043M0112	112	112–8M–85	7	3020	75	3	285.21	283.83	–	95	254	22	51	22	170
043M0144	144	144–8M–85	7	3525	100	4	366.69	365.32	–	95	336	15	65	15	198
043M0168	168	168–8M–85	8	3525	100	4	427.81	426.44	–	95	395	15	65	15	198
043M0192	192	192–8M–85	8	3525	100	4	488.92	487.55	–	95	455	15	65	15	198

Dimensions in millimetres unless otherwise stated.
Prime functional dimensions are correct at the time of publication.
Pulley types and non-functional dimensions may vary.

Fenner Torque Drive Plus® *3* 14MXP & HTD 14M Pulleys



14mm PULLEYS (40mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043N0028	28	28–14M–40	6F	2012	50	2	124.78	122.12	128	54	94	11.0	32	11.0	–
043N0029	29	29–14M–40	6F	2012	50	2	129.23	126.57	138	54	98	11.0	32	11.0	–
043N0030	30	30–14M–40	6F	2012	50	2	133.69	130.99	138	54	98	11.0	32	11.0	–
043N0032	32	32–14M–40	6F	2012	50	2	142.60	139.88	154	54	108	11.0	32	11.0	–
043N0034	34	34–14M–40	6F	2517	60	2½	151.51	148.79	160	54	110	4.5	45	4.5	–
043N0036	36	36–14M–40	6F	2517	60	2½	160.43	157.68	168	54	120	4.5	45	4.5	–
043N0038	38	38–14M–40	6F	2517	60	2½	169.34	166.60	183	54	130	4.5	45	4.5	–
043N0040	40	40–14M–40	6F	2517	60	2½	178.25	175.49	188	54	138	4.5	45	4.5	–
043N0044	44	44–14M–40	6F	3020	75	3	196.08	193.28	211	54	155	1.5	51	1.5	–
043N0048	48	48–14M–40	6F	3020	75	3	213.90	211.11	226	54	170	1.5	51	1.5	–
043N0056	56	56–14M–40	6F	3020	75	3	249.55	246.76	256	54	208	1.5	51	1.5	–
043N0064	64	64–14M–40	7F	3020	75	3	285.21	282.41	296	54	240	1.5	51	1.5	170
043N0072	72	72–14M–40	7	3020	75	3	320.86	318.06	–	54	280	1.5	51	1.5	170
043N0080	80	80–14M–40	8	3020	75	3	356.51	353.71	–	54	315	1.5	51	1.5	170
043N0090	90	90–14M–40	8	3020	75	3	401.07	398.28	–	54	360	1.5	51	1.5	170
043N0112	112	112–14M–40	8	3020	75	3	499.11	496.32	–	54	457	1.5	51	1.5	170
043N0144	144	144–14M–40	8	3020	75	3	641.71	638.92	–	54	600	1.5	51	1.5	170
043N0168	168	168–14M–40	8	3020	75	3	748.66	745.87	–	54	706	1.5	51	1.5	170
043N0192	192	192–14M–40	8	3020	75	3	855.62	852.82	–	54	813	1.5	51	1.5	170

14mm PULLEYS (55mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043P0028	28	28–14M–55	6F	2012	50	2	124.78	122.12	128	70	94	19.0	32	19.0	–
043P0029	29	29–14M–55	6F	2012	50	2	129.23	126.57	138	70	100	19.0	32	19.0	–
043P0030	30	30–14M–55	6F	2517	60	2½	133.69	130.99	138	70	100	12.5	45	12.5	–
043P0032	32	32–14M–55	6F	2517	60	2½	142.60	139.88	154	70	108	12.5	45	12.5	–
043P0034	34	34–14M–55	6F	2517	60	2½	151.51	148.79	160	70	110	12.5	45	12.5	–
043P0036	36	36–14M–55	6F	2517	60	2½	160.43	157.68	168	70	120	12.5	45	12.5	–
043P0038	38	38–14M–55	6F	2517	60	2½	169.34	166.60	183	70	130	12.5	45	12.5	–
043P0040	40	40–14M–55	6F	2517	60	2½	178.25	175.49	188	70	138	12.5	45	12.5	–
043P0044	44	44–14M–55	6F	3020	75	3	196.08	193.28	211	70	155	9.5	51	9.5	–
043P0048	48	48–14M–55	6F	3020	75	3	213.90	211.11	226	70	170	9.5	51	9.5	–
043P0056	56	56–14M–55	6F	3020	75	3	249.55	246.76	256	70	208	9.5	51	9.5	–
043P0064	64	64–14M–55	7F	3020	75	3	285.21	282.41	296	70	240	9.5	51	9.5	170
043P0072	72	72–14M–55	8	3020	75	3	320.86	318.06	–	70	280	9.5	51	9.5	170
043P0080	80	80–14M–55	8	3020	75	3	356.51	353.71	–	70	315	9.5	51	9.5	170
043P0090	90	90–14M–55	8	3020	75	3	401.07	398.28	–	70	360	9.5	51	9.5	170
043P0112	112	112–14M–55	8	3020	75	3	499.11	496.32	–	70	457	9.5	51	9.5	170
043P0144	144	144–14M–55	8	3020	75	3	641.71	638.92	–	70	600	9.5	51	9.5	170
043P0168	168	168–14M–55	8	3020	75	3	748.66	745.87	–	70	706	9.5	51	9.5	170
043P0192	192	192–14M–55	8	3020	75	3	855.62	852.82	–	70	813	9.5	51	9.5	170

14mm PULLEYS (85mm WIDE BELT)

Catalogue Code	No. of Grooves	Pulley Designation	Pulley Type	Bush No.	Max Bore		Pitch Dia.	Outside Dia.	A	F	J	K	L	M	N
					Metric	Inch									
043R0028	28	28–14M–85	6F	2517	60	2½	124.78	122.12	128	102	98	28.5	45	28.5	–
043R0029	29	29–14M–85	6F	2517	60	2½	129.33	126.57	138	102	60	28.5	45	28.5	–
043R0030	30	30–14M–85	6F	2517	60	2½	133.69	130.99	138	102	100	28.5	45	28.5	–
043R0032	32	32–14M–85	6F	2517	60	2½	142.60	139.88	154	102	108	28.5	45	28.5	–
043R0034	34	34–14M–85	6F	2517	60	2½	151.51	148.79	160	102	110	28.5	45	28.5	–
043R0036	36	36–14M–85	6F	3020	75	3	160.43	157.68	168	102	125	25.5	51	25.5	–
043R0038	38	38–14M–85	6F	3020	75	3	169.34	166.60	183	102	130	25.5	51	25.5	–
043R0040	40	40–14M–85	6F	3020	75	3	178.25	175.49	188	102	138	25.5	51	25.5	–
043R0044	44	44–14M–85	6F	3030	75	3	196.08	193.28	211	102	155	13.0	76	13.0	–
043R0048	48	48–14M–85	6F	3030	75	3	213.90	211.11	226	102	170	13.0	76	13.0	–
043R0056	56	56–14M–85	6F	3525	100	4	249.55	246.76	256	102	210	18.5	65	18.5	–
043R0064	64	64–14M–85	7F	3525	100	4	285.21	282.41	296	102	240	18.5	65	18.5	–
043R0072	72	72–14M–85	7	3525	100	4	320.86	318.06	–	102	280	18.5	65	18.5	178
043R0080	80	80–14M–85	7	3525	100	4	356.51	353.71	–	102	315	18.5	65	18.5	178
043R0090	90	90–14M–85	8	3525	100	4	401.07	398.28	–	102	360	18.5	65	18.5	178
043R0112	112	112–14M–85	8	3525	100	4	499.11	496.32	–	102	457	18.5	65	18.5	178
043R0144	144	144–14M–85	8	3525	100	4	641.71	638.92	–	102	600	18.5	65	18.5	206
043R0168	168	168–14M–85	8	3525	100	4	748.66	745.87	–	102	706	18.5	65	18.5	206
043R0192	192	192–14M–85	8	4040	115	4½	855.62	852.82	–	102	813	0.0	102	0.0	216

Dimensions in millimetres unless otherwise stated

Taper Lock pulleys for use with 14MXP and 14M belts of 115mm and 170mm widths are available.

Prime functional dimensions are correct at the time of publication.

Pulley types and non-functional dimensions may vary.



CLASSICAL TIMING DRIVES

Components for the original Timing Drive system are still available.

Belts and pulleys for L (Light or 3/8" pitch) and H (Heavy or 1/2" pitch) drives are available from stock as listed on pages 106 to 107 whilst the table below includes XL (eXtra Light) and XH (eXtra Heavy) belts which are readily available but not always from stock.

H pitch belts of 3" width are available but not from stock.

Order by catalogue codes shown on the following tables.

Fenner Timing Belt drive components conform to ISO 5296 and to BS 4548.

Drive powers of up to 50 kW can be accommodated and most of the pulleys use Taper Lock bushes for shaft fixing.

It is anticipated that the great majority of new drive requirements can best be satisfied with one of the more modern synchronomous drive systems. Should drive design details be required – consult your local Authorised Distributor

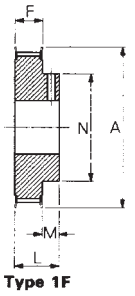
(**XL**) EXTRA LIGHT*							
1/4" (6,5mm) WIDE BELT				3/8" (9,5mm) WIDE BELT			
Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation
275S0006	60XL025	275S0017	170XL025	275S2006	60XL037	275S2017	170XL037
007	70	018	180	007	70	018	180
008	80	019	190	008	80	019	190
009	90	020	200	009	90	020	200
010	100	021	210	010	100	021	210
011	110	022	220	011	110	022	220
012	120	023	230	012	120	023	230
013	130	024	240	013	130	024	240
014	140	025	250	014	140	025	250
015	150	026	260	015	150	026	260
016	160			016	160		

(**L**) LIGHT											
1/2" (13mm) WIDE BELT				3/4" (19mm) WIDE BELT				1" (25mm) WIDE BELT			
Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation
275L3012	124L050	275L3034	345L050	275L4012	124L075	275L4034	345L075	275L5012	124L100	275L5034	345L100
015	150	037	367	015	150	037	367	015	150	037	367
019	187	039	390	019	187	039	390	019	187	039	390
021	210	042	420	021	210	042	420	021	210	042	420
022	225	045	450	022	225	045	450	022	225	045	450
024	240	048	480	024	240	048	480	024	240	048	480
025	255	051	510	025	255	051	510	025	255	051	510
027	270	054	540	027	270	054	540	027	270	054	540
028	285	060	600	028	285	060	600	028	285	060	600
030	300			030	300			030	300		
032	322			032	322			032	322		

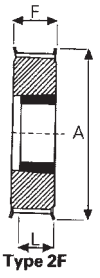
(**H**) HEAVY									
3/4" (19mm) WIDE BELT		1" (25mm) WIDE BELT		1 1/2" (38mm) WIDE BELT		2" (51mm) WIDE BELT		3" (76mm) WIDE BELT	
Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation
275H4024	240H075	275H5024	240H100	275H6024	240H150	275H7024	240H200	275H8024	240H300
027	270	027	270	027	270	027	270	027	270
030	300	030	300	030	300	030	300	030	300
033	330	033	330	033	330	033	330	033	330
036	360	036	360	036	360	036	360	036	360
039	390	039	390	039	390	039	390	039	390
042	420	042	420	042	420	042	420	042	420
045	450	045	450	045	450	045	450	045	450
048	480	048	480	048	480	048	480	048	480
051	510	051	510	051	510	051	510	051	510
054	540	054	540	054	540	054	540	054	540
057	570	057	570	057	570	057	570	057	570
060	600	060	600	060	600	060	600	060	600
063	630	063	630	063	630	063	630	063	630
066	660	066	660	066	660	066	660	066	660
070	700	070	700	070	700	070	700	070	700
075	750	075	750	075	750	075	750	075	750
080	800	080	800	080	800	080	800	080	800
085	850	085	850	085	850	085	850	085	850
090	900	090	900	090	900	090	900	090	900
100	1000	100	1000	100	1000	100	1000	100	1000
110	1100	110	1100	110	1100	110	1100	110	1100
125	1250	125	1250	125	1250	125	1250	125	1250
140	1400	140	1400	140	1400	140	1400	140	1400
170	1700	170	1700	170	1700	170	1700	170	1700

(**XH**) EXTRA HEAVY*											
2" (51mm) WIDE BELT				3" (76mm) WIDE BELT				4" (102mm) WIDE BELT			
Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation	Catalogue Code	Belt Designation
275X7050	507XH200	275X7098	980XH200	275X8050	507XH300	275X8098	908XH300	275X9050	507XH400	275X9098	980XH400
056	560	112	1120	056	560	112	1120	056	560	112	1120
063	630	126	1260	063	630	126	1260	063	630	126	1260
070	700	140	1400	070	700	140	1400	070	700	140	1400
077	770	154	1540	077	770	154	1540	077	770	154	1540
084	840	175	1750	084	840	175	1750	084	840	175	1750

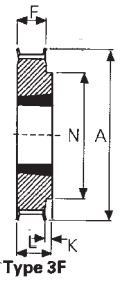
* MXL, XL, XH and XXH belts available for replacement only – pulleys are not available from stock.



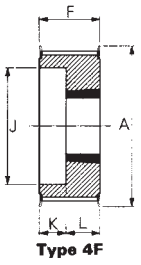
Type 1F



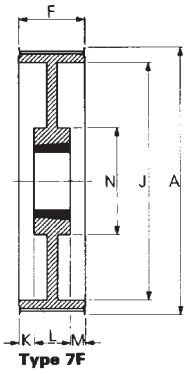
Type 2F



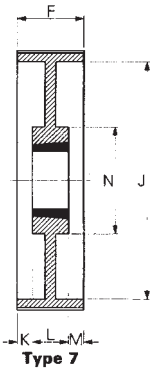
Type 3F



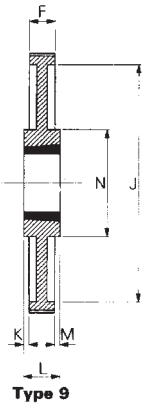
Type 4F



Type 7F



Type 7



Type 9

DIMENSIONS – LIGHT (L) PITCH PULLEYS

L050 – 1/2" (13mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023C0014	14L050	42.45	14	pilot bore	19	3/4	1F	49	19	–	–	30	11.0	32
015	15L050	45.48	15	pilot bore	22	7/8	1F	52	19	–	–	30	11.0	35
016	16L050	48.51	16	pilot bore	25	1	1F	56	19	–	–	30	11.0	38
017	17L050	51.54	17	pilot bore	25	1	1F	57	19	–	–	30	11.0	38
018	18L050	54.57	18	1108	28	1 1/8	3F	60	19	–	–	22	3.0	43
019	19L050	57.61	19	1108	28	1 1/8	3F	64	19	–	–	22	3.0	43
020	20L050	60.64	20	1108	28	1 1/8	3F	67	19	–	–	22	3.0	48
021	21L050	63.67	21	1108	28	1 1/8	3F	70	19	–	–	22	3.0	48
022	22L050	66.70	22	1108	28	1 1/8	3F	75	19	–	–	22	3.0	51
023	23L050	69.73	23	1108	28	1 1/8	3F	79	19	–	–	22	3.0	54
024	24L050	72.77	24	1108	28	1 1/8	3F	79	19	–	–	22	3.0	54
025	25L050	75.80	25	1108	28	1 1/8	3F	83	19	–	–	22	3.0	56
026	26L050	78.83	26	1108	28	1 1/8	3F	86	19	–	–	22	3.0	60
027	27L050	81.86	27	1108	28	1 1/8	3F	86	19	–	–	22	3.0	62
028	28L050	84.89	28	1108	28	1 1/8	3F	91	19	–	–	22	3.0	65
030	30L050	90.96	30	1108	28	1 1/8	3F	98	19	–	–	22	3.0	70
032	32L050	97.02	32	1108	28	1 1/8	3F	103	19	–	–	22	3.0	74
036	36L050	109.15	36	1108	28	1 1/8	3F	115	19	–	–	22	3.0	85
040	40L050	121.28	40	1610	42	1 5/8	3F	128	19	–	–	25	3.0	97
048	48L050	145.53	48	1610	42	1 5/8	3F*	151	19	120	6.0	25	–	88
060	60L050	181.91	60	1610	42	1 5/8	9	–	19	165	3.0	25	3.0	92
072	72L050	218.30	72	1610	42	1 5/8	9#	–	19	202	3.0	25	3.0	92
084	84L050	254.68	84	1610	42	1 5/8	9#	–	19	238	3.0	25	3.0	92
096	96L050	291.06	96	2012	50	2	9#	–	19	275	6.5	32	6.5	106
120	120L050	363.83	120	2012	50	2	9#	–	19	344	6.5	32	6.5	106

L075 – 3/4" (19mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023D0014	14L075	42.45	14	pilot bore	19	3/4	1F	49	25	–	–	37	12.0	32
015	15L075	45.48	15	pilot bore	22	7/8	1F	52	25	–	–	37	12.0	35
016	16L075	48.51	16	pilot bore	25	1	1F	56	25	–	–	37	12.0	38
017	17L075	51.54	17	pilot bore	25	1	1F	57	25	–	–	37	12.0	38
018	18L075	54.57	18	1108	28	1 1/8	2F	60	25	–	3.0	22	–	–
019	19L075	57.61	19	1108	28	1 1/8	2F	64	25	–	3.0	22	–	–
020	20L075	60.64	20	1108	28	1 1/8	2F	67	25	–	3.0	22	–	–
021	21L075	63.67	21	1108	28	1 1/8	2F	70	25	–	3.0	22	–	–
022	22L075	66.70	22	1108	28	1 1/8	2F	75	25	–	3.0	22	–	–
023	23L075	69.73	23	1108	28	1 1/8	2F	79	25	–	3.0	22	–	–
024	24L075	72.77	24	1108	28	1 1/8	2F	79	25	–	3.0	22	–	–
025	25L075	75.80	25	1108	28	1 1/8	2F	83	25	–	3.0	22	–	–
026	26L075	78.83	26	1108	28	1 1/8	2F	86	25	–	3.0	22	–	–
027	27L075	81.86	27	1108	28	1 1/8	2F	86	25	–	3.0	22	–	–
028	28L075	84.89	28	1108	28	1 1/8	2F	91	25	–	3.0	22	–	–
030	30L075	90.96	30	1108	28	1 1/8	2F	98	25	–	3.0	22	–	–
032	32L075	97.02	32	1108	28	1 1/8	2F	103	25	–	3.0	22	–	–
036	36L075	109.15	36	1610	42	1 5/8	2F	115	25	–	0.0	25	–	–
040	40L075	121.28	40	1610	42	1 5/8	2F	128	25	–	0.0	25	–	–
048	48L075	145.53	48	1610	42	1 5/8	3F*	151	25	120	–	25	–	92
060	60L075	181.91	60	1610	42	1 5/8	7	–	25	166	0.0	25	0.0	92
072	72L075	218.30	72	1610	42	1 5/8	7	–	25	202	0.0	25	0.0	92
084	84L075	254.68	84	2012	50	2	9#	–	25	236	3.5	32	3.5	106
096	96L075	291.06	96	2012	50	2	9#	–	25	270	3.5	32	3.5	106
120	120L075	363.83	120	2012	50	2	9#	–	25	343	3.5	32	3.5	106

L100 – 1" (25mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023E0014	14L100	42.45	14	pilot bore	19	3/4	1F	49	32	–	–	43	11.0	32
015	15L100	45.48	15	pilot bore	22	7/8	1F	52	32	–	–	43	11.0	35
016	16L100	48.51	16	pilot bore	25	1	1F	56	32	–	–	43	11.0	38
017	17L100	51.54	17	pilot bore	25	1	1F	57	32	–	–	43	11.0	38
018	18L100	54.57	18	1108	28	1 1/8	4F	60	32	38	9.0	22	–	–
019	19L100	57.61	19	1108	28	1 1/8	4F	64	32	38	9.0	22	–	–
020	20L100	60.64	20	1108	28	1 1/8	4F	67	32	45	9.0	22	–	–
021	21L100	63.67	21	1108	28	1 1/8	4F	70	32	45	9.0	22	–	–
022	22L100	66.70	22	1108	28	1 1/8	4F	75	32	48	9.0	22	–	–
023	23L100	69.73	23	1108	28	1 1/8	4F	79	32	52	10.0	22	–	–
024	24L100	72.77	24	1108	28	1 1/8	4F	79	32	52	10.0	22	–	–
025	25L100	75.80	25	1108	28	1 1/8	4F	83	32	54	10.0	22	–	–
026	26L100	78.83	26	1108	28	1 1/8	4F	86	32	60	10.0	22	–	–
027	27L100	81.86	27	1108	28	1 1/8	4F	86	32	60	10.0	22	–	–
028	28L100	84.89	28	1108	28	1 1/8	4F	91	32	65	10.0	22	–	–
030	30L100	90.96	30	1210	32	1 1/4	4F	98	32	71	7.0	25	–	–
032	32L100	97.02	32	1210	32	1 1/4	4F	103	32	75	7.0	25	–	–
036	36L100	109.15	36	1610	42	1 5/8	4F	115	32	86	7.0	25	–	–
040	40L100	121.28	40	1610	42	1 5/8	7F	128	32	96	7.0	25	0.0	90
048	48L100	145.53	48	1610	42	1 5/8	7F	151	32	110	7.0	25	0.0	92
060	60L100	181.91	60	1610	42	1 5/8	7	–	32	166	3.5	25	3.5	92
072	72L100	218.30	72	2012	50	2	9#	–	32	202	0.0	32	0.0	106
084	84L100	254.68	84	2012	50	2	9#	–	32	236	0.0	32	0.0	106
096	96L100	291.06	96	2012	50	2	9#	–	32	270	0.0	32	0.0	106
120	120L100	363.83	120	2012	50	2	9#	–	32	343	0.0	32	0.0	106

Dimensions in millimetres unless otherwise stated.
* These pulleys are recessed to a plate centre under rim diameter J.
# These pulleys have spokes instead of plate web centres.
Prime functional dimensions are correct at the time of publication.
Pulley types and non-functional dimensions may vary.



DIMENSIONS – HEAVY (H) PITCH PULLEYS

H100– 3/4" (19mm) AND 1" (25mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023F0018	18H100	72.77	18	1210	32	1 1/4	4F	79	32	52	7.0	25	–	–
019	19H100	76.81	19	1210	32	1 1/4	4F	83	32	56	7.0	25	–	–
020	20H100	80.95	20	1210	32	1 1/4	4F	87	32	60	7.0	25	–	–
021	21H100	84.89	21	1210	32	1 1/4	4F	91	32	64	7.0	25	–	–
022	22H100	88.94	22	1210	32	1 1/4	4F	95	32	67	7.0	25	–	–
023	23H100	92.98	23	1610	42	1 5/8	4F	98	32	70	7.0	25	–	–
024	24H100	97.02	24	1610	42	1 5/8	4F	103	32	74	7.0	25	–	–
025	25H100	101.06	25	1610	42	1 5/8	4F	106	32	77	7.0	25	–	–
026	26H100	105.11	26	1610	42	1 5/8	4F	112	32	82	7.0	25	–	–
027	27H100	109.15	27	1610	42	1 5/8	4F	115	32	85	7.0	25	–	–
028	28H100	113.19	28	1610	42	1 5/8	4F	120	32	90	7.0	25	–	–
030	30H100	121.28	30	1610	42	1 5/8	4F	128	32	98	7.0	25	–	–
032	32H100	129.36	32	1610	42	1 5/8	7F	135	32	106	7.0	25	–	80
036	36H100	145.53	36	1610	42	1 5/8	7F	151	32	121	7.0	25	–	92
040	40H100	161.70	40	1610	42	1 5/8	7F	168	32	138	7.0	25	–	92
048	48H100	194.04	48	2012	50	2	7F	200	32	152	0.0	32	0.0	106
060	60H100	242.55	60	2012	50	2	9	–	34	169	1.0	32	0.0	106
072	72H100	291.06	72	2012	50	2	9#	–	34	270	1.0	32	0.0	106
084	84H100	339.57	84	2012	50	2	9#	–	34	318	1.0	32	0.0	106
096	96H100	388.08	96	2517	60	2 1/2	9#	–	34	366	5.5	45	5.5	119
120	120H100	485.10	120	2517	60	2 1/2	9#	–	34	462	5.5	45	5.5	119

H150– 1 1/2" (38mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023G0018	18H150	72.77	18	1210	32	1 1/4	4F	79	45	52	20.0	25	–	–
019	19H150	76.81	19	1210	32	1 1/4	4F	83	45	56	20.0	25	–	–
020	20H150	80.85	20	1210	32	1 1/4	4F	87	45	60	20.0	25	–	–
021	21H150	84.89	21	1210	32	1 1/4	4F	91	45	64	20.0	25	–	–
022	22H150	88.94	22	1210	32	1 1/4	4F	95	45	67	20.0	25	–	–
023	23H150	92.98	23	1610	42	1 5/8	4F	98	45	70	20.0	25	–	–
024	24H150	97.02	24	1610	42	1 5/8	4F	103	45	74	20.0	25	–	–
025	25H150	101.06	25	1610	42	1 5/8	4F	106	45	77	20.0	25	–	–
026	26H150	105.11	26	1610	42	1 5/8	4F	112	45	82	20.0	25	–	–
027	27H150	109.15	27	1610	42	1 5/8	4F	115	45	85	20.0	25	–	–
028	28H150	113.19	28	1610	42	1 5/8	4F	120	45	91	20.0	25	–	–
030	30H150	121.28	30	1610	42	1 5/8	4F	128	45	98	20.0	25	–	–
032	32H150	129.36	32	1610	42	1 5/8	7F	135	45	106	20.0	25	–	80
036	36H150	145.53	36	1610	42	1 5/8	7F	151	45	121	20.0	25	–	92
040	40H150	161.70	40	1610	42	1 5/8	7F	168	45	138	20.0	25	–	92
048	48H150	194.04	48	2012	50	2	7F	200	45	169	13.0	32	0.0	106
060	60H150	242.55	60	2012	50	2	7#	–	46	223	7.0	32	7.0	106
072	72H150	291.06	72	2012	50	2	7#	–	46	270	7.0	32	7.0	106
084	84H150	339.57	84	2012	50	2	7#	–	46	320	7.0	32	7.0	106
096	96H150	388.08	96	2517	60	2 1/2	7#	–	46	366	0.5	45	0.5	119
120	120H150	485.10	120	2517	60	2 1/2	7#	–	46	462	0.5	45	0.5	119

H200– 2" (51mm) WIDE BELTS

Catalogue Code	Pulley Designation	Pitch diam	No. of Teeth	Bush No.	Max Bore		Pulley Type	A	F	J	K	L	M	N
					Met.	Imp.								
023H0018	18H200	72.77	18	1210	32	1 1/4	4F	79	58	52	33.0	25	–	–
019	19H200	76.81	19	1210	32	1 1/4	4F	83	58	56	33.0	25	–	–
020	20H200	80.85	20	1610	42	1 5/8	4F	87	58	60	33.0	25	–	–
021	21H200	84.89	21	1610	42	1 5/8	4F	91	58	64	33.0	25	–	–
022	22H200	88.94	22	1610	42	1 5/8	4F	95	58	67	33.0	25	–	–
023	23H200	92.98	23	1610	42	1 5/8	4F	98	58	70	33.0	25	–	–
024	24H200	97.02	24	1610	42	1 5/8	4F	103	58	74	33.0	25	–	–
025	25H200	101.06	25	1610	42	1 5/8	4F	106	58	77	33.0	25	–	–
026	26H200	105.11	26	1610	42	1 5/8	4F	112	58	82	33.0	25	–	–
027	27H200	109.15	27	1610	42	1 5/8	4F	115	58	85	33.0	25	–	–
028	28H200	113.19	28	1610	42	1 5/8	4F	120	58	91	33.0	25	–	–
030	30H200	121.28	30	1610	42	1 5/8	4F	128	58	98	33.0	25	–	–
032	32H200	129.36	32	2012	50	2	4F	135	58	106	26.0	32	–	–
036	36H200	145.53	36	2012	50	2	7F	151	58	121	26.0	32	–	102
040	40H200	161.70	40	2012	50	2	7F	168	58	138	26.0	32	–	106
048	48H200	194.04	48	2517	60	2 1/2	7F	200	58	169	13.0	45	0.0	119
060	60H200	242.55	60	2517	60	2 1/2	7#	–	60	223	7.5	45	7.5	119
072	72H200	291.06	72	2517	60	2 1/2	7#	–	60	270	7.5	45	7.5	119
084	84H200	339.57	84	2517	60	2 1/2	7#	–	60	320	7.5	45	7.5	119
096	96H200	388.08	96	2517	60	2 1/2	7#	–	60	366	7.5	45	7.5	119
120	120H200	485.10	120	2517	60	2 1/2	7#	–	60	462	7.5	45	7.5	119

Dimensions in millimetres unless otherwise stated. # These pulleys have spokes instead of plate web centres.
Prime functional dimensions are correct at the time of publication.
Pulley types and non-functional dimensions may vary.

INSTALLATION TENSION

Synchronous belt drives operate by positive meshing and do not require high installed belt tensions.

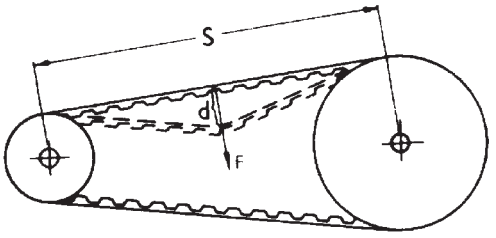
For optimum performance, however, belts should be installed with a pre-tension suitable for the envisaged drive duty, derived from the formulae below.

Where a range is indicated, the lower value will be suitable for lightly loaded, smooth running drives, whereas drives subject to high shock loads and/or frequent starts should be tensioned to the higher level. Belt pre-tension is usually achieved by drive centre distance extension and checked by applying a setting force F (N) at mid belt span sufficient to deflect the belt a distance d (mm) related to the length of the span S (metres).

It is necessary to ensure that the force is applied at right angles to the belt span, and evenly across the belt width.

A Fenner Belt Tension Indicator may be used, in conjunction with a piece of rigid bar laid across the face of the belt at mid-span

An electronic, sonic tension indicator is also available.



TORQUE DRIVE PLUS *3* & HTD DRIVES

(Deflection – d 20mm/metre span length - S)

Calculate the force F from the formulae below.

$$F(\max) = \frac{kW \times 955{,}000}{d.n} \qquad F(\min) = \frac{kW \times 477{,}500}{d.n} \quad (N)$$

where kW = Motor power, or absorbed power if known

d = Pitch diameter of either pulley (mm).

n = Rev/min of same pulley.

TIMING DRIVES

(Deflection – d 20 mm/metre span length - S)

Use force F from the table below.

Belt	F (Newtons)
L050	2.7
L075	4.3
L100	6.1
H075	11.0
H100	15.6
H150	24.3
H200	33.4

NOTE: Excessive belt tension will reduce belt and bearing lives and may increase drive noise levels. For fixed centre applications tension may be applied by an idler pulley (see note on Idler Pulleys) or consult your local Authorised Distributor for precise fixed centre dimensions. Drive support frameworks must be rigid to avoid flexure resulting in centre distance reduction and consequent tooth jumping, particularly on high torque starts.

BELT CARE

Avoid 'crimping' belts.

Folding belts such that they are tightly bent, e.g. for storage, damages the belt cords and will lead to premature failure.

BELT INSTALLATION

Provision should be made for adjustment of the drive centre distance to allow for installation of the belt around the pulleys without damage, and subsequent pre-tensioning. A belt should never be forced over pulley flanges as internal belt damage will result.

The following tables offer guidance as to the necessary adjustments for installation and also for applying appropriate pre-tension.

Centre Distance Allowance (installation on flangeless pulleys, tensioning) mm			Additional Centre Distance Allowance (installation over flanged pulleys) mm		
Belt length (mm)	Installation	Tensioning allowance (any drive)	Belt pitch	One pulley flanged (mm)	Both pulleys flanged (mm)
<1000	1.8	0.8	5mm	14	19
1001 - 1780	2.8	0.8	8mm	22	33
1781 - 2540	3.3	1.0	14mm	36	58
2541- 3300	4.1	1.0	L	25	35
>3300	5.3	1.3	H	32	48

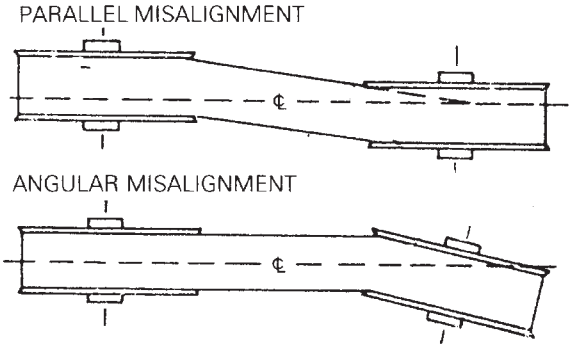
PULLEY ALIGNMENT

Misalignment of drive pulleys results in unequal tension across the belt width and extreme edge wear. Pulley alignment should be proved using a straight-edge or laser device, and shafts checked for parallelism.

Misalignment on any synchronous drive should not exceed 1/4° angular or 5mm/metre centre distance parallel.

Drive support frameworks must be rigid to avoid flexure causing shaft misalignment under drive forces.

Flexure can result in tooth jumping during high torque starts, particularly if misalignment is present.



IDLER PULLEYS

Grooved idler pulleys can be used on the inside of all synchronous belts.

Flat (not crowned) idlers can be used on the outer surface of Classical Timing, HTD and TDP*3* belts.

Wherever possible, idlers should operate on the slack span of a belt, and arc of contact should be kept to a minimum.

Idler pulleys should be of equal or greater diameter than the smaller of the drive pulleys.

Spring loaded idler pulleys are not normally recommended.

TAPER LOCK

Most of the synchronous pulleys/sprockets featured in this section use Taper Lock shaft fixing.

For detailed instructions on the fitting and dismounting of Taper Lock products see Shaft Fixings page 129.



Fenner® DRIVE COUPLINGS

Fenner shaft couplings range from highly resilient to totally rigid and are all precision manufactured using high quality ferrous materials and the latest polymer technology.



- Fenaflex tyre couplings from 24 to 14000Nm, standard DBSE spacer variant and ATEX Ex approved variant
- HRC resilient, Taper Lock® couplings from 30 to 3150Nm
- Jaw couplings from 0.5 to 840 Nm with incidental misalignment capacity and quick fit spacer variant
- Rigid Taper Lock® couplings in 8 sizes up to 11000Nm

Drive Couplings Design Data Required

- **Type of prime mover, or driving m/c**
- **Electric motor starting arrangement**
- **Engine or compressor inertia of both machines (MR^2 or GD^2)**
- **Rotational speed of prime mover**
- **Power rating of prime mover**
- **Type of coupled machine**
- **Power absorbed by coupled machine**
- **Hours/day duty & start/stop frequency**
- **Both coupled shaft diameters**
- **Distance between shaft ends**
- **Likely machine alignment quality** angular, parallel and axial

DRIVE COUPLINGS

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The Fenaflex coupling is a highly flexible, torsionally elastic coupling offering versatility to designers and engineers with a choice of flange combinations to suit most applications.

Tyre coupling flanges are available in either F or H Taper Lock™ fitting or pilot bored, which can be finish bored to the required size.

With the addition of a spacer assembly the coupling can be used to accommodate standard distances between shaft ends, (DBSE) facilitating centrifugal pump maintenance.

Fenaflex couplings can accommodate simultaneous maximum misalignment in all planes without imposing undue loads on adjacent bearings and the excellent shock-absorbing properties of the flexible tyre reduce vibration and torsional oscillations.

Fenaflex tyres are available in natural rubber compounds for use in ambient temperatures between –50°C and +50°C. Chloroprene rubber compounds are available for use in adverse operating conditions (e.g. oil or grease contamination) and can be used in temperatures of –15°C to +70°C. The chloroprene compound should also be used when fire-resistance and anti-static (FRAS) properties are required, and it is this tyre material that is used with specific flange modifications in the ATEX ⟨Ex⟩ approved variant.

SELECTION

(a) Service Factor

Determine the required Service Factor from table below.

(b) Design Power

Multiply the normal running power by the service factor. This gives the design power which is used as a basis for selecting the coupling.

(c) Coupling Size

Refer to Power Ratings table (page 111) and from the appropriate speed read across until a power greater than that required in step (b) is found.

The size of Fenaflex coupling required is given at the head of that column.

(d) Bore Size

Check from Dimensions table (page 112) that chosen flanges can accommodate required bores.

EXAMPLE

A Fenaflex coupling is required to transmit 45kW from an A.C. electric motor which runs at 1440 rev/min to a rotary screen for 12 hours per day. The motor shaft is 60mm diameter and the screen shaft is 55mm diameter. Taper Lock is required.

(a) Service Factor

The appropriate service factor is 1.4.

(b) Design Power

Design power = 45 x 1.4 = 63kW.

(c) Coupling Size

By reading across from 1440 rev/min in the power ratings table the first power figure to exceed the required 63kW in step (b) is 75,4kW. The size of coupling is F90 Fenaflex.

(d) Bore Size

By referring to the dimensions table it can be seen that both shaft diameters fall within the bore range available.

SERVICE FACTORS

SPECIAL CASES For applications where substantial shock, vibration and torque fluctuations occur, and for reciprocating machines (e.g. internal combustion engines, piston pumps and compressors) refer to your local Authorised Distributor with full machine details for analysis.	Type of Driving Unit					
	Electric Motors Steam Turbines			Internal Combustion Engines† Steam Engines Water Turbines		
	Hours per day duty			Hours per day duty		
Type of Driven Machine	10 and under	over 10 to 16 incl.	over 16	10 and under	over 10 to 16 incl.	over 16
CLASS 1 Agitators, Brewing machinery, Centrifugal compressors and pumps. Belt conveyors, Dynamometers, Lineshafts, Fans up to 7.5kW. Blowers and exhausters (except positive displacement), Generators.	0.8	0.9	1.0	1.3	1.4	1.5
CLASS 2* Clay working machinery, General machine tools, paper mill beaters and winders, Rotary pumps, Rubber extruders, Rotary screens, Textile machinery, Marine propellors and Fans over 7.5kw.	1.3	1.4	1.5	1.8	1.9	2.0
CLASS 3* Bucket elevators, Cooling tower fans, Piston compressors and pumps, Foundry machinery, Metal presses, Paper mill calenders, Hammer mills, Presses and pulp grinders, Rubber calenders, Pulverisers and Positive displacement blowers.	1.8	1.9	2.0	2.3	2.4	2.5
CLASS 4* Reciprocating conveyors, Gyratory crushers, Mills (ball, pebble and rod), Rubber machinery (Banbury mixers and mills) and Vibratory screens.	2.3	2.4	2.5	2.8	2.9	3.0

* It is recommended that keys (with top clearance if in Taper Lock bushes) are fitted on applications where load fluctuation is expected.
† Couplings for use with internal combustion engines may require special consideration, refer to pages 114.



Fenaflex® Couplings - Power Ratings

POWER RATINGS (KW)

Speed rev/min	Coupling Size														
	F40	**F50**	**F60**	**F70**	**F80**	**F90**	**F100**	**F110**	**F120**	**F140**	**F160**	**F180**	**F200**	**F220**	**F250**
100	0.25	0.69	1.33	2.62	3.93	5.24	7.07	9.16	13.9	24.3	39.5	65.7	97.6	121.0	154.0
200	0.50	1.38	2.66	5.24	7.85	10.50	14.10	18.30	27.9	48.7	79.0	131.0	195.0	243.0	307.0
300	0.75	2.07	3.99	7.85	11.80	15.70	21.20	27.50	41.8	73.0	118.0	197.0	293.0	364.0	461.0
400	1.01	2.76	5.32	10.50	15.70	20.90	28.30	36.60	55.7	97.4	158.0	263.0	391.0	486.0	615.0
500	1.26	3.46	6.65	13.10	19.60	26.20	35.30	45.80	69.6	122.0	197.0	328.0	488.0	607.0	768.0
600	1.51	4.15	7.98	15.70	23.60	31.40	42.40	55.00	83.6	146.0	237.0	394.0	586.0	729.0	922.0
700	1.76	4.84	9.31	18.30	27.50	36.60	49.50	64.10	97.5	170.0	276.0	460.0	684.0	850.0	1076.0
720	**1.81**	**4.98**	**9.57**	**18.80**	**28.30**	**37.70**	**50.90**	**66.00**	**100.0**	**175.0**	**284.0**	**473.0**	**703.0**	**875.0**	**1106.0**
800	2.01	5.53	10.60	20.90	31.40	41.90	56.50	73.30	111.0	195.0	316.0	525.0	781.0	972.0	1229.0
900	2.26	6.22	12.00	23.60	35.30	47.10	63.60	82.50	125.0	219.0	355.0	591.0	879.0	1093.0	1383.0
960	**2.41**	**6.63**	**12.80**	**25.10**	**37.70**	**50.30**	**67.90**	**88.00**	**134.0**	**234.0**	**379.0**	**630.0**	**937.0**	**1166.0**	**1475.0**
1000	2.51	6.91	13.30	26.20	39.30	52.40	70.70	91.60	139.0	243.0	395.0	657.0	976.0	1215.0	1537.0
1200	3.02	8.29	16.00	31.40	47.10	62.80	84.80	110.00	167.0	292.0	474.0	788.0	1172.0		
1400	3.52	9.68	18.60	36.60	55.00	73.30	99.00	128.00	195.0	341.0	553.0	919.0			
1440	**3.62**	**9.95**	**19.10**	**37.70**	**56.50**	**75.40**	**102.00**	**132.00**	**201.0**	**351.0**	**568.0**	**945.0**			
1600	4.02	11.10	21.30	41.90	62.80	83.80	113.00	147.00	223.0	390.0	632.0				
1800	4.52	12.40	23.90	47.10	70.70	94.20	127.00	165.00	251.0	438.0					
2000	5.03	13.80	26.60	52.40	78.50	105.50	141.00	183.00	279.0						
2200	5.53	15.20	29.30	57.60	86.40	115.00	155.00	202.00							
2400	6.03	16.60	31.90	62.80	94.20	126.00	170.00								
2600	6.53	18.00	34.60	68.10	102.00	136.00	184.00								
2800	7.04	19.40	37.20	73.30	110.00	147.00									
2880	**7.24**	**19.90**	**38.30**	**75.40**	**113.00**	**151.00**									
3000	7.54	20.70	39.90	78.50	118.00	157.00									
3600	9.05	24.90	47.90	94.20											

The figures in heavier type are for standard motor speeds. All these power ratings are calculated at constant torque. For speeds below 100 rev/min and intermediate speeds use nominal torque ratings.

PHYSICAL CHARACTERISTICS – FLEXIBLE TYRES

Characteristics	Coupling Size														
	F40	**F50**	**F60**	**F70**	**F80**	**F90**	**F100**	**F110**	**F120**	**F140**	**F160**	**F180**	**F200**	**F220**	**F250**
Maximum speed rev/min	4,500	4,500	4,000	3,600	3,100	3,000	2,600	2,300	2,050	1,800	1,600	1,500	1,300	1,100	1,000
Nominal Torque Nm T_{KN}	24	66	127	250	375	500	675	875	1,330	2,325	3,770	6,270	9,325	11,600	14,675
Maximum Torque Nm $T_{K\,MAX}$	64	160	318	487	759	1,096	1,517	2,137	3,547	5,642	9,339	16,455	23,508	33,125	42,740
Torsional Stiffness Nm/°	5	13	26	41	63	91	126	178	296	470	778	1,371	1,959	2,760	3,562
Max. parallel misalignment mm	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.7	4.2	4.8	5.3	5.8	6.6
Maximum end float mm ±	1.3	1.7	2.0	2.3	2.6	3.0	3.3	3.7	4.0	4.6	5.3	6.0	6.6	7.3	8.2
Approximate mass. kg	0.1	0.3	0.5	0.7	1.0	1.1	1.1	1.4	2.3	2.6	3.4	7.7	8.0	10.0	15.0
Alternating Torque ± Nm @ 10Hz T_{KW}	11	26	53	81	127	183	252	356	591	940	1,556	2,742	3,918	5,521	7,124
Resonance Factor V_R	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Damping Coefficient Ψ	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Maximum torque figures should be regarded as short duration overload ratings for use in such circumstances as direct-on-line motor starting.

All Fenaflex tyre couplings have an angular misalignment capacity up to 4°.

FLEXIBLE TYRE CODE NUMBERS

Unless otherwise specified Fenaflex flexible tyres will be supplied in a natural rubber compound which is suitable for operation in temperatures –50°C to +50°C. A chloroprene compound is available which is Fire Resistant and Anti-Static (FRAS) and has greater resistance to heat and oil.

This is suitable for operation in temperatures –15°C to +70°C. For temperatures outside these ranges – consult your local Authorised Distributor.

The FRAS tyre variant is used with specifically modified metal flanges to create the ATEX ⟨Ex⟩ approved variant.

Size	Natural	FRAS
F40	033A0048	033A0068
F50	033B0048	033B0068
F60	033C0048	033C0068
F70	033D0048	033D0068
F80	033E0048	033E0068
F90	033F0048	033F0068
F100	033G0048	033G0068
F110	033H0048	033H0068
F120	033J0048	033J0068
F140	033K0048	033K0068
F160	033L0048	033L0068
F180	033Q0048	033Q0068
F200	033M0048	033M0068
F220	033N0048	033N0068
F250	033P0048	033P0068

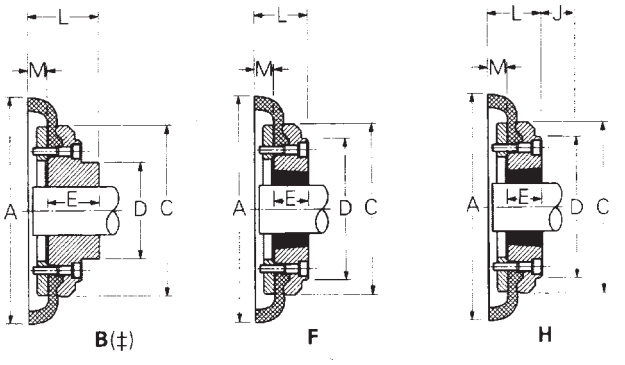
Coupling Size	M Dimension (mm)	Gap Between Tyre Ends (mm)	Clamping Screw Torque (Nm)	Screw Size
F40*	22	2	15	M6
F50*	25	2	15	M6
F60*	33	2	15	M6
F70	23	3	24	M8
F80	25	3	24	M8
F90	27	3	40	M10
F100	27	3	40	M10
F110	25	3	40	M10
F120	29	3	50	M12
F140	32	5	55	M12
F160	30	5	80	M16
F180	46	6	105	M16
F200	48	6	120	M16
F220	55	6	165	M20
F250	59	6	165	M20

*Hexagonal socket caphead clamping screws on these sizes.

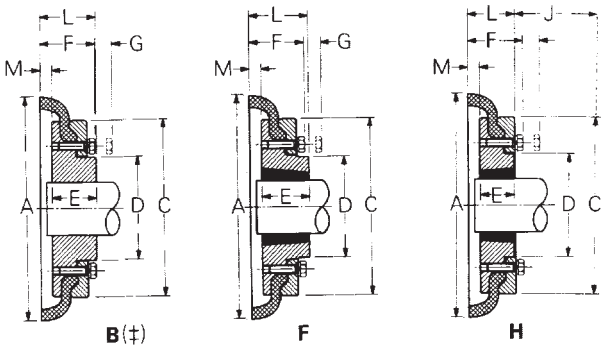
Fenaflex® Couplings - Dimensions

FLANGES

SIZES F40 – 60



SIZES F70 – 250



DIMENSIONS OF FENAFLEX FLANGES TYPES B, F & H

Catalogue ‡ Code	Size	Type	Bush No. #	Max Bore		Types F & H			Type B		Screw over Key	A	C	D	F	G§	M¶	Mass* (kg)	Inertia* (kgm^2)
				Metric	Inch	L	E	J†	L	E									
033A0501	**F40**	B	–	32	–	–	–	29	33.0	22	M5	104	82	–	–	–	11.0	0.8	0.00074
033A0502	**F40**	F	1008	25	1"	33.0	22	29	–	–	–	104	82	–	–	–	11.0	0.8	0.00074
033A0503	**F40**	H	1008	25	1"	33.0	22	29	–	–	–	104	82	–	–	–	11.0	0.8	0.00074
033B0501	**F50**	B	–	38	–	–	–	38	45.0	32	M5	133	100	79	–	–	12.5	1.2	0.00115
033B0502	**F50**	F	1210	32	1¼"	38.0	25	38	–	–	–	133	100	79	–	–	12.5	1.2	0.00115
033B0503	**F50**	H	1210	32	1¼"	38.0	25	38	–	–	–	133	100	79	–	–	12.5	1.2	0.00115
033C0501	**F60**	B	–	45	–	–	–	38	55.0	38	M6	165	125	70	–	–	16.5	2.0	0.0052
033C0502	**F60**	F	1610	42	1⅝"	42.0	25	38	–	–	–	165	125	103	–	–	16.5	2.0	0.0052
033C0503	**F60**	H	1610	42	1⅝"	42.0	25	38	–	–	–	165	125	103	–	–	16.5	2.0	0.0052
033D0301	**F70**	B	–	50	–	–	–	–	47.0	35	M10	187	144	80	50	13	11.5	3.1	0.009
033D0302	**F70**	F	2012	50	2"	44.0	32	42	–	–	–	187	144	80	50	13	11.5	3.1	0.009
033D0303	**F70**	H	1610	42	1⅝"	42.0	25	38	–	–	–	187	144	80	50	13	11.5	3.0	0.009
033E0301	**F80**	B	–	60	–	–	–	–	55.0	42	M10	211	167	98	54	16	12.5	4.9	0.018
033E0302	**F80**	F	2517	60	2½"	58.0	45	48	–	–	–	211	167	97	54	16	12.5	4.9	0.018
033E0303	**F80**	H	2012	50	2"	45.0	32	42	–	–	–	211	167	98	54	16	12.5	4.6	0.017
033F0301	**F90**	B	–	70	–	–	–	–	63.5	49	M12	235	188	112	60	16	13.5	7.1	0.032
033F0302	**F90**	F	2517	60	2½"	59.5	45	48	–	–	–	235	188	108	60	16	13.5	7.0	0.031
033F0303	**F90**	H	2517	60	2½"	59.5	45	48	–	–	–	235	188	108	60	16	13.5	7.0	0.031
033G0301	**F100**	B	–	80	–	–	–	–	70.5	56	M12	254	216	125	62	16	13.5	9.9	0.055
033G0302	**F100**	F	3020	75	3"	65.5	51	55	–	–	–	254	216	120	62	16	13.5	9.9	0.055
033G0303	**F100**	H	2517	60	2½"	59.5	45	48	–	–	–	254	216	113	62	16	13.5	9.4	0.054
033H0301	**F110**	B	–	90	–	–	–	–	75.5	63	M12	279	233	128	62	16	12.5	12.5	0.081
033H0302	**F110**	F	3020	75	3"	63.5	51	55	–	–	–	279	233	134	62	16	12.5	11.7	0.078
033H0303	**F110**	H	3020	75	3"	63.5	51	55	–	–	–	279	233	134	62	16	12.5	11.7	0.078
033J0301	**F120**	B	–	100	–	–	–	–	84.5	70	M16	314	264	143	67	16	14.5	16.9	0.137
033J0302	**F120**	F	3525	100	4"	79.5	65	67	–	–	–	314	264	140	67	16	14.5	16.5	0.137
033J0303	**F120**	H	3020	75	3"	65.5	51	55	–	–	–	314	264	140	67	16	14.5	15.9	0.130
033K0301	**F140**	B	–	130	–	–	–	–	110.5	94	M20	359	311	178	73	17	16.0	22.2	0.254
033K0302	**F140**	F	3525	100	4"	81.5	65	67	–	–	–	359	311	178	73	17	16.0	22.3	0.255
033K0303	**F140**	H	3525	100	4"	81.5	65	67	–	–	–	359	311	178	73	17	16.0	22.3	0.255
033L0301	**F160**	B	–	140	–	–	–	–	117	102	M20	402	345	187	78	19	15.0	35.8	0.469
033L0302	**F160**	F	4030	115	4½"	92.0	77	80	–	–	–	402	345	197	78	19	15.0	32.5	0.380
033L0303	**F160**	H	4030	115	4½"	92.0	77	80	–	–	–	402	345	197	78	19	15.0	32.5	0.380
033Q0301	**F180**	B	–	150	–	–	–	–	137	114	M20	470	398	200	94	19	23.0	49.1	0.871
033Q0302	**F180**	F	4535	125	5"	112.0	89	89	–	–	–	470	398	205	94	19	23.0	42.2	0.847
033Q0303	**F180**	H	4535	125	5"	112.0	89	89	–	–	–	470	398	205	94	19	23.0	42.2	0.847
033M0301	**F200**	B	–	150	–	–	–	–	138	114	M20	508	429	200	103	19	24.0	58.2	1.301
033M0302	**F200**	F	4535	125	5"	113.0	89	89	–	–	–	508	429	205	103	19	24.0	53.6	1.281
033M0303	**F200**	H	4535	125	5"	113.0	89	89	–	–	–	508	429	205	103	19	24.0	53.6	1.281
033N0301	**F220**	B	–	160	–	–	–	–	154.5	127	M20	562	474	218	118	20	27.5	79.6	2.142
033N0302	**F220**	F	5040	125	5"	129.5	102	92	–	–	–	562	474	223	118	20	27.5	72.0	2.104
033N0303	**F220**	H	5040	125	5"	129.5	102	92	–	–	–	562	474	223	118	20	27.5	72.0	2.104
033P0301	**F250**	B	–	190	–	–	–	–	161.5	132	M20	628	532	254	125	25	29.5	104.0	3.505

Dimensions in millimetres unless otherwise stated.

§ G is the amount by which clamping screws need to be withdrawn to release tyre.
† J is the wrench clearance to allow for tightening/loosening the bush on the shaft and the clamp ring screws on sizes F40. F50 and F60. The use of a shortened wrench will allow this dimension to be reduced.
¶ M is half the distance between flanges. Shaft ends, although normally located twice M apart, can project beyond the flanges as shown. In this event allow sufficient space between shaft ends for end float and misalignment.
* Mass and inertia figures are for single flange with mid range bore and include clamping ring, screws and washers and half tyre.
‡ For pilot bore 'B' flange code as listed. Flanges are also available finish bored with keyway if required. Bore must be specified on order.
# Note: On sizes F70, 80, 100 and 120 the 'F' direction bush is larger than that in the 'H'direction.

Note: Flange assemblies comprise hub, clamp ring and clamp ring screws/washers.

Fenaflex spacer couplings consit of a Fenaflex tyre coupling (size F40–F140) plus a spacer flange assembly.

They are designed for use on applications where it is an advantage to be able to move either shaft axially without disturbing the driving or driven machine (e,g, centrifugal pump rotors), Fenaflex spacer couplings are primarily designed for standard distance between shaft end dimensions of 80, 100, 140 and 180mm.

SELECTION

1. Select a suitable size of Fenaflex coupling using the method shown on page 110. Read down the first column in table below and locate the size of coupling selected.
2. Read across until the required distance between shaft ends can be accommodated.
3. Note the required spacer coupling designation at head of column.
4. Check from the Spacer Coupling Dimensions table below that the selected spacer/coupling combination can accommodate the machine shaft size.

Note

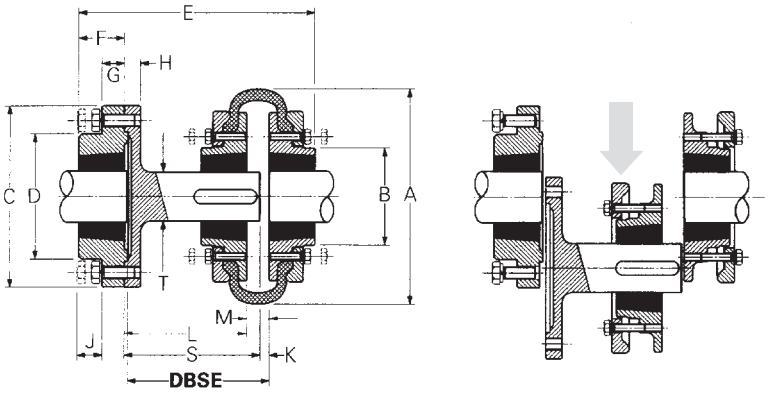
A full specification comprises:

1 x Spacer assembly
2 x Fenaflex flanges
3 x Taper Lock bushes
1 x Fenaflex tyre

DISTANCE BETWEEN SHAFT ENDS

Size	Distance between Shaft Ends (mm)																			
	SM12		SM16				SM25						SM30				SM35			
	80 (100)		100		140		100		140		180		140		180		140		180	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
F40	80	100	100	113	140	150														
F50			100	116	140	156														
F60			100	124	140	164														
F70							100	114	140	154	180	194								
F80							100	117	140	157	180	197								
F90									140	158	180	198								
F100													140	158	180	198				
F110													140	156	180	196				
F120																	140	160	180	200
F140																	140	163	180	203

Note: Alternative distances between shaft ends may be accommodated. Consult your local Authorised Distributor.



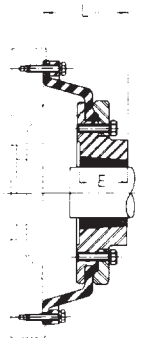
SPACER COUPLING DIMENSIONS

Spacer	Nom DBSE	Fenaflex	Spacer Code	Spacer Bush Size	Max. Bore		Fenaflex Bush Size	Max. Bore		A	B	C	D	E	F	G	H	J	K	L	M	S	T	Asmy. wt. kgf
					mm	Inch		mm	Inch															
SM12	**80**	**F40**	033S1200	1210	32	1 1/4"	1008	25	1"	104	82	118	83	134	25	14	15	14	6	65	22	77	25	2.53
SM12	**100**	**F40**	033S1200	1210	32	1 1/4"	1008	25	1"	104	82	118	83	140	25	14	15	14	22	77	22	77	25	
SM16	**100**	**F40***	033T1600	1610	42	1 5/8"	1008	25	1"	104	82	127	80	157	25	18	15	14	9	88	22	94	32	3.11
SM16	**140**	**F40***	033V1600	1610	42	1 5/8"	1008	25	1"	104	82	127	80	187	25	18	15	14	9	128	22	134	32	3.29
SM16	**100**	**F50**	033T1600	1610	42	1 5/8"	1210	32	1 1/4"	133	79	127	80	160	25	18	15	14	9	85	25	94	32	3.11
SM16	**140**	**F50**	033V1600	1610	42	1 5/8"	1210	32	1 1/4"	133	79	127	80	200	25	18	15	14	9	125	25	134	32	3.29
SM16	**100**	**F60**	033T1600	1610	42	1 5/8"	1610	42	1 5/8"	165	70	127	80	161	25	18	15	14	9	78	33	94	32	3.11
SM16	**140**	**F60**	033V1600	1610	42	1 5/8"	1610	42	1 5/8"	165	70	127	80	201	25	18	15	14	9	118	33	134	32	3.29
SM25	**100**	**F70†**	033T2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	180	45	22	16	14	9	80	23	94	48	7.06
SM25	**140**	**F70†**	033V2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	220	45	22	16	14	9	120	23	134	48	8.19
SM25	**180**	**F70†**	033W2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	260	45	22	16	14	9	160	23	174	48	8.60
SM25	**100**	**F80**	033T2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	193	45	22	16	14	9	78	25	94	48	7.06
SM25	**140**	**F80**	033V2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	233	45	22	16	14	9	118	25	134	48	8.19
SM25	**180**	**F80**	033W2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	273	45	22	16	14	9	158	25	174	48	8.60
SM25	**140**	**F90**	033V2500	2517	60	2 1/2"	2517	60	2 1/2"	235	108	178	123	233	45	22	16	14	9	116	27	134	48	8.19
SM25	**180**	**F90**	033W2500	2517	60	2 1/2"	2517	60	2 1/2"	235	108	178	123	273	45	22	16	14	9	156	27	174	48	8.60
SM30	**140**	**F100**	033V3000	3020	75	3"	3020	75	3"	254	120	216	146	245	51	29	20	17	9	116	27	134	60	13.98
SM30	**180**	**F100**	033W3000	3020	75	3"	3020	75	3"	254	120	216	146	285	51	29	20	17	9	156	27	174	60	15.30
SM30	**140**	**F110**	033V3000	3020	75	3"	3020	75	3"	279	134	216	146	245	51	29	20	17	9	118	25	134	60	13.58
SM30	**180**	**F110**	033W3000	3020	75	3"	3020	75	3"	279	134	216	146	285	51	29	20	17	9	158	25	174	60	15.30
SM35	**140**	**F120†**	033V3500	3525	100	4"	3525	100	4"	314	140	248	178	272	63	34	20	17	9	114	29	134	80	21.94
SM35	**180**	**F120†**	033W3500	3525	100	4"	3525	100	4"	314	140	248	178	312	63	34	20	17	9	154	29	174	80	23.34
SM35	**140**	**F140**	033V3500	3525	100	4"	3525	100	4"	359	178	248	178	271	63	34	20	17	9	111	32	134	80	21.94
SM35	**180**	**F140**	033W3500	3525	100	4"	3525	100	4"	359	178	248	178	312	63	34	20	17	9	151	32	174	80	23.34

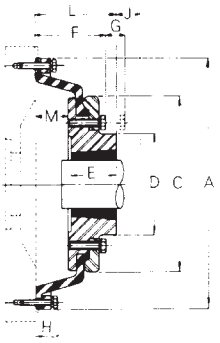
Note: Larger sizes of spacer coupling can be manufactured to order. Consult your local Authorised Distributor.
* F40 'B' Flange must be used to fit spacer shaft.
† 'F' Flange must be used to fit spacer shaft.

Fenaflex® Flywheel Couplings

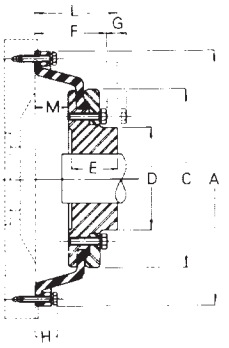
Designed to fit standard SAE and other popular flywheel configurations, these couplings use chloroprene flexible elements and employ standard B, F or H type driven flanges.



ASSEMBLY WF



ASSEMBLY WH

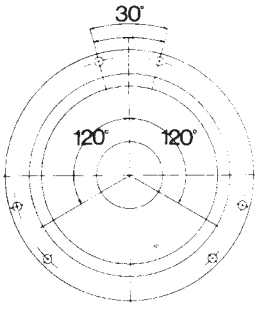


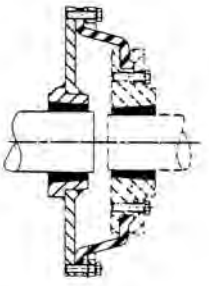
ASSEMBLY WB

DIMENSIONS

Driving Flange — W (Bolt ring)								Driven Flanges — Through Bore and Taper Lock — F & H														
Code No.	Size	PCD	Bolts† Flywheel Fixing Screws*	A	H	Mass (kg)	Inertia (kg m²)	Code No.	Size	Type	Bush	Max Bore	C	D	E	F	G	J††	L	M	Screw Over Key	Mass (kg)	Inertia (kg m²)
033D0010	**87**	8.750"	8 off M8 x 30 lg 8 off 5/16" UNC x 1 1/8" lg	240	26	1.41	0.016	033D0301 033D0302 033D0303	F70 F70 F70	B F H	– 2012 1610	50 50 42	144 144 144	80 80 80	35 32 30	73 73 73	13 13 13	– 42 38	70 67 65	35 35 35	M10 – –	3.1 3.1 3.0	0.009 0.009 0.009
033E0010	**96**	9.625"	8 off M10 x 35 lg 8 off 3/8" UNC x 1 3/8" lg	262	30	1.87	0.025	033E0301 033E0302 033E0303	F80 F80 F80	B F H	— 2517 2012	60 60 50	167 167 167	97 95 95	42 45 32	81 81 81	16 16 16	— 48 42	82 85 72	40 40 40	M10 — —	4.9 4.9 4.6	0.018 0.018 0.017
033R0010	**112**	11.250"	8 off 7/16" UNF x 1 1/2" lg	305	32	2.49	0.048	033G0301 033G0302 033G0303	F100 F100 F100	B F H	— 3020 2517	80 75 60	216 216 216	125 120 113	48 51 45	89 89 89	16 16 16	— 55 48	86 89 83	41 41 41	M12 — —	9.9 7.0 7.0	0.055 0.031 0.031
033G0010	**116**	11.625"	8 off M10 x 35 lg 8 off 3/8" UNC x 1 3/8" lg 8 off 3/8" BSF x 1 3/8" lg	313	30	2.51	0.051	033G0301 033G0302 033G0303	F100 F100 F100	B F H	— 3020 2517	80 75 60	216 216 216	125 120 113	48 51 45	89 89 89	16 16 16	— 55 48	89 92 86	41 41 41	M12 — —	9.9 9.9 9.4	0.055 0.055 0.054
033H0010	**131**	13.125"	8 off M10 x 45 lg 8 off 3/8" UNC x 1 3/4" lg	351	39	3.71	0.094	033H0301 033H0302 033H0303	F110 F110 F110	B F H	— 3020 3020	90 75 75	233 233 233	128 134 134	63 51 51	102 102 102	16 16 16	— 55 55	118 106 106	55 55 55	M12 — —	12.5 11.7 11.7	0.081 0.078 0.078
033S0010	**135**	13.500"	6 off 3/8" UNC x 1 3/4" lg	364	37	4.16	0.113	033H0301 033H0302 033H0303	F110 F110 F110	B F H	— 3020 3020	90 75 75	233 233 233	128 134 134	63 51 51	102 106 106	16 16 16	— 55 55	120 108 108	57 57 57	M12 — —	12.5 11.7 11.7	0.081 0.078 0.078
033K0010	**172**	17.250"	8 off M12 x 50 lg 8 off ½" UNC x 2" lg	465	41	7.10	0.320	033K0301 033K0302 033K0303	F140 F140 F140	B F H	— 3525 3525	130 100 100	311 311 311	178 178 178	94 65 65	121 121 121	17 17 17	— 67 67	162 133 133	68 68 68	M20 — —	22.2 22.3 22.3	0.254 0.255 0.255

All dimensions in millimetres unless otherwise stated.
Driving flange mass & inertia given are for the bolt ring, bolts and half of the element.
Driven flange mass & inertia given are for an assembled flange having a mid range bore or bush and half the element.
†† J is the wrench clearance to allow for tightening/loosening the bush. A shortened wrench will allow this dimension to be reduced.
* Flywheel fixing screws are not a stock component but should be sourced to the above dimensions, according to thread type used in the flywheel concerned. They should be used with rectangular / square section split washers, respectively.





FENAFLEX HIGH SPEED COUPLINGS

Fenaflex flywheel style elements can be deployed to couple a balanced disc with Taper Lock weld-on-hub shaft fixing (effectively replacing the flywheel in the designs illustrated above) to a standard Fenaflex flange, for use at higher rotational speeds.

Consult your local Authorised Distributor for details.

†W FLANGE—

bolt holes are equi-spaced except size 135W shown

Replacement elements for previously catalogued sizes 192, 213 and 252 are available – Consult your local Authorised Distributor.



FENAFLEX ELEMENTS—PHYSICAL CHARACTERISTICS AND POWER RATINGS

Coupling Size	Element Part No.	Normal Torque (Nm) T_{KN}	Maximum Torque (Nm) T_{KMAX}	Maximum Alternating Torque (Nm) $\pm T_{KW}$	Resonance Factor V_R	Damping Energy Ratio ψ	Dynamic Stiffness (Nm/rad) C_{Tdyn}	Power at * 1500 rev/min (kW)	Power at * 1800 rev/min (kW)
87	033D0100	239	717	155	7.0	0.9	6847	37	45
	033D0101	478	956	238	7.0	0.9	13695	75	90
(SAE 7½)	033D0102	239	717	120	7.0	0.9	3427	37	45
	033D0105	239	717	64	7.0	0.9	1369	37	45
96	033E0100	325	975	211	7.0	0.9	9311	51	61
	033E0101	650	1300	324	7.0	0.9	18623	102	122
(SAE 8)	033E0102	325	975	163	7.0	0.9	4653	51	61
	033E0105	325	975	87	7.0	0.9	1862	51	61
112	033R0100	592	1776	385	7.0	0.9	16959	93	111
	033R0101	1184	2368	590	7.0	0.9	33922	186	223
	033R0105	592	1776	158	7.0	0.9	3392	93	111
116	033G0100	592	1776	385	7.0	0.9	16961	93	111
	033G0101	1184	2368	590	7.0	0.9	33922	186	223
(SAE 10)	033G0102	592	1776	296	7.0	0.9	8480	93	111
	033G0105	592	1776	158	7.0	0.9	3392	93	111
131	033H0100	754	2262	490	7.0	0.9	21602	118	142
	033H0101	1508	3016	751	7.0	0.9	43204	237	284
(SAE 11½)	033H0102	754	2262	377	7.0	0.9	10801	118	142
	033H0105	754	2262	201	7.0	0.9	4320	118	142
135	033S0101	1508	3016	751	7.0	0.9	43204	237	284
	033S0105	754	2262	201	7.0	0.9	4320	118	142
172	033K0100	1919	5757	1247	7.0	0.9	54979	301	362
	033K0101	3838	7676	1912	7.0	0.9	109959	602	723
(SAE 14)	033K0102	1919	5757	960	7.0	0.9	27492	301	362
	033K0105	1919	5757	511	7.0	0.9	10996	301	362

Selection of Fenaflex flywheel couplings should take account of design power (using Service Factors on page 110) and speed. and also the torsional characteristics of the coupled machines – consult your local Authorised Distributor.
* Power ratings at other speeds directly proportional to these values.

ALL FENAFLEX COUPLINGS – ORDERING INSTRUCTIONS

SHAFT TO SHAFT COUPLING USING FLEXIBLE TYRE.

Consists of:

2–Flanges (page 112)

T/L bushes for F and H flanges only (pages 126 & 127)

1–Flexible tyre (page111)

EXAMPLE ORDER

Fenaflex coupling F90BH comprising:

1–F90B flange bored 70mm (coded at time of order).

1–F90H flange code 033F0303

1–2517 T/L bush (bore 35mm) code 029M0035

1–F90 Flexible tyre (Natural) code 033F0048

FENAFLEX SPACER COUPLING

Consists of a standard Fenaflex coupling (using B, F or H flanges as desired) together with a spacer flange and a third Taper Lock bush.

EXAMPLE ORDER

Fenaflex spacer assembly F110FF–SM30/140 comprising:

2–F110F flanges – 033H0302 (page 112)

1–F110 flexible tyre – 033H0048 (page 111)

1–SM30 x 140mm spacer flange – 033V3000 (page 112)

1–3020 T/L bush to suit motor shaft – 029P00-- (page 126-127)

1–3020 x 60mm T/L bush (dimension 'T' page 126) – 029P0060 (page 127)

1–3030 T/L bush to suit driven shaft – 029Q00-- (page 127)

FENAFLEX FLYWHEEL COUPLING

Consists of:

1–Driving (W) flange (page 114)

1–Flexible element (above)

1–Driven flange (page 114)

1–T/L bush to suit driven shaft (F & H driven flanges only)

EXAMPLE ORDER

Fenaflex 114 flywheel coupling comprising

1–116W flange 033G0010

1–Bolt pack 033X0203

1–Standard element 033G0100

1–F100 F flange 033G0302

1–3020 T/L bush 60mm bore 029P0060

Bolts for flywheel fixing can be supplied but are not a stock component.

HRC™ Couplings

These semi-elastic flexible couplings are designed for general purpose use and permit quick and easy assembly by means of Taper Lock bush fixing.
Their characteristics are designed for use particulary on machinery driven from standard IEC electric motors.
Fully machined outside diameters allow alignment by simple straight edge methods.
Shaft connection is "fail safe" due to interacting dog design.

SELECTION

(a) Service Factor

Determine appropriate Service Factor from table below

(b) Design Power

Multiply running power of driven machinery by the service factor. This gives the design power which is used as a basis for coupling selection.

(c) Coupling Size

Refer to Power Ratings table below and read across from the appropriate speed until a power equal to or greater than the design power is found. The size of coupling is given at the head of that column.

(d) Bore Size

From Dimensions table on page 117 check that the required bores can be accommodated.

EXAMPLE

A shaft coupling is required to transmit 70kW between a 1200 rev/min diesel engine and a hoist running over 16hrs/day. Engine shaft is 70mm and the hoist shaft is 75mm.

(a) Service Factor

The appropriate service factor is 2.5.

(b) Design Power

Design power 70 x 2.5=175kW.

(c) Coupling Size

Reading across from 1200 rev/min in the speed column of Power Ratings table below, 251kW is the first power to exceed the required 175kW (design power). The size of the coupling at the head of this column is 230.

(d) Bore Size

The Dimensions table (page 117) shows that both shaft diameters are within the bore range available.

SERVICE FACTORS

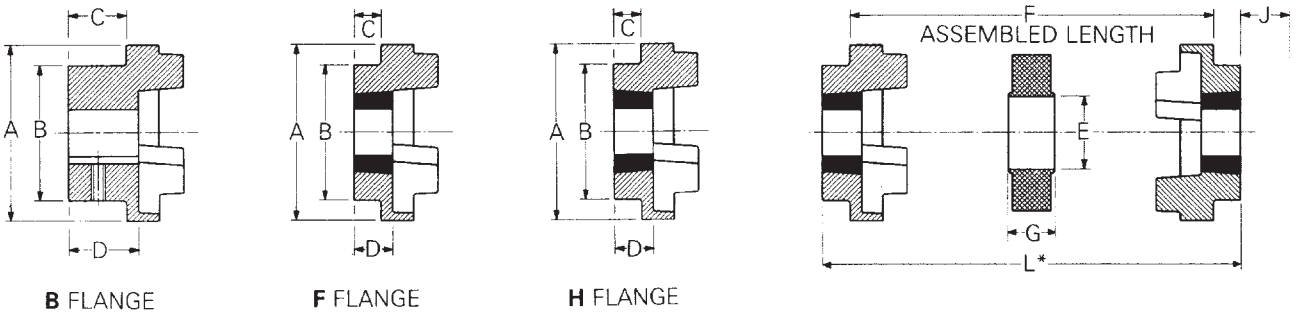
SPECIAL CASES For applications where substantial shock, vibration and torque fluctuation occur, and for reciprocating machines e.g. internal combustion engines, piston type pumps and compressors, refer to your local Authorised Distributor. with full machine details for torsional analysis.	Type of Driving Unit					
	Electric Motors Steam Turbines			Internal Combustion Engines Steam Engines Water Turbines		
	Hours per day duty			Hours per day duty		
Driven Machine Class	8 and under	over 8 to 16 inclusive	over 16	8 and under	over 8 to 16 inclusive	over 16
UNIFORM Agitators, Brewing machinery, Centrifugal blowers, Centrifugal compressors†, Conveyors, Centrifugal fans and pumps, Generators, Sewage disposal equipment.	1.00	1.12	1.25	1.25	1.40	1.60
MODERATE SHOCK* Clay working machinery, Crane hoists, Laundry machinery, Wood working machinery, Machine tools, Rotary mills, Paper mill machinery, Textile machinery, Non-unifomly loaded centrifugal pumps.	1.60	1.80	2.00	2.00	2.24	2.50
HEAVY SHOCK* Reciprocating conveyors, Crushers, Shakers, Metal mills, Rubber machinery (Banbury mixers and mills), Reciprocating compressors, Welding sets.	2.50	2.80	3.12	3.12	3.55	4.00

* It is recommended that keys (with top clearance if in Taper Lock bushes) are fitted for applications where load fluctuation is expected.
† For Centrifugal Compressors multiply Service Factor by an additional 1,15.

POWER RATINGS (KW)

Speed rev/min	Coupling Size							
	70	**90**	**110**	**130**	**150**	**180**	**230**	**280**
100	0.33	0.84	1.68	3.30	6.28	9.95	20.90	33.00
200	0.66	1.68	3.35	6.60	12.60	19.90	41.90	65.00
400	1.32	3.35	6.70	13.20	25.10	39.80	83.80	132.00
600	1.98	5.03	10.10	19.80	37.70	59.70	126.00	198.00
720	**2.37**	**6.03**	**12.10**	**23.80**	**45.20**	**71.60**	**151.00**	**238.00**
800	2.64	6.70	13.40	26.40	50.30	79.60	168.00	264.00
960	**3.17**	**8.04**	**16.10**	**31.70**	**60.30**	**95.50**	**201.00**	**317.00**
1200	3.96	10.10	20.10	39.60	75.40	119.00	251.00	396.00
1440	**4.75**	**12.10**	**24.10**	**47.50**	**90.50**	**143.00**	**302.00**	**475.00**
1600	5.28	13.40	26.80	52.80	101.00	159.00	335.00	528.00
1800	5.94	15.10	30.20	59.40	113.00	179.00	377.00	594.00
2000	6.60	16.80	33.50	66.00	126.00	199.00	419.00	660.00
2200	7.26	18.40	36.90	72.60	138.00	219.00	461.00	726.00
2400	7.92	20.10	40.20	79.20	151.00	239.00	503.00	
2600	8.58	21.80	43.60	85.80	163.00	259.00	545.00	
2880	**9.50**	**24.10**	**48.30**	**95.00**	**181.00**	**286.00**		
3000	9.90	25.10	50.30	99.00	188.00	298.00		
3600	11.90	30.10	60.30	118.00	226.00			
Nominal Torque (Nm)	31.5	80	160	315	600	950	2000	3150
Max Torque (Nm)	72	180	360	720	1500	2350	5000	7200

Fire Resistant/Anti-Static (FRAS) inserts available ex-stock.
For speeds below 100 rev/min, and intermediate speeds, use nominal torque ratings.
* Maximum coupling speeds are calculated using an allowable peripheral speed for the hub material. For selection of smaller sizes with speeds in excess of 3600 rev/min – Consult your local Authorised Distributor.



PHYSICAL DIMENSIONS AND CHARACTERISTICS

	Common Dimensions					Type F & H						Type B				
							Max. Bore					Bore Dia's				
Size	A	B	E	F_1‡	G	Bush size	mm	ins.	C	D	J†	Max.	Pilot H9	Screw over key	C	D
70	69	60	31	25.0	18.0	1008	25	1"	20.0	23.5	29	32	8	M 6	20	23.5
90	85	70	32	30.5	22.5	1108	28	1⅛	19.5	23.5	29	42	10	M 6	26	30.0
110	112	100	45	45.0	29.0	1610	42	1⅝	18.5	26.5	38	55	10	M10	37	45.0
130	130	105	50	53.0	36.0	1610	42	1⅝	18.0	26.5	38	60	15	M10	39	47.5
150	150	115	62	60.0	40.0	2012	50	2	23.5	33.5	42	70	20	M10	46	56.0
180	180	125	77	73.0	49.0	2517	60	2½	34.5	46.5	48	80	25	M10	58	70.0
230	225	155	99	85.5	59.5	3020	75	3	39.5	52.5	55	100	25	M12	77	90.0
280	275	206	119	105.5	74.5	3525	100	4	51.0	66.5	67	115	30	M16	90	105.5

† 'J' is the wrench clearance required for tightening/loosening the bush on the shaft. A shortened wrench will allow this dimension to be reduced.
‡ F_1 refers to combinations of flanges: FF, FH, HH, FB, HB, BB.
Bore limits H7 unless otherwise specified.

Size	Assembled Length (L*) Comprising Flange Types			Mass (kg)	Inertia Mr^2 (kgm^2)	Dynamic Stiffness (Nm/°)	Maximum Misalignment		Nominal Torque (Nm)
	FF. FH. HH	FB.HB	BB				Parallel	Axial	
70	65.0	65.0	65.0	1.00	0.00085	–	0.3	+0.2	31
90	69.5	76.0	82.5	1.78	0.00115	–	0.3	+0.5	80
110	82.0	100.5	119.0	5.00	0.00400	65	0.3	+0.6	160
130	89.0	110.0	131.0	5.46	0.00780	130	0.4	+0.8	315
150	107.0	129.5	152.0	7.11	0.01810	175	0.4	+0.9	600
180	142.0	165.5	189.0	16.60	0.04340	229	0.4	+1.1	950
230	164.5	202.0	239.5	26.00	0.12068	587	0.5	+1.3	2000
280	207.5	246.5	285.5	50.00	0.44653	1025	0.5	+1.7	3150

All dimensions in millimetres unless otherwise stated.
All HRC couplings have an angular misalignment capacity of up to 1°.
Mass is for an FF, FH or HH coupling with mid range Taper Lock Bushes.

ORDERING CODES

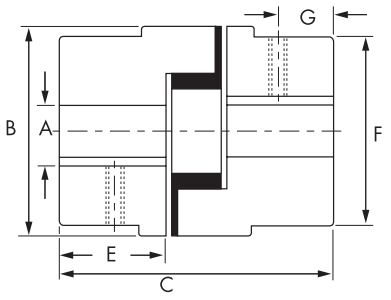
Size	Type F	Type H	Type B Unbored	Standard Element Tempr. -40°C/+100°C	FRAS Element Tempr. -20°C/+80°C
70	045L0002	045L0003	045L0004	045L0009	045L0006
90	045M0002	045M0003	045M0004	045M0009	045M0006
110	045N0012	045N0013	045N0004	045N0009	045N0006
130	045P0002	045P0003	045P0004	045P0009	045P0006
150	045R0002	045R0003	045R0004	045R0009	045R0006
180	045S0002	045S0003	045S0004	045S0009	045S0006
230	045T0002	045T0003	045T0001	045T0009	045T0006
280	045U0002	045U0003	045U0001	045U0009	045U0006

Note: For details of HRC couplings suitable for application to drives involving SAE engine flywheels, consult your local Authorised Distributor.
Type B flanges can be supplied finished bored to H7 tolerance with keyway, if required.
Hub material: GG25 grey cast iron.

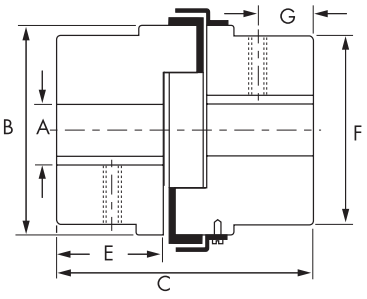
Jaw Couplings

Fenner Jaw Couplings offer a range of hub and element variants to meet the demand for low cost, general purpose and spacer type flexible couplings. They cater for incidental misalignment, absorb shock loads and damp out small amplitude vibrations.

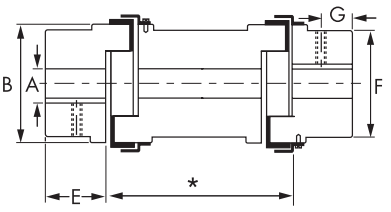
HUBS & SPACERS



SX (2 hubs plus spider element)



QF (2 hubs plus QF ring kit)



*DBSE - 100mm or 140 mm

QFS (2 hubs plus QF ring kit plus QFS spacer kit)

DIMENSIONS: SX, QF AND QFS

Pilot Bore Hub Code*	Size	A		B		C	E	F	G	Set Screw	Approx† mass (kg)	Max. speed (rev/min)
		Pilot	Max	SX	QF							
968G0099	**035**	3	9	16.0	—	27	13	16.0	3.0	M3	0.03	31000
968A0099	**050**	6	14	27.5	—	44	16	27.5	6.5	M6	0.10	18000
968B0099	**070**	9	19	35.0	—	51	19	35.0	9.5	M6	0.25	14000
968C0099	**075**	9	24	44.5	—	54	21	44.5	8.0	M6	0.45	11000
968H0099	**090**	9	24	54.0	—	54	21	54.0	8.7	M6	0.55	9000
968D0099	**095**	9	28	54.0	64	64	25	54.0	11.5	M6	0.65	9000
968E0099	**100**	12	35	65.0	77	89	35	65.0	12.5	M8	1.55	7000
968F0099	**110**	15	42	84.0	97	108	43	84.0	20.5	M10	3.00	5000
968J0099	**150**	15	48	96.0	112	115	45	96.0	22.5	M10	4.85	4000
968K0099	**190**	19	55	115.0	130	133	54	102.0	22.5	M12	7.00	3600
968L0099	**225**	19	60	127.0	143	153	64	108.0	25.5	M12	9.00	3600

All dimensions in millimetres unless otherwise stated Hub material is high grade cast iron. Spacer material is aluminium DBSE = distance between shaft ends

† Mass of complete SX or QF type with pilot bore hubs

* Bored or bored and keywayed hubs can be supplied.

ASSEMBLY VARIANTS - SEE DIAGRAM TO RIGHT

SX Simple coupling of two close-coupled shafts using 2 x SX hubs + a spider shaped element.
The element petals are connected by an inner ring to maintain location between the 'jaws' on the hubs.
Urethane and Hytrel® spider elements are available to enhance the coupling power rating. (see page 119).

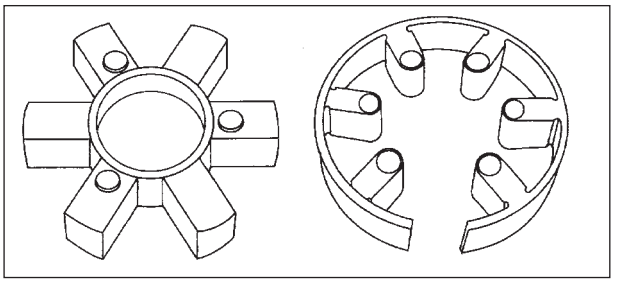
QF On sizes 095 and above, the SX hubs are drilled/tapped for fixing a pressed steel 'ring' or sleeve.
The ring retains a QF type nitrile rubber element on which the petals are joined by an outer band.
Unscrewing and withdrawing the ring allows the element to be removed for replacement without disturbing the hubs.
The retaining ring and elemnt are supplied together as a 'ring kit'.

QFS Used when the machine shafts to be coupled are set apart by a DBSE (distance between shaft ends) of 100 or 140mm.
This arrangement is common with centrifugal pump applications.
A QF coupling is used with a light alloy spacer, which is supplied complete with a second ring kit, to create a spacer coupling which is easily disassembled by removing the two elements.

JAW COUPLING ELEMENTS

Code	Type	Temperature Range (°C)	Max Misalignment		Power Factor
			Ang°	Par. (mm)	
968–9000	Nitrile (Spider) (Black)	–40 to 100	1	0.38	1
968–9900	Nitrile (QF ring kit) (Black)	–40 to 100	1	0.38	1
968–9500	Urethane (Blue)	–35 to 70	1	0.38	1,5
968–9400	Hytrel® (White)	–50 to 120	½	0.38	3*

4th digit = Alpha character for coupling size
Note: Sizes 90 and 95 SX couplings use the same spider element.
*Power factor = 2 when used with CEC hubs



SELECTION

a) Find Service Factor for application from table right.

b) Multiply normal running power by Service Factor (and Temperature Factor from table above for CEC hubs) to give design power.

c) Select a standard nitrile element coupling size from Power Ratings table below by reading across from the appropriate speed until a power equal to or greater than the design power is found. Coupling size is at the head of the column.

d) For alternative elements divide the design power from step (b) by the Element Power Factor in table above and repeat step (c) with the new design power.

e) For speeds other than those listed use the nominal torque ratings from the Power Ratings table below.

$$\text{Required Torque (Nm)} = \frac{\text{Design power (kW)} \times 9550}{\text{rev/min}}$$

f) Check from the hub Dimensions tables that bore capacity is adequate for the coupled shafts.

Note: Orders for complete couplings should include hubs, elements, ring kits and spacer kits seperatly.

SERVICE FACTORS

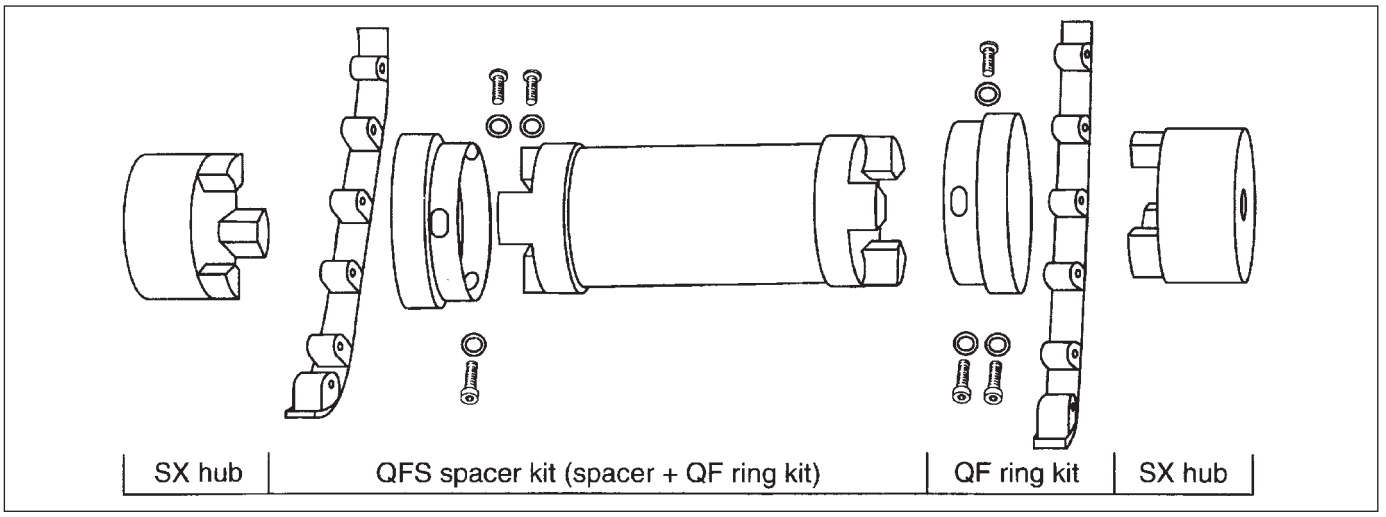
Driven Load	Prime Mover
	Electric Motor
Uniform Load	1.0
Moderate Shock	1.5
Heavy Shock	2.0

POWER RATINGS (KW) – NITRILE ELEMENTS

Speed (rev/min)	Coupling Size										
	035	**050**	**070**	**075**	**090**	**095**	**100**	**110**	**150**	**190**	**225**
100	0.05	0.037	0.06	0.12	0.20	0.27	0.58	1.10	1.56	2.09	2.93
720	0.04	0.260	0.43	0.90	1.44	1.95	4.18	7.94	11.23	15.07	21.09
960	0.05	0.350	0.58	1.20	1.93	2.59	5.58	10.59	14.98	20.09	28.13
1440	0.07	0.530	0.87	1.80	2.89	3.89	8.36	15.88	22.46	30.14	42.20
2880	0.15	1.730	3.61	5.78	7.78	16.73	31.77	44.93	60.28	84.40	84.40
3600	0.19	2.170	4.51	7.22	9.73	20.91	39.71	56.16	75.35	105.50	105.50
Nominal Torque (Nm)	0.50	3.510	5.77	11.90	19.20	25.80	55.4	105.00	150.00	200.00	280.00

SPACERS AND QF RETAINING RINGS – CODES

All codes first 4 digits: 968–
4th digit: Alpha character for coupling size
5/6th digits: Spacer kit = 33; Retaining ring kit = 99
7/8th digits: Retaining ring kit = 00; Spacer kit 100mm = 10; Spacer kit 140mm = 14



Rigid Couplings

Taper Lock Rigid Couplings provide a convenient method of rigidly connecting ends of shafts. Taper Lock bushes permit easier and quicker fixing to the shafts with the firmness of a shrunk-on-fit. These couplings have a male and female flange fully machined. The male flange can have the bush fitted from the Hub side **H** or from the Flange side **F**, the female flange always has the bush fitting **F**. This gives two possible coupling assemblies **HF** and **FF.** When connecting horizontal shafts, the most convenient assembly should be chosen. **When connecting vertical shafts use assembly FF only.**

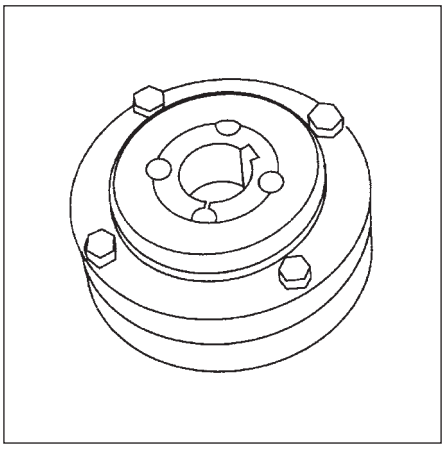
SELECTION

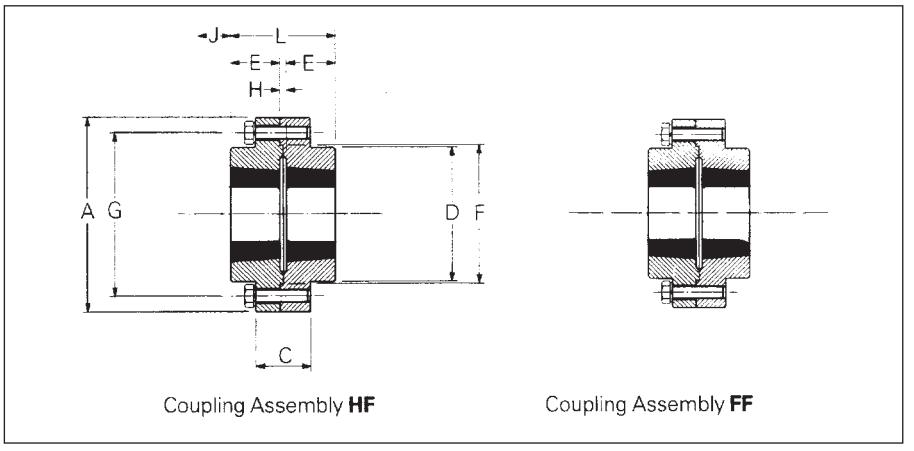
For all applications using standard mild steel shafting it is sufficiently accurate to select the coupling by consideration of bore size alone.

If transmitted torque is known, this should be checked against the allowable torque for the appropriate Taper Lock bush size/bore shown on page 128.

For all other applications consult your local Authorised Distributor.

Rotational speed should be limited to a maximum rim speed of 33 m/sec.





Coupling Assembly **HF**

Coupling Assembly **FF**

DIMENSIONS

Size	Bush No.	Max. Bore		A	C	D	E	F nominal	G nominal	H†	J*	L	Mass‡ (kg)
		Metric	Inch										
RM12	1210	32	1¼"	118	35	83	25	76	102	7	38	57	3.5
RM16	1610	42	1⅝"	127	43	80	25	89	105	7	38	57	4.0
RM25	2517	60	2½"	178	51	123	45	127	149	7	48	97	11.0
RM30	3020	75	3"	216	65	146	51	152	181	7	54	109	20.0
RM35	3525	100	4"	248	75	178	65	178	213	7	67	137	34.0
RM40	4030	110	4½"	298	76	210	76	216	257	7	79	159	59.0
RM45	4535	125	5"	330	86	230	89	241	286	7	89	185	80.0
RM50	5040	125	5"	362	92	266	102	267	314	7	92	211	135.0

All dimensions in millimetres unless otherwise stated.
* J is the wrench clearance to allow for tightening and loosening the bushing on the shaft. The use of a shortened wrench will permit this dimension to be reduced.
† H is the distance between shaft ends.
‡ Masses given are for couplings with mid-range bore Taper Lock Bushes.

CODE NUMBERS

Size	Catalogue Code HF	Catalogue Code FF
RM12	039A0501	039A0502
RM16	039B0501	039B0502
RM25	039C0501	039C0502
RM30	039D0501	039D0502
RM35	039E0501	039E0502
RM40	039F0501	039F0502
RM45	039G0501	039G0502
RM50	039H0501	039H0502

FASTENERS

Coupling Size	Screw Size	Quantity	Assembly Torque Nm
RM12	M8 x 35	4	25
RM16	M10 x 45	4	37
RM25	M12 x 50	5	65
RM30	M16 x 65	6	160
RM35	M16 x 70	6	160
RM40	M20 x 80	6	325
RM45	M24 x 90	6	560
RM50	M24 x 100	7	560

All fasteners are grade 8.8 minimum

SHAFT ALIGNMENT

Appropriate alignment of the coupled shafts (or driven shaft to flywheel) is a fundamental requirement for any coupling installation.

The three basic modes of shaft misalignment are shown right.

Composite i.e. more than one mode, misalignment is available for some couplings (detailed elsewhere in this Manual).

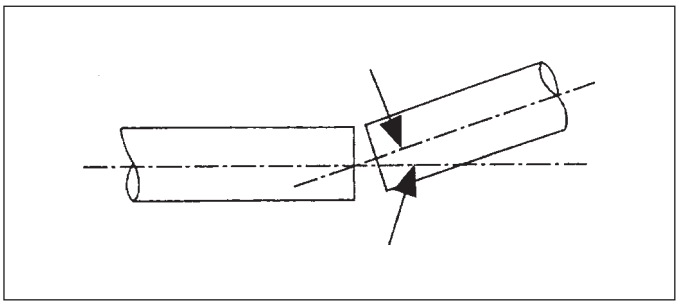
Details of the degrees of misalignment that can be accommodated by different types and sizes of coupling are given throughout this manual.

With some couplings, axial shaft orientation (DBSE) is not critical, whereupon coupling component orientation (given as an 'assembled length' or 'distance between faces') becomes crucial.

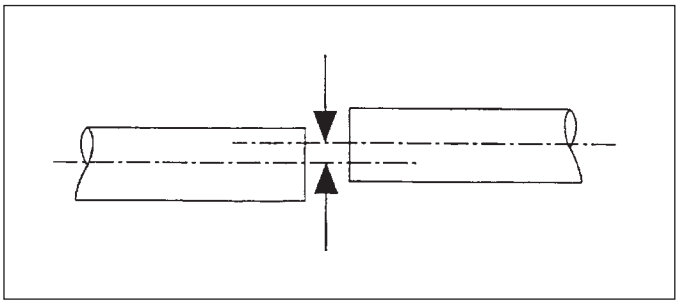
It should be remembered that misalignment can cause extra loading on coupled shaft support bearings and can reduce the operational life of some couplings. Best practical alignment is therefore desirable.

Taper Lock Rigid Couplings cannot accommodate misalignment.

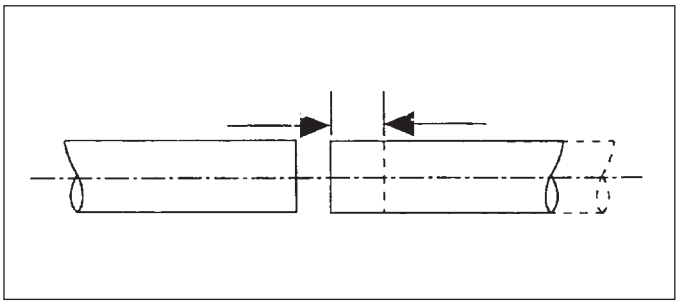
Laser alignment equipment can be supplied.



ANGULAR MISALIGNMENT – shafts are at an angle to one another



PARALLEL MISALIGNMENT – shafts are in line angularly and parallel to each other, but are off-set radially.



AXIAL MISALIGNMENT – refers to errors in the axial spacing of coupling hubs/ flanges, but also includes appplicational "end float" where shafts move axially increasing or decreasing the distance between shaft ends.

OTHER CRITERIA

Fenaflex – tyre gap and seating. Tyre/element clamping bolt torque.

HRC – do not use to couple resiliently mounted machinery.

All Elastomeric Couplings – consider ambient conditions (FRAS or other alternative element material required?)

All Taper Lock Couplings – remember bush grips shaft first and draws hub on to taper. This may affect axial alignment.

All applications – ensure shaft diameter tolerances are correct.

Note: Fenaflex tyres and flywheel elements are accompanied by detailed installation data.

TAPER LOCK

Most of the Fenaflex and HRC couplings, and all Rigid couplings featured in this section use Taper Lock shaft fixing.

For detailed instructions on the fitting and dismounting of Taper Lock products see Shaft Fixings page 129.

Note: When fitting Taper Lock coupling flanges it should be noted that the bush grips the shaft initially and draws the flange up the tapered surface.

This may have a small effect on the final axial positioning of flanges on machine shafts, and the resultant distance between coupling flanges, where this is important to the fit and function of flexible coupling elements.



Fenner®
SHAFT FIXINGS

The extended range of Fenner shaft fixing devices offers the ideal means for every application. As well as the industrial standard Taper Lock bush, and associated hubs/adaptors, the Fenner keyless fixing device range includes FenLock fixings in most formats and the rapid fit Trantorque GT.



SHAFT FIXINGS

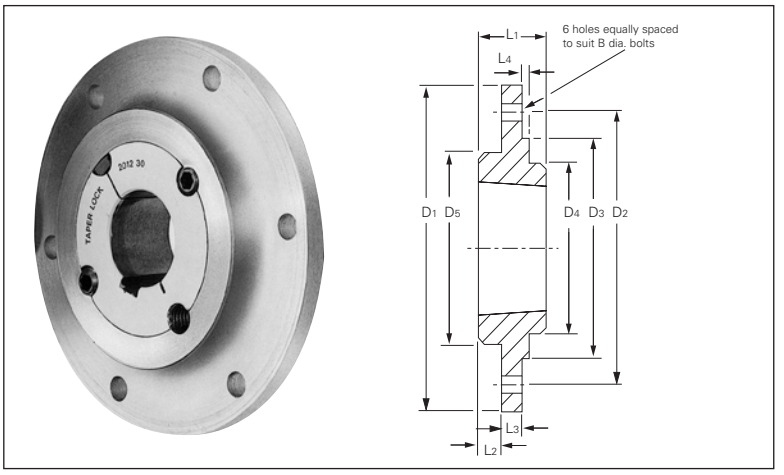
Shaft Fixings Design Data Required

- **Shaft dimensions**
  - diameter and tolerance
  - length
- **Keyway details if present**
- **Torque to be transmitted**
- **Product hub details**
  - diameter
  - length
  - material (strength)
- **Special considerations**
  - already taper bored?
  - bending moments on the shaft

BOLT-ON-HUBS

Fenner Taper Lock Bolt-on Hubs are designed for use with the universally accepted Taper Lock bush.

They provide a convenient means of securing fan rotors, impellers, agitators and other devices which must be fastened firmly to shafts.



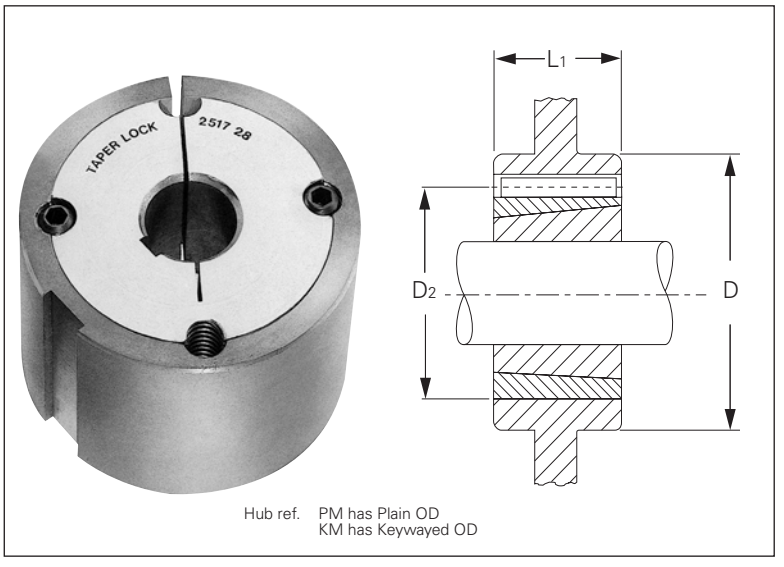
Product Code	Size	Use Bush Size	D_1	D_2	D_3*	D_4	D_5
017C0010	**BF12**	1210	120	100	80	74	80
017G0010	**BF16**	1610	130	110	90	84	90
017K0010	**BF20**	2012	145	125	100	99	100
017M0010	**BF25**	2517	185	155	130	120	119
017P0010	**BF30**	3020	220	190	165	146	147

*Bore tolerance of D_3 +0mm/-0.05mm is recommended

Product Code	Size	Use Bush Size	L_1	L_2	L_3	L_4	B
017C0010	**BF12**	1210	25	10	6.5	2.5	M6
017G0010	**BF16**	1610	25	10	6.5	2.5	M6
017K0010	**BF20**	2012	32	13	8.5	2.5	M8
017M0010	**BF25**	2517	44	20	11.5	2.5	M10
017P0010	**BF30**	3020	50	20	11.5	2.5	M16

ADAPTORS

Adaptors for Fenner Taper Lock bushes are available for use in parallel bored components, either keyed (KM) or plain (PM) thereby eliminating the need to drill, tap and taper-bore.



Hub ref. PM has Plain OD
KM has Keywayed OD

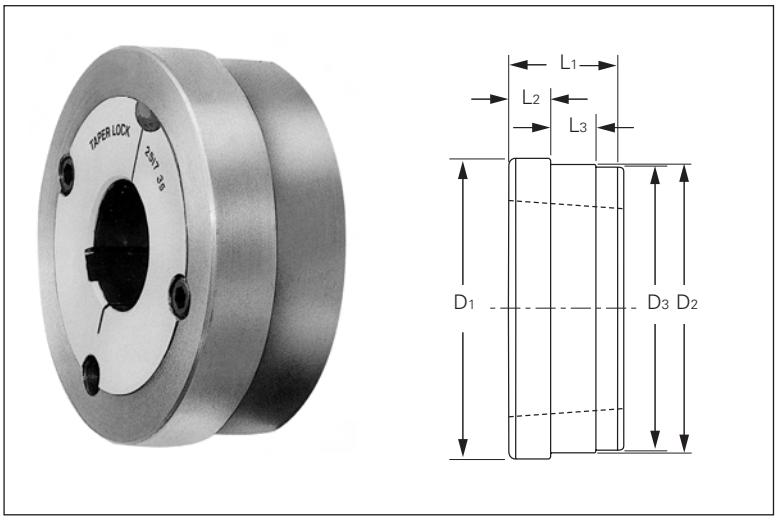
Product Code	Hub ref.	L_1	D_2	Key Section	Hub dia. D: Cast Iron BS1452 GG-20-25		Hub dia. D: Steel BS970Pt1 070M20
030A0200	**1008PM**	22	45	-	71	62	56
030A0210	**1008KM**			5 x 5	75	67	60
030C0200	**1210PM**	25	60	–	97	85	76
030C0210	**1210KM**			6 x 6	103	93	85
030G0200	**1610PM**	25	70	–	106	95	86
030G0210	**1610KM**			10 x 8	113	102	92
030M0200	**2517PM**	45	105	–	145	133	121
030M0210	**2517KM**			16 x 10	151	140	127
030Q0200	**3030PM**	76	130	–	181	165	156
030Q0210	**3030KM**			20 x 12	191	175	159
030R0200	**3535PM**	89	160	–	225	203	191
030R0210	**3535KM**			22 x 12	235	213	200
030S0200	**4040PM**	102	185	–	275	248	229
030S0210	**4040KM**			24 x 12	285	257	238

*Bore tolerance of D_3 +0.025/+0.075mm recommended
All dimensions in millimetres.

WELD-ON-HUBS

Fenner Taper Lock Weld-on Hubs are made of steel, grade 070M20, drilled, tapped and taper bored to receive standard Taper Lock bushes.

The shouldered outer diameter provides a convenient means of welding hubs into fan rotors, steel pulleys, plate sprockets, impellers, agitators and many other devices which must be firmly fastened to the shaft.



Product Code	**Size**	Use Bush Size	D_1	D_2*	D_3	L_1	L_2	L_3
025C0010	**WH12**	1210	70	65	64.5	25	9	10
025G0010	**WH16**	1610	80	75	74.5	25	9	10
025K0010	**WH20**	2012	95	90	89.5	32	12	12
025M0010	**WH25**	2517	115	110	109.5	44	19	15
025P0010	**WH30**	3020	145	140	139.5	50	20	15
025J0010	**WH35**	3525	190	180	179.5	65	25	25
025X0010	**WH40**	4030	200	190	189.5	76	32	30
025Y0010	**WH45**	4535	210	200	199.5	89	40	30
025Z0010	**WH50**	5040	230	220	219.5	102	40	35

*Bore tolerance of D_2 +0mm/-0.05mm is recommended

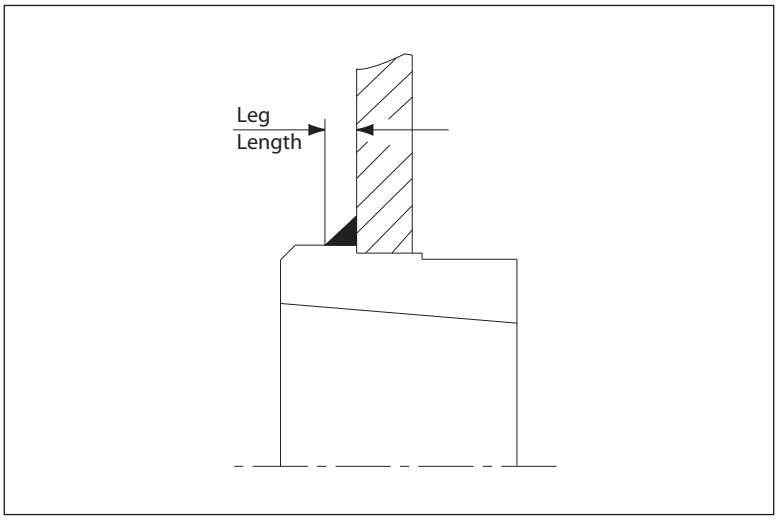
WELDING INSTRUCTIONS

Fenner Taper Lock Weld-on Hubs are made of steel, are machined to accept Taper Lock bushes for shaft fixing, and have a precision machined shoulder against which flanges or webs can be located.

It is recommended that a continuous 45° mitre weld be used, working on the larger hub diameter section only. To ensure accuracy in the welded assembly it is essential to apply only sufficient weld to achieve sufficient strength.

Excess weld should not be necessary for normal use and, due to greater heat input, gives a higher risk of distortion.

The table below shows recommended continuous fillet weld requirements for each hub size.



Hub No	Leg Length mm
WH12	4
WH16	4
WH20	5
WH25	5
WH30	6
WH35	6
WH40	8
WH45	8
WH50	10

For electric arc welding, low hydrogen electrodes are recommended

METRIC BORES AND KEYWAYS

Bore Dia.	Keyway		Shallow Keyway Depth	Product Code								
	Width	Depth		**1008**	**1108**	**1210**	**1610**	**1615**	**2012**	**2517**	**3020**	**3030**
9	3	1.4	–	029A0009	029B0009							
10	3	1.4	–	010	010							
11	4	1.8	–	011	011	029C0011						
12	4	1.8	–	012	012	012						
14	5	2.3	–	014	014	014	029G0014	029H0014	029K0014			
15	5	2.3	–	015	015	015	015	015	015			
16	5	2.3	–	016	016	016	016	016	016	029M0016		
18	6	2.8	–	018	018	018	018	018	018	018		
19	6	2.8	–	019	019	019	019	019	019	019		
20	6	2.8	–	020	020	020	020	020	020	020		
22	6	2.8	–	022	022	022	022	022	022	022		
24	8	3.3	1.3	024*	024	024	024	024	024	024		
25	8	3.3	1.3	025*	025	025	025	025	025	025	029P0025	
28	8	3.3	1.3		***028****	028	028	028	028	028	028	
30	8	3.3	–			030	030	030	030	030	030	
32	10	3.3	—			032	032	032	032	032	032	
35	10	3.3	–				035	035	035	035	035	029Q0035
38	10	3.3	–				038	038	038	038	038	038
40	12	3.3	–				***040***	040	040	040	040	040
42	12	3.3	2.2				***042****	***042****	042	042	042	042
45	14	3.8	–						045	045	045	045
48	14	3.8	–						048	048	048	048
50	14	3.8	–						050	050	050	050
55	16	4.3	–							055	055	055
60	18	4.4	–							060	060	060
65	18	4.4	–								065	065
70	20	4.9	–								070	070
75	20	4.9	–								075	075

METRIC BORES AND KEYWAYS

Bore Dia.	Keyway		Shallow Keyway Depth	Product Code							
	Width	Depth		**3525**	**3535**	**4030**	**4040**	**4535**	**4545**	**5040**	**5050**
35	10	3.3	–	029J0035	029R0035						
38	10	3.3	–	038	038						
40	12	3.3	–	040	040	029X0040	029S0040				
42	12	3.3	–	042	042	042	042				
45	14	3.8	–	045	045	045	045				
48	14	3.8	–	048	048	048	048				
50	14	3.8	–	050	050	050	050				
55	16	4.3	–	055	055	055	055	029Y0055	029T0055		
60	18	4.4	–	060	060	060	060	060	060		
65	18	4.4	–	065	065	065	065	065	065		
70	20	4.9	–	070	070	070	070	070	070	029Z0070	029U0070
75	20	4.9	–	075	075	075	075	075	075	075	075
80	22	5.4	–	080	080	080	080	080	080	080	080
85	22	5.4	–	085	085	085	085	085	085	085	085
90	25	5.4	–	090	090	090	090	090	090	090	090
95	25	5.4	–	***095***		095	095	095	095	095	095
100	28	6.4	4.4	***100****		100	100	100	100	100	100
105	28	6.4	–			***105***		105	105	105	105
110	28	6.4	–			***110***		110	110	110	110
115	32	7.4	5.4			***115****		***115***		115	115
120	32	7.4	–					***120***		120	120
125	32	7.4	–					***125***		125	125

Dimensions in millimetres.
Keyways are British Standard Metric BS 4235: Part 1: 1972 DIN 6885 and conform to ISO recommendations with the exception of those marked* which are shallower.
Where a key is to be used it should be parallel and side fitting, with top clearance. Depth of keyway is measured at the CENTRE.
Bold italic type indicates bushes made of steel or ductile iron.



INCH BORES AND KEYWAYS

Bore Dia.	Keyway		Shallow Keyway Depth	Product Code								
	Width	Depth		**1008**	**1108**	**1210**	**1610**	**1615**	**2012**	**2517**	**3020**	**3030**
0.375	0.125	0.06	–	019A0006	019B0006							
0.500	0.125	0.06	–	008	008		019G0008	019H0008				
0.625	0.187	0.09	–	010	010	019C0010	010	010				
0.750	0.187	0.09	–	012	012	012	012	012	019K0012	019M0012		
0.875	0.250	0.12	–	014	014	014	014	014	014	014		
1.000	0.250	0.12	0.052	100*	100	100	100	100	100	100		
1.125	0.312	0.11	0.064		***102****	102	102	102	102	102		
1.250	0.312	0.11	–			104	104	104	104	104	019P0104	019Q0104
1.375	0.375	0.11	–				106	106	106	106	106	106
1.500	0.375	0.11	–				108	108	108	108	108	108
1.625	0.437	0.13	0.103				110	110*	110	110	110	110
1.750	0.437	0.13	–						112	112	112	112
1.875	0.500	0.13	–						114	114	114	114
2.000	0.500	0.13	–						200	200	200	200
2.125	0.625	0.18	–							202	202	202
2.250	0.625	0.18	–							204	204	204
2.375	0.625	0.18	–							206	206	206
2.500	0.625	0.18	–							208	208	208
2.625	0.750	0.21	–								210	210
2.750	0.750	0.21	–								212	212
2.875	0.750	0.21	–								214	214
3.000	0.750	0.21	–								300	300

INCH BORES AND KEYWAYS

Bore Dia.	Keyway		Shallow Keyway Depth	Product Code							
	Width	Depth		**3525**	**3535**	**4030**	**4040**	**4535**	**4545**	**5040**	**5050**
1.500	0.375	0.11	–	019J0108	019R0108						
1.625	0.437	0.13	–	110	110						
1.750	0.437	0.13	–	112	112	019X0112	19S0112				
1.875	0.500	0.13	–	114	114	114	114				
2.000	0.500	0.13	–	200	200	200	200				
2.125	0.625	0.18	–	202	202	202	202				
2.250	0.625	0.18	–	204	204	204	204	019Y0204	019T0204		
2.375	0.625	0.18	–	206	206	206	206	206	206		
2.500	0.625	0.18	–	208	208	208	208	208	208		
2.625	0.750	0.21	–	210	210	210	210	210	210		
2.750	0.750	0.21	–	212	212	212	212	212	212	019Z0212	019U0212
2.875	0.750	0.21	–	214	214	214	214	214	214	214	214
3.000	0.750	0.21	–	300	300	300	300	300	300	300	300
3.125	0.875	0.26	–	302	302	302	302	302	302	302	302
3.250	0.875	0.26	–	304	304	304	304	304	304	304	304
3.375	0.875	0.26	–	306	306	306	306	306	306	306	306
3.500	0.875	0.26	–	308	308	308	308	308	308	308	308
3.750	1.000	0.32	0.245	***312****		312	312	312	312	312	312
4.000	1.000	0.32	0.155	***400****		400	400	400	400	400	400
4.250	1.250	0.37	–			***404***		404	404	404	404
4.500	1.250	0.37	0.255			***408****		408	408	408	408
4.750	1.250	0.37	–					***412***		412	412
5.000	1.250	0.37	0.258					***500****		500	500

Dimensions in inches.
All Keyways are parallel and to British Standard 46: Part 1: 1958, with the exception of those marked* which are shallower.
Where a key is to be used it should be side fitting, with top clearance. Depth of keyway is measured at the CENTRE.
Bold italic type indicates bushes made of steel or ductile iron.

MINIMUM DIAMETERS OF TAPER BORED HUBS

The following table shows the recommended minimum diameter in mm for bespoke component hubs that are to be drilled, tapped and taper bored for use with Taper Lock bushes. The table differentiates between grey iron and ductile materials of various minimum tensile strength grades (in N/mm² or MN/m² units, which are numerically equal).

All standard Fenner Taper Lock products are tested to ensure that they are capable of safely containing the radial and circumferential hub stresses generated by the wedging mechanism which makes Taper Lock the equivalent of a shrink-on fit. For Taper Lock hub machining details, consult your local Authorised Distributor.

Taper Lock® Bush	Minimum Hub Diameters (mm) for Various Materials			
	Tensile Strength N/mm²			
	Cast Iron 180	Cast Iron 250	Steel / Ductile Iron 420	Steel 600
1008	62	54	51	47
1108	64	57	54	50
1210	104	86	78	69
1610	109	92	85	78
1615	90	81	77	73
2012	121	106	99	92
2517	130	119	113	108
3020	160	146	140	132
3030	144	136	132	127
3525	211	191	178	167
3535	191	176	168	160
4030	224	207	197	186
4040	209	195	188	180
4535	223	212	205	198
4545	215	205	200	194
5040	240	229	223	216
5050	233	223	219	213

AVERAGE SLIP TORQUES FOR TAPER LOCK FIXING (WITHOUT KEY)

The following table shows empirically derived average slip torque values in Nm for each basic Taper Lock bush size with a variety of common metric bore diameters. The values assume that the assembly uses a Fenner Taper Lock bush fitted, in accordance with the instructions supplied with every bush, to a hub prepared to the Fenner specification. Slip will tend to occur at the bush/shaft interface, at the prescribed torque, unless a key is fitted. With a key, the slip tendency transfers to the bush/hub interface at a greater torque value related to the ratio of bush outer dia. to bore dia.. Consult your local Authorised Distributor for specific values.

Taper Lock bushes should only be used without a key fitted on smooth, uniformly loaded drives with service factors of 1.0 or less.

Formula to calculate the slip torque if a key is used: $\frac{\text{Large end diameter*}}{\text{Bush bore}}$ **x Average slip torque value Nm (below)**

*From the table on page 129

Bush	Bore (mm)	Average Slip Torque (Nm)	Bush	Bore (mm)	Average Slip Torque (Nm)
1008	12	29	3020	38	520
	19	51	3030	48	730
	24	66		55	890
1108	12	28		60	970
	19	49		75	1300
	24	64	3525*	42	1000
	28	79	3535	60	1580
1210	16	82		75	2150
	19	105		90	2600
	24	142		100*	3075
	32	210	4030*	48	1700
1610	19	98	4040	60	2300
1615	24	135		75	3150
	38	240		100	4400
	42	265		115*	5150
2012	24	165	4535*	55	2500
	38	320	4545	75	3900
	42	340		100	5500
	48	400		110	6300
	50	420		125*	6625
2517	24	220	5040	75	3950
	38	380	5050	100	5650
	42	430		125	7370
	48	510			
	55	600			
	60	670			

Large bores marked* are only available in bush sizes marked*

T**aper Lock bushes work effectively on shaft diameters with h9 tolerance.** If in doubt please consult your local Authorised Distributor..

TO INSTALL

1. After ensuring that the mating tapered surfaces, bore and shaft are completely clean and free from oil or dirt, insert bush in hub so that holes line up.
2. Sparingly oil thread and point of grub screws, or thread and under head of cap screws. Place screws loosely in holes threaded in hub, shown thus ◎ in diagram.
3. If a key is to be fitted place it in the shaft keyway before fitting the bush. It is essential that it is a parallel key and side fitting only and has TOP CLEARANCE.
4. Clean shaft and fit hub to shaft as one unit and locate in position desired, remembering that bush will nip the shaft first and then hub will be slightly drawn on to the brush.
5. Using a hexagon wrench tighten screws gradually and alternately to torque shown in table below.
6. Hammer against large-end of bush, using a block or sleeve to prevent damage. (This will ensure that the bush is seated squarely in the bore.) Screws will now turn a little more. Repeat this alternate hammering and screw tightening once or twice to achieve maximum grip on the shaft.
7. After drive has been running under load for a short time stop and check tightness of screws.
8. Fill empty holes with grease to exclude dirt.



INSERT BUSH



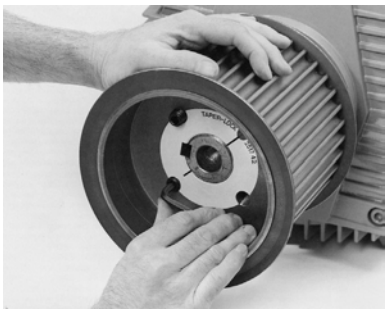
INSERT SCREWS AND LOCATE ON SHAFT



TIGHTEN SCREWS FINGER TIGHT



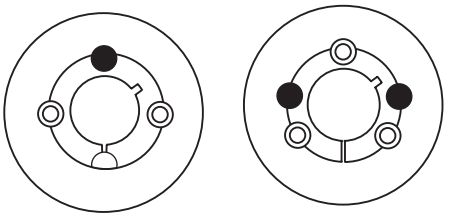
TIGHTEN SCREWS ALTERNATELY



REMOVAL

TO REMOVE

1. Slacken all screws by several turns, remove one or two according to number of removal holes shown thus ● in diagram. Insert screws into removal holes after oiling thread and under head of cap screws.
2. Tighten screws alternately until bush is loosened in hub and assembly is free on the shaft.
3. Remove assembly from shaft.

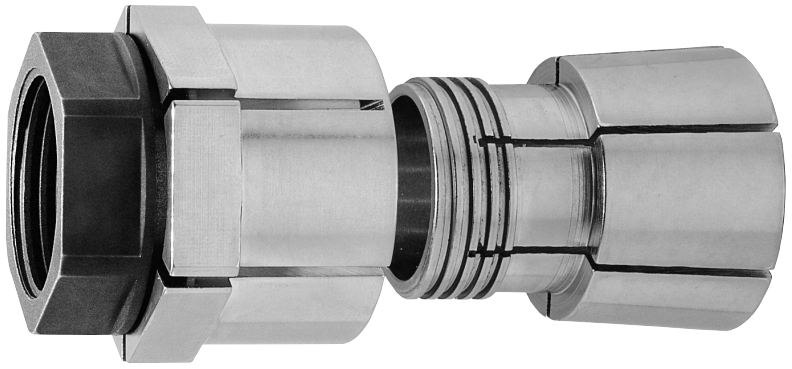


REMOVAL HOLES ●

Bush size		1008	1108	1210	1610	1615	2012	2517	3020	3030	3525	3535	4030	4040	4535	4545	5040	5050
Screw tightening torque (Nm)		5.6	5.6	20	20	20	30	50	90	90	115	115	170	170	190	190	270	270
	qty	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Screw details	size (BSW)	1/4"	1/4"	3/8"	3/8"	3/8"	7/16"	1/2"	5/8"	5/8"	1/2"	1/2"	5/8"	5/8"	3/4"	3/4"	7/8"	7/8"
	Hex. socket size (mm)	3	3	5	5	5	6	6	8	8	10	10	12	12	14	14	14	14
Large end dia. (mm)		35.0	38.0	47.5	57.0	57.0	70.0	85.5	108.6	108	127	127	146	146	162	162	178	178
Bush length (mm)		22.3	22.3	25.4	25.4	38.1	31.8	44.5	50.8	76.2	63.5	89.0	76.2	102	89.0	114	102	127
Approx mass (kg)		0.1	0.1	0.2	0.3	0.5	0.7	1.5	2.7	3.6	3.8	5.0	5.6	7.7	7.5	10.0	11.1	14.0

Trantorque GT is a single nut locking bush with interlocking components for positive fixing and release. It is a high torque keyless bushing system, ideal for critical timing applications.

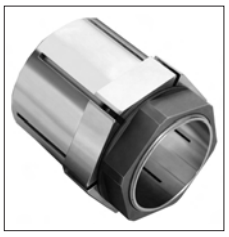
Trantorque GT is easy to install and requires no special machining, no keyways. It can be easily adjusted and removed, and allows infinite positioning that is essential for precise timing and synchronisation.



With fewer component parts, Trantorque GT offers significant installation advantages, reducing downtime and operating costs. The single GT nut can be torqued-up in seconds...

ADVANTAGES TRANTORQUE GT

■ Eliminate Keys, Keyways, Setscrews



Eliminate costly matching with inexpensive Trantorque GT mounts. They grip like a shrink-fit on shaft and bore, and resist shocks and torque reversals better than keyways. Single-nut design self-centres accurately, locks or unlocks with the twist of a wrench.

■ Infinite, Precise Radial Adjustment



The positive lock and release action permits exact initial positioning with easy readjustment at a later date. This is not possible with fixed keyed connections.

■ Use Smaller Shafts



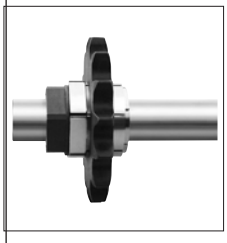
Eliminate the weak spot in shafts and hubs caused by machining keyways. This, plus the rigidising effect, permits smaller and less expensive shafts and bearings with equal strength and stiffness.

■ Retrofit and Repair



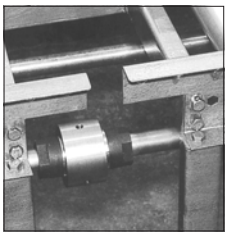
Can be used directly over empty keyways to repair a worn or damaged connection. Both metric and Imperial units are available making it easy to quickly return machinery to service.

■ Mount Hubless Devices



Trantorque GT mounts are unique in their ability to mount thin hubless devices. They need not be completely within the bore. This permits mounting plate sprockets, hubless gears, disc brakes, etc. – often at substantial savings to the user or OEM.

■ Speed Prototype Development



Easy installation, adjustment and removal permit great freedom and flexibility in new-product development. Trantorque mounts can be removed and reinstalled many times...a major advantage on prototype or final product.

EFFECT OF TEMPERATURE

TRANTORQUE GT units are not affected by temperature within wide limits (–34°C to 204°C) when the shaft and hub are made of steel. TRANTORQUE GT units are all steel. If the shaft and/or hub are made of different materials e.g. aluminum, straightforward engineering compensation should be made for the difference in expansion coefficients.

In normal environments, where the seasonal ambient variation is less than 35°C, no compensation will generally be required, even with dissimilar metals.

AXIAL MOVEMENT

When progressing from hand-tight to full installation torque there is a small axial movement of the outer element (and fixed component), in the same direction as the nut is tightened.

The inner element of the bushing remains secure to the shaft during nut tightening.

RUNOUT TOLERANCE

All Trantorque GT units guarantee hub bore concentricity within 0.025mm (0.001")

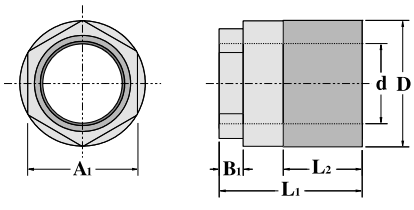
BEARINGS AND SYNTHETIC HUB MATERIALS

Trantorque GT units are not recommended for use with components having hubs made of synthetic (non-metallic) materials. Such materials suffer creep under radial loads and will suffer loosening over time.

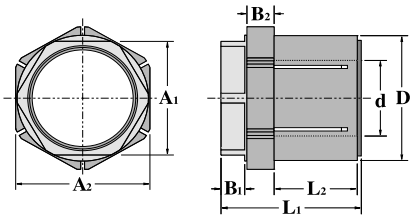
Mounting bearings with Trantorque GT is not recommended.

The expansion forces reduce the radial internal clearance within the bearing and can cause premature failure.





Trantorque Mini Series



Trantorque GT

METRIC STOCK RANGE

		DIMENSIONS								PERFORMANCE			NUT TORQUE	
	PRODUCT CODES	d	D	L_1	L_2	A_1	A_2	B_1	B_2	Max Transmissible Torque Nm	Thrust kgf	Hub Pressure N/cm²	Nm	Approximate Mass kg
MINIATURE SERIES TRANTORQUE	184A0105	5	16.0	19.0	9.5	13	–	3.0	–	12	323	3585	14	0.014
	184A0106	6	16.0	19.0	9.5	13	–	3.0	–	16	349	3585	14	0.014
	184B0108	8	19.0	22.0	11.0	16	–	3.0	–	23	405	2550	17	0.028
	184B0109	9	19.0	22.0	11.0	16	–	3.0	–	26	414	2550	17	0.028
	184C0110	10	22.5	25.5	12.5	19	–	5.0	–	30	423	1860	20	0.042
	184C0111	11	22.5	25.5	12.5	19	–	5.0	–	34	430	1860	20	0.042
	184C0112	12	22.5	25.5	12.5	19	–	5.0	–	39	439	1860	20	0.042
	184D0114	14	25.5	28.5	16.0	22	–	5.0	–	44	449	1240	23	0.056
	184D0115	15	25.5	28.5	16.0	22	–	5.0	–	45	451	1240	23	0.056
	184D0116	16	25.5	28.5	16.0	22	–	5.0	–	50	459	1240	23	0.056
STANDARD SERIES TRANTORQUE GT	184E0115	15	38.0	38.0	19.0	32	38.0	8.0	8.0	180	1366	7600	136	0.230
	184E0116	16	38.0	38.0	19.0	32	38.0	8.0	8.0	198	1500	7600	136	0.230
	184E0118	18	38.0	38.0	19.0	32	38.0	8.0	8.0	265	1835	7600	136	0.230
	184E0119	19	38.0	38.0	19.0	32	38.0	8.0	8.0	282	2000	7600	136	0.230
	184F0120	20	45.0	47.5	21.5	38	44.5	11.0	9.5	290	2140	6500	170	0.310
	184F0122	22	45.0	47.5	21.5	38	44.5	11.0	9.5	315	2446	6500	170	0.310
	184F0124	24	45.0	47.5	21.5	38	44.5	11.0	9.5	380	2752	6500	170	0.310
	184F0125	25	45.0	47.5	21.5	38	44.5	11.0	9.5	390	2956	6500	170	0.310
	184G0128	28	51.0	57.0	25.5	46	51.0	13.0	14.5	495	3262	5400	225	0.450
	184G0130	30	51.0	57.0	25.5	46	51.0	13.0	14.5	580	3568	5400	225	0.450
	184G0132	32	51.0	57.0	25.5	46	51.0	13.0	14.5	680	3874	5400	225	0.450
	184H0134	34	60.5	70.0	38.0	50	60.3	14.0	13.0	710	4077	4500	260	0.770
	184H0135	35	60.5	70.0	38.0	50	60.3	14.0	13.0	725	4281	4500	260	0.770
	184H0136	36	60.5	70.0	38.0	50	60.3	14.0	13.0	750	4485	4500	260	0.770
	184H0138	38	60.5	70.0	38.0	50	60.3	14.0	13.0	790	4791	4500	260	0.770
	184J0140	40	67.0	79.5	43.0	60	67.0	14.5	17.5	900	5097	3800	315	1.050
	184J0142	42	67.0	79.5	43.0	60	67.0	14.5	17.5	1000	5043	3800	315	1.050
	184K0145	45	73.0	90.5	51.0	65	73.0	16.0	19.0	1170	5912	2900	550	1.360
	184K0148	48	73.0	90.5	51.0	65	73.0	16.0	19.0	1356	6422	2900	550	1.360
	184K0150	50	73.0	90.5	51.0	65	73.0	16.0	19.0	1515	6728	2900	550	1.360
LARGE SERIES TRANTORQUE GT	184L0155	55	80.0	95.0	54.0	70	79.4	16.0	20.5	1650	6932	2400	600	2.130
	184M0160	60	86.0	98.5	57.0	75	85.7	17.5	19.0	1745	7034	2000	635	2.270
	184N0165	65	92.0	103.0	60.5	82	92.0	17.5	20.5	1830	7136	1700	680	2.680
	184N0170	70	92.0	103.0	60.5	82	92.0	17.5	20.5	1920	7238	1700	680	2.680
	184P0175	75	100.0	108.0	63.5	90	98.5	19.0	20.5	2000	7339	1600	750	2.720

INCH STOCK RANGE

		DIMENSIONS								PERFORMANCE			NUT TORQUE	
	PRODUCT CODES	d	D	L_1	L_2	A_1	A_2	B_1	B_2	Max Transmissible Torque Nm	Thrust kgf	Hub Resource N/cm²	Nm	Approximate Mass kg
MINIATURE SERIES TRANTORQUE	184A0604	1/4"	5/8"	3/4"	3/8"	1/2"	–	1/8"	–	17.0	358	3585	14.1	0.014
	184B0606	3/8"	3/4"	7/8"	7/16"	5/8"	–	1/8"	–	28.0	418	2550	17.0	0.028
	184C0608	1/2"	7/8"	1"	1/2"	3/4"	–	3/16"	–	39.5	445	1857	19.8	0.042
	184D0610	5/8"	1"	1 1/8"	5/8"	7/8"	–	3/16"	–	50.0	453	1240	22.6	0.056
STANDARD SERIES TRANTORQUE GT	184E0610	5/8"	1 1/2"	1 1/2"	3/4"	1 1/4"	1 1/2"	5/16"	5/16"	198.0	1497	7586	136.0	0.230
	184E0612	3/4"	1 1/2"	1 1/2"	3/4"	1 1/4"	1 1/2"	5/16"	5/16"	282.0	1996	7586	136.0	0.230
	184F0614	7/8"	1 3/4"	1 7/8"	7/8"	1 1/2"	1 3/4"	7/16"	3/8"	316.0	2495	6480	170.0	0.310
	184F0616	1"	1 3/4"	1 7/8"	7/8"	1 1/2"	1 3/4"	7/16"	3/8"	395.0	2994	6480	170.0	0.310
	184G0620	1 1/4"	2"	2 1/4"	1"	1 3/4"	2"	1/2"	9/16"	678.0	3856	5380	225.0	0.450
	184H0624	1 1/2"	2 3/8"	2 3/4"	1 1/2"	2"	2 3/8"	9/16"	1/2"	790.0	4770	4480	260.0	0.770
	184J0628	1 3/4"	2 5/8"	3 1/8"	1 11/16"	2 1/4"	2 5/8"	9/16"	11/16"	1130.0	5785	3790	315.0	1.050
	184K0632	2"	2 7/8"	3 9/16"	2"	2 1/2"	2 7/8"	5/8"	3/4"	1582.0	6805	2900	550.0	1.360
LARGE SERIES TRANTORQUE GT	184L0636	2 1/4"	3 1/8"	3 3/4"	2 1/8"	2 3/4"	3 1/8"	5/8"	13/16"	1695.0	6930	2415	600.0	2.130
	184M0638	2 3/8"	3 3/8"	3 7/8"	2 1/4"	3"	3 3/8"	11/16"	3/4"	1750.0	6985	1930	635.0	2.270
	184M0640	2 1/2"	3 3/8"	3 7/8"	2 1/4"	3"	3 3/8"	11/16"	3/4"	1810.0	7060	1930	635.0	2.270
	184N0644	2 3/4"	3 5/8"	4 1/16"	2 3/8"	3 1/4"	3 5/8"	11/16"	13/16"	1920.0	7170	1655	680.0	2.530
	184P0648	3"	3 7/8"	4 1/4"	2 1/2"	3 1/2"	3 7/8"	3/4"	13/16"	2030.0	7330	1585	750.0	2.720

Tolerances on shaft and bore, miniature Series ± .038 mm, (.0015"). Standard and Larger Series ± .076 mm, (0.003"). Other sizes, types and materials are available to order. Consult your local Authorised Distributor.

SELECTION

To select the TRANTORQUE GT suitable for your application simply choose the bush with the appropriate ('d') to suit the shaft diameter and determine that the outside diameter ('D') and transmissible torque rating will be adequate.

Note: The nominal transmitted torque in Nm should be multiplied by a service factor before comparing with the tabulated maximum transmissible torque.

Service factors range from 1.0 for electric motor driven, smooth machines, to 2.25 for heavy shock machinery driven by i/c engines.

If in doubt consult your local Authorised Distributor.

Use the following formula to convert power (kW) to torque (Nm)

$$\text{Torque (Nm)} = \frac{\text{kW} \times 9550}{\text{rev/min}}$$

INSTALLATION

- Clean off the shaft and bore with a clean rag dampened with a commercial solvent so that the bore and the shaft are clean and completely free of oil.
- Fit the TRANTORQUE GT unit onto the shaft: the shaft must extend through the full length of the TRANTORQUE GT (dimension L_1).
- Fit the hub over the TRANTORQUE GT unit so that the expanding section of the unit (dimension L_2) is approximately in the centre of the hub. If the hub is longer than the L_2 dimension, make sure that the flats of the nut(s) (dimensions B) are outside of the hub to permit spanners to be applied to the nut(s).
- Tighten the outboard nut lightly by hand. Position the unit and the hub in the desired location. Now tighten the outboard nut to the torque indicated in the charts. The hub is now locked to the shaft. With Trantorque GT the inboard nut is used to restrain the unit and the shaft during tightening.

SHAFT DIAMETER & HUB BORE TOLERANCES & FINSIH

Mini Series	Nominal ± 0.04mm (0.0015")
Standard/large series	Nominal ± 0.08mm (0.003")
Surface Finish	1.6 - 3.2 µm

MOUNTING OF HUBLESS MACHINE ELEMENTS

Hubless machine elements such as plate gears, plate disc brakes, plate cams and plate sprockets, can be successfully locked to the shaft by means of the TRANTORQUE GT, but some account should be taken of the increased hub pressure on these applications.

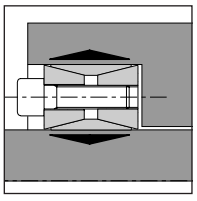
Fenlock™ Cone Clamping Elements

FenLock cone clamping elements are precision made in the finest steel materials to provide a wide, versatile range of keyless shaft/hub fixing assemblies.

They offer

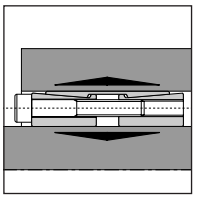
- Simple installation/dissembly
- Resistance to alternating torques
- Increased shaft strength
- High torque transmission capacity
- No backlash
- Axial and angular adjustment capability
- No fretting corrosion
- Simple selection

THE FENLOCK PRODUCT RANGE



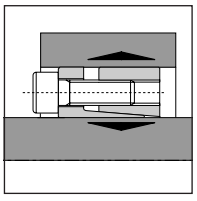
FLK 200

Medium/high torque
Non self centering
Available for shafts 20-900 mm dia.
Max allowable surface finish Rt max 16µm
Tolerances h11 shaft - H11 hub
No axial movement



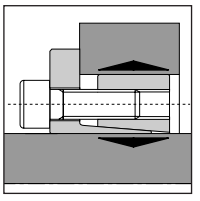
FLK 450

Very high torque
Self centering
Available for shafts 45-400 mm dia.
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8 hub.



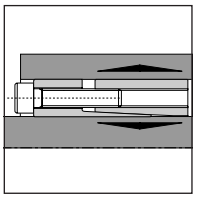
FLK 132

Less screws - quicker installation
Self centering Medium/high torque
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 20-200 mm dia
Tolerances h8 shaft - H8 hub.



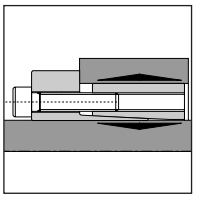
FLK 133

As FLK 132 with larger dia. location collar
Less screws - quicker installation
Medium/high torque Self centering
No axial movement hub/shaft
Available for shafts 20-200 mm dia
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8hub.



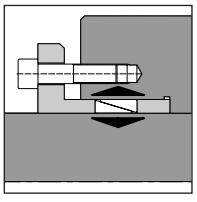
FLK 130

High torque
Self centering
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 20-180 mm dia
Tolerances h8 shaft - H8 hub.



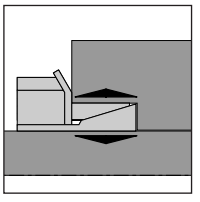
FLK 131

As FLK 130 with larger dia. location collar
High torque
Self centering
No axial movement hub/shaft
Available for shafts 20-180 mm dia
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8 hub.



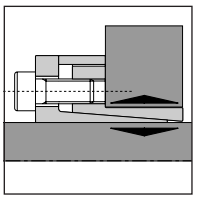
FLK 300

Medium/low torque
Non self centering
Max allowable surface finish Rt max 6µm
Available for shafts 6-300 mm dia
(larger sizes to order)
Tolerances ≥ 40mm dia, h6 shaft - H7 hub
≤ 42mm dia h8 shaft - H8 hub



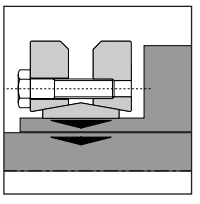
FLK 250L

Similar to FLK 300 with integral single nut fixing
Medium/low torque Self centering
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 14-60 mm dia
Tolerances h8 shaft - H8 hub.



FLK 110

Few screws - quicker installation
Medium/high torque Self centering
Max allowable surface finish Rt max 16µm
Available for shafts 6-130 mm dia
Tolerances h8 shaft - H8 hub.



FLK 603

'Shrink disc' device for hub clamping
Quick installation
Medium/high torque Self centering
Available for hubs 14-280 mm dia
(larger sizes to order)
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft.

FENLOCK SELECTION

1. Determine the maximum torque (Nm) to be transmitted, including fluctuations and shock loads, and any axial forces (kN) to be withstood.
2. Use the features table above to help determine the type of FenLock device to use.
3. Use the tabulated data on the following pages to establish torque (Mt) and axial load capacity (F) of the chosen unit on the shaft size being used, and that they exceed applicational requirements.

   Note: Maximum torque and axial force values are mutually exclusive. For combined torque and axial force applications, consult your local Authorised Distributor.
4. Check dimensional suitability, self centering capability and ease of installation/dissembly.
5. For hub strength calculations or more detailed selection advice - consult your local Authorised Distributor.

INSTALLATION

1. Ensure cleanliness of hub and shaft contact surfaces
2. Screw threads and conical surfaces should be lightly oiled.
3. Tighten fixing screws gradually, in diagonal sequence, up to torque Ms (Nm)
4. For more detailed information - consult your local Authorised Distributor.

To Calculate the Minimum Hub Diameter (Dm).

FenLock cone clamping elements create a surface pressure **Pn** between the clamping outer ring and hub bore when fitted. Shaft values are higher than the hub stresses but generally the hub stress level is the critical factor as it must be below the yield stress of the material.

The minimum hub diameter **Dm** is calculated using the following formula

Dm ≥ (D·K)

where

Dm = Minimum hub diameter

D = Outside diameter of clamping element

K = Coefficient K derived from the table below

Use **Pn** from product tables on pages 134 - 138

factor C (see below)

Example

Based on securing a cast iron 50mm wide pulley to a steel shaft using a FenLock 200 80 x 120.

Pulley Material = GG25

C = 0.8 as assembly is as per type 2

Pn = 120 N/mm² as page 134

K = 1,81

Dm ≥ (D·K)

Dm ≥ (120 x 1.81)

Dm ≥ 217.2mm

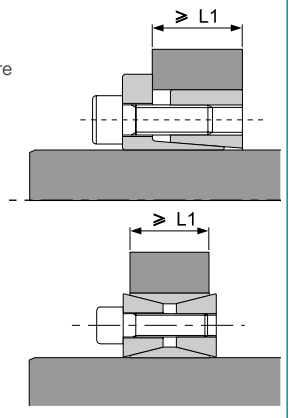
Therefore, the minimum hub diameter that can be used is 217.2mm.

FACTOR C

ASSEMBLIES TYPE

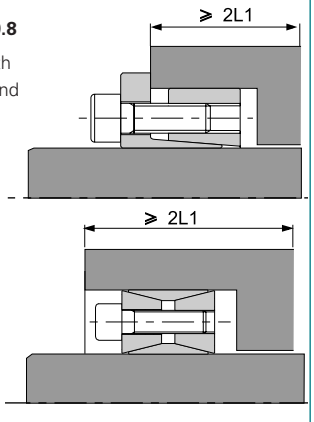
Type 1 C = 1.0

Narrow hubs where the length ≥ L1



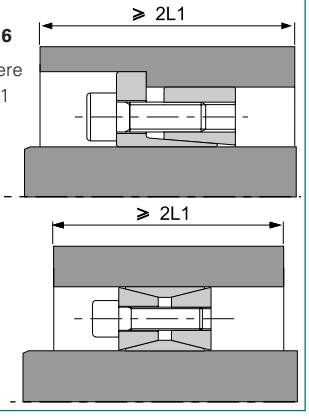
Type 2 C = 0.8

Wide hubs with centre guide and length ≥ 2L1



Type 3 C = 0.6

Wide hubs where the length ≥ 2L1



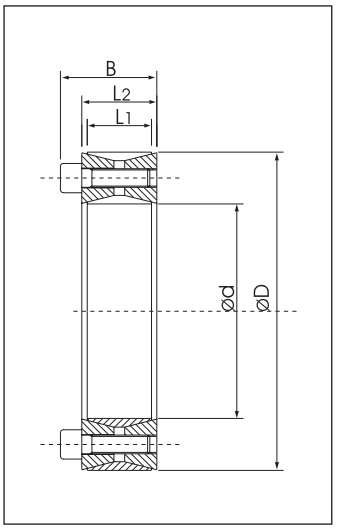
COEFFICIENT K

Pressure generated on the hub		Yeild point N/mm2										
		150	180	200	220	250	270	300	350	400	450	600
		Material type										
Pn N/mm²	Applica-tion type C	GG20	GG25 GS38	GG30 GTS35	GS45 ST37-2	GGG40 GS52	ST50-2 C35	GGG50 GS60 ST60-2	GGG60 GS62 ST70-2	GGG70 GS70 C60		
60	C=0.6	1.28	1.25	1.20	1.18	1.15	1.14	1.12	1.10	1.09	1.08	1.06
	C=0.8	1.39	1.30	1.24	1.23	1.22	1.20	1.18	1.15	1.12	1.11	1.08
	C= 1	1.52	1.42	1.36	1.32	1.28	1.25	1.22	1.18	1.16	1.14	1.10
65	C=0.6	1.30	1.25	1.22	1.20	1.18	1.15	1.13	1.11	1.10	1.09	1.07
	C=0.8	1.44	1.35	1.30	1.28	1.24	1.22	1.20	1.16	1.14	1.12	1.09
	C= 1	1.60	1.45	1.40	1.35	1.30	1.28	1.24	1.20	1.18	1.16	1.12
70	C=0.6	1.34	1.26	1.24	1.22	1.18	1.16	1.15	1.12	1.11	1.10	1.07
	C=0.8	1.48	1.38	1.34	1.30	1.25	1.23	1.20	1.18	1.15	1.13	1.10
	C= 1	1.65	1.50	1.45	1.40	1.34	1.30	1.26	1.22	1.20	1.17	1.13
75	C=0.6	1.30	1.28	1.25	1.23	1.20	1.18	1.16	1.14	1.12	1.11	1.08
	C=0.8	1.52	1.42	1.36	1.32	1.28	1.25	1.22	1.18	1.16	1.14	1.11
	C= 1	1.74	1.55	1.48	1.42	1.36	1.33	1.30	1.25	1.20	1.18	1.13
80	C=0.6	1.39	1.31	1.28	1.25	1.21	1.20	1.18	1.15	1.13	1.11	1.08
	C=0.8	1.58	1.45	1.39	1.35	1.30	1.27	1.24	1.20	1.18	1.15	1.11
	C= 1	1.81	1.61	1.53	1.46	1.39	1.36	1.31	1.26	1.22	1.20	1.14
85	C=0.6	1.42	1.34	1.30	1.27	1.23	1.21	1.19	1.16	1.14	1.12	1.09
	C=0.8	1.63	1.49	1.42	1.38	1.32	1.29	1.26	1.22	1.19	1.16	1.12
	C= 1	1.90	1.67	1.57	1.50	1.42	1.39	1.34	1.28	1.24	1.21	1.15
90	C=0.6	1.46	1.36	1.32	1.28	1.25	1.22	1.20	1.17	1.15	1.13	1.09
	C=0.8	1.69	1.53	1.46	1.40	1.34	1.31	1.28	1.23	1.20	1.18	1.13
	C= 1	2.00	1.73	1.62	1.54	1.46	1.41	1.36	1.30	1.26	1.22	1.16
95	C=0.6	1.49	1.39	1.34	1.30	1.26	1.24	1.21	1.18	1.15	1.14	1.10
	C=0.8	1.75	1.57	1.49	1.43	1.37	1.34	1.30	1.25	1.21	1.19	1.14
	C= 1	2.11	1.80	1.68	1.59	1.49	1.44	1.39	1.32	1.27	1.24	1.17
100	C=0.6	1.53	1.41	1.36	1.32	1.28	1.25	1.22	1.19	1.16	1.14	1.11
	C=0.8	1.81	1.61	1.53	1.46	1.39	1.36	1.31	1.26	1.22	1.20	1.14
	C= 1	2.24	1.87	1.73	1.63	1.53	1.48	1.41	1.34	1.29	1.25	1.18
105	C=0.6	1.56	1.44	1.39	1.34	1.29	1.27	1.24	1.20	1.17	1.15	1.11
	C=0.8	1.88	1.66	1.56	1.50	1.42	1.38	1.33	1.28	1.24	1.21	1.15
	C= 1	2.38	1.95	1.79	1.68	1.56	1.51	1.44	1.36	1.31	1.27	1.19
110	C=0.6	1.60	1.47	1.41	1.36	1.31	1.28	1.25	1.21	1.18	1.16	1.12
	C=0.8	1.96	1.71	1.60	1.53	1.44	1.41	1.35	1.29	1.25	1.22	1.16
	C= 1	2.55	2.04	1.86	1.73	1.60	1.54	1.47	1.38	1.33	1.28	1.20
115	C=0.6	1.64	1.50	1.43	1.36	1.33	1.30	1.26	1.22	1.19	1.17	1.12
	C=0.8	2.04	1.76	1.64	1.56	1.47	1.43	1.37	1.31	1.26	1.23	1.17
	C= 1	2.75	2.13	1.93	1.79	1.64	1.58	1.50	1.41	1.34	1.30	1.21
120	C=0.6	1.69	1.53	1.46	1.40	1.34	1.31	1.28	1.23	1.20	1.18	1.13
	C=0.8	2.13	1.81	1.69	1.60	1.50	1.45	1.39	1.33	1.28	1.24	1.18
	C= 1	3.00	2.24	2.00	1.84	1.69	1.61	1.53	1.43	1.36	1.31	1.22
125	C=0.6	1.73	1.56	1.48	1.43	1.36	1.33	1.29	1.24	1.21	1.18	1.13
	C=0.8	2.24	1.87	1.73	1.63	1.53	1.48	1.41	1.34	1.29	1.25	1.18
	C= 1	3.32	2.35	2.08	1.91	1.73	1.65	1.56	1.45	1.38.	1.33	1 24
130	C=0.6	1.78	1.59	1.51	1.45	1.38	1.35	1.30	1.25	1.22	1.19	1.14
	C=0.8	2.35	1.93	1.78	1.67	1.56	1.50	1.44	1.36	1.30	1.27	1.19
	C= 1	3.74	2.49	2.17	1.97	1.78	1.69	1.59	1.48	1.40	1.35	1.25
135	C=0.6	1.83	1.62	1.54	1.47	1.40	1.36	1.32	1.27	1.23	1.20	1.15
	C=0.8	2.48	2.00	1.83	1.71	1.59	1.53	1.46	1.38	1.32	1.28	1.20
	C= 1	4.36	2.65	2.27	2.04	1.83	1.73	1.62	1.50	1.42	1.36	1.26
140	C=0.6	1.88	1.66	1.56	1.50	1.42	1.38	1.33	1.28	1.24	1.21	1.15
	C=0.8	2.63	2.07	1.88	1.75	1.62	1.55	1.48	1.39	1.33	1.29	1.21
	C= 1	5.39	2.83	2.38	2.12	1.88	1.78	1.66	1.53	1.44	1.38	1.27
145	C=0.6	1.94	1.69	1.59	1.52	1.44	1.40	1.35	1.29	1.25	1.22	1.16
	C=0.8	2.80	2.15	1.94	1.80	1.65	1.58	1.50	1.41	1.35	1.30	1.22
	C= 1	7.68	3.05	2.50	2.21	1.94	1.82	1.69	1.55	1.46	1.40	1.28
150	C=0.6	2.00	1.73	1.62	1.54	1.46	1.41	1.36	1.30	1.26	1.23	1.16
	C=0.8	3.00	2.24	2.00	1.84	1.69	1.61	1.53	1.43	1.36	1.31	1.23
	C= 1	——	3.32	2.65	2.30	2.00	1.87	1.73	1.58	1.48	1.41	1.29
155	C=0.6	2.06	1.77	1.65	1.57	1.48	1.43	1.38	1.31	1.27	1.24	1.17
	C=0.8	3.25	2.33	2.06	1.89	1.72	1.65	1.55	1.45	1.38	1.33	1.23
	C= 1	——	3.66	2.80	2.40	2.06	1.92	1.77	1.61	1.51	1.43	1.30
160	C=0.6	2.13	1.81	1.69	1.60	1.50	1.45	1.39	1.33	1.28	1.24	1.18
	C=0.8	3.55	2.43	2.13	1.94	1.76	1.67	1.58	1.47	1.39	1.34	1.24
	C= 1	——	4.12	3.00	2.52	2.13	1.98	1.81	1.64	1.53	1.45	1.31
165	C=0.6	2.21	1.86	1.72	1.62	1.52	1.47	1.41	1.34	1.29	1.25	1.18
	C=0.8	3.96	2.55	2.21	2.00	1.80	1.71	1.60	1.49	1.41	1.35	1.25
	C= 1	——	4.80	3.23	2.65	2.21	2.04	1.86	1.67	1.55	1.47	1.33

Fenlock™ Cone Clamping Element Dimensions

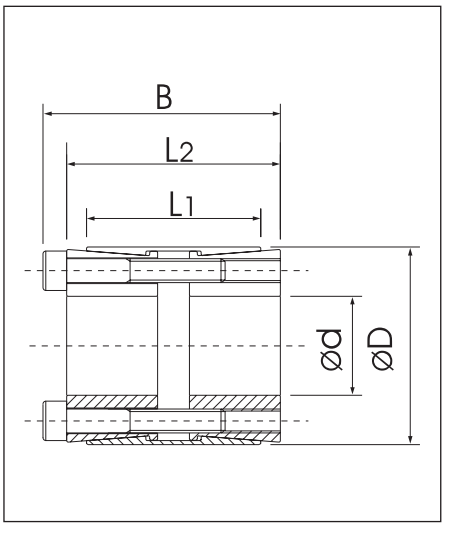
Product Code	d x D	L1	L2	B	Torque Mt	Axial Thrust F ass.	Hub Stress Pn	Tightening screws Grade 12.9	Tightening screws Tightening Torque Ms
	mm	mm	mm	mm	Nm	kN	N/mm²	No. x type	Nm
630A0020	20 x 47	17	20	27.5	280	29	95	8 x M6	15
630A0022	22 x 47	17	20	27.5	310	29	95	8 x M6	15
630A0024	24 x 50	17	20	27.5	370	32	100	8 x M6	15
630A0025	25 x 50	17	20	27.5	400	32	100	8 x M6	15
630A0028	28 x 55	17	20	27.5	500	36	100	10 x M6	15
630A0030	30 x 55	17	20	27.5	530	36	100	10 x M6	15
630A0032	32 x 60	17	20	27.5	680	42	110	12 x M6	15
630A0035	35 x 60	17	20	27.5	750	43	110	12 x M6	15
630A0038	38 x 65	17	20	27.5	930	49	115	14 x M6	15
630A0040	40 x 65	17	20	27.5	980	49	115	14 x M6	15
630A0042	42 x 75	20	24	33.5	1580	75	130	12 x M8	37
630A0045	45 x 75	20	24	33.5	1700	76	130	12 x M8	37
630A0048	48 x 80	20	24	33.5	1790	74	120	12 x M8	37
630A0050	50 x 80	20	24	33.5	1870	75	120	12 x M8	37
630A0055	55 x 85	20	24	33.5	2390	88	135	14 x M8	37
630A0060	60 x 90	20	24	33.5	2610	88	125	14 x M8	37
630A0065	65 x 95	20	24	33.5	3210	98	135	16 x M8	37
630A0070	70 x 110	24	28	39.5	4600	132	130	14 x M10	70
630A0075	75 x 115	24	28	39.5	4900	131	125	14 x M10	70
630A0080	80 x 120	24	28	39.5	5200	131	120	14 x M10	70
630A0085	85 x 125	24	28	39.5	6300	148	130	15 x M10	70
630A0090	90 x 130	24	28	39.5	6600	147	125	16 x M10	70
630A0095	95 x 135	24	28	39.5	7900	167	135	18 x M10	70
630A0100	100 x 145	26	33	47.0	9750	195	135	14 x M12	127
630A0110	110 x 155	26	33	47.0	10650	194	125	14 x M12	127
630A0120	120 x 165	26	33	47.0	13300	221	135	16 x M12	127
630A0130	130 x 180	34	38	52.0	17850	276	115	20 x M12	127
630A0140	140 x 190	34	38	52.0	21200	302	125	22 x M12	127
630A0150	150 x 200	34	38	52.0	24500	329	125	24 x M12	127
630A0160	160 x 210	34	38	52.0	28400	355	130	26 x M12	127
630A0170	170 x 225	38	44	60.0	33600	396	120	22 x M14	195
630A0180	180 x 235	38	44	60.0	38700	431	130	24 x M14	195
630A0190	190 x 250	46	52	68.0	44700	502	120	28 x M14	195
630A0200	200 x 260	46	52	68.0	53500	538	120	30 x M14	195
630A0220	220 x 285	50	56	74.0	68500	630	120	26 x M16	300
630A0240	240 x 305	50	56	74.0	86000	717	130	30 x M16	300
630A0260	260 x 325	50	56	74.0	105000	810	135	34 x M16	300
630A0280	280 x 355	60	66	86.5	128500	920	120	32 x M18	410
630A0300	300 x 375	60	66	86.5	153600	1025	125	36 x M18	410
630A0320	320 x 405	72	78	100.5	210500	1325	125	36 x M20	590
630A0340	340 x 425	72	78	100.5	225000	1325	120	36 x M20	590
630A0360	360 x 455	84	90	116.0	294700	1635	120	36 x M22	790
630A0380	380 x 475	84	90	116.0	309100	1625	120	36 x M22	790
630A0400	400 x 495	84	90	116.0	321900	1617	110	36 x M22	790
630A0420	420 x 515	84	90	116.0	374000	1780	110	40 x M22	790
630A0440	440 x 545	96	102	130.0	455000	2060	105	40 x M24	1000
630A0460	460 x 565	96	102	130.0	470000	2040	100	40 x M24	1000
630A0480	480 x 585	96	102	130.0	515000	2160	100	42 x M24	1000
630A0500	500 x 605	96	102	130.0	560000	2240	100	44 x M24	1000
630A0520	520 x 630	96	102	130.0	600000	2320	100	45 x M24	1000
630A0540	540 x 650	96	102	130.0	630000	2340	100	45 x M24	1000
630A0560	560 x 670	96	102	130.0	680000	2440	100	48 x M24	1000
630A0580	580 x 690	96	102	130.0	735000	2540	100	50 x M24	1000
630A0600	600 x 710	96	102	130.0	775000	2580	100	50 x M24	1000
630A0620	620 x 730	96	102	130.0	825000	2660	100	52 x M24	1000
630A0640	640 x 750	96	102	130.0	865000	2700	100	54 x M24	1000
630A0660	660 x 770	96	102	130.0	925000	2800	100	56 x M24	1000
630A0680	680 x 790	96	102	130.0	965000	2840	100	56 x M24	1000
630A0700	700 x 810	96	102	130.0	1030000	2960	100	60 x M24	1000
630A0720	720 x 830	96	102	130.0	1070000	2980	100	60 x M24	1000
630A0740	740 x 850	96	102	130.0	1140000	3080	100	62 x M24	1000
630A0760	760 x 870	96	102	130.0	1210000	3180	100	64 x M24	1000
630A0780	780 x 890	96	102	130.0	1250000	3220	100	65 x M24	1000
630A0800	800 x 910	96	102	130.0	1300000	3260	100	66 x M24	1000
630A0820	820 x 930	96	102	130.0	1370000	3340	100	68 x M24	1000
630A0840	840 x 950	96	102	130.0	1450000	3460	100	70 x M24	1000
630A0860	860 x 970	96	102	130.0	1520000	3540	100	72 x M24	1000
630A0880	880 x 990	96	102	130.0	1590000	3620	100	74 x M24	1000
630A0900	900 x 1010	96	102	130.0	1650000	3680	100	75 x M24	1000

FenLock clamping elements type FLK 200 non self-centering



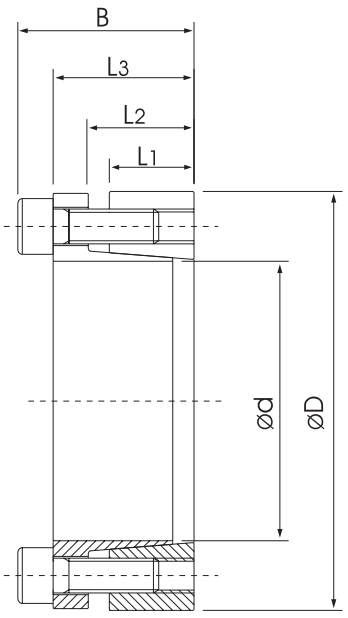
Product Code	d x D	L1	L2	B	Torque Mt	Axial Thrust F ass.	Hub Stress pn	Tightening screws Grade 12.9	Tightening screws Tightening Torque Ms
	mm	mm	mm	mm	Nm	kN	N/mm²	No. x type	Nm
630X0045	45 x 75	56	64	72.0	3150	141	105	8 x M8	41
630X0048	48 x 80	56	64	72.0	4000	166	98	8 x M8	41
630X0050	50 x 80	56	64	72.0	4150	166	98	8 x M8	41
630X0055	55 x 85	56	64	72.0	4550	166	93	8 x M8	41
630X0060	60 x 90	56	61	72.0	6200	207	109	10 x M8	41
630X0065	65 x 95	56	64	72.0	6750	207	104	10 x M8	41
630X0070	70 x 110	70	78	88.0	11550	330	114	10 x M10	83
630X0075	75 x 115	70	78	88.0	12350	330	109	10 x M10	83
630X0080	80 x 120	70	78	88.0	15800	396	125	12 x M10	83
630X0085	85 x 125	70	78	88.0	16800	396	120	12 x M10	83
630X0090	90 x 130	70	78	88.0	17800	396	115	12 x M10	83
630X0095	95 x 135	70	78	88.0	18800	396	111	12 x M10	83
630X0100	100 x 145	90	100	112.0	28800	576	117	12 x M12	145
630X0110	110 x 155	90	100	112.0	31700	576	110	12 x M12	145
630X0120	120 x 165	90	100	112.0	40300	673	120	14 x M12	145
630X0130	130 x 180	104	116	130.0	51400	791	112	12 x M14	230
630X0140	140 x 190	104	116	130.0	64600	923	124	14 x M14	230
630X0150	150 x 200	104	116	130.0	79100	1055	135	16 x M14	230
630X0160	160 x 210	104	116	130.0	84400	1055	128	16 x M14	230
630X0170	170 x 225	134	146	162.0	109000	1283	113	14 x M16	355
630X0180	180 x 235	134	146	162.0	132000	1466	124	16 x M16	355
630X0190	190 x 250	134	146	162.0	139000	1466	116	16 x M16	355
630X0200	200 x 260	134	146	162.0	146500	1466	112	16 x M16	355

FenLock clamping elements type FLK 450 self-centering

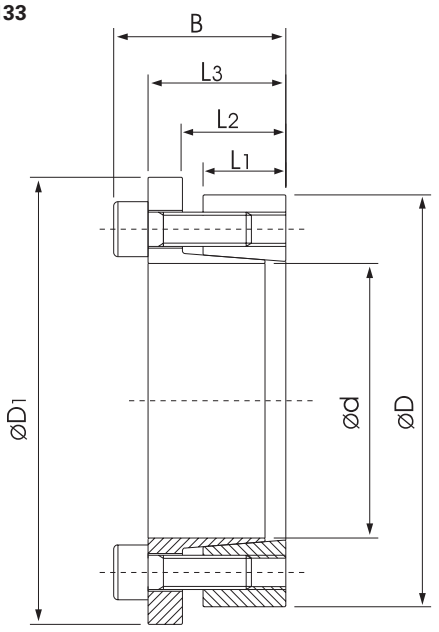


FENLOCK CLAMPING ELEMENTS TYPE FLK 132 + FLK 133 SELF-CENTERING

FLK 132



FLK 133



Product Code	d x D	L1	L2	L3	B	FLK 133 Only D1	Tightening Screws Grade 12.9	Tightening torque Ms Nm		FLK 132 Torque Mt	FLK 132 Axial Thrust F ass.	FLK 132 Hub Stress Pn	FLK 133 Torque Mt	FLK 133 Axial Thrust F ass.	FLK 133 Hub Stress Pn
	mm	mm	mm	mm	mm	mm	No. x type	FLK 132	FLK 133	Nm	kN	N/mm²	Nm	kN	N/mm²
630 R/G 0020	**20 x 47**	17	22	28	34	54	5 x M6	14	17	380	38	125	280	28	95
630 R/G 0022	**22 x 47**	17	22	28	34	54	5 x M6	14	17	410	38	125	300	28	95
630 R/G 0024	**24 x 50**	17	22	28	34	57	5 x M6	14	17	450	38	120	330	28	90
630 R/G 0025	**25 x 50**	17	22	28	34	57	6 x M6	14	17	570	46	140	420	34	105
630 R/G 0028	**28 x 55**	17	22	28	34	62	6 x M6	14	17	630	46	130	470	34	95
630 R/G 0030	**30 x 55**	17	22	28	34	62	6 x M6	14	17	660	46	130	500	34	95
630 R/G 0032	**32 x 60**	17	22	28	34	67	8 x M6	14	17	970	60	155	720	45	115
630 R/G 0035	**35 x 60**	17	22	28	34	67	8 x M6	14	17	1060	60	155	790	45	115
630 R/G 0038	**38 x 65**	17	22	28	34	72	8 x M6	14	17	1150	60	145	850	45	105
630 R/G 0040	**40 x 65**	17	22	28	34	72	8 x M6	14	17	1210	60	145	900	45	105
630 R/G 0042	**42 x 75**	20	25	33	41	82	7 x M8	35	41	2050	98	170	1530	73	125
630 R/G 0045	**45 x 75**	20	25	33	41	82	7 x M8	35	41	2200	98	170	1650	73	125
630 R/G 0048	**48 x 80**	20	25	33	41	87	7 x M8	35	41	2350	98	160	1760	73	120
630 R/G 0050	**50 x 80**	20	25	33	41	87	7 x M8	35	41	2450	98	160	1830	73	120
630 R/G 0055	**55 x 85**	20	25	33	41	92	8 x M8	35	41	3080	112	175	2300	83	130
630 R/G 0060	**60 x 90**	20	25	33	41	97	8 x M8	35	41	3360	112	165	2510	83	125
630 R/G 0065	**65 x 95**	20	25	33	41	102	9 x M8	35	41	4090	126	175	3060	94	130
630 R/G 0070	**70 x 110**	24	30	40	50	117	8 x M10	70	83	6300	179	180	4670	133	135
630 R/G 0075	**75 x 115**	24	30	40	50	122	8 x M10	70	83	6700	179	170	5000	133	125
630 R/G 0080	**80 x 120**	24	30	40	50	127	8 x M10	70	83	7150	179	170	5300	133	125
630 R/G 0085	**85 x 125**	24	30	40	50	132	9 x M10	70	83	8500	200	180	6300	148	135
630 R/G 0090	**90 x 130**	24	30	40	50	137	9 x M10	70	83	9100	200	170	6750	148	130
630 R/G 0095	**95 x 135**	24	30	40	50	142	10 x M10	70	83	10600	224	180	7900	166	135
630 R/G 0100	**100 x 145**	26	32	44	56	152	8 x M12	125	145	13400	268	190	9700	194	140
630 R/G 0110	**110 x 155**	26	32	44	56	162	8 x M12	125	145	14600	268	180	10600	194	130
630 R/G 0120	**120 x 165**	26	32	44	56	172	9 x M12	125	145	17900	298	180	13000	216	135
630 R/G 0130	**130 x 180**	34	40	54	66	187	12 x M12	125	145	26000	400	170	18900	290	125
630 R/G 0140	**140 x 190**	34	40	54	68	197	9 x M14	190	230	27000	384	150	20500	290	120
630 R/G 0150	**150 x 200**	34	40	54	68	207	10 x M14	190	230	33000	440	170	25000	333	130
630 R/G 0160	**160 x 210**	34	40	54	68	217	11 x M14	190	230	38000	479	170	29000	362	135
630 R/G 0170	**170 x 225**	44	50	64	78	232	12 x M14	190	230	45000	530	130	34000	400	105
630 R/G 0180	**180 x 235**	44	50	64	78	242	12 x M14	190	230	47000	530	130	36000	400	105
630 R/G 0190	**190 x 250**	44	50	64	78	257	15 x M14	190	230	62900	660	150	47500	500	120
630 R/G 0200	**200 x 260**	44	50	64	78	267	15 x M14	190	230	66000	660	150	50000	500	115

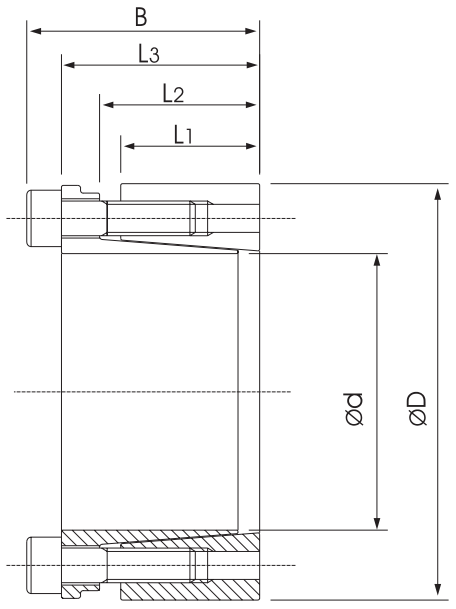
R = FLK 132 G = FLK 133

NOTE: It is possible to reduce the screw tightening torque down to 60% of the values indicated in above table; as a result Mt & F ass. are reduced proportionally.

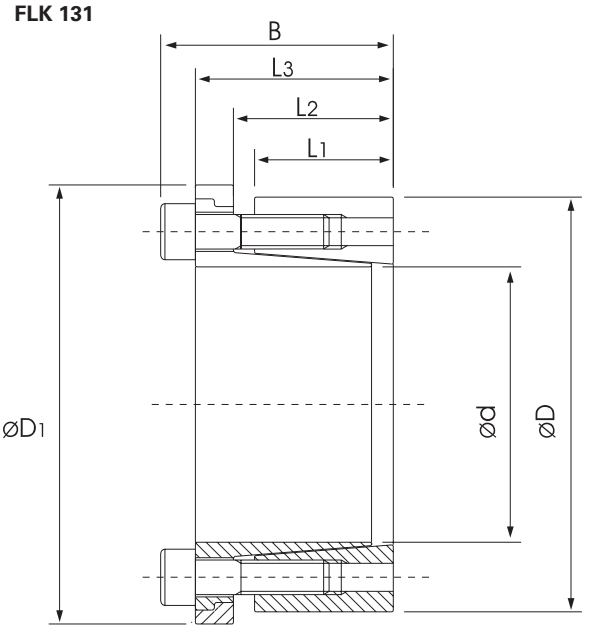
Fenlock™ Cone Clamping Element Dimensions

FENLOCK CLAMPING ELEMENTS TYPE FLK 130 + FLK 131 SELF CENTERING

FLK 130



FLK 131



									FLK 130			FLK 131		
Product Code	d x D	L1	L2	L3	B	FLK 131 Only D1	Tightening Screws Grade 12.9	Tightening torque Ms	Torque Mt	Axial Thrust F ass.	Hub Stress Pn	Torque Mt	Axial Thrust F ass.	Hub Stress Pn
	mm	mm	mm	mm	mm	mm	No. x type	Nm	Nm	kN	N/mm²	Nm	kN	N/mm²
630 C/D 0020	**20 x 47**	26	30	41	47	53	6 x M6	17	540	54	120	330	34	75
630 C/D 0022	**22 x 47**	26	30	41	47	53	6 x M6	17	600	54	120	370	34	75
630 C/D 0024	**24 x 50**	26	30	41	47	56	6 x M6	17	650	54	115	400	34	70
630 C/D 0025	**25 x 50**	26	30	41	47	56	6 x M6	17	680	54	115	420	34	70
630 C/D 0028	**28 x 55**	26	30	41	47	61	6 x M6	17	760	54	105	470	34	65
630 C/D 0030	**30 x 55**	26	30	41	47	61	6 x M6	17	820	54	105	510	34	65
630 C/D 0032	**32 x 60**	26	30	41	47	66	9 x M6	17	1160	73	125	720	45	80
630 C/D 0035	**35 x 60**	26	30	41	47	66	9 x M6	17	1270	73	125	790	45	80
630 C/D 0038	**38 x 65**	26	30	41	47	71	9 x M6	17	1380	73	115	860	45	70
630 C/D 0040	**40 x 65**	26	30	41	47	71	9 x M6	17	1450	73	115	900	45	70
630 C/D 0042	**42 x 75**	30	35	49	57	81	6 x M8	41	2130	101	120	1320	63	75
630 C/D 0045	**45 x 75**	30	35	49	57	81	6 x M8	41	2280	101	120	1410	63	75
630 C/D 0048	**48 x 80**	30	35	49	57	86	6 x M8	41	2430	101	115	1510	63	70
630 C/D 0050	**50 x 80**	30	35	49	57	86	6 x M8	41	2530	101	115	1570	63	70
630 C/D 0055	**55 x 85**	30	35	49	57	91	9 x M8	41	3700	135	140	2310	84	90
630 C/D 0060	**60 x 90**	30	35	49	57	96	9 x M8	41	4000	135	135	2520	84	85
630 C/D 0065	**65 x 95**	30	35	49	57	102	9 x M8	41	4380	135	125	2730	84	80
630 C/D 0070	**70 x 110**	40	45	59	69	117	7 x M10	83	7500	214	130	4650	133	80
630 C/D 0075	**75 x 115**	40	45	59	69	122	7 x M10	83	8000	214	125	5000	133	80
630 C/D 0080	**80 x 120**	40	45	59	69	127	7 x M10	83	8560	214	120	5330	133	75
630 C/D 0085	**85 x 125**	40	45	59	69	132	8 x M10	83	11370	268	145	7080	167	90
630 C/D 0090	**90 x 130**	40	45	59	69	137	8 x M10	83	12000	268	135	7500	167	85
630 C/D 0095	**95 x 135**	40	45	59	69	142	10 x M10	83	12600	268	130	7900	167	85
630 C/D 0100	**100 x 145**	46	52	68	80	153	7 x M12	145	15580	312	125	9700	194	80
630 C/D 0110	**110 x 155**	46	52	68	80	163	7 x M12	145	17100	312	115	10650	194	75
630 C/D 0120	**120 x 165**	46	52	68	80	173	8 x M12	145	23370	390	135	14550	243	85
630 C/D 0130	**130 x 180**	46	52	68	80	188	10 x M12	145	30380	467	150	18950	291	95
630 C/D 0140	**140 x 190**	50	57	76	90	199	11 x M14	230	29900	428	120	18650	267	75
630 C/D 0150	**150 x 200**	50	57	76	90	209	12 x M14	230	40000	535	145	25000	333	90
630 C/D 0160	**160 x 210**	50	57	76	90	219	13 x M14	230	42750	535	135	26650	333	85
630 C/D 0170	**170 x 225**	50	57	76	90	234	14 x M14	230	54500	641	150	34000	400	95
630 C/D 0180	**180 x 235**	50	57	76	90	244	14 x M14	230	57700	641	145	36000	400	90

C = FLK 130 D = FLK 131

NOTE: It is possible to reduce the screw tightening torque down to 60% of the values indicated in above table; as a result Mt & F ass, are reduced proportionally.

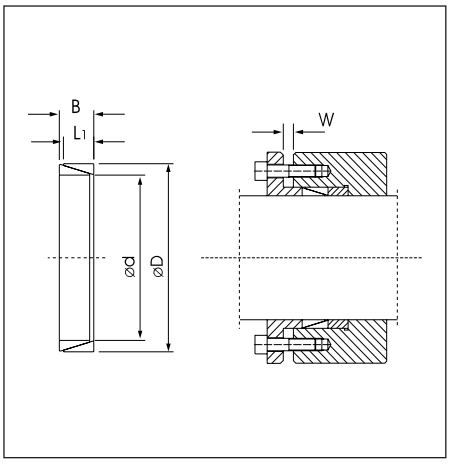


Fenlock™ Cone Clamping Element Dimensions

FENLOCK CLAMPING ELEMENTS TYPE FLK 300 NON SELF-CENTERING

Product Code	Dimensions d x D	B	L1	Pre-load force Pt	Total force Pa	Torque Mt	Axial thrust F ass	Distance W before tightening * 1	2	3	4	Hub Stress Pn
	mm	mm	mm	N	N	Nm	kN	mm	mm	mm	mm	N/mm²
630T0006	6 x 9	4.5	3.7	–	3800	2	0.84	2.5	2.5	3.0	4.0	75
630T0007	**7 x 10**	4.5	3.7	–	3900	3	0.86	2.5	2.5	3.0	4.0	70
630T0008	**8 x 11**	4.5	3.7	–	5300	5	1.17	2.5	2.5	3.0	4.0	90
630T0009	**9 x 12**	4.5	3.7	7650	15600	8	1.76	2.5	2.5	3.0	4.0	105
630T0010	**10 x 13**	4.5	3.7	7000	15600	10	1.91	2.5	2.5	3.0	4.0	105
630T0012	**12 x 15**	4.5	3.7	7000	15600	11	1.91	2.5	2.5	3.0	4.0	90
630T0013	**13 x 16**	4.5	3.7	6500	15600	13	2.02	2.5	2.5	3.0	4.0	90
630T0014	**14 x 18**	6.3	5.3	11000	25400	22	3.18	3.5	3.5	4.5	5.5	90
630T0015	**15 x 19**	6.3	5.3	10800	25400	24	3.24	3.5	3.5	4.5	5.5	85
630T0016	**16 x 20**	6.3	5.3	10000	25400	27	3.42	3.5	3.5	4.5	5.5	85
630T0017	**17 x 21**	6.3	5.3	9600	25400	30	3.51	3.5	3.5	4.5	5.5	85
630T0018	**18 x 22**	6.3	5.3	9150	25400	32	3.61	3.5	3.5	4.5	5.5	80
630T0019	**19 x 24**	6.3	5.3	12500	36000	49	5.22	3.5	3.5	4.5	5.5	110
630T0020	**20 x 25**	6.3	5.3	12000	36000	53	5.33	3.5	3.5	4.5	5.5	105
630T0022	**22 x 26**	6.3	5.3	9000	36000	66	6.00	3.5	3.5	4.5	5.5	115
630T0024	**24 x 28**	6.3	5.3	8400	36000	73	6.13	3.5	3.5	4.5	5.5	110
630T0025	**25 x 30**	6.3	5.3	10000	36000	72	5.77	3.5	3.5	4.5	5.5	95
630T0028	**28 x 32**	6.3	5.3	7500	36000	88	6.33	3.5	3.5	4.5	5.5	100
630T0030	**30 x 35**	6.3	5.3	8600	36000	91	6.08	3.5	3.5	4.5	5.5	85
630T0032	**32 x 36**	6.3	5.3	7900	45000	131	8.24	3.5	3.5	4.5	5.5	115
630T0035	**35 x 40**	7.0	6.0	10000	54000	171	9.77	3.5	3.5	4.5	5.5	110
630T0036	**36 x 42**	7.0	6.0	11700	54000	169	9.39	3.5	3.5	4.5	5.5	100
630T0038	**38 x 44**	7.0	6.0	11000	54000	181	9.55	3.5	3.5	4.5	5.5	95
630T0040	**40 x 45**	8.0	6.6	13900	66000	231	11.57	3.5	4.5	5.5	6.5	105
630T0042	**42 x 48**	8.0	6.6	15550	66000	235	11.22	3.5	4.5	5.5	6.5	95
630T0045	**45 x 52**	10.0	8.6	28300	99000	353	15.71	3.5	4.5	5.5	6.5	95
630T0048	**48x 55**	10.0	8.6	24700	132000	572	23.84	3.5	4.5	5.5	6.5	135
630T0050	**50 x 57**	10.0	8.6	23600	132000	602	24.08	3.5	4.5	5.5	6.5	130
630T0055	**55 x 62**	10.0	8.6	21700	132000	670	24.35	3.5	4.5	5.5	6.5	125
630T0060	**60 x 68**	12.0	10.4	27500	157200	860	28.60	3.5	4.5	5.5	7.0	110
630T0063	**63 x 71**	12.0	10.4	26500	157200	910	28.80	3.5	4.5	5.5	7.0	105
630T0065	**65 x 73**	12.0	10.4	25500	157200	950	29.20	3.5	4.5	5.5	7.0	100
630T0070	**70 x 79**	14.0	12.2	31000	209600	1380	39.40	3.5	5.0	6.5	7.5	110
630T0071	**71 x 80**	14.0	12.2	31000	209600	1400	39.40	3.5	5.0	6.5	7.5	110
630T0075	**75 x 84**	14.0	12.2	34700	209600	1450	38.60	3.5	5.0	6.5	7.5	100
630T0080	**80 x 91**	17.0	15.0	48000	290000	2200	55.00	4.0	6.0	6.5	8.0	105
630T0085	**85 x 96**	17.0	15.0	45500	305000	2400	56.40	4.0	6.0	6.5	8.0	105
630T0090	**90 x 101**	17.0	15.0	43600	320000	2730	60.50	4.0	6.0	6.5	8.0	105
630T0095	**95 x 106**	17.0	15.0	41300	330000	3050	64.20	4.0	6.0	6.5	8.0	110
630T0100	**100 x 114**	21.0	18.7	61000	445000	4200	84.00	5.0	6.0	7.0	9.0	105
630T0110	**110 x 124**	21.0	18.7	66000	485000	5150	93.60	5.0	6.0	7.0	9.0	105
630T0120	**120 x 134**	21.0	18.7	60300	510000	6050	100.80	5.0	6.0	7.0	9.0	105
630T0130	**130 x 148**	28.0	25.3	96300	765000	9600	147.60	5.0	7.0	9.0	11.0	105
630T0140	**140 x 158**	28.0	25.3	89000	800500	11000	158.50	6.0	7.0	9.0	11.0	105
630T0160	**160 x 178**	28.0	25.3	78600	900000	14600	182.50	6.0	7.0	9.0	11.0	110
630T0170	**170 x 191**	33.0	30.0	117400	1160000	19500	229.00	7.0	9.0	10.0	12.0	105
630T0180	**180 x 201**	33.0	30.0	111300	1200000	21300	236.00	7.0	9.0	10.0	12.0	105
630T0190	**190 x 211**	33.0	30.0	105000	1260000	24200	255.00	7.0	9.0	10.0	12.0	110
630T0200	**200 x 224**	38.0	34.8	134200	1550000	31000	310.00	7.0	8.0	11.0	13.0	105
630T0210	**210 x 234**	38.0	34.8	127200	1610000	35000	333.00	7.0	9.0	11.0	13.0	110
630T0220	**220 x 244**	38.0	34.8	122100	1690000	38000	345.00	7.0	9.0	11.0	13.0	110
630T0230	**230 x 257**	43.0	39.5	164500	2000000	47000	408.00	7.0	10.0	12.0	14.0	105
630T0240	**240 x 267**	43.0	39.5	157400	2250000	51000	425.00	7.0	10.0	12.0	14.0	110
630T0250	**250 x 280**	48.0	44.0	190000	2060000	52000	415.00	7.0	10.0	13.0	16.0	89
630T0260	**260 x 290**	48.0	44.0	182000	2132000	56500	435.00	7.0	10.0	13.0	16.0	89
630T0270	**270 x 300**	48.0	44.0	177000	2207000	61000	450.00	7.0	10.0	13.0	16.0	89
630T0280	**280 x 313**	53.0	49.0	206000	2536000	72500	520.00	7.0	11.0	14.0	17.0	89
630T0290	**290 x 323**	53.0	49.0	222000	2632000	77500	535.00	7.0	11.0	14.0	17.0	89
630T0300	**300 x 333**	53.0	49.0	214000	2704000	83000	555.00	7.0	11.0	14.0	17.0	89
630T0320	**320 x 360**	65.0	59.0	292000	3492000	114000	710.00	10.0	15.0	20.0	25.0	89
630T0340	**340 x 380**	65.0	59.0	272000	3672000	128500	755.00	10.0	15.0	20.0	25.0	89
630T0360	**360 x 400**	65.0	59.0	258000	3858000	144000	800.00	10.0	15.0	20.0	25.0	90
630T0380	**380 x 420**	65.0	59.0	269000	4069000	160500	845.00	10.0	15.0	20.0	25.0	90
630T0400	**400 x 440**	65.0	59.0	256000	4256000	178000	890.00	10.0	15.0	20.0	25.0	90
630T0420	**420 x 460**	65.0	59.0	244000	4444000	196000	935.00	10.0	15.0	20.0	25.0	90
630T0440	**440 x 480**	65.0	59.0	234000	4633000	215000	980.00	10.0	15.0	20.0	25.0	90
630T0460	**460 x 500**	65.0	59.0	224000	4824000	235000	1020.00	10.0	15.0	20.0	25.0	91
630T0480	**480 x 520**	65.0	59.0	239000	5039000	256000	1070.00	10.0	15.0	20.0	25.0	91
630T0500	**500 x 540**	65.0	59.0	229000	5229000	278000	1110.00	10.0	15.0	20.0	25.0	91
630T0520	**520 x 570**	80.0	73.0	338000	6788000	372000	1430.00	12.0	18.0	24.0	30.0	91
630T0540	**540 x 590**	80.0	73.0	326000	7026000	400000	1480.00	12.0	18.0	24.0	30.0	91

FENLOCK CLAMPING ELEMENTS TYPE FLK 300 NON SELF-CENTERING



For appropriate thrust collar dimensions – consult your local Authorised Distributor.

* Several FLK 300 clamping elements can be used in series to achieve higher torques.

W is the minimum clearance distance for tightening 1, 2, 3, & 4 elements.

For multiple elements, Mt is multiplied by:

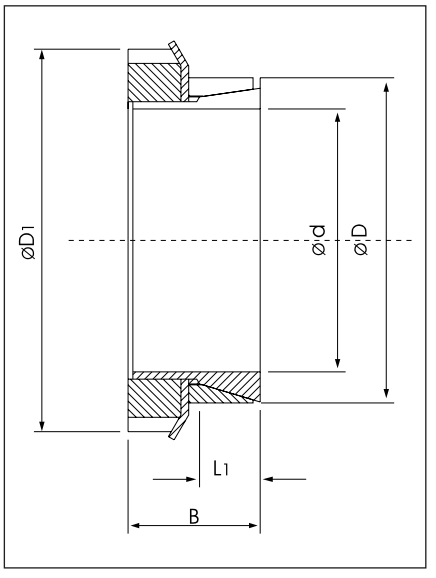
2 elements	Mt x 1.55
3 elements	Mt x 1.85
4 elements	Mt x 2.02

FENLOCK CLAMPING ELEMENTS TYPE FLK 250 L SELF-CENTERING

Product Code	d x D	B	L1	D1	Torque Mt	Axial Thrust F ass.	Tightening nut Type	Tightening torque Ms	Hub Stress Pn
	mm	mm	mm	mm	Nm	kN		Nm	N/mm²
630 F 0014	**14 x 25**	30	20	32	64	9	KM4	95	45
630 F 0015	**15 x 25**	30	20	32	70	9	KM4	95	45
630 F 0016	**16 x 25**	30	20	32	73	9	KM4	95	45
630 F 0017	**17 x 25**	32	20	32	80	9	KM4*	95	45
630 F 0018	**18 x 30**	32	20	38	100	10	KM5	160	45
630 F 0019	**19 x 30**	32	20	38	105	11	KM5	160	45
630 F 0020	**20 x 30**	32	20	38	112	11	KM5	160	45
630 F 0022	**22 x 35**	36	25	45	163	14	KM6	220	45
630 F 0024	**24 x 35**	36	25	45	178	14	KM6	220	45
630 F 0025	**25 x 35**	36	25	45	185	14	KM6	220	45
630 F 0028	**28 x 40**	42	30	52	250	17	KM7	340	40
630 F 0030	**30 x 40**	42	30	52	270	17	KM7	340	40
630 F 0032	**32 x 45**	44	30	58	350	21	KM8	480	45
630 F 0035	**35 x 45**	44	30	58	390	21	KM8	480	45
630 F 0038	**38 x 50**	45	30	65	500	26	KM9	680	45
630 F 0040	**40 x 50**	45	30	65	520	26	KM9	680	45
630 F 0042	**42 x 55**	46	30	70	630	30	KM10	870	50
630 F 0045	**45 x 55**	46	30	70	680	30	KM10	870	50
630 F 0048	**48 x 60**	46	30	75	840	35	KM11	970	50
630 F 0050	**50 x 60**	46	30	75	880	35	KM11	970	50
630 F 0055	**55 x 65**	46	30	80	1030	37	KM12	1100	50
630 F 0060	**60 x 70**	52	30	85	1360	45	KM13	1300	55

NOTE: The hub housing must have a depth equal to L1 dimension of clamping element.
* Without washer.

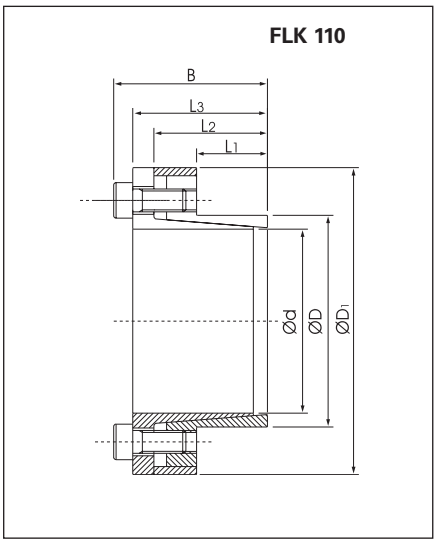
FENLOCK CLAMPING ELEMENTS TYPE FLK 250 L SELF-CENTERING



FenLock Cone Clamping Element Dimensions

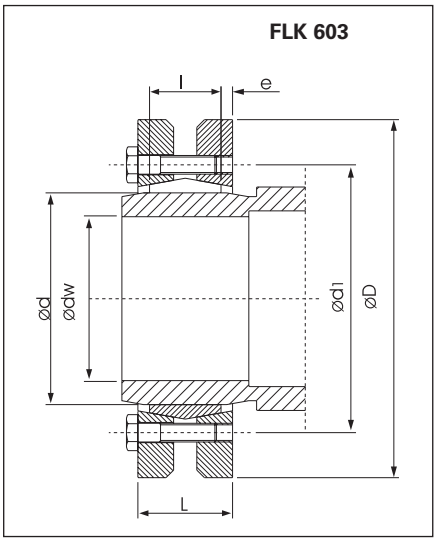
FENLOCK CLAMPING ELEMENTS TYPE FLK 110 SELF-CENTERING

Product Code	d x D	L1	L2	L3	B	D1	Torque	Axial Thrust	Tightening Screws Grade 12.9	Tightening Screws torque	Hub Stress
	mm	mm	mm	mm	mm	mm	Mt Nm	F ass. kN	No. x type	Ms Nm	Pn N/mm²
630B0006	**6 x 14**	10	18.5	21	24	25	12	4	3 x M3	2	80
630B0007	**7 x 15**	12	22.0	25	29	27	25	7	3 x M4	5	110
630B0008	**8 x 15**	12	22.0	25	29	27	29	7	3 x M4	5	110
630B0009	**9 x 16**	14	23.0	26	30	28	44	10	4 x M4	5	115
630B0010	**10 x 16**	14	23.0	26	30	28	49	10	4 x M4	5	115
630B0011	**11 x 18**	14	23.0	26	30	32	53	10	4 x M4	5	105
630B0012	**12 x 18**	14	23.0	26	30	32	58	10	4 x M4	5	105
630B0013	**13 x 23**	14	23.0	26	30	38	63	10	4 x M4	5	80
630B0014	**14 x 23**	14	23.0	26	30	38	68	10	4 x M4	5	80
630B0015	**15 x 24**	16	29.0	36	42	45	127	17	3 x M6	17	115
630B0016	**16 x 24**	16	29.0	36	42	45	136	17	3 x M6	17	115
630B0017	**17 x 26**	18	31.0	38	44	47	180	22	4 x M6	17	125
630B0018	**18 x 26**	18	31.0	38	44	47	200	22	4 x M6	17	125
630B0019	**19 x 27**	18	31.0	38	44	49	210	22	4 x M6	17	120
630B0020	**20 x 28**	18	31.0	38	44	50	220	22	4 x M6	17	115
630B0022	**22 x 32**	25	38.0	45	51	54	250	22	4 x M6	17	80
630B0024	**24 x 34**	25	38.0	45	51	56	270	22	4 x M6	17	75
630B0025	**25 x 34**	25	38.0	45	51	56	280	22	4 x M6	17	75
630B0028	**28 x 39**	25	38.0	45	51	61	465	33	6 x M6	17	97
630B0030	**30 x 41**	25	38.0	45	51	62	510	33	6 x M6	17	90
630B0032	**32 x 43**	25	38.0	45	51	65	540	33	6 x M6	17	90
630B0038	**38 x 50**	32	45.0	52	58	72	860	45	8 x M6	17	75
630B0040	**40 x 53**	32	45.0	52	58	75	900	45	8 x M6	17	70
630B0042	**42 x 55**	32	45.0	52	58	78	950	45	8 x M6	17	70
630B0045	**45 x 59**	45	62.0	70	78	86	1890	84	8 x M8	41	85
630B0048	**48 x 62**	45	62.0	70	78	87	2010	84	8 x M8	41	80
630B0050	**50 x 65**	45	62.0	70	78	92	2100	84	8 x M8	41	75
630B0055	**55 x 71**	55	72.0	80	88	98	2600	94	9 x M8	41	65
630B0060	**60 x 77**	55	72.0	80	88	104	2840	94	9 x M8	41	60
630B0065	**65 x 84**	55	72.0	80	88	111	3070	94	9 x M8	41	55
630B0070	**70 x 90**	65	86.0	96	106	119	5250	150	9 x M10	83	70
630B0075	**75 x 95**	65	86.0	96	106	126	5600	150	9 x M10	83	65
630B0080	**80 x100**	65	86.0	96	106	131	8020	200	12 x M10	83	80
630B0085	**85 x106**	65	86.0	96	106	137	8500	200	12 x M10	83	75
630B0090	**90 x112**	65	86.0	96	106	144	9000	200	12 x M10	83	75
630B0095	**95 x120**	65	86.0	96	106	149	11000	230	14 x M10	83	80
630B0100	**100 x125**	65	86.0	96	106	154	15000	300	18 x M10	83	95
630B0110	**110 x140**	90	114.0	128	140	180	16000	290	12 x M12	145	65
630B0120	**120 x155**	90	114.0	128	140	198	17500	290	12 x M12	145	55
630B0130	**130 x165**	90	114.0	128	140	208	25000	384	16 x M12	145	70



FENLOCK CLAMPING ELEMENTS TYPE FLK 603 STD. VERSION

Product Code	Type d	Shaft dia. dw	Torque Mt	Axial Thrust F ass.	Dimensions D	l	L	d1	e	Tightening screws 10.9	Tightening torque Ms	Contact Stress Pw
	mm	mm	Nm	kN	mm	mm	mm	mm	mm	No. x type	Nm	N/mm²
630 M 0014	**14**	11 12	30 50	6 9	38	7	11.0	23	2.00	4 x M5	4	186
630 M 0016	**16**	13 14	70 90	10 13	41	11	15.0	26	2.00	5 x M5	4	130
630 M 0024	**24**	19 20 21	170 210 250	25 27 29	50	14	19.5	36	2.75	6 x M5	4	286
630 M 0030	**30**	24 25 26	300 340 380	29 31 33	60	16	21.5	44	2.75	7 x M5	4	233
630 M 0036	**36**	28 30 31	440 570 630	50 58 58	72	18	23.5	52	2.75	5 x M6	12	307
630 M 0044	**44**	32 35 36	620 780 860	64 74 77	80	20	25.5	61	2.75	7 x M6	12	317
630 M 0050	**50**	38 40 42	940 1160 1380	79 86 92	90	22	27.5	70	2.75	8 x M6	12	289
630 M 0055	**55**	42 45 48	1160 1520 1880	79 88 97	100	23	30.5	75	3.75	8 x M6	12	252
630 M 0062	**62**	48 50 52	1850 2200 2400	100 111 117	110	23	30.5	86	3.75	10 x M6	12	279
630 M 0068	**68**	50 55 60	2000 2500 3150	97 106 120	115	23	30.5	86	3.75	10 x M6	12	255
630 M 0075	**75**	55 60 65	2500 3200 3950	119 137 155	138	25	32.5	100	3.75	7 x M8	30	273
630 M 0080	**80**	60 65 70	3200 3900 4600	124 140 158	145	25	32.5	100	3.75	7 x M8	30	256
630 M 0085	**85**	65 70 75	4800 6100 7400	175 195 216	155	30	39.0	114	4.50	10 x M8	30	285
630 M 0090	**90**	65 70 75	4750 6000 7250	170 190 210	155	30	39.0	114	4.50	10 x M8	30	271
630 M 0100	**100**	70 75 80	6900 7500 9000	195 220 240	170	34	44.0	124	5.00	12 x M8	30	258
630 M 0110	**110**	75 80 85	7200 9000 10800	229 252 262	185	39	50.0	136	5.50	9 x M10	59	244
630 M 0115	**115**	80 85 90	7400 9200 11100	235 259 269	188	39	50.0	141	5.50	9 x M10	59	234
630 M 0120	**120**	80 85 90	10600 13300 14500	285 314 340	215	42	54.0	160	6.00	12 x M10	59	277
630 M 0125	**125**	85 90 95	11000 13000 15000	296 324 352	215	42	54.0	160	6.00	12 x M10	59	266
630 M 0130	**130**	90 95 100	11300 13300 15400	304 333 362	215	42	54.0	160	6.00	12 x M10	59	255
630 M 0140	**140**	95 100 105	15100 17600 20100	367 396 425	230	46	60.5	175	7.25	10 x M12	100	264



Product Code	Type d	Shaft dia. dw	Torque Mt	Axial Thrust F ass.	Dimensions D	l	L	d1	e	Tightening screws 10,9	Tightening torque Ms	Contact Stress Pw
	mm	mm	Nm	kN	mm	mm	mm	mm	mm	No. x type	Nm	N/mm²
630 M 0155	**155**	105 110 115	22000 25000 28000	447 478 509	265	50	64.5	192	7.25	12 x M12	100	263
630 M 0160	**160**	110 115 120	22600 25700 28800	460 490 520	265	50	64.5	192	7.25	12 x M12	100	254
630 M 0165	**165**	115 120 125	31000 35000 39000	595 630 655	290	56	71.0	210	7.50	8 x M16	250	277
630 M 0170	**170**	120 125 130	31900 36000 40100	610 640 670	290	56	71.0	210	7.50	8 x M16	250	268
630 M 0175	**175**	125 130 135	36000 41000 45000	605 639 675	300	56	71.0	220	7.50	8 x M16	250	261
630 M 0180	**180**	130 135 140	37000 42200 46300	800 840 885	300	56	71.0	220	7.50	8 x M16	250	253
630 M 0185	**185**	135 140 145	52000 57000 62000	778 819 861	330	71	86.0	236	7.50	10 x M16	250	244
630 M 0190	**190**	140 145 150	53500 58700 63800	800 840 885	330	71	86.0	236	7.50	10 x M16	250	237
630 M 0195	**195**	140 150 155	65000 76000 81500	933 1025 1071	350	71	86.0	246	7.00	12 x M16	250	277
630 M 0200	**200**	150 155 160	74000 80000 86000	990 1035 1080	350	71	86.0	246	7.00	12 x M16	250	270
630 M 0220	**220**	160 165 170	95000 102000 110000	1190 1239 1290	370	88	104.0	270	8.00	15 x M16	250	248
630 M 0240	**240**	170 180 190	120000 138000 156000	1464 1576 1675	405	92	109.0	295	8.00	12 x M20	490	272
630 M 0260	**260**	190 200 210	164000 184000 205000	1760 1880 2010	430	103	120.0	321	8.00	14 x M20	490	262
630 M 0280	**280**	210 220 230	217000 244000 270000	2090 2220 2350	460	114	134.0	346	10.00	16 x M20	490	251



Fenner®
QD SERIES
INVERTERS

Fenner QD (Quick Drive) Series inverters are ideal for both simple and sophisticated applications, due to their broad range of functions, easy configuration, simple installation and ultimate performance.



NEW

- **Fenner QD:IP55 & IP66;** ultimate protection for the harshest environment. Available in QD:E and QD:CT PLUS
- **Fenner QD:E;** easy to use general purpose drive with V/F control
- **Fenner QD:VT;** variable torque control optimised drive to minimise energy ideal for HVAC applications
- **Fenner QD:CT PLUS;** constant torque vector control delivers 200% torque down to 0.0Hz without feedback

Inverters
Design Data Required

- Electrical Supply Voltage
- Constant / Variable Torque Application
- IP Rating Required
- Driven Machine
- Speed Range of Machine
- Cable Length to Motor
- Control Options Required
- Ambient Temperature
- Communication Options Required

INVERTERS

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Fenner QD Series
Inverters

Fenner®
THE MARK OF ENGINEERING EXCELLENCE

Improved Control Performance

- Third Generation Vector technology for ultimate motor control
- Unique open-loop performance allows this drive to be used in applications previously requiring a feedback signal
- 200% torque even at very low speeds with sensorless vector control
- High starting capacity available – 150% overload for 60 seconds and 175% for 2 seconds
- Ultra-quiet performance running at 32kHz switching frequency minimising motor noise

Quick Installation and Set-up

- Quick set-up – 14 standard parameters
- Various control options available. Local control or remote keypad along with communication networks.
- Auto-tune facility for fast set-up to achieve optimum performance (on CT/VT units)
- Fully Enclosed IP55/NEMA 12 with speed control FWD/REV selector and lockable isolator

Q-PORT

- Remote keypad and display for panel mounted control

Compliant with Industrial Standards

- Internal RFI filter for compliance with latest EMC Standards (EN 61800-3)
- Compliant with RoHS directives
- CE Europe and UL/CUL product accreditation

Q-STICK

- Upload/Download parameters on the QD:E drive for quick and accurate repeat programming
- The Q-STICK incorporates Infra-red communication to allow programming with a PDA or smart phone

QD:CT PLUS





CONVEYING
Obtaining the optimum speed of product transfer is a primary requirement of all conveyor systems. Fenner QD inverters and Fenner FM:P motors are suitable for horizontal, vertical or inclined conveyors, to give accurate speed control and a high starting torque to ensure reliable and efficient transportation of products.

BUILDING MANAGEMENT
Comfort and efficiency are key requirements for the environment within today's modern buildings.
Easy to install and reliable Fenner QD inverters and FM:P motors ensure that the large number of motors driving fans and pumps for heating, ventilation and air conditioning are running at their optimum level, saving both energy and protecting the environment.

MIXING
For fixed speed or variable speed mixing applications, Fenner QD:CT PLUS Inverters and FM:P motors provide, high starting torque and application specific programmes ensuring mixing process times are optimised to improve productivity and increase efficiency.

PULP AND PAPER
From complex multi-function process control to single drive applications Fenner QD inverters and FM:P motors can reliably improve preparation and manufacturing processes from the wood yard or recycling yard to the paper machine and the paper converting process. Continuously improving uptime, quality and efficiency.

PLASTICS/MOULDING
Long running hours, a harsh working environment and precise speed control are just some of the tasks Fenner QD inverters and FM:P motors are designed to deliver. From a single conveyor application to fully integrated extrusion/moulding, the Fenner motors and drives package delivers a new level of control, reliability, flexibility and efficiency.

PUMPING
Pump systems need to be both reliable and efficient, ensuring that the correct volume of product is transported accurately and dependably. Fenner QD inverters and FM:P motors are designed to provide efficient and reliable service and can even be integrated into building management systems.

BOTTLING
Machinery which requires fast and accurate positioning in a harsh working environment, Fenner QD inverters are designed to work within panels or as stand-alone units allowing flexibility for high speed process applications.

FENNER QUICK DRIVE APPLICATION GUIDE

Industry/Application	QD:E	QD:VT	QD:CT PLUS
METALWORKING			
Spindles			●
Grinding			●
Drilling			●
Polishing			●
MINING & QUARRYING			
Mixers			●
Crushers			●
Conveyors	●		●
Skip Hoist			●
BUILDING AUTOMATION			
Fans		●	
Centrifugal Pumps		●	
Refrigeration		●	
Compressors			●
WATER			
Centrifugal Pumps		●	
PD Pumps	●		●
Fans		●	
Blowers	●		●
FOOD & BEVERAGE			
Conveyors	●		●
Mixers			●
Packaging	●		●
Compressors			●
MATERIALS HANDLING			
Conveyors	●		●
Packaging	●		●
Palletisers			●
Cranes			●
WOOD WORKING			
Routing			●
Cutting			●
Conveyors	●		●
CHEMICALS			
Mixers			●
Fume Extraction	●	●	
Pumping	●	●	●
Centrifuge			●
PRODUCTION			
Moulding			●
Extruders			●
Mixing			●
Winding			●

Drive Selection Overview

Specification		QD:E	QD:VT	QD:CT PLUS
Output ratings	Overload Capacity	150% for 60 secs	110% for 60 secs	150% for 60 secs
		175% for 2 secs	125% for 2 secs	175% for 2 secs
	Frequency	0…500Hz	0…120Hz	0…2000Hz
Input Ratings	Frequency	48 - 62Hz	48 - 62Hz	48 - 62Hz
	Voltage	200 - 240 +/– 10% 1 Phase (0.37 - 2.2kW / 0.5 - 3HP)	200 - 240 +/– 10% 1 Phase (1.5 - 2.2kW / 2 - 3.0HP)	200 - 240 +/– 10% 1 Phase (0.37 - 2.2kW / 0.5 - 3.0HP)
		200 - 240 +/– 10% 3 Phase (0.37 - 4.0kW / 0.5 - 5HP)	200 - 240 +/– 10% 3 Phase (1.5 - 45kW / 2 - 60HP)	200 - 240 +/– 10% 3 Phase (1.5 - 90kW / 2 - 120HP)
		380 - 480 +/– 10% 3 Phase (0.75 - 11.0kW / 1 - 15HP)	380 - 480 +/– 10% 3 Phase (1.5 - 160kW / 2 - 210HP)	380 - 480 +/– 10% 3 Phase (1.5 - 160kW / 2 - 210HP)
Ambient Conditions	Operating Temperature	IP20 = 0 to 50°C Max, IP55 = 0 to 40°C Max; IP66 = -10 to 40°C Max	0 to 50°C Max;	IP20 = 0 to 50°C Max, IP55 = 0 to 40°C Max;
	Storage Temperature	–40 to +60°C	–40 to +60°C	Storage: –40 to +60°C
	Altitude	0 - 2000m, derate 1% per 100m above 1000m	0 - 2000m, derate 5% per 100m above 1000m	0 - 2000m, derate 5% per 100m above 1000m
	Ingress Protection	IP20 / IP55 / IP66	IP20	IP20 / IP55
Programming	Keypad	Yes	Yes	Yes
	PC	–	Yes	Yes
	PDA	Yes with QStick	Yes	Yes
	Smartphone	Yes with QStick	Yes	Yes
Control Specification	Control Method	Voltage Vector	V / F	V / F
				3^{GV} Sensorless Vector
				Closed Loop Vector (with optional encoder feedback interface)
	PWM Frequency	4…32kHz (effective)	4…32kHz (effective)	4…32kHz (effective)
	V/Hz ratio	Linear	Quadratic	Linear (1 adjustment point)
	Boost	Yes	Automatic after autotune	Automatic after autotune
	Stop Mode	Coast / Ramp / DC Brake	Coast / Ramp / DC Brake	Coast / Ramp / DC Brake
	Internal Brake transistor	Yes (except size 1) External Resistor required	Yes External Resistor required	Yes External Resistor required
	Capacity	100% Drive Rated Power continuously	100% Drive Rated Power continuously	100% Drive Rated Power continuously
	Skip Frequency	One point, adjustable frequency band	One point, adjustable frequency band	One point, adjustable frequency band
	Frequency setpoint control	0…10 VDC	0…10 VDC	0…10 VDC
		+/– 10 VDC	+/– 10 VDC	+/– 10 VDC
		20…4mA	0…24 VDC	0…24 VDC
		4…20mA	4…20mA	4…20mA
		0...20mA	0...20mA	0...20mA
		Digital – Keypad	Digital – Keypad	Digital – Keypad
		–	RS485 (Master Slave)	RS485 (Master Slave)
		ModBus RTU	ModBus RTU	ModBus RTU
	Pre-set speeds	4	8	8
	PID Control	Yes	Yes	Yes
	Spin Start	Yes	Yes	Yes
	Acceleration	0...6000 sec	0...3000 sec	0...3000 sec
	Deceleration	(2 ramps) 0...6000 sec/0...25 sec	(2 ramps) 0...3000 sec	(2 ramps) 0...3000 sec
	S Curve Accel / Decel	–	–	Firmware Download Available
	PC Setup Software	–	QStore PLUS	QStore PLUS
Programmable I/O	Input 1	Programmable Digital Input	Programmable Digital Input	Programmable Digital Input
	Input 2	Programmable Digital Input	User Selectable Digital Input / Output	User Selectable Digital Input / Output
	Input 3	User Selectable Analog / Digital Input	User Selectable Unipolar Analog / Digital Input	User Selectable Unipolar Analog / Digital Input
	Input 4	User Selectable Analog / Digital Input	User Selectable Bipolar Analog / Digital Input	User Selectable Bipolar Analog / Digital Input
	Output 1	Programmable Analog / Digital Output	Programmable Analog / Digital Output	Programmable Analog / Digital Output
	Relay 1	Relay Output (30 VDC 5A, 250 VAC, 6A)	Relay Output (30 VDC 5A, 250 VAC, 6A)	Relay Output (30 VDC 5A, 250 VAC, 6A)
Keypad Display	Operating Display	Output Frequency, Current, RPM and User Scalable values	Output Frequency, Current, RPM, Power and User Scalable values	Output Frequency, Current, RPM, Power and User Scalable values
	Remote Mount	Optional QPort E2 remote mounting keypad	Optional QPort PLUS remote mounting keypad	Optional QPort PLUS remote mounting keypad
Protective Functions	Inverter Trip	Over voltage	Over voltage	Over voltage
		Over current	Over current	Over current
		Under voltage	Under voltage	Under voltage
		External trip	External trip	External trip
		Motor overload	Motor overload	Motor overload
		Over temperature	Over temperature	Over temperature
		Short circuited	Short circuited	Short circuited
		Earth Fault	Earth Fault	Earth Fault
		Under Voltage	Under Voltage	Under Voltage
	Memory	Last 4 Trips stored	Last 4 Trips stored	Last 4 Trips stored
Bus Communication	Modbus	Yes	Yes	Yes
	Profibus DP	via Gateway	via Gateway	via Gateway
	DeviceNet	via Gateway	via Gateway	via Gateway
	RS485 (QBus)	Standard	Standard	Standard
Compliance with Standards	EN 61800-3:2004	Adjustable speed electrical power drive systems. EMC requirements	Adjustable speed electrical power drive systems. EMC requirements	Adjustable speed electrical power drive systems. EMC requirements
Additional Features		–	Built in Master – Slave Operation Mode PID 'Sleep & Wake Up' Modes. Energy Optimising Function	Built in Master – Slave Operation Mode PID 'Sleep' Mode Energy Optimising Function



All Fenner QD Inverters are identified with a unique code number. This consists of an eight digit code depending on the enclosure, power, supply voltage and range.

Construction of the coding system is explained below.

FIRST THREE DIGITS:
Series and enclosure

Code	Range	Enclosure
572	QD:E / CT PLUS / VT	IP20
575	QD:E / CT PLUS	IP55
576	QD:E	IP66

FOURTH DIGIT:
Inverter type

Code	Series
B	QD-E (Basic Inverter)
V	QD-CT PLUS (VECTOR control)
H	QD-VT (HVAC drive)
X	QD Options (All Models)

FIFTH DIGIT:
Supply voltage code

Code	Voltage
2	220-240V 1~ supply
3	220-240V 3~ supply
4	380-440V 3~ supply

SIXTH, SEVENTH & EIGHTH DIGITS:
Rated power code

Code	Output Power (kW)
0P4	0.37
0P7	0.75
1P5	1.50
2P2	2.20
3P0	3.00
4P0	4.00
5P5	5.50
7P5	7.50
011	11.0
015	15.0
018	18.5
022	22.0
030	30.0
037	37.0
045	45.0
055	55.0
075	75.0
090	90.0
110	110.0
132	132.0
160	160.0

NINTH DIGIT:
Special features

Code	Output Power
N	Non-Switched IP55 Non-standard option
E	Enlarged Frame Size Non-standard option

Fenner QD:E

200-240V 1 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	IP66	Frame Size
0.37	2.3	572B20P4	575B20P4	576B20P4	1
0.75	4.3	572B20P7	575B20P7	576B20P7	1
1.5	7.0	572B21P5	575B21P5	576B21P5	1
1.5	7.0	572B21P5E	575B21P5E	575B21P5E	2
2.2	10.5	572B22P2	575B22P2	576B22P2	2

200-240V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	IP66	Frame Size
0.37	2.3	572B30P4	575B30P4	576B30P4	1*
0.75	4.3	572B30P7	575B30P7	576B30P7	1*
1.5	7	572B31P5	575B31P5	576B31P5	1*
1.5	7	572B31P5E	575B31P5E	576B31P5E	2
2.2	10.5	572B32P2	575B32P2	576B32P2	2
4.0	18	572B34P0	575B34P0	576B34P0	3

*Size 1 Drives on 200-240V 3 phase supply do not have an integral RFI filter

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	IP66	Frame Size
0.75	2.2	572B40P7	575B40P7	576B40P7	1
1.5	4.1	572B41P5	575B41P5	576B41P5	1
1.5	4.1	572B41P5E	575B41P5E	576B41P5E	2
2.2	5.8	572B42P2	575B42P2	576B42P2	2
4	9.5	572B44P0	575B44P0	576B44P0	2
5.5	14	572B45P5	575B45P5	576B45P5	3
7.5	18	572B47P5	575B47P5	576B47P5	3
11	25	572B4011	–	–	3

Fenner QD:CT PLUS

200-240V 1 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	Frame Size
0.37	2.3	572V20P4	575V20P4	1
0.75	4.3	572V20P7	575V20P7	1
1.5	7.0	572V21P5	575V21P5	1
1.5	7.0	572V21P5E	575V21P5E	2
2.2	10.5	572V22P2	575V22P2	2

200-240V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	Frame Size
1.5	7.0	572V31P5	575V31P5	2
2.2	10.5	572V32P2	575V32P2	2
3.0	14.0	572V33P0	575V33P0	3
4.0	18.0	572V34P0	-	3
5.5	25.0	572V35P5	-	3
7.5	39.0	572V37P5	-	4
11.0	46.0	572V3011	–	4
15.0	61.0	572V3015	–	4
18.5	72.0	572V3018	–	4
22.0	90.0	572V3022	–	5
30.0	110.0	572V3030	–	5
37.0	150.0	572V3037	–	5
45.0	180.0	572V3045	–	5
55.0	202.0	572V3055	–	6
75.0	240.0	572V3075	–	6
90.0	300.0	572V3090	–	6

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20	IP55	Frame Size
0.75	2.2	572V40P7	575V40P7	2
1.5	4.1	572V41P5	575V41P5	2
2.2	5.8	572V42P2	575V42P2	2
4.0	9.5	572V44P0	575V44P0	2
5.5	14.0	572V45P5	-	3
7.5	18.0	572V47P5	-	3
11.0	25.0	572V4011	–	3
15.0	30.0	572V4015	–	3
18.5	39.0	572V4018	–	4
22.0	46.0	572V4022	–	4
30.0	61.0	572V4030	–	4
37.0	72.0	572V4037	–	4
45.0	90.0	572V4045	–	5
55.0	110.0	572V4055	–	5
75.0	150.0	572V4075	–	5
90.0	180.0	572V4090	–	6
110.0	202.0	572V4110	–	6
132.0	240.0	572V4132	–	6
160.0	300.0	572V4160	–	6

Fenner QD:VT

200-240V 1 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20 Only	Frame Size
1.5	7.0	572H21P5	2
2.2	10.5	572H21P2	2

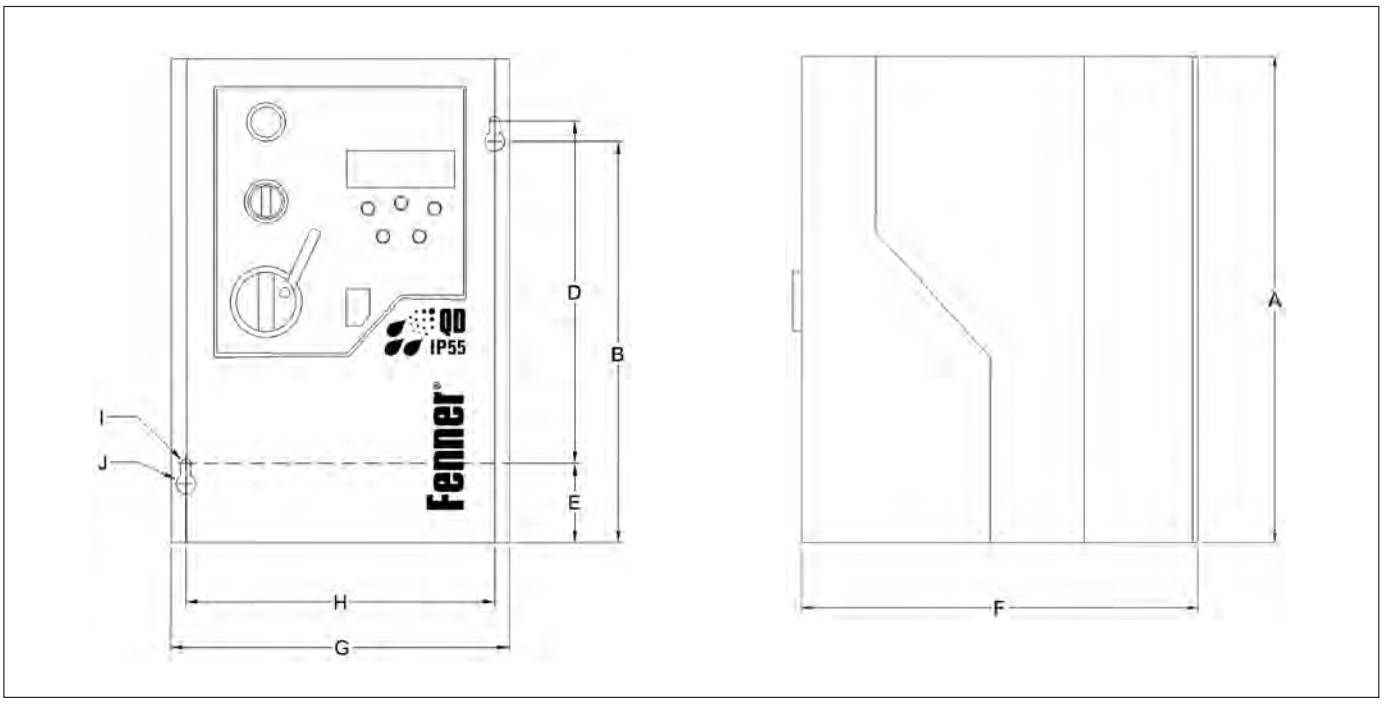
200-240V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20 Only	Frame Size
1.5	7.0	572H31P5	2
2.2	10.5	572H32P2	2
3.0	14.0	572H33P0	3
4.0	18.0	572H34P0	3
5.5	25.0	572H35P5	3
7.5	39.0	572H37P5	4
11.0	46.0	572H3011	4
15.0	61.0	572H3015	4
18.5	72.0	572H3018	4
22.0	90.0	572H3022	4
30.0	110.0	572H3030	5
37.0	150.0	572H3037	5
45.0	180.0	572H3045	5

380-480V 3 PHASE SUPPLY

Motor Power (kW)	Output Current (Amps)	Fenner Part Number IP20 Only	Frame Size
1.5	4.1	572H41P5	2
2.2	5.8	572H42P2	2
4.0	9.5	572H44P0	2
5.5	14.0	572H45P5	3
7.5	18.0	572H47P5	3
11.0	25.0	572H4011	3
15.0	30.0	572H4015	3
18.5	39.0	572H4018	4
22.0	46.0	572H4022	4
30.0	61.0	572H4030	4
37.0	72.0	572H4037	4
45.0	90.0	572H4045	4
55.0	110.0	572H4055	5
75.0	150.0	572H4075	5
90.0	180.0	572H4090	6
110.0	202.0	572H4110	6
132.0	240.0	572H4132	6
160.0	300.0	572H4160	6

FENNER QD:IP55

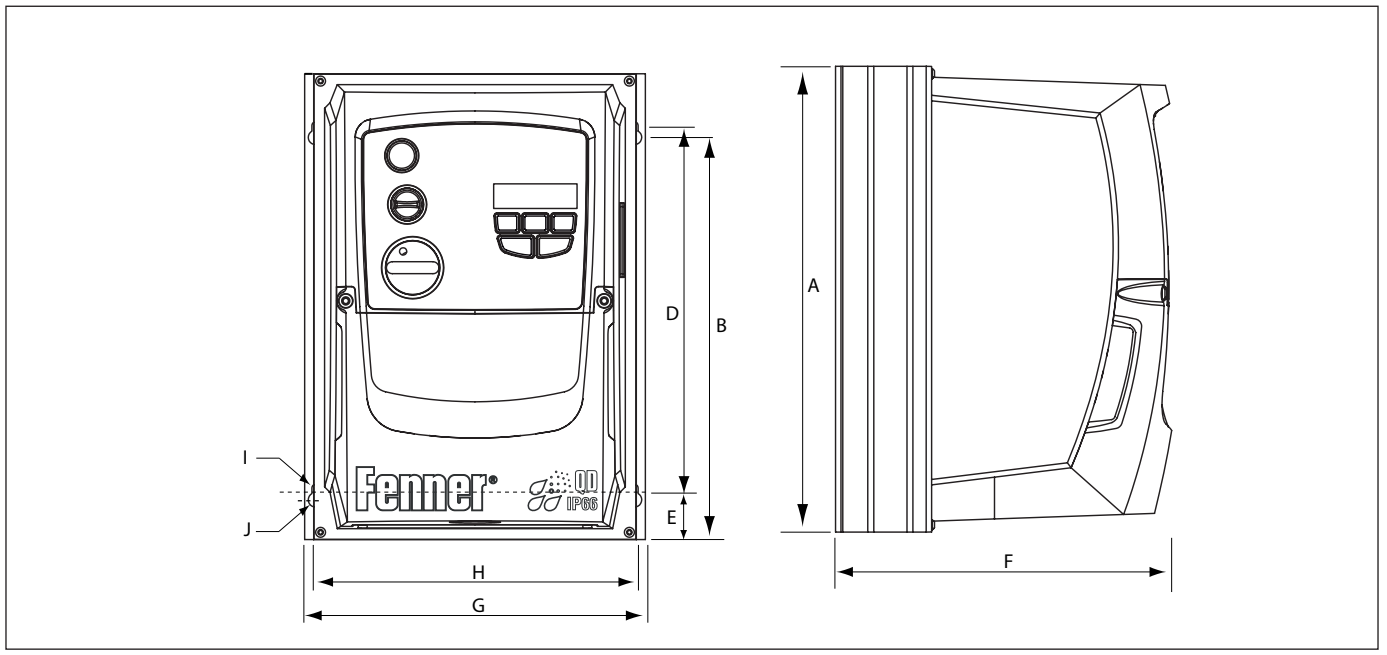


Dimensions Table

Frame Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	ØI mm	ØJ mm	Weight kg
1	200	166	–	141	33	162	140	128	4.2	8.4	2.4
2	310	276	–	251	33	176	164	153	4.2	8.4	4.6
3	310	276	–	251	33	228	210.5	197.5	4.2	8.4	7.4

*The size 3 unit has 4 symmetrical mounting points

FENNER QD:IP66



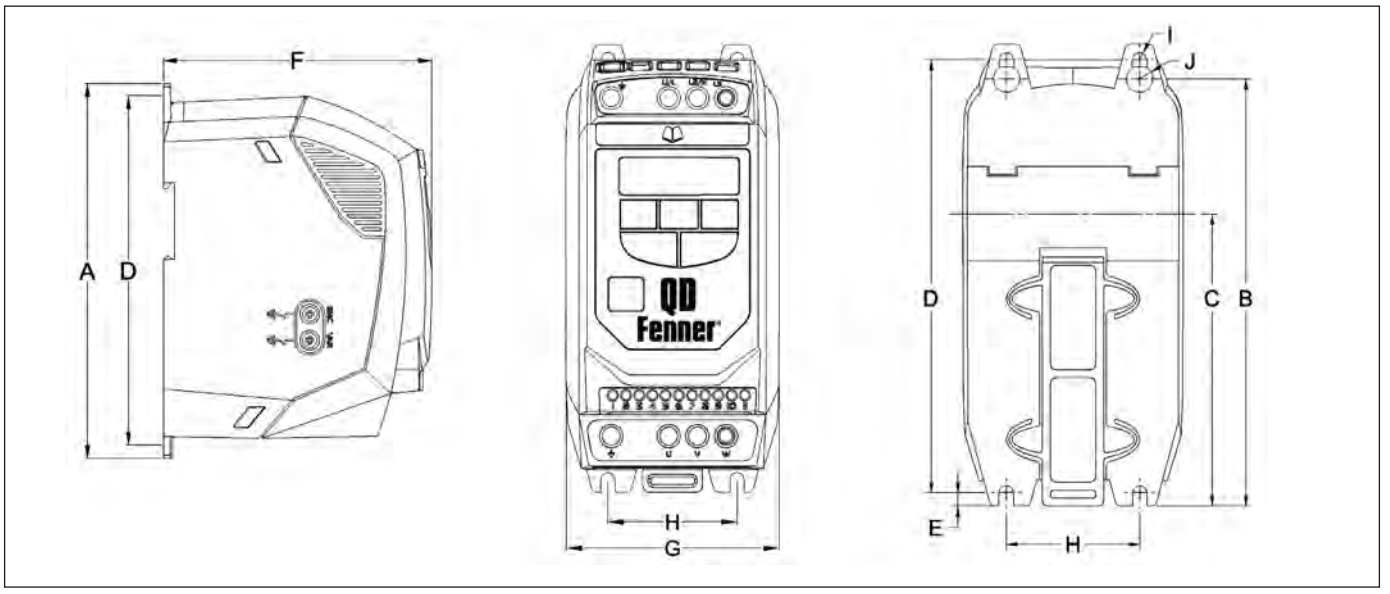
Dimensions Table

Frame Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	ØI mm	ØJ mm	Weight kg
1	232	207	-	189	25	175	161	148.5	4.0	8.0	2.8
2	257	220	-	200	28.5	186.5	188	176.0	4.2	8.4	4.6
3	310	276	-	251.5	33.4	228.7	210.5	197.5	4.2	8.4	7.4

*The size 3 unit has 4 symmetrical mounting points

Dimensions: QD:E, QD:VT & QD:CT PLUS

FENNER QD:E

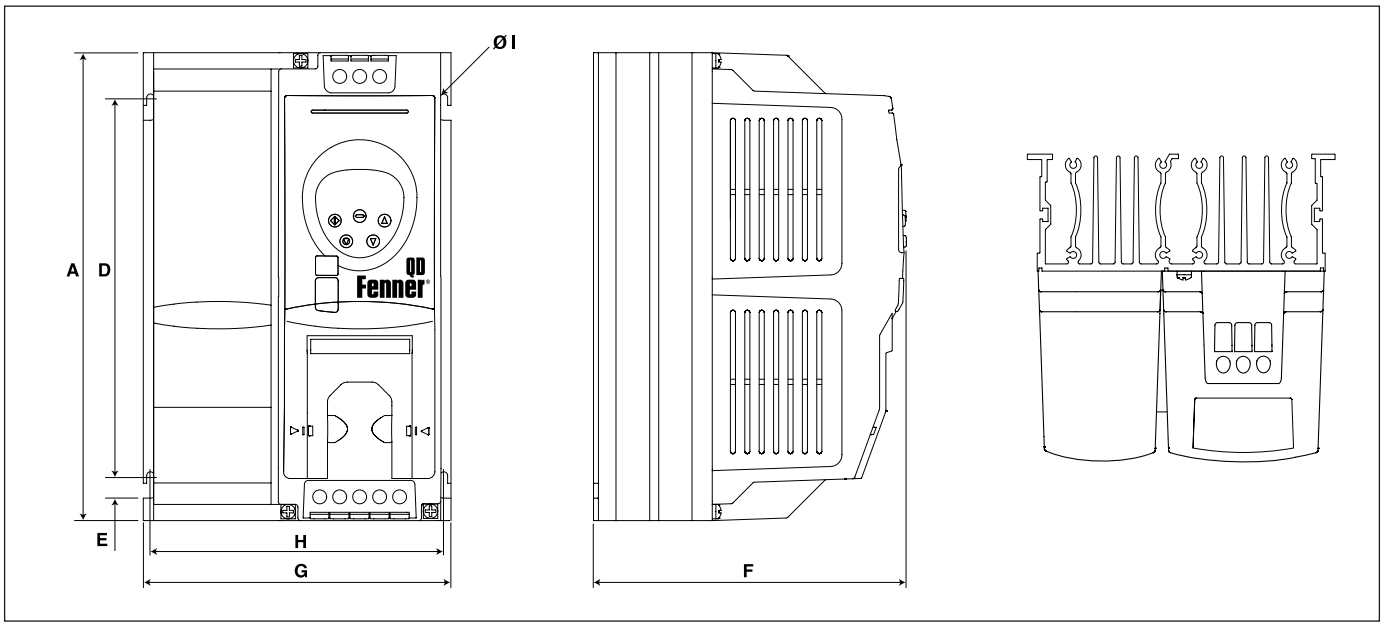


Dimensions Table

Frame Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	ØI mm	ØJ mm	Weight kg
1	173	160	109	162	5	123	82	50	5.5	10	1.1
2	221	207	137	209	5.3	150	109	63	5.5	10	2.6
3	261	246	*	247	6	175	131	80	5.5	10	4.0

* Size 3 does not have a DIN-rail mounting slot

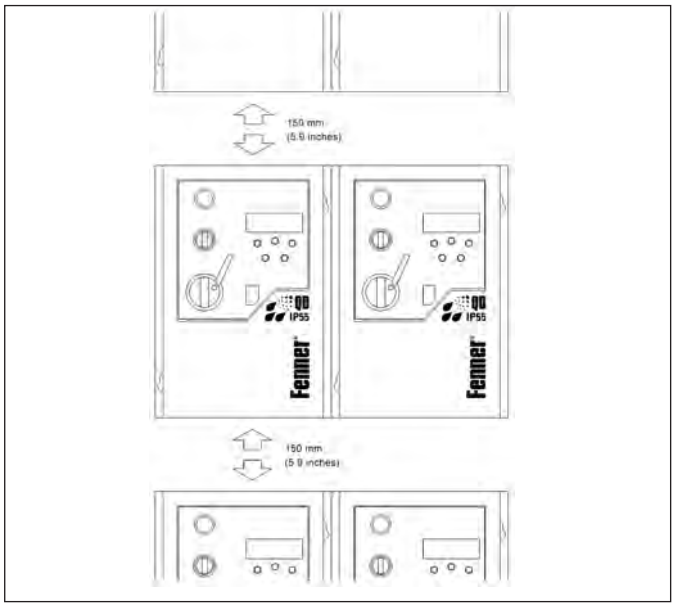
FENNER QD:VT & QD:CT PLUS



QD:VT & QD:CT PLUS Dimensions Table

Frame Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	ØI mm	ØJ mm	Weight kg
1	155	–	–	105	25	130	80	72	4	–	1.1
2	260	–	–	210	25	175	100	92	4	–	2.6
3	260	–	–	210	25	175	171	163	4	–	5.3
4	520	–	–	420	25	220	340	320	4	–	28
5	1045	–	–	945	50	220	340	320	9.5	–	67
6	1100	–	–	945	50	330	340	320	9.5	–	55

FENNER QD:IP55 & IP66 MOUNTING CLEARANCES



The IP55 / NEMA 12 Fenner drives can be installed side-by-side with their heatsink flanges touching. This allows adequate ventilation space between drives.

If the IP55 Fenner drive is to be installed above another drive or any other heat-producing device, the minimum vertical spacing is 150mm (5.9 inches)

Note: The IP55/NEMA 12 drive is intended for INDOOR USE ONLY

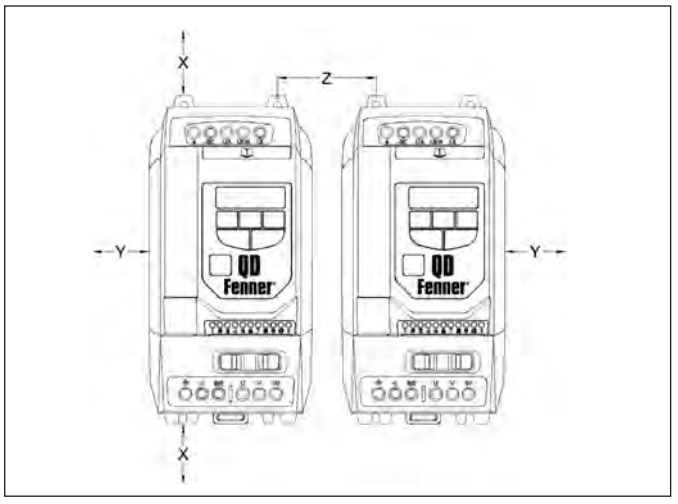
In the table below, Dimension Z assumes that the drives are mounted side-by-side with no clearance.

Typical drive heat losses are 3% of operating load conditions.

The figures below are guidelines only and the maximum operating ambient temperature of the drive MUST NOT be exceeded. If in doubt, please contact your local Fenner Authorised Distributor.

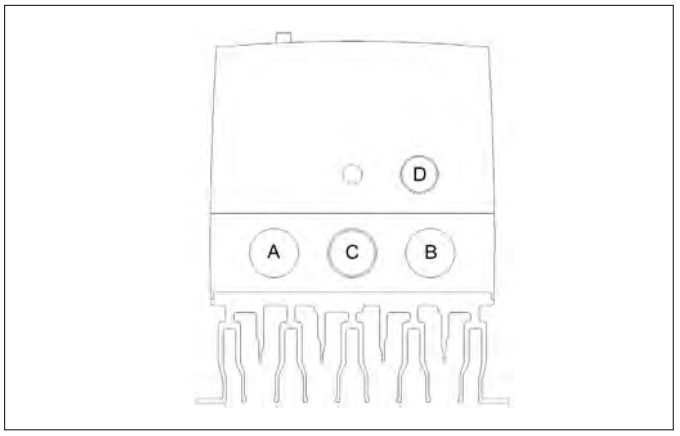
Sizes 1 & 2 are designed to be mounted onto DIN rail.

FENNER QD:E MOUNTING CLEARANCES



Frame Size	X mm	Y mm	Z mm	Recommended Airflow CFM (ft³/min)
1	50	50	33	11
2	75	50	46	11
3	100	50	52	26

GLAND HOLE SIZES QD:IP55



Any Metal conduit used MUST be earth bonded by means of a suitable earthing washer or gland adaptor.

PLEASE NOTE:
Where wires are required in the IP66 drive they must be made by the installer in line with the recommended hole sizes and gland sizes given for the IP55 unit (see table).

Lock Off:
The main power isolator switch can be locked in the 'Off' position using a 20mm standard shackle padlock (not supplied).

Gland Hole Sizes IP55

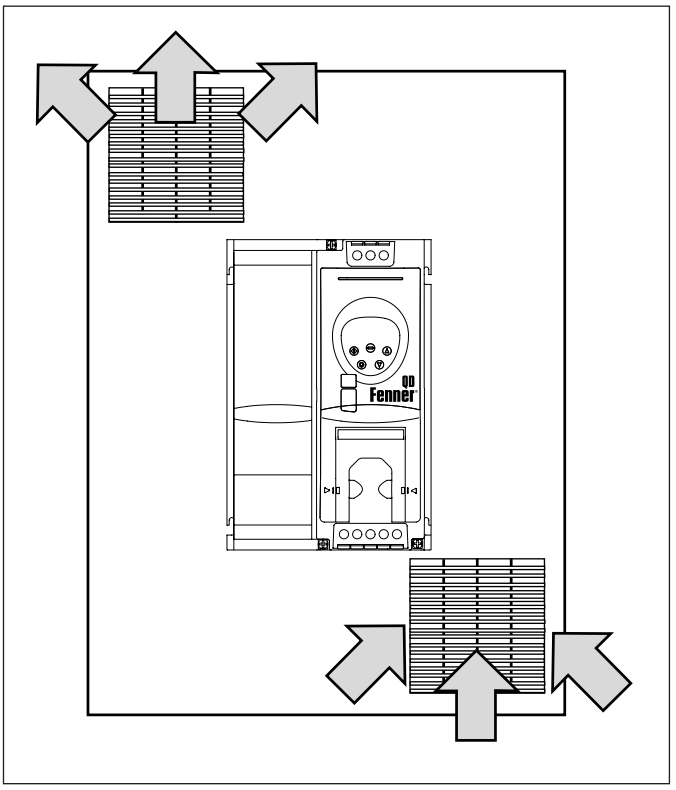
Frame Size	Input (A) & Output (B)	Centre Knockout (C)	Terminal Cover Knockout (D)
1	Ø 22mm	Ø 22mm	Ø 17mm
2	Ø 25mm	Ø 22mm	Ø 17mm
3	Ø 25mm	Ø 22mm	Ø 17mm

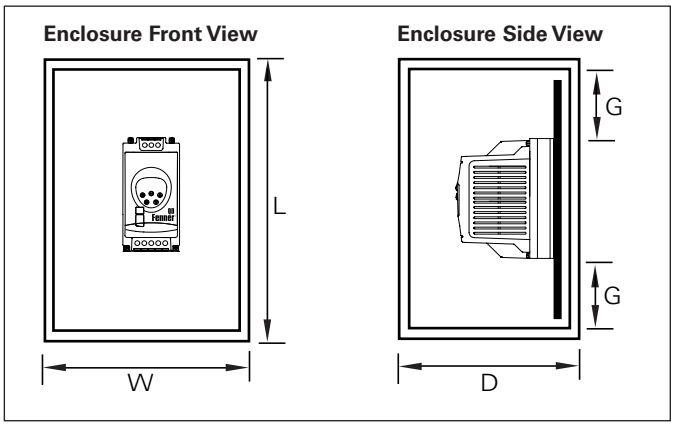
Recommended Gland Type IP55

SkinTop UL approved (UL94-V0) Type 12/IP55 non-metallic cable gland or non-rigid conduit

Frame Size	Input (A) & Output (B)	Centre Knockout (C)	Terminal Cover Knockout (D)
1	PG13.5 / M20	PG13.5 / M20	PG9 / M16
2	PG16 / M25	PG13.5 / M20	PG9 / M16
3	PG16 / M25	PG13.5 / M20	PG9 / M16

FENNER QD:VT & QD:CT PLUS MOUNTING CLEARANCES





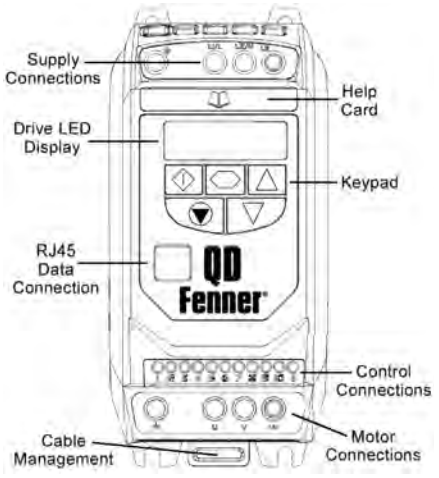
The Fenner QD:VT and QD:CT PLUS drives can be installed side-by-side with their heatsink flanges touching. This gives adequate ventilation space between them. If the drive is to be installed above another drive or any other heat producing device, the minimum vertical spacing is 150mm. The enclosure should either be force ventilated or large enough to allow natural cooling.

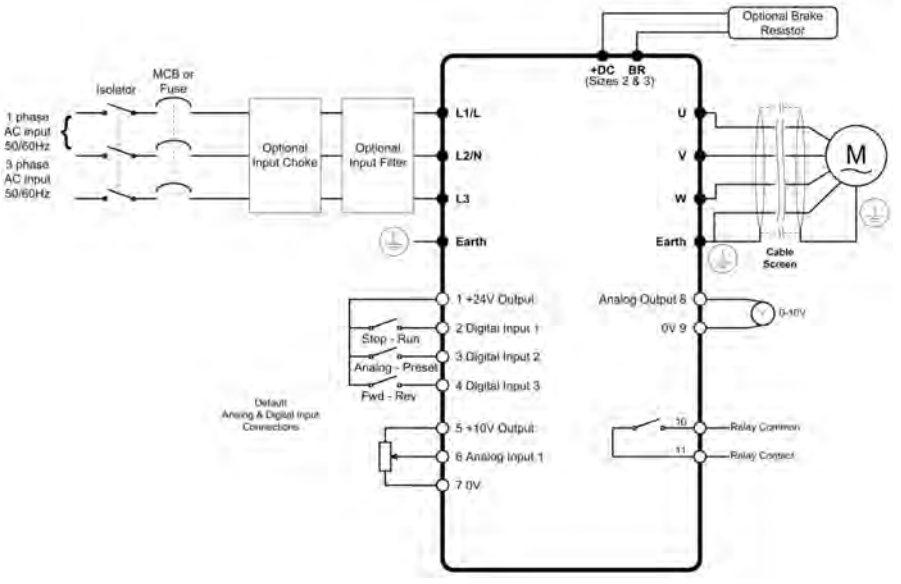
For drives mounted in free ventilated enclosures or force ventilated enclosures, the following minimum sizes and airflow requirements are recommended:

QD:VT & QD:CT PLUS Mounting Clearances

Frame Size	Max. Power Rating kW	Free-Vented Unit			Force-Vented Unit					
		L	W	D	G	L	W	D	G	Airflow m^3/h
1	1.5	400	300	150	75	275	150	150	50	> 15
2	4	600	400	250	100	320	200	200	75	> 45
3	15	800	600	300	150	400	250	200	100	> 80
4	22	1000	600	300	200	800	500	250	130	> 300
4	37	–	–	–	–	800	500	250	130	> 300
5	90	–	–	–	–	1500	600	400	200	> 900
6	160	–	–	–	–	1600	600	400	250	> 1000

FENNER QD:E CONNECTION





Terminal	Torque Settings
Control	0.5 Nm
Power	1 Nm

IP20 DRIVES

Size 1 Connections



Size 2 & 3 Connections



Drive and Motor Connections

For 1 phase supply power should be connected to L1/L, L2/N.

For 3 phase supplies power should be connected to L1, L2, L3. Phase sequence is not important.

The motor should be connected to U, V, W.

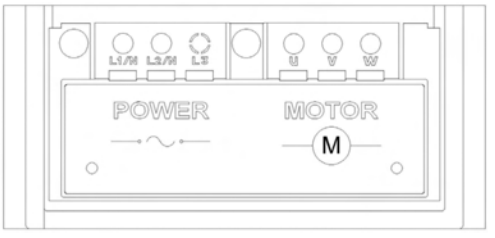
For drives that have a dynamic brake transistor an optional external braking resistor will need be connected to +DC and BR. The brake resistor circuit should be protected by a suitable thermal protection circuit.

+DC and –DC connections can be used for DC Bus paralleling applications.

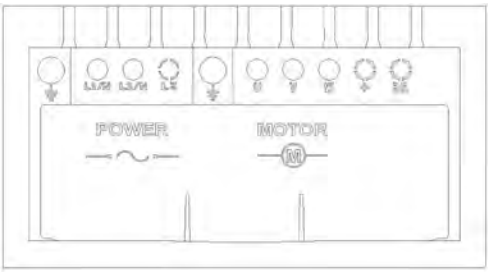
The –DC, +DC and BR connections are blanked off by plastic tabs when sent from the factory. The plastic tabs can be removed if/when required.

QD:IP55 / QD:IP66 DRIVES

Size 1 Connections



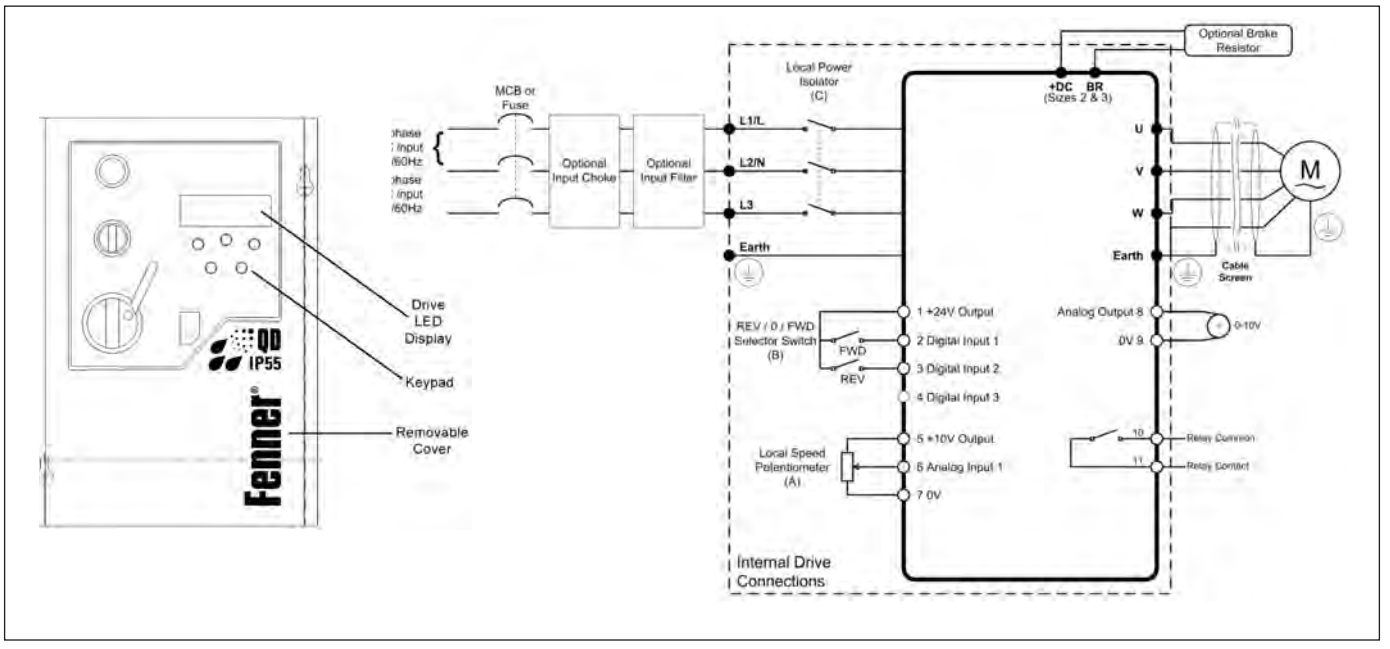
Size 2 & 3 Connections



Terminal	Torque Settings
Control	0.5 Nm
Power	1 Nm

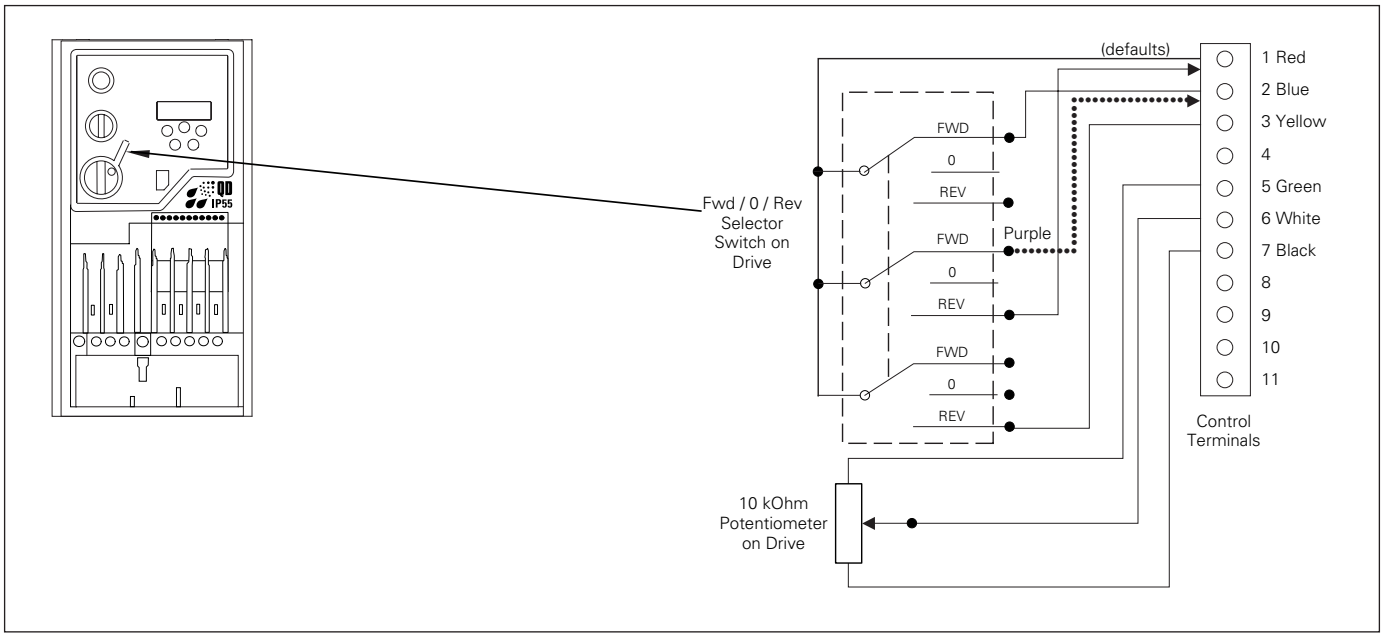
Note: Further information on all of the above can be found in the Advanced User Guide.

FENNER QD:E IP55 & IP66 CONNECTION DIAGRAM



Note: For Safety reasons the REV (Run reverse) setting is disabled by default. To enable the REV (run reverse) setting change parameter P-15 to 5.

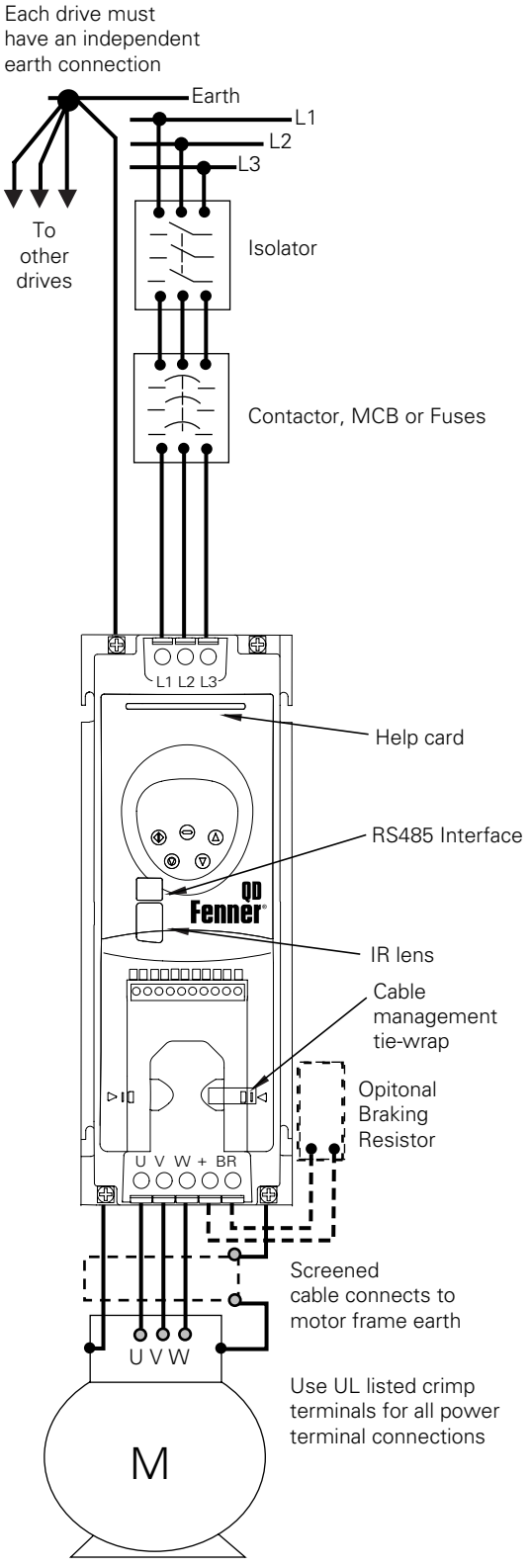
FENNER QD:CT PLUS IP55 CONNECTION DIAGRAM



Note: Purple wire can be moved from terminal 1 (default) to terminal 2 to give greater functionality.

FENNER QD:VT & QD:CT PLUS CONNECTION

Drive and Motor Connection (IP20)



Terminal	Torque Settings
Control	0.5 Nm
Power	1 Nm

Motor Terminal Box Connections

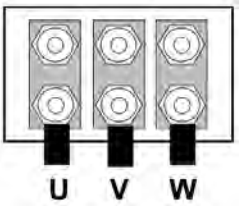
Most general purpose motors are wound for operation on dual voltage supplies. This is indicated on the nameplate of the motor.

This operational voltage is normally selected when installing the motor by selecting either STAR or DELTA connection.

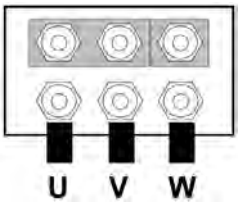
STAR always gives the higher of the two voltage ratings.

Typical ratings are: 400 / 230 (人/△)
690 / 400 (人/△)

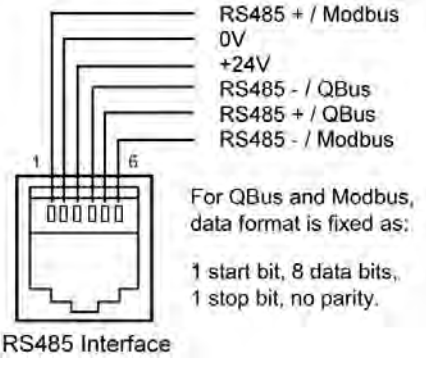
DELTA (△) Connection



STAR (人) Connection

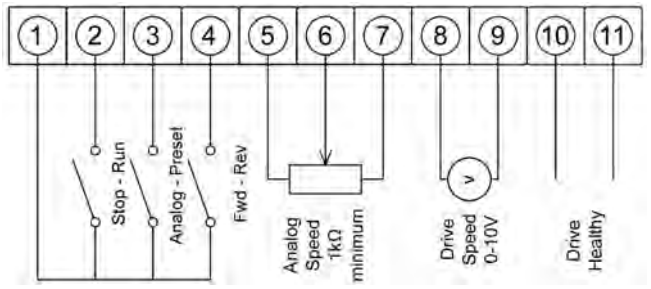


RS485 Interface Configuration



CONTROL TERMINAL CONNECTIONS

Default Connections



Control Terminal	Signal
1	+24V User Output
2	Digital Input 1
3	Digital Input 2
4	Digital Input 3 / Analog Input 2
5	+10V User Output
6	Analog Input 1 / Digital Input 4
7	0V
8	Analog Output / Digital Output
9	0V
10	Relay Common
11	Relay NO Contact

Control Terminal 1	+24V User Output
Current Limit	100mA

Control Terminal 2 & 3	Digital Inputs 1 & 2
Positive Logic	
Digital Voltage Range	8 to 30V
Sample Time	8 ms

Control Terminal 4	Digital Input 3 or Analog Input 2
Positive Logic	Digital Voltage Range 8 to 30V
Sample Time	8 ms
Analog Input Formats	As per Parameter P-47 Voltage: 0-10V Current: 4-20mA, 0-20mA, 20-4mA
Resolution	12-bit (0.025%)

Control Terminal 5	+10V Output
Current Limit	10mA
Minimum Resistance	1kΩ

Control Terminal 6	Analog Input 1 or Digital Input 4
Analog Input Formats	As per Parameter P-16 Voltage: 0-10V Current: 4-20mA, 0-20mA, 20-4mA
Resolution	12-bit (0.025%)
Positive Logic	–
Digital Voltage Range	8 to 30V
Sample Time	8 ms

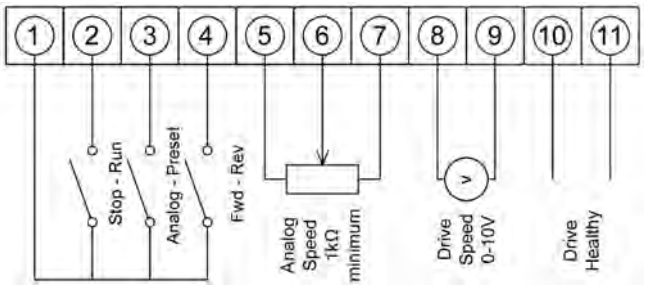
Control Terminal 7 & 9	0V

Control Terminal 8	Analog Output or Digital Output
Analog Voltage Range	0 to 10V
Digital Voltage Range	0 to 24V
Max Output Current	20mA

Control Terminal 10 & 11	User Relay Contacts
Voltage Rating	250 Vac / 30Vdc
Current Rating	6A / 5A
Contact Isolation	2.5kV
Operation of Relay	OPEN: No AC Supply OR Function of P-18 disabled CLOSED: AC Supply present & Function of P-18 enabled

CONTROL TERMINAL CONNECTIONS

The control terminals are defined as follows:



Control Terminal	Signal
1	+24V, 100mA user output.
2	Digital input 1, positive logic. "Logic 1" when Vin > 8V DC
3	Digital input 2, positive logic. "Logic 1" when Vin > 8V DC 2nd digital output: 0 / 24V, 10mA max
4	2nd analog input, 11-bit (0.05%). 0..10V, 0..20mA, 4..20mA. Digital input 3, positive logic. "Logic 1" when Vin > 8V DC.
5	+24V, 100mA reference output (for use with potentiometer).
6	Bipolar analog input, +/-12-bit (0.025%). Configurable for: 0..24V, 0..10V, -10V...10V, -24V…24V
7	0V (User GND). Connected to terminal 9
8	Analog output, 8-bit (0.25%). 0..10V, 4..20mA. Digital output: 0 / 24V, 20mA max
9	0V (User GND). Connected to terminal 7
10	User relay output. Potential free contacts. 30Vdc 5A, 250Vac 6A
11	User relay output. Potential free contacts. 30Vdc 5A, 250Vac 6A

Control Terminal 1	+24V User Output
Current Limit	100mA

Control Terminal 2	Digital Input 1
Positive Logic	
Digital Voltage Range	8 to 30V
Sample Time	8 ms

Control Terminal 3	Digital Input 1/"Drive Healthy Ouput" (Parameter Selectable)
Input Mode:	
Positive Logic	
Digital Voltage Range	8 to 30V
Sample Time	8 ms
Output Mode:	
Voltage Range	24V DC
Current Limit	10mA

Control Terminal 4	Digital Input 3 or Analog Input 2
Positive Logic	
Digital Voltage Range	8 to 30V
Sample Time	8 ms
Analog Input Formats	Voltage: 0 to 10V Current: 0 to 20mA, 4 to 20mA
Resolution	11 bit (0.05%)

Control Terminal 5	+10V Output
Minimum Resistance	1kΩ

Control Terminal 6	Bipolar Analog Input or Digital Input 4
Analog Input Formats	0 to 24V, 0 to 10V, –24 to +24V, –10 to +10V
Resolution	+/– 12 bit (0.025%)
Positive Logic	
Digital Voltage Range	8 to 30V
Sample Time	8 ms

Control Terminals 7 & 9	0 Volts

Control Terminal 8	Analog or Digital Output
Analog Range	Voltage: 0 to 10V Current: 4 to 20mA
Digital Voltage Range	0 or 24V
Max Output Current	20mA

Control Terminals 10 & 11	User Relay Contacts
Voltage Rating	250 VAC / 30 VDC
Current Rating	6A / 5A
Contact Isolation	2.5kV
Function	No or NC, Parameter Selectable

Control Terminal Connections

The User Control terminals are available via an 11-way pluggable connector. All terminals are galvanically isolated, allowing direct connection to other equipment.

Do not connect mains supply voltages to any terminals other than the User relay output. Permanent damage will otherwise result.

All other inputs will withstand up to 30V dc without damage.

The functionality of the inputs and outputs is user configurable. All operating modes are set up via the parameter set.

Up to 100mA can be sourced from the User +24V output and up to 20mA from the analog output.

MANAGING THE KEYPAD

The drive is configured and its operation monitored via the keypad and display.



⬭	**NAVIGATE**	Used to display real-time information, to access and exit parameter edit mode and to store parameter changes.
△	**UP**	Used to increase speed in real-time mode or to increase parameter values in parameter edit mode.
▽	**DOWN**	Used to decrease speed in real-time mode or to decrease parameter values in parameter edit mode.
▼	**RESET / STOP**	Used to reset a tripped drive. When in Keypad mode is used to Stop a running drive.
◇	**START**	When in keypad mode, used to Start a stopped drive or to reverse the direction of rotation if bi-directional keypad mode is enabled.

Changing Parameters

To change a parameter value press and hold the ⬭ key for >1s whilst the drive displays StoP .

The display changes to P-01 , indicating parameter 01.

Press and release the ⬭ key to display the value of this parameter.

Change to the required value using the △ and ▽ keys.

Press and release the ⬭ key once more to store the change.

Press and hold the ⬭ key for >1s to return to real-time mode.

The display shows StoP if the drive is stopped or, if the drive is running, the display shows 'Real-Time' information e.g. speed

Reset Factory Default Settings

To reset factory default parameters, press △, ▽ and ▼ for >2s. The display shows P-dEF

Press the ▼ button to acknowledge and reset the drive.



STANDARD PARAMETERS QD:E

Par.	Description	Range	Default	Explanation
P-01	Maximum speed	P-02 to P-09 x 5 (max 500Hz)	50Hz (60Hz)	Maximum speed limit – Hz or rpm. See P-10
P-02	Minimum speed	0 to P-01 (max 500Hz)	0Hz	Minimum speed limit – Hz or rpm. See P-10
P-03	Acceleration ramp time	0 to 600s	5s	Acceleration ramp time from 0 to base speed (P-09) in seconds.
P-04	Deceleration ramp time	0 to 600s	5s	Deceleration ramp time from base speed (P-09) to standstill in seconds. When P-04=0, the deceleration ramp is set by P-24. Setting P-04=0 also activates dynamic ramp control, where the ramp may be extended automatically to prevent an O-Volt trip.
P-05	Stop mode select	0: Ramp stop (brown-out ride-through) 1: Coast to stop 2: Ramp to stop (fast stop)	0	If the supply is lost and P-05=0 then the drive will try to continue running by reducing the speed of the load using the load as a generator. If P-05 = 2, the drive will ramp to stop using the P-24 decel ramp with dynamic brake control when mains supply lost.
P-06	Energy Optimiser	0: Disabled 1: Enabled	0	When enabled, automatically reduces applied motor voltage on light load. Minimum value is 50% of nominal.
P-07	Motor rated voltage	0, 20V to 250V 0, 20V to 500V	230V 400V	Rated (nameplate) voltage of the motor (Volts). Value limited to 250V for low voltage drives. Setting to zero disables voltage compensation.
P-08	Motor rated current	25% -100% of drive rated current	Drive rating	Rated (nameplate) current of the motor (Amps).
P-09	Motor rated frequency	25Hz to 500Hz	50Hz	Rated (nameplate) frequency of the motor.
P-10	Motor rated speed	0 to 30 000 rpm	0	When non-zero, all speed related parameters are displayed in rpm.
P-11	Voltage boost	Size 1: 0.0 to 20.0% Size 2: 0.0 to 15.0% Size 3: 0.0 to 10.0% of max output voltage.	Motor power dependent	Applies an adjustable boost to the voltage output at low speed to assist with starting 'sticky' loads. For continuous applications at low speed use a forced ventilated motor.
P-12	Terminal / Keypad / MODBUS / PI Drive Control Mode Selection	0. Terminal control 1. Keypad control – fwd only 2. Keypad control – fwd and rev 3. MODBUS network control with internal accel / decel ramps 4. MODBUS network control with accel / decel ramp adjustment 5. User PI control 6. User PI control with analog input 1 summation	0	**Primary Control Mode of the drive** 0. Terminal control. 1. Uni-directional keypad control. Keypad START button does not reverse direction. 2. Bi-directional keypad control. Keypad START button toggles between forward and reverse. 3. Control via Modbus RTU (RS485) comms interface using the internal accel / decel ramps. 4. Control via Modbus RTU (RS485) comms interface with accel / decel ramps updated via Modbus. 5. User PI control with external feedback signal. 6. User PI control with external feedback signal and summation with analog input 1.
P-13	Trip log	Last four trips stored	Read only	Previous 4 trips stored in order of occurrence, with the most recent first. Press UP or DOWN to step through all four. The most recent trip is always displayed first. UV trip is only stored once. Further fault event logging functions are available through parameter group zero.
P-14	Extended menu access	Code 0 to 9 999	0	Set to "101" (default) for extended menu access. Change code in P-39 to prevent unauthorised access to the Extended Parameter Set.

Note: Standby mode is enabled automatically when the drive is at zero speed for > 20 seconds

BASIC PARAMETER SET QD:VT

Par.	Description	Range	Default
P1-01	Max speed limit (Hz or rpm)	P1-02 to 120Hz / 7,200 rpm	50Hz
P1-02	Min speed limit (Hz or rpm)	0 to P1-01	0Hz
P1-03	Accel ramp time (s)	0s … 3000s	30s
P1-04	Decel ramp time (s)	0s … 3000s	30s
P1-05	Stop mode select	0: Ramp to stop (mains ride through) 1: Coast to stop 2: Ramp to stop (Fast-Stop mode)	0
P1-06	Energy optimizer	0: Disable 1: Enable	0
P1-07	Motor rated voltage	0V, 20V to 250V 0V, 20V to 500V 0V, 20V to 600V	230V 400V
P1-08	Motor rated current (rms)	20% to 100% of drive current rating (Amps)	Drive rating (Amps)
P1-09	Motor rated frequency	25 to 120Hz	50Hz
P1-10	Motor rated speed	0 to 7,200 rpm	0
P1-11	Preset speed 1	-P1-01 (min) to P1-01 (max)	50Hz
P1-12	Terminal / Keypad control of drive	0: Terminal control 1: Keypad control (fwd only) 2: Keypad control (fwd / rev toggle using start button) 3: Enable User PID control 4: Modbus network control	0 (terminal)
P1-13	Trip log	Last four trips stored	No fault
P1-14	Extended menu access code	0 to 30000. When in default state, set to 101 to access extended menu	0



BASIC PARAMETER SET QD:CT PLUS

Par.	Description	Range	Default
P1-01	Max speed limit (Hz or rpm) C Run (Enable)	P1-02 to P1-09 x 5. Max value 2000Hz / 60,000 rpm	50Hz
P1-02	Min speed limit (Hz or rpm)	0 to P1-01	0Hz
P1-03	Accel ramp time (s)	0s … 3000s	5s
P1-04	Decel ramp time (s)	0s … 3000s	5s
P1-05	Stop mode select	0 Ramp to stop (mains ride through) 1 Coast to stop 2 Ramp to stop (Fast-Stop mode)	0
P1-06	Energy Optimisation (Reserved for 3GV-M)	0: Disable 1: Enable	0
P1-07	Motor rated voltage	0V, 20V to 250V 0V, 20V to 500V 0V, 20V to 600V	230V 400V
P1-08	Motor rated current (rms)	20% to 100% of drive current rating (Amps)	Drive rating (Amps)
P1-09	Motor rated frequency	25 to 2000Hz	50Hz
P1-11	Preset speed 1	-P1-01 (min) to P1-01 (max)	50Hz
P1-12	Terminal / Keypad control of drive	0: Terminal control 1: Keypad control (fwd only) 2: Keypad control (fwd / rev toggle using start button) 3: Enable User PID control 4: Modbus network control (Optional)	0 (terminal)
P1-13	Trip log	Last four trips stored	No fault
P1-14	Extended menu access code	0 to 30000. When in default state, set to 101 to access extended menu	0

OPTIONS

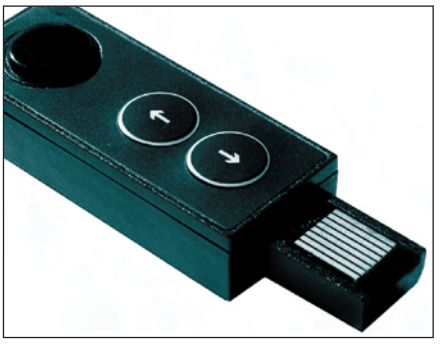
Description		QD:E	QD:CT PLUS	QD:VT
QBRAKE	**Dynamic braking resistor for use with high inertia loads which need to be stopped rapidly.** *Please note: the size 1 unit is not suitable for braking applications as it has no integral braking circuit*			
572X1002	IP20; 100Ω, 200W, continuous 12kW peak for 0.125s - Sizes 2 & 3	●	●	●
572X1004	IP20; 330Ω, 500W, continuous 12kW peak for 0.125s - Sizes 4, 5 & 6	●	●	●
572X1002E	IP55; 50Ω, 200W, continuous 12kW peak for 0.125s - Sizes 2 & 3	●	●	●
QICHOKE	**QICHOKE - Input Chokes** **Reduce harmonic distortion and protect Fenner QD drives against harmful supply disturbances. Input chokes available for drives sizes 1-3. Sizes 4-6 include 3 phase line chokes as standard.**			
572X3011	IP20; Drive size 1, < 230V, single phase	●	●	●
572X3021	IP20; Drive size 2, < 230V, single phase	●	●	●
572X3031	IP20; Drive Size 1, < 500V, three phase	●	●	●
572X3023	IP20; Drive Size 2, < 500V, three phase	●	●	●
572X3033	IP20; Drive Size 3, < 500V, three phase	●	●	●
572X3011E	IP55; Drive size 1, < 230V, single phase	●	●	
572X3012E	IP55; Drive size 2, < 230V, single phase	●	●	
572X3031E	IP55; Drive size 1, < 600V, three phase	●	●	
572X3032E	IP55; Drive size 2, < 600V, three phase	●	●	
572X3033E	IP55; Drive size 3, < 600V, three phase	●	●	
QMCHOKE	**QMCHOKE - Motor Chokes** **QM Motor Chokes improve the quality of the output waveform. In a small number of applications output filtering is strongly recommended to improve system functionality, reliability and longevity. Such applications include: long motor cables upto 200m; high capacitance motor cables; multiple motors connected in parallel; older motors without inverter grade insulation**			
572X3113	IP20; Drive size 1, < 500V	●	●	●
572X3123	IP20; Drive size 2, < 500V	●	●	●
572X3133	IP20; Drive size 3, < 500V	●	●	●
572X3143	IP20; Drive size 4, < 500V		●	●
572X3153	IP20; Drive size 5, < 500V		●	●
572X3163	IP20; Drive size 6, < 500V		●	●
572X3113E	IP55; Drive size 1, < 600V	●	●	
572X3123E	IP55; Drive size 2, < 600V	●	●	
572X3133E*	IP55; Drive size 3, < 600V *maximum 5.5kW	●	●	
QRELAY-3	**QRELAY-3 provides 2 additional programmable relay outputs**			
572X4003	QRELAY-3 Max switching voltage 250V AC, Max switching current 1A		●	●
QRELAY-2	**QRELAY-2 provides a programmable second relay output**			
572X4002	QRELAY-2 Max switching voltage 250V AC, Max switching current 1A	●	●	●
QRELAY-VT	**QRELAY-VT provides 2 relays for typical 'drive running' and 'drive tripped' indicators**			
572X4100	QRELAY-VT Max switching voltage 250V AC, Max switching current 1A	●	●	●
QMODULE	**QMODULE - Encoder Module** **The external encoder feedback module is designed to provide closed loop speed control for the QD:CT PLUS range.**			
572X7000	QMODULE External encoder module (for closed loop operation)		●	

OPTIONS

Description		QD:E	QD:CT PLUS	QD:VT
QPORT	**QPORT - Remote Keypad & Display** **QPORT units act as a remote keypad and display for QD Drives on a network which have the same serial address. The physical layout and operation of the QPORT keypad and display mimic the QD drive exactly.**			
572X0001	QD:CT PLUS/QD:VT - 6 Way RJ11, 10-36V DC, 30mA		●	●
572X0002	QD:E - 8 Way RJ45, 10-36V. 30mA	●		
QSPLITTER	**QSPLITTER - RS485 data cable splitter is an RJ11 or RJ45 1 to 2 way connection block**			
572X2100	RJ11, 1-2 way		●	●
572X2000	RJ45, 1-2 way	●		
QADAPTOR	**QADAPTOR - RS485 Communications Adaptor** **The QADAPTOR is an isolated USB to RS485 communications adaptor designed for use with QStore Plus**			
572X2200	QADAPTOR RS485	●	●	●
DATA CABLES	**DATA CABLES**			
572X2103	RJ11 to RJ11 RS485 data cable, 0.3 metres - Black		●	●
572X2110	RJ11 to RJ11 RS485 data cable, 1 metre - Black		●	●
572X2130	RJ11 to RJ11 RS485 data cable, 3 metre - Black		●	●
572X2005	RJ45 to RJ45 RS485 data cable, 0.5 metres - Blue	●		
572X2010	RJ45 to RJ45 RS485 data cable, 1 metre - Blue	●		
572X2030	RJ45 to RJ45 RS485 data cable, 3 metres - Blue	●		
QWAND	**QWAND is a pocket PC that allows infra-red programming of QD Drives via the infra-red port on the front of the drive, supplied with software.** **only if used with QSTICK*			
572X0004	QWAND	●*	●	●
QSTICK	**QSTICK - For accurate repeat drive programming, simply insert the QSTICK into the RJ45 slot on the front of the QD:E drive with infra-red functionality**			
572X0003	QSTICK for QD:E Drives	●		
QGATEWAY	**QGATEWAY - Fieldbus Communications** **Fenner QD Drives can communicate with existing networks with the use of the QGATEWAY**			
572X8001	Profibus gateway with RJ11 & RJ45, 9 way, D-type, data cables		●	●
572X8002	DeviceNet gateway with RJ11 & RJ45, 9 way, D-type, data cables		●	●
572X8003	EtherNet gateway with RJ11 & RJ45, 9 way, D-type, data cables		●	●

QSTICK

For fast accurate repeat drive programming. Simply insert QStick into the RJ45 slot on the face of the QD:E drive.



Key Benefits

- Upload/download buttons allow for fast copying of parameters between drives
- Infra-red communications capability provides remote control convenience
- Can be programmed with PDA or Smart Phone

QPORT REMOTE KEYPAD AND DISPLAY

QPort PLUS and QPort E are intelligent devices with a built in microcontroller.

Key Benefits

- Real time keypad and display operation mimics Fenner drive
- Single electrical interface for power and data
- Communicates with up to 63 drives on a network
- Automatically connects to specified drive
- IP54 rated when mounted on a panel
- Bright LED display with membrane keypad
- Parameter lock function available
- 3m Data Cable included

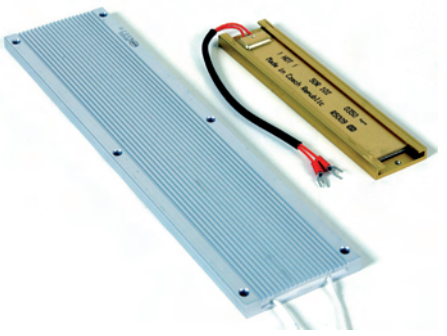


QPort units act as the remote keypad and display for the QDrive on the network which has the same serial address. The physical layout and the operation of the QPort keypad and display mimic the QD drive exactly.

QBRAKE - DYNAMIC BRAKING RESISTORS

Key Benefits

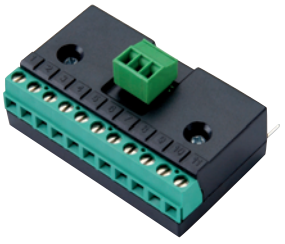
- Fenner QD drive software protects the QBRAKE from overload, hence no need for expensive overload relays
- Internal fusible element ensures fail safe operation
- Connects to side of drive, using the heatsink of the drive to prevent overheating
- No space envelope penalty, fits on side of the drive
- Series/parallel arrangements for more demanding applications



QBRAKE dynamic braking resistors are designed specifically for the Fenner QD range. For use with high inertia loads which need to be stopped rapidly. QBRAKE dynamic braking resistors assist the drive in managing the electrical energy returned from the motor during braking, by converting it to heat energy.

QRELAY-3

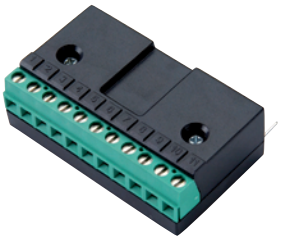
QRELAY-3 provides 2 additional programmable relay outputs



Product Code	572X4003
Max. relay switching voltage	250V AC / 220V DC
Max relay switching current	1A
Max input voltage	+/- 50V DC
Conformity	IP00, UL94V-0
Environmental	-10°C ... +50°C
Dimensions	56 x 33 (not pins) x 14mm

QRELAY-2

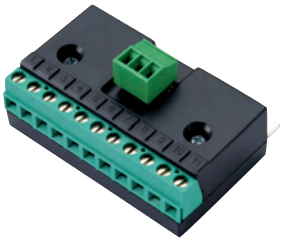
QRELAY-2 provides a second relay output.



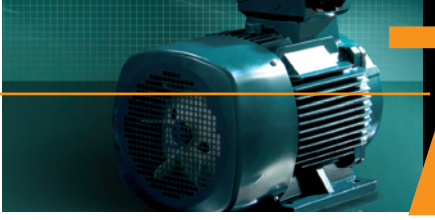
Product Code	572X4002
Max. relay switching voltage	250V AC / 220V DC
Max relay switching current	1A
Max input voltage	+/- 50V DC
Conformity	IP00, UL94V-0
Environmental	-10°C ... +50°C
Dimensions	56 x 33 (not pins) x 14mm

QRELAY-VT

QRELAY-VT provides 2 relays for typical 'drive running' and 'drive tripped' indicators.



Product Code	572X4100
Max. relay switching voltage	250V AC / 220V DC
Max relay switching current	1A
Max input voltage	+/- 50V DC
Conformity	IP00, UL94V-0
Environmental	-10°C ... +50°C
Dimensions	56 x 33 (not pins) x 14mm



Fenner®

HIGH EFFICIENCY ELECTRIC MOTORS

The Fenner FM:P Series industrial motor range is designed to meet today's industrial requirements high efficiency, long life and value for money.



- EFF1 premium efficiency and ECA compliant
- Aluminium (multimount) <132 frame and cast iron from 160 frame and above
- 2, 4, 6 and 8 pole
- Foot, flange and face mounted options from stock

Electric Motors Design Data Required

- Power required (kW or HP)
- Motor speed required (rpm or No. Poles)
- Mains voltage supply (volts / phases / frequency)
- Mounting type (foot, flange, face, etc)
- Mounting position (horizontal / vertical)
- Enclosure (IP Rating)
- Existing / required frame size
- Method of starting (Star, Delta, D.O.L. inverter etc)
- Construction (aluminium / cast iron)
- Special features required

ELECTRIC MOTORS

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Buying a High Efficiency EFF1 Electric Motor

WHY IS IMPROVING MOTOR EFFICIENCY IMPORTANT?

Over 60% of all electrical energy consumed by industry in the UK is used by electric motors.

Improving the efficiency of electric motors and the equipment they drive can save energy, reduce operating costs, improve productivity and reduce our nation's carbon footprint

Energy efficiency should be a major consideration when you purchase or rewind a motor. The annual energy cost of running a motor is usually 100 times itss initial purchase price.

A premium efficiency motor requires less input power to do the same job as a standard efficiency motor.

Premium efficiency motors have an improved design, higher quality materials and adavanced manufacturing techniques than standrad motors.

A premium efficiency motor reduces energy losses by up to 40%, this means that if a 15kW motor is operating for 6000 hours per year, savings of nearly 4 MWh per year can be made.

NEW MEPS STANDARDS FOR ELECTRIC MOTORS

In 2007 a project for a new harmonised global standard known as MEPS (Minimum Efficiency Performance Standards) was initiated. IEC60034-30 was published in 2008 and is set to come into force in June/July 2011.

The new efficiency bandings will be known as IE1, IE2 and IE3. They will run side by side the exisiting EFF1 and EFF2 bands for a period to enable stock to be moved.

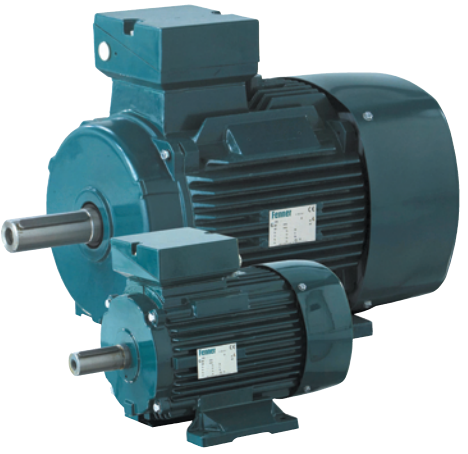
The new banding has now been extended to include 2, 4 and 6 pole motors from 0.75kW to 375kW.

The existing IEC60034-2 (EFF1 and EFF2 scheme) has a tendency to over-estimate efficiency. It does not allow a fair comparison of motors with low and high additional load losses as it only estimates a fixed allowance of 0.5% of the input power. It also fails to take into account the effects of ambient temperature and altitude. The new standards will provide a far more accurate measure of effiency and thus enable a fair comparison of global manufacturers.

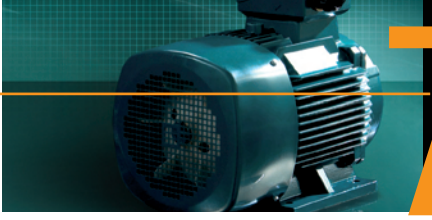
FENNER FM:P PREMIUM EFFICIENCY MOTORS

The FM:P series of motors is a Premium Efficiency design currently labelled as EFF1 and soon to carry the IE2 MEPS certification.

All FM:P motors are fitted with Thermistors as a standard option and larger B3 motors have Roller bearings ideal for Belt Drives.



kW	2 POLE					4 POLE					6 POLE		
	IE1	IE2	IE3	EFF1	EFF2	IE1	IE2	IE3	EFF1	EFF2	IE1	IE2	IE3
0.75	72.1%	77.4%	80.7%			72.1%	79.6%	82.5%			70.0%	75.9%	78.9%
1.1	75.0%	79.6%	82.7%	82.8%	76.2%	75.0%	81.4%	84.1%	83.8%	76.2%	72.9%	78.1%	81.0%
1.5	77.2%	81.3%	84.2%	84.1%	78.5%	77.2%	82.8%	85.3%	85.0%	78.5%	75.2%	79.8%	82.5%
2.2	79.7%	83.2%	85.9%	85.6%	81.0%	79.7%	84.3%	86.7%	86.4%	81.0%	77.7%	81.8%	84.3%
3.0	81.5%	84.6%	87.1%	86.7%	82.6%	81.5%	85.5%	87.7%	87.4%	82.6%	79.7%	83.3%	85.6%
4.0	83.1%	85.8%	88.1%	87.6%	84.2%	83.1%	86.6%	88.6%	88.3%	84.2%	81.4%	84.6%	86.8%
5.5	84.7%	87.0%	89.2%	88.6%	85.7%	84.7%	87.7%	89.6%	89.2%	85.7%	83.1%	86.0%	88.0%
7.5	86.0%	88.1%	90.1%	89.5%	87.0%	86.0%	88.7%	90.4%	90.1%	87.0%	84.7%	87.2%	89.1%
11.0	87.6%	89.4%	91.2%	90.5%	88.4%	87.6%	89.8%	91.4%	91.0%	88.4%	86.4%	88.7%	90.3%
15.0	88.7%	90.3%	91.9%	91.3%	89.4%	88.7%	90.6%	92.1%	91.8%	89.4%	87.7%	89.7%	91.2%
18.5	89.3%	90.9%	92.4%	91.8%	90.0%	89.3%	91.2%	92.6%	92.2%	90.0%	88.6%	90.4%	91.7%
22	89.9%	91.3%	92.7%	92.2%	90.5%	89.9%	91.6%	93.0%	92.6%	90.5%	89.2%	90.9%	92.2%
30	90.7%	92.0%	93.3%	92.9%	91.4%	90.7%	92.3%	93.6%	93.2%	91.4%	90.2%	91.7%	92.9%
37	91.2%	92.5%	93.7%	93.3%	92.0%	91.2%	92.7%	93.9%	93.6%	92.0%	90.8%	92.2%	93.3%
45	91.7%	92.9%	94.0%	93.7%	92.5%	91.7%	93.1%	94.2%	93.9%	92.5%	91.4%	92.7%	93.7%
55	92.1%	93.2%	94.3%	94.0%	93.0%	92.1%	93.5%	94.6%	94.2%	93.0%	91.9%	93.1%	94.1%
75	92.7%	93.8%	94.7%	94.6%	93.6%	92.7%	94.0%	95.0%	94.7%	93.6%	92.6%	93.7%	94.6%
90	93.0%	94.1%	95.0%	95.0%	93.9%	93.0%	94.2%	95.2%	95.0%	93.9%	92.9%	94.0%	94.9%
110	93.3%	94.3%	95.2%			93.3%	94.5%	95.4%			93.3%	94.3%	95.1%
132	93.5%	94.6%	95.4%			93.5%	94.7%	95.6%			93.5%	94.6%	95.4%
160	93.8%	94.8%	95.6%			93.8%	94.9%	95.8%			93.8%	94.8%	95.6%
200	94.0%	95.0%	95.8%			94.0%	95.1%	96.0%			94.0%	95.0%	95.8%



SELECTION PROCEDURE

The output powers published overleaf are based upon continuous maximum rating conditions. Therefore design factors for above average running periods do not normally affect the selection. These ratings assume a normal operating condition at an ambient temperature not exceeding 40°C at an altitude below 1000 metres. Correction factors for other conditions are given below.

Permitted Frequency of Starts

When a motor is stopped and restarted too frequently, overheating will occur. Specific results depend upon the relative inertia of the motor and of the driven machine so it is not possible to publish meaningful figures. If in doubt contact your local Fenner authorised distributor.

Noise and Vibration

The FM:P range of motors comply with international recommendations relating to maximum permitted noise levels. All rotors are dynamically balanced, with a key fitted, in order to ensure that vibration levels do not exceed class N, ISO 2373.

Derating Table for Different Ambient Tempeartures and Altitudes

Ambient Temp °C	Power available as % of published figure at following altitudes (metres) Below 1000	1500	2000	2500	3000	3500	4000
25	100	100	100	100	100	100	100
40	100	97.0	94.5	92.0	89.0	86.5	83.5
45	96.5	93.5	91.0	89.0	86.0	83.5	80.5
50	93.0	90.0	88.0	85.5	83.0	80.5	77.5
55	90.0	87.5	85.0	83.0	80.0	78.0	75.0
60	86.5	84.0	82.0	79.5	77.0	75.0	72.0

Motor bearings are charged with grease suited for ambient temperatures in the range –30°C to 55°C.

Starting torque and nominal torque

M_S: The starting torque is the mechanical torque developed by the motor with the rotor locked.

M_N: The nominal torque is the mechanical torque that the motor is developing when it is giving its nominal power and speed.

Starting current and nominal current

I_N: The nominal current is the current that the motor is developing at nominal power and nominal voltage.

I_S: The starting current is the current that the motor is developing when the rotor is locked.

Bearing Life

Bearing life depends on factors such as bearing load, rotation, speed, and operating temperature of the bearing. Standard electric motors are fitted with bearings of sufficient capacity for normal overhung or axial loads. If bearing capacity is in doubt consult your supplier with full application details.

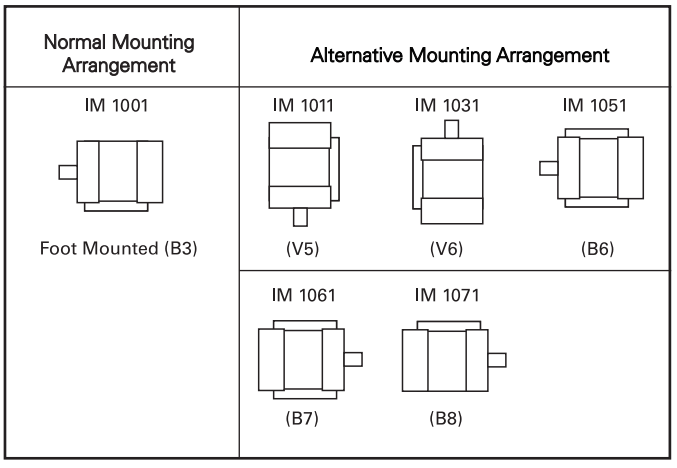
Mounting Positions

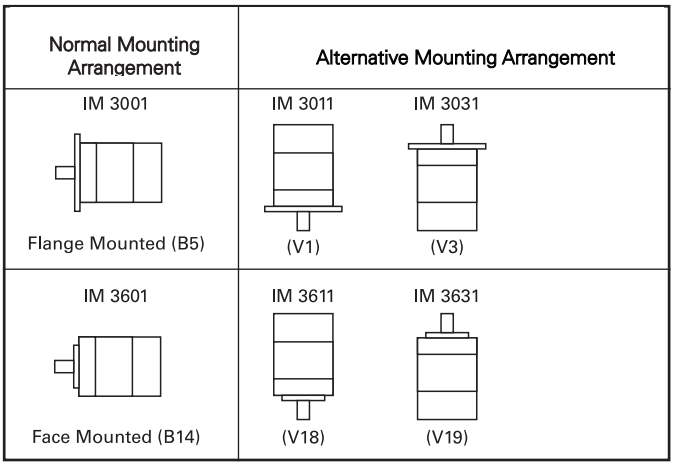
Although motors are normally stocked in either the B3 or B5 assembly format, it is in most cases possible to mount them in any of the alternative mounting arrangements shown in the motor mounting arrangements table without further modification, but it is essential that the actual mounting is specified at the time of order.

Fenner High Efficiency Motors Specification

- **Class F Insulation**
  Class F insulation with class B temperature rise.
- **IC 411 Cooling**
  Surface cooled to IC 411 according to IEC 34-6.
- **IP55 Protection**
  Achieves an IP55 classification according to IEC34-5.
- **Motor Frame**
  Manufactured in high strength aluminium up to 132 frame and high grade cast iron 160 frame and above.
- **Stator**
  Constructed from high grade electrical steel laminations.
- **Rotor**
  Dynamically balanced squirrel cage rotor is made from cast aluminium shrunk onto the shaft.
- **Bearings and Seals**
  Deep groove ball bearings with shields are normally used.
- **Warranty and Support**
  The comprehensive 12 month warranty is complemented by full technical support from your local authorised distributor.

Mounting Arrangements





Motor Mounting Arrangements
To IEC 34-7 code 1 and code 11 shown

Ordering Instructions

All Fenner electric motors are identified by a product code number. This consists of an eight digit code depending on the motor type, frame size, mounting, speed and power.

These codes should be included on all enquiries, correspondence and orders.

FIRST THREE DIGITS:
Motor material and efficiency

Code	Range	Material
170	Standard Efficiency	Aluminium
171	Standard Efficiency	Cast Iron
172	Premium Efficiency	Aluminium
173	Premium Efficiency	Cast Iron

FOURTH DIGIT:
Frame size

Code	Frame
A	56
B	63
C	71
D	80
E	90
F	100
G	112
H	132
J	160
K	180
L	200
M	225
N	250
P	280
R	315
S	355
T	400
U	450
V	500
W	560

FIFTH DIGIT:
Mounting type

Code	Mounting	Description
1	B3	Foot mounted
2	B5	Flange mounted
3	B35	Foot & Flange mounted
4	B14	Face mounted
5	B34	Foot & Face mounted
6	B14B	DIN standard Face mounted
7	B34B	Foot & DIN standard Face mounted

SIXTH DIGIT:
Nominal output speed

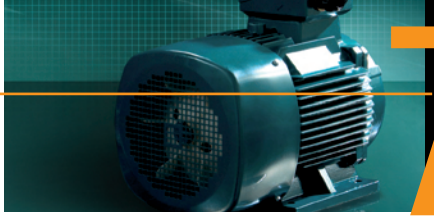
Code	Poles	Nominal Speed
2	2	3000
4	4	1500
6	6	1000
8	8	750
1	10	600
3	12	500

SEVENTH & EIGHTH DIGITS:
Rated output power

Code	kW	Code	kW
01	0.06	32	75
02	0.09	33	90
03	0.12	34	110
04	0.18	35	132
05	0.25	36	150
06	0.37	37	160
07	0.55	38	180
08	0.75	39	185
09	1.1	40	200
10	1.3	41	225
11	1.4	42	250
12	1.5	43	280
13	1.8	44	315
14	2.0	45	355
15	2.2	46	400
16	3.0	47	450
17	3.7	48	500
18	3.8	49	560
19	4.0	50	630
20	5.5	51	710
21	7.2	52	750
22	7.5	53	800
23	9.0	54	815
24	11.0	55	850
25	15.0	56	900
26	18.5	57	1000
27	22.0	58	1120
28	30.0	59	1200
29	37.0	60	1250
30	45.0	61	1400
31	55.0	–	–

NINTH DIGIT:
Options Code

Code	Description
A	Anti-condensation heaters
B	Ball bearing option on cast iron B3 motor
C	Rain canopy for V1 motor
T	Thermistors fitted (if not standard)
N	Failsafe brake and hand release
Z	Force vent motor
Q	Special motor



FM:P Series - 2 Pole - 3000 rpm

230/400V - 50Hz - up to 2.2kW
400/690V - 50Hz - up to 3.0kW
Fitted with thermistors as standard, NU bearings on all foot mounted cast iron motors

Frame Size EN600034 (IEC-DIN)

Frame Size	Product Code	Frame Material	Rated Output Power P_N kW	Rated Current 380V I_u A	Rated Current 400V I_N A	Rated Current 420V I_o A	Full Load Speed $n_{full\ load}$ rpm	Full Load Power Factor cos φ	Efficiency 100% η%	Efficiency 75% η%	Full Load Torque M_N Nm	Starting Current I_S/I_n A	Starting Torque M_S/M_n	Pull Out Torque M_K/M_N	Sound Pressure Level dB(A)	Moment of Inertia J=¼GD² kgm²	Weight Foot Mounted kg
# 56K	170A*202	Aluminium	0.09	0.32	0.30	0.29	2695	0.69	67.5	64.0	0.32	3.9	3.0	3.0	50	0.00005	3.2
# 56G	170A*203	Aluminium	0.12	0.40	0.38	0.36	2700	0.70	68.8	67.2	0.43	3.9	2.7	3.2	50	0.00006	3.4
# 63K	170B*204	Aluminium	0.18	0.59	0.56	0.53	2530	0.71	68.1	69.7	0.68	3.1	2.0	2.7	50	0.00016	3.9
# 63G	170B*205	Aluminium	0.25	0.78	0.74	0.70	2585	0.72	71.4	72.4	0.93	4.1	3.0	3.2	50	0.00018	4.4
# 71K	170C*206	Aluminium	0.37	1.02	0.97	0.92	2805	0.82	71.2	70.2	1.26	5.7	3.5	3.2	54	0.00033	6.2
# 71G	170C*207	Aluminium	0.55	1.39	1.32	1.26	2820	0.81	78.5	77.6	1.87	6.3	3.4	3.5	54	0.00046	6.3
# 80K	170D*208	Aluminium	0.75	1.88	1.79	1.70	2875	0.79	78.8	77.0	2.50	6.9	3.3	3.5	57	0.00085	8.3
• 80G	172D*209	Aluminium	1.1	2.36	2.24	2.13	2875	0.86	83.8	84.7	3.66	7.4	2.9	3.3	55	0.00130	9.9
• 90S	172E*212	Aluminium	1.5	3.25	3.09	2.94	2875	0.83	84.4	84.7	4.99	6.6	2.9	3.1	60	0.00185	13.7
• 90L	172E*215	Aluminium	2.2	4.45	4.23	4.03	2860	0.88	85.6	86.7	7.35	6.4	3.0	3.2	60	0.00215	15.4
• 100L	172F*216	Aluminium	3.0	5.83	5.54	5.28	2870	0.90	86.8	88.2	9.99	7.8	2.7	3.5	64	0.00425	22.5
• 112M	172G*219	Aluminium	4.0	7.69	7.31	6.96	2875	0.90	87.6	88.8	13.3	7.1	1.9	3.3	65	0.00650	28.5
• 132S	172H*220	Aluminium	5.5	10.5	10.0	9.52	2925	0.89	90.3	90.8	18.0	7.8	2.3	3.5	68	0.01456	44.0
• 132Sx	172H*222	Aluminium	7.5	14.0	13.3	12.7	2925	0.91	90.8	91.2	24.5	7.0	1.8	3.2	68	0.01565	49.0
• 160M	173J*224	Cast Iron	11.0	20.6	19.6	18.7	2935	0.90	92.0	92.1	35.8	8.1	2.1	3.2	74	0.05490	113
• 160Mx	173J*225	Cast Iron	15.0	27.2	25.8	24.6	2935	0.92	92.5	92.7	48.9	8.6	2.5	3.6	74	0.06350	123
• 160L	173J*226	Cast Iron	18.5	33.9	32.2	30.7	2940	0.90	92.6	92.7	60.1	8.5	2.6	3.5	74	0.07250	141
• 180M	173K*227	Cast Iron	22.0	39.4	37.4	35.6	2950	0.92	93.1	92.8	71.3	7.9	2.6	3.3	77	0.10250	180
• 200L	173L*228	Cast Iron	30.0	53.9	51.2	48.8	2950	0.91	93.7	93.7	97.2	8.1	2.4	3.2	79	0.17300	232
• 200Lx	173L*229	Cast Iron	37.0	66.2	62.9	59.9	2950	0.91	93.9	93.7	120	7.8	2.1	3.0	79	0.19500	246
• 225M	173M*230	Cast Iron	45.0	80.5	76.5	72.9	2965	0.91	94.4	94.2	145	8.0	2.5	3.4	79	0.32500	315
• 250M	173N*231	Cast Iron	55.0	98.7	93.8	89.3	2970	0.90	95.0	94.9	177	8.0	2.1	3.3	80	0.39500	390
• 280S	173P*232	Cast Iron	75.0	132	125	119	2975	0.91	95.0	94.9	241	7.4	2.2	3.2	81	0.68300	540
• 280M	173P*233	Cast Iron	90.0	157	149	142	2980	0.92	95.6	95.3	289	7.2	2.2	3.4	82	0.76500	570
• 315S	173R*234	Cast Iron	110	196	186	177	2975	0.90	95.0	94.9	354	6.5	1.8	2.9	84	1.55800	960
• 315M	173R*235	Cast Iron	132	231	219	209	2975	0.91	95.4	95.3	424	6.1	1.8	2.7	84	1.72600	1010
315L	173R*237	Cast Iron	160	278	264	251	2980	0.92	95.4	95.3	513	7.1	2.0	3.2	85	1.94100	1120
• 315Lx	173R*240	Cast Iron	200	345	328	312	2980	0.92	96.0	95.9	641	6.9	1.9	3.1	85	2.21200	1200
• 355M	173S*242	Cast Iron	250	440	418	398	2985	0.90	95.9	95.8	800	7.0	1.9	2.9	88	3.84900	1760
• 355L	173S*243	Cast Iron	280	491	466	444	2985	0.90	96.3	96.2	896	5.6	1.4	2.4	88	3.94900	1940
• 355Lx	173S*244	Cast Iron	315	546	519	494	2985	0.91	96.4	96.3	1008	7.6	1.7	3.3	88	3.99500	2000
400M	173S*245	Cast Iron	355	624	593	565	2990	0.90	96.1	96.0	1134	7.7	1.4	2.2	88	7.80000	2950
400Mx	173T*246	Cast Iron	400	702	667	635	2990	0.90	96.2	96.1	1278	7.8	1.5	2.7	92	8.30000	3200
400My	173T*247	Cast Iron	450	789	750	714	2990	0.90	96.3	96.2	1438	7.7	1.3	2.5	92	8.95000	3340
400L	173T*248	Cast Iron	500	866	823	784	2990	0.91	96.4	96.3	1597	7.5	1.3	2.6	92	9.95000	3450

* Replace * in Part number with desired mounting configuration (1=B3 / 2=B5 / 3=B35 / 4=B14 / 5=B34)
• Indicates that this motor is ECA compliant # Indicates no thermistors fitted
Motors in the range of 1.1 - 90kW exceed CEMEP EFF1 minimum efficiency levels
All technical details are based on 400V/50Hz
Motors from 110 to 400kW exceed the minimum efficiency levels stipulated by WIMES specifications

Where standard ball bearings are required on the drive end add B to the end of the product reference.

FM:P Series - 4 Pole - 1500 rpm

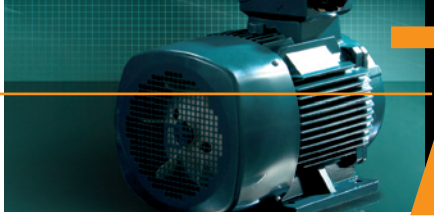
230/400V - 50Hz - up to 2.2kW
400/690V - 50Hz - up to 3.0kW
Fitted with thermistors as standard, NU bearings on all foot mounted cast iron motors

Frame Size EN600034 (IEC-DIN)

Frame Size	Product Code	Frame Material	Rated Output Power P_N kW	Rated Current 380V I_u A	Rated Current 400V I_N A	Rated Current 420V I_o A	Full Load Speed $n_{full\ load}$ rpm	Full Load Power Factor cos φ	Efficiency 100% η%	Efficiency 75% η%	Full Load Torque M_N Nm	Starting Current I_S/I_n A	Starting Torque M_S/M_n	Pull Out Torque M_K/M_N	Sound Pressure Level dB(A)	Moment of Inertia J=¼GD² kgm²	Weight Foot Mounted kg
# 56G	170A*402	Aluminium	0.09	0.40	0.38	0.36	1340	0.63	59.1	55.8	0.65	3.0	2.6	3.2	45	0.00010	3.4
# 63K	170B*403	Aluminium	0.12	0.55	0.52	0.50	1355	0.64	57.1	53.1	0.85	2.9	2.2	3.0	45	0.00032	3.5
# 63G	170B*404	Aluminium	0.18	0.76	0.72	0.69	1215	0.69	57.3	53.6	1.42	2.7	3.0	2.6	45	0.00039	4.0
# 71 K	170C*405	Aluminium	0.25	0.79	0.75	0.71	1400	0.73	69.4	67.3	1.71	4.6	2.8	3.1	46	0.00063	6.1
# 71G	170C*406	Aluminium	0.37	1.07	1.02	0.97	1395	0.73	71.1	70.5	2.54	5.0	3.2	3.4	46	0.00071	6.7
# 80K	170D*407	Aluminium	0.55	1.53	1.45	1.38	1400	0.74	76.5	75.2	3.76	4.8	2.6	2.9	47	0.00131	8.9
# 80G	170D*408	Aluminium	0.75	2.12	2.01	1.91	1370	0.73	75.2	72.6	5.23	5.2	2.5	2.7	47	0.00148	9.6
• 90S	172E*409	Aluminium	1.1	2.51	2.38	2.27	1420	0.80	83.8	84.3	7.40	5.5	2.5	2.5	49	0.00232	13.8
• 90L	172E*412	Aluminium	1.5	3.36	3.19	3.04	1420	0.80	85.1	85.7	10.1	6.4	1.9	3.0	49	0.00312	16.5
• 100L	172F*415	Aluminium	2.2	4.77	4.53	4.31	1440	0.81	86.5	86.9	14.6	6.4	2.1	2.9	48	0.00779	21.5
• 100Lx	172F*416	Aluminium	3.0	6.47	6.15	5.86	1460	0.81	87.7	87.7	19.6	7.2	2.7	3.1	49	0.00865	25.3
• 112M	172G*419	Aluminium	4.0	8.11	7.7	7.33	1445	0.85	88.7	89.3	26.4	7.0	2.2	3.1	49	0.01185	32.0
• 132S	172H*420	Aluminium	5.5	11.2	10.6	10.1	1455	0.84	89.2	89.9	36.1	7.6	2.0	3.3	52	0.03301	47.0
• 132M	172H*422	Aluminium	7.5	14.6	13.9	13.2	1460	0.87	90.1	90.8	49.1	8.4	2.2	3.1	54	0.04121	58.0
• 160M	173J*424	Cast Iron	11.0	21.4	20.3	19.3	1460	0.86	91.9	92.3	72.0	7.4	1.9	2.8	54	0.10520	125
• 160L	173J*425	Cast Iron	15.0	28.6	27.2	25.9	1460	0.87	92.6	92.7	98.2	7.6	2.0	2.9	59	0.11230	146
• 180M	173K*426	Cast Iron	18.5	35.1	33.3	31.7	1470	0.87	93.2	93.3	121	7.2	2.0	2.9	59	0.16590	179
• 180L	173K*427	Cast Iron	22.0	41.6	39.5	37.6	1470	0.87	93.4	93.7	143	7.1	1.9	2.9	61	0.18650	195
• 200L	173L*428	Cast Iron	30.0	55.5	52.7	50.2	1470	0.88	93.9	94.1	195	7.2	2.2	3.0	62	0.30200	248
• 225S	173M*429	Cast Iron	37.0	69.2	65.7	62.6	1480	0.87	94.3	94.4	239	6.9	2.0	2.9	63	0.53800	304
• 225M	173M*430	Cast Iron	45.0	83.5	79.3	75.5	1480	0.87	94.6	94.8	291	7.3	2.2	3.0	67	0.63500	337
• 250M	173N*431	Cast Iron	55.0	101	95.6	91.0	1480	0.88	94.9	95	355	7.5	2.3	3.1	67	0.78500	395
• 280S	173P*432	Cast Iron	75.0	135	128	122	1485	0.89	95.4	95.4	483	6.6	1.9	3.0	69	1.55200	600
• 280M	173P*433	Cast Iron	90.0	161	153	146	1485	0.89	95.6	95.7	579	7.3	2.3	3.1	72	1.86500	660
• 315S	173R*434	Cast Iron	110	202	192	183	1485	0.87	95.1	95	708	6.0	1.8	2.7	72	3.48000	960
• 315M	173R*435	Cast Iron	132	241	229	218	1485	0.89	95.5	95.4	849	5.9	1.8	2.6	75	3.67800	1040
315L	173R*437	Cast Iron	160	279	265	252	1485	0.91	95.7	95.6	1029	5.8	1.8	2.7	75	4.47200	1140
• 315Lx	173R*440	Cast Iron	200	358	340	324	1485	0.89	95.8	95.7	1287	6.2	2.0	2.8	77	4.85600	1250
• 355M	173S*442	Cast Iron	250	440	418	398	1490	0.90	96.0	95.9	1603	6.4	2.7	3.0	77	7.36400	1795
• 355L	173S*443	Cast Iron	280	497	472	450	1490	0.89	96.3	96.2	1795	6.9	2.5	3.1	77	8.01400	1920
• 355Lx	173S*444	Cast Iron	315	552	524	499	1490	0.90	96.4	96.3	2019	7.7	2.2	3.1	81	9.10000	2050
400M	173S*445	Cast Iron	355	709	674	642	1490	0.89	96.3	96.2	2564	6.6	1.2	2.7	81	15.2500	3150
• 400Mx	173T*446	Cast Iron	400	787	748	712	1490	0.90	96.5	96.4	2885	6.8	1.3	3.0	84	15.4500	3300
400L	173T*447	Cast Iron	450	883	839	799	1490	0.89	96.7	96.6	3205	6.4	1.1	2.7	84	18.7500	3460
400Lx	173T*448	Cast Iron	500	988	939	894	1490	0.89	96.8	96.7	3590	7.6	1.6	3.5	86	19.8500	3580

* Replace * in Part number with desired mounting configuration (1=B3 / 2=B5 / 3=B35 / 4=B14 / 5=B34)
• Indicates that this motor is ECA compliant # Indicates no thermistors fitted
Motors in the range of 1.1 - 90kW exceed CEMEP EFF1 minimum efficiency levels
All technical details are based on 400V/50Hz
Motors from 110 to 400kW exceed the minimum efficiency levels stipulated by WIMES specifications

Where standard ball bearings are required on the drive end add B to the end of the product reference.



FM:P Series - 6 Pole - 1000 rpm

230/400V - 50Hz - up to 2.2kW
400/690V - 50Hz - up to 3.0kW
Fitted with thermistors as standard, NU bearings on all foot mounted cast iron motors

Frame Size EN600034 (IEC-DIN)

Frame Size	Product Code	Frame Material	Rated Output Power P_N kW	Rated Current 380V I_u A	Rated Current 400V I_N A	Rated Current 420V I_o A	Full Load Speed $n_{full\ load}$ rpm	Full Load Power Factor cos φ	Efficiency 100% η%	Efficiency 75% η%	Full Load Torque M_N Nm	Starting Current I_S/I_n A	Starting Torque M_S/M_n	Pull Out Torque M_K/M_N	Sound Pressure Level dB(A)	Moment of Inertia J=¼GD² kgm²	Weight Foot Mounted kg
# 71K	170C*604	Aluminium	0.18	0.65	0.62	0.59	915	0.67	65.4	63.9	1.88	3.8	2.3	3.1	45	0.00091	6.4
# 71G	170C*605	Aluminium	0.25	0.94	0.89	0.85	915	0.66	64.3	60.8	2.61	3.6	2.6	4.3	45	0.00110	6.5
# 80K	170D*606	Aluminium	0.37	1.28	1.22	1.16	915	0.71	65.7	63.5	3.87	3.6	2.1	2.8	46	0.00152	8.5
# 80G	170D*607	Aluminium	0.55	1.84	1.75	1.67	895	0.72	66.5	66.3	5.87	3.4	2.1	2.6	46	0.00194	9.2
# 90S	170E*608	Aluminium	0.75	2.47	2.35	2.24	920	0.69	70.0	68.9	7.79	3.9	2.3	2.7	48	0.00297	12.0
# 90L	170E*609	Aluminium	1.1	3.32	3.15	3.00	915	0.71	73.8	73.7	11.5	4.1	2.4	2.8	48	0.00392	14.0
# 100L	170F*612	Aluminium	1.5	4.15	3.94	3.75	925	0.72	78.4	79.0	15.5	4.8	2.3	2.7	52	0.00745	19.5
# 112M	170G*615	Aluminium	2.2	5.51	5.23	4.98	940	0.77	80.9	81.5	22.4	5.1	1.9	2.6	54	0.01324	28.0
# 132S	170H*616	Aluminium	3.0	7.51	7.13	6.79	960	0.76	81.8	81.2	29.9	6.2	1.9	3.4	57	0.02821	38.0
# 132M	170H*619	Aluminium	4.0	9.41	8.94	8.51	965	0.78	84.5	84.2	39.6	6.9	1.8	3.7	57	0.03716	45.0
# 132Mx	170H*620	Aluminium	5.5	12.9	12.2	11.6	965	0.78	85.0	84.5	54.4	7.4	1.9	3.8	57	0.04889	54.0
• 160M	173J*622	Cast Iron	7.5	16.3	15.5	14.8	970	0.79	89.0	88.7	73.9	6.6	1.7	3.0	59	0.12120	114
• 160L	173J*624	Cast Iron	11.0	22.6	21.5	20.5	970	0.83	89.0	88.7	109	6.6	1.7	2.7	59	0.14520	135
• 180L	173K*625	Cast Iron	15.0	30.4	28.9	27.5	975	0.83	90.0	89.7	147	6.9	2.4	2.7	59	0.22850	185
• 200L	173L*626	Cast Iron	18.5	37.3	35.4	33.7	980	0.84	90.0	89.7	181	6.8	2.1	2.8	63	0.34200	252
• 200Lx	173L*627	Cast Iron	22.0	43.2	41.0	39.0	980	0.85	91.5	91.2	215	6.8	1.9	2.7	63	0.38600	310
• 225M	173M*628	Cast Iron	30.0	58.9	56.0	53.3	980	0.84	92.0	91.7	293	6.7	1.8	2.5	63	0.62500	303
• 250M	173N*629	Cast Iron	37.0	68.7	65.3	62.2	980	0.88	93.0	92.7	361	6.9	2.0	2.8	64	0.98500	405
• 280S	173P*630	Cast Iron	45.0	83.4	79.2	75.4	985	0.88	93.4	93.1	437	6.6	1.8	2.6	66	1.73200	465
• 280M	173P*631	Cast Iron	55.0	100	95.2	90.7	985	0.89	93.8	93.5	534	6.7	1.9	2.6	66	1.96500	540
• 315S	173R*632	Cast Iron	75.0	141	134	128	985	0.86	94.3	94.0	728	6.2	1.6	2.5	68	3.72300	900
• 315M	173R*633	Cast Iron	90.0	172	163	155	985	0.85	94.5	94.2	873	6.3	1.8	2.5	68	4.52600	980
• 315L	173R*634	Cast Iron	110	203	193	184	985	0.87	94.8	94.5	1067	6.1	1.7	2.4	69	5.15700	1160
• 315Lx	173R*635	Cast Iron	132	242	230	219	985	0.87	95.0	94.7	1280	6.2	1.8	2.4	69	5.68500	1210
• 355M	173S*637	Cast Iron	160	283	269	256	990	0.90	95.5	95.2	1544	7.3	2.0	3.1	70	9.57000	1770
• 355Mx	173S*638	Cast Iron	180	315	299	285	990	0.91	95.6	95.3	1737	7.2	1.5	2.9	71	9.89000	1870
• 355My	173S*640	Cast Iron	200	354	336	320	990	0.90	95.5	95.2	1930	7.2	1.8	3.0	71	11.1000	1900
355L	173S*641	Cast Iron	225	397	377	359	990	0.90	95.7	95.4	2171	7.0	1.5	2.9	71	11.3000	1980
• 355Lx	173S*642	Cast Iron	250	441	419	399	990	0.90	95.9	95.6	2412	7.3	1.7	3.0	71	11.8000	2150
• 355Ly	173S*643	Cast Iron	280	504	479	456	990	0.88	96.0	95.7	2702	6.8	2.0	2.8	71	12.9000	2200
• 400M	173T*644	Cast Iron	315	566	538	512	990	0.88	96.1	95.8	3039	6.8	1.2	2.8	74	21.5500	3560
400Mx	173T*645	Cast Iron	355	637	605	576	995	0.88	96.2	95.9	3408	6.9	1.0	2.9	74	23.8500	3700
400L	173T*646	Cast Iron	400	718	682	650	995	0.88	96.3	96.0	3840	7.5	1.3	3.1	74	26.7500	3830
400Lx	173T*647	Cast Iron	450	806	766	730	995	0.88	96.4	96.1	4320	6.5	0.9	2.9	74	29.1500	3900
400Ly	173T*648	Cast Iron	500	895	850	810	995	0.88	96.5	96.2	4799	7.6	1.5	3.4	74	31.7500	3995

* Replace * in Part number with desired mounting configuration (1=B3 / 2=B5 / 3=B35 / 4=B14 / 5=B34)
• Indicates that this motor is ECA compliant # Indicates no thermistors fitted
Motors from 5.5 to 315kW exceed efficiency levels stipulated by WIMES specifications
All technical details are based on 400V/50Hz

Where standard ball bearings are required on the drive end add B to the end of the product reference.

Performance Data - 8 Pole

FM:P Series - 8 Pole - 750 rpm

230/400V - 50Hz - up to 2.2kW
400/690V - 50Hz - up to 3.0kW
Fitted with thermistors as standard, NU bearings on all foot mounted cast iron motors

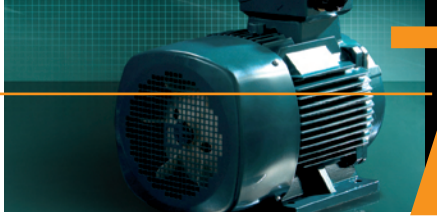
Frame Size EN600034 (IEC-DIN)

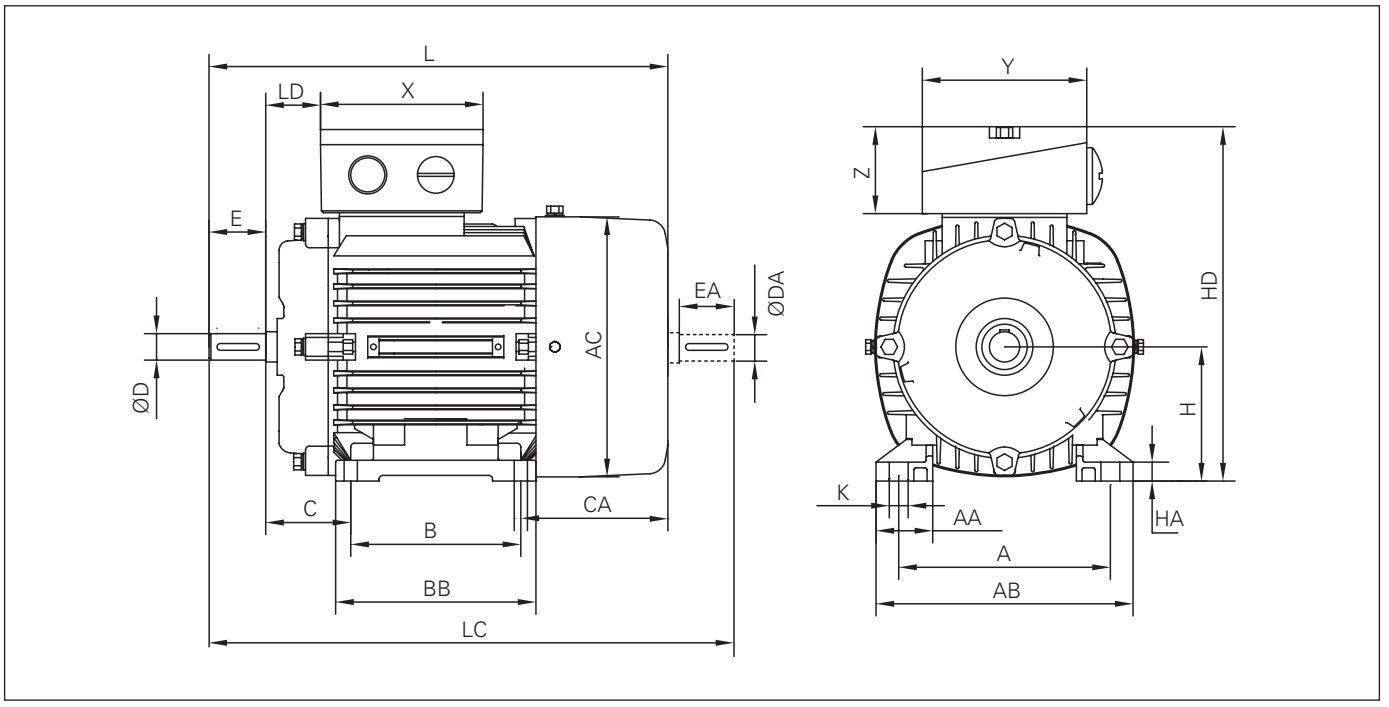
Frame Size	Product Code	Frame Material	Rated Output Power P_N kW	Rated Current 380V I_u A	Rated Current 400V I_N A	Rated Current 420V I_o A	Full Load Speed $n_{full\ load}$ rpm	Full Load Power Factor cos φ	Efficiency 100% η%	Efficiency 75% η%	Full Load Torque M_N Nm	Starting Current I_S/I_n A	Starting Torque M_S/M_n	Pull Out Torque M_K/M_N	Sound Pressure Level dB(A)	Moment of Inertia J=¼GD² kgm²	Weight Foot Mounted kg
# 80K	170D*804	Aluminium	0.18	0.91	0.86	0.82	700	0.58	56.9	52.8	2.46	3.0	2.6	3.2	42	0.00173	8.3
# 80G	170D*805	Aluminium	0.25	1.17	1.11	1.06	695	0.59	59.6	55.8	3.44	3.1	2.5	3.1	42	0.00204	9.0
# 90S	170E*806	Aluminium	0.37	1.60	1.52	1.45	695	0.58	64.5	61.1	5.09	3.4	2.6	3.1	44	0.00343	12.0
# 90L	170E*807	Aluminium	0.55	2.27	2.16	2.06	690	0.59	66.1	63.7	7.62	3.4	2.3	3.1	44	0.00425	15.0
# 100L	170F*808	Aluminium	0.75	2.53	2.40	2.29	700	0.67	70.4	67.3	10.2	3.9	2.3	2.9	45	0.00598	19.0
# 100Lx	170F*809	Aluminium	1.1	3.24	3.08	2.93	705	0.71	75.3	73.5	14.9	4.0	2.1	2.6	45	0.00745	22.0
# 112M	170G*812	Aluminium	1.5	4.57	4.34	4.13	700	0.68	76.0	75.1	20.5	4.2	2.2	2.7	48	0.01326	29.0
# 132S	170H*815	Aluminium	2.2	5.80	5.51	5.25	705	0.74	80.2	80.5	29.8	5.0	2.1	2.7	50	0.02903	39.0
# 132M	170H*816	Aluminium	3.0	7.38	7.01	6.68	710	0.77	82.3	83.3	40.4	5.2	1.9	2.8	51	0.03828	45.0
160M	173J*819	Cast Iron	4.0	9.37	8.90	8.48	725	0.76	85.0	84.4	52.7	5.2	1.8	2.6	54	0.08890	106
• 160Mx	173J*820	Cast Iron	5.5	13.1	12.4	11.8	730	0.75	86.0	85.4	72.0	6.4	2.3	3.2	54	0.09580	128
• 160L	173J*822	Cast Iron	7.5	16.5	15.7	15.0	730	0.78	89.0	88.3	98.2	6.1	2.0	2.8	55	0.10210	141
• 180L	173K*824	Cast Iron	11.0	24.4	23.2	22.1	725	0.77	89.0	88.3	145	6.6	2.2	2.6	57	0.22750	185
• 200L	173L*825	Cast Iron	15.0	33.4	31.7	30.2	735	0.76	90.0	89.3	195	6.5	2.0	2.6	58	0.39500	250
• 225S	173M*826	Cast Iron	18.5	41.1	39.0	37.1	730	0.76	90.0	89.3	243	6.9	2.1	2.7	60	0.60300	396
• 225M	173M*827	Cast Iron	22.0	45.8	43.5	41.4	730	0.80	91.5	90.8	288	7.1	2.0	2.7	60	0.69800	346
• 250M	173N*828	Cast Iron	30.0	61.6	58.5	55.7	735	0.81	92.0	91.3	390	6.1	1.9	2.7	62	0.98300	420
• 280S	173P*829	Cast Iron	37.0	74.2	70.5	67.1	735	0.81	93.0	92.3	481	5.8	1.9	2.4	63	1.85700	475
• 280M	173P*830	Cast Iron	45.0	91.7	87.1	83.0	735	0.80	93.4	92.7	585	6.0	2.0	2.5	63	1.99800	555
• 315S	173R*831	Cast Iron	55.0	111	105	100	740	0.81	93.8	93.1	710	5.3	1.5	2.4	64	4.95900	945
• 315M	173R*832	Cast Iron	75.0	147	140	133	740	0.82	94.3	93.6	968	6.3	1.8	2.5	64	5.82500	1025
• 315L	173R*833	Cast Iron	90.0	177	168	160	740	0.82	94.5	93.8	1162	6.4	1.9	2.6	65	6.75300	1100
• 315Lx	173R*834	Cast Iron	110	215	204	194	740	0.82	94.8	94.1	1420	6.1	1.8	2.5	65	7.35200	1200
• 355M	173S*835	Cast Iron	132	251	238	227	745	0.84	95.0	94.3	1693	6.8	1.7	2.9	70	12.9400	1890
355Mx	173S*837	Cast Iron	160	297	282	269	745	0.86	95.5	94.8	2052	5.8	1.4	2.6	70	13.3200	1970
• 355L	173S*838	Cast Iron	180	337	320	305	745	0.85	95.6	94.9	2308	6.2	1.5	2.8	71	14.0000	2040
• 355Lx	173S*840	Cast Iron	200	393	373	355	745	0.81	95.6	94.9	2564	6.1	1.9	2.4	71	14.9000	2150
• 400M	173T*842	Cast Iron	250	483	459	437	745	0.82	95.9	95.2	3205	7.1	1.2	3.2	71	27.7500	3000
• 400Mx	173T*843	Cast Iron	280	535	508	484	745	0.83	96.0	95.3	3590	6.7	1.2	3.1	71	29.2500	3100
• 400L	173T*844	Cast Iron	315	608	578	550	745	0.82	96.0	95.3	4038	6.7	1.1	3.0	73	30.9500	3250
400Lx	173T*845	Cast Iron	355	676	642	611	745	0.83	96.2	95.5	4551	6.0	1.0	2.8	73	32.7500	3400
400Ly	173T*846	Cast Iron	400	761	723	689	745	0.83	96.3	95.6	5128	5.9	0.9	2.8	73	34.5500	3600

* Replace * in Part number with desired mounting configuration (1=B3 / 2=B5 / 3=B35 / 4=B14 / 5=B34)
• Indicates that this motor is ECA compliant # Indicates no thermistors fitted
Motors from 5.5 to 315kW exceed the efficiency levels stipulated by WIMES specifications
All technical details are based on 400V/50Hz

Where standard ball bearings are required on the drive end add B to the end of the product reference.

Aluminium Series Dimensions: B3 Mounting





Fenner FM:P Aluminium Series IM B3 Mounting

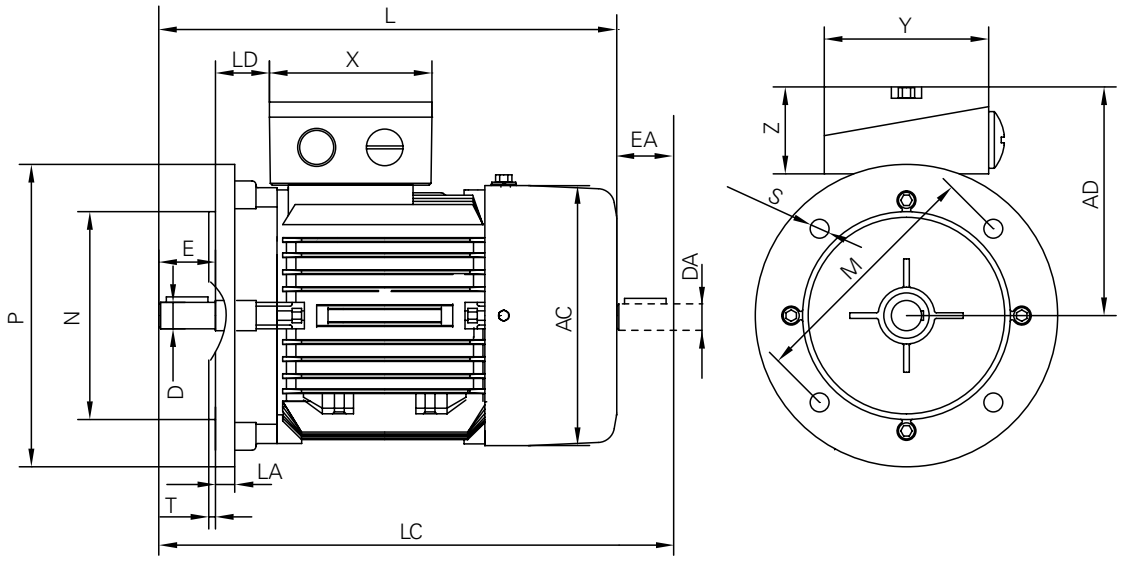
EN600034 (IEC-DIN)

Type	Poles	A	AA	AB	AC	B	BB	C	CA	D	DA	E	EA	H	HA	HD	K	L	LC	LD	Eye Bolt	X	Y	Z
56K/G	2 - 4	90	25	110	120	71	90	36	70	9 j6	9 j6	20	20	56	8	158	6	192	217	62	None	87	87	48
63K/G	2 - 4	100	30	120	120	80	105	40	77	11 j6	11 j6	23	23	63	8	161	7	215	243	62	None	87	87	48
71K/G	2 - 6	112	30	136	148	90	106	45	77	14 j6	14 j6	30	30	71	10	197	7	240	275	72	None	87	87	48
80K/G	2 - 8	125	41	150	170	100	130	50	110	19 j6	19 j6	40	40	80	10	222	10	295	340	81.5	None	105	105	65
90S	2 - 8	140	46	168	190	100	165	56	86	24 j6	24 j6	50	50	90	12	250	10	315	370	81.5	None	105	105	65
90L	2 - 8	140	46	168	190	125	165	56	111	24 j6	24 j6	50	50	90	12	250	10	340	395	81.5	None	105	105	65
100L/Lx	2 - 8	160	45	190	197	140	176	63	127	28 j6	28 j6	60	60	100	12	265	12	385	450	96,5	M8	105	105	65
112M	2 - 8	190	53	220	230	140	180	70	130	28 j6	28 j6	60	60	112	12	300	12	395	460	91	M8	120	120	75
132S/Sx	2 - 8	216	60	252	260	140	224	89	132	38 k6	38 k6	80	80	132	15	340	12	472	557	108	M8	120	125	75
132M/Mx	2 - 8	216	60	252	260	178	224	89	170	38 k6	38 k6	80	80	132	15	340	12	510	595	108	M8	120	120	75

Dimensions in mm
For weights refer to selection tables on pages 165-168

Type	Cable Entry
56K/G	2 x M20 x 1.5
63K/G	2 x M20 x 1.5
71K/G	2 x M20 x 1.5
80K/G	2 x M25 x 1.5
90S	2 x M25 x 1.5
90L	2 x M20 x 1.5
100L/Lx	2 x M25 x 1.5
112M	2 x M32 x 1.5
132S/Sx	2 x M32 x 1.5
132M/Mx	2 x M32 x 1.5

Aluminium Series Dimensions: B5 Mounting



Fenner FM:P Aluminium Series IM B5 Mounting — EN600034 (IEC-DIN)

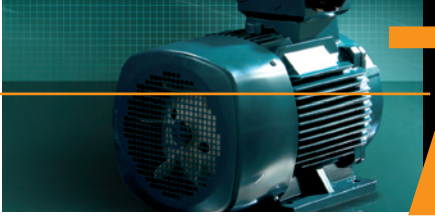
Type	Poles	AC	AD	D	DA	E	EA	L	LA	LC	LD	M	N	P	S	T	X	Y	Z
56K/G	2 - 4	120	98	9 j6	9j6	20	20	192	9	217	62	100	80	120	4 x 7	3.0	87	87	48
63K/G	2 - 4	120	98	11 j6	11 j6	23	23	215	9	243	62	115	95	140	4 x 10	3.0	87	87	48
71K/G	2 - 6	148	126	14 j6	14 j6	30	30	240	10	275	72	130	110	160	4 x 10	3.5	87	87	48
80K/G	2 - 8	170	142	19 j6	19 j6	40	40	295	12	340	81.5	165	130	200	4 x 12	3.5	105	105	65
90S	2 - 8	190	160	24 j6	24 j6	50	50	315	12	370	81.5	165	130	200	4 x 12	3.5	105	105	65
90L	2 - 8	190	160	24 j6	24 j6	50	50	340	12	395	81.5	165	130	200	4 x 12	3.5	105	105	65
100L/Lx	2 - 8	197	165	28 j6	28 j6	60	60	385	13	450	96,5	215	180	250	4 x 15	4.0	105	105	65
112M	2 - 8	230	188	28 j6	28 j6	60	60	395	14	460	91	215	180	250	4 x 15	4.0	120	125	75
132S/Sx	2 - 8	260	208	38 k6	38 k6	80	80	472	14	557	108	265	230	300	4 x 15	4.0	120	125	75
132M/Mx	2 - 8	260	208	38 k6	38 k6	80	80	510	14	595	108	265	230	300	4 x 15	4.0	120	125	75

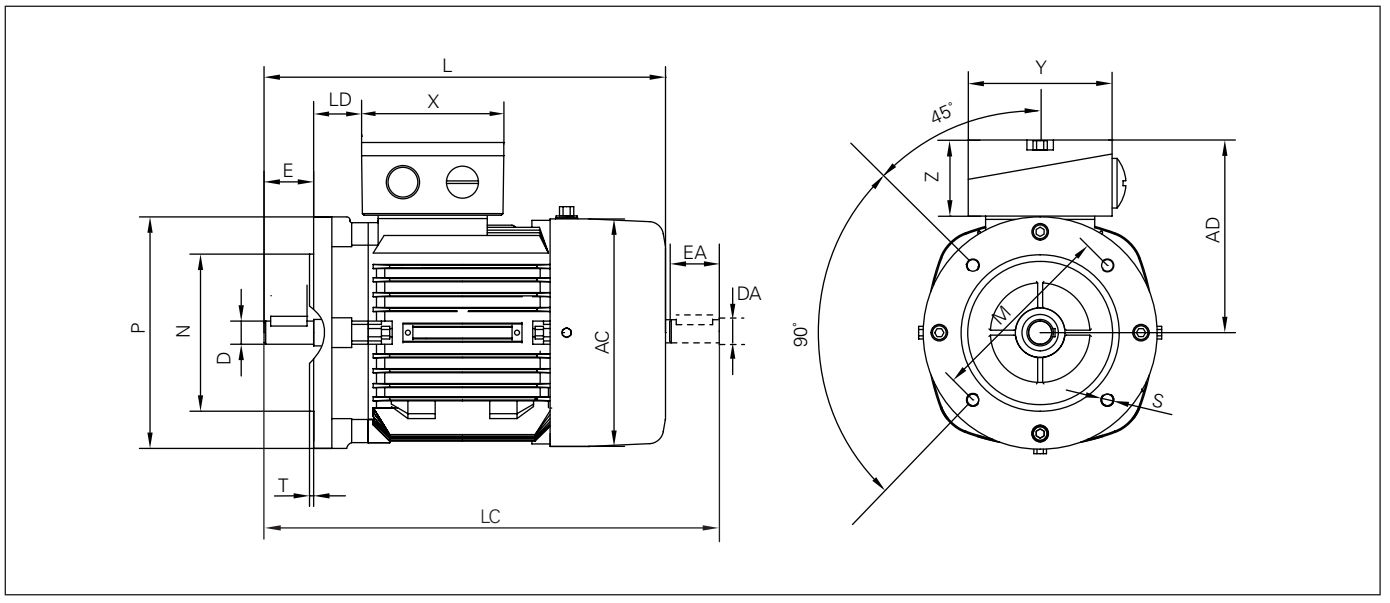
Dimensions in mm

For weights refer to selection tables on pages 165-168

Type	Cable Entry
56K/G	2 x M20 x 1.5
63K/G	2 x M20 x 1.5
71K/G	2 x M20 x 1.5
80K/G	2 x M25 x 1.5
90S	2 x M25 x 1.5
90L	2 x M20 x 1.5
100L/Lx	2 x M25 x 1.5
112M	2 x M32 x 1.5
132S/Sx	2 x M32 x 1.5
132M/Mx	2 x M32 x 1.5

Aluminium Series Dimensions: B14 Mounting





Fenner FM:P Aluminium Series IM B14 Mounting

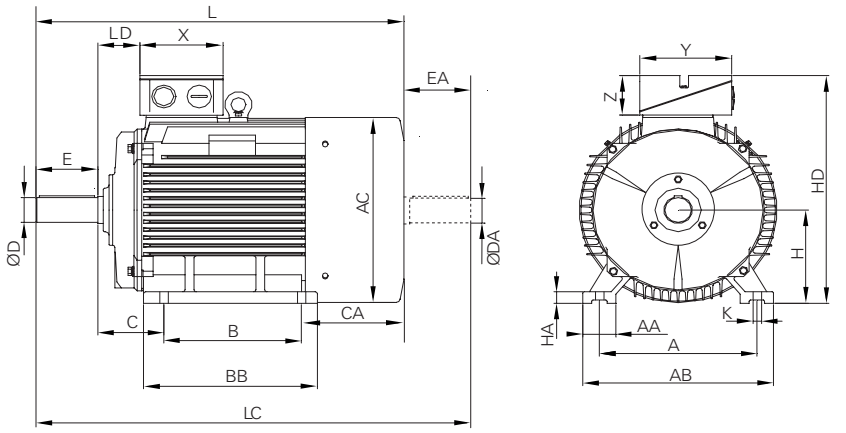
EN600034 (IEC-DIN)

Frame	AC	AD	D	DA	E	EA	L	LC	M	N	P	S	T	LD	X	Y	Z
56K/G	120	98	9 j6	9j6	20	20	192	62	65	50	80	4 x M5	2.5	18.5	87	87	48
63K/G	120	98	11 j6	11j6	23	23	215	62	75	60	90	4 x M5	2.5	18.5	87	87	48
71K/G	148	126	14 j6	14j6	30	30	240	72	85	70	105	4 x M6	2.5	28.5	87	87	48
80K/G	170	142	19 j6	19j6	40	40	295	81.5	100	80	120	4 x M6	3.0	29	105	105	65
90S	190	160	24 j6	24j6	50	50	315	81.5	115	95	140	4 x M8	3.0	29	105	105	65
90L	190	160	24 j6	24j6	50	50	340	81.5	115	95	140	4 x M8	3.0	29	105	105	65
100L/Lx	197	165	28 j6	28j6	60	60	385	95.6	130	110	160	4 x M8	3.5	44	105	105	65
112M	230	188	28 j6	28j6	60	60	395	91	130	110	160	4 x M8	3.5	31	120	125	75
132S/Sx	260	208	38 k6	38k6	80	80	472	108	165	130	200	4 x M10	3.5	48	120	125	75
132M/Mx	260	208	38 k6	38k6	80	80	510	108	165	130	200	4 x M10	3.5	48	120	125	75

Dimensions in mm
For weights refer to selection tables on pages 165-168

Type	Cable Entry
56K/G	2 x M20 x 1.5
63K/G	2 x M20 x 1.5
71K/G	2 x M20 x 1.5
80K/G	2 x M25 x 1.5
90S	2 x M25 x 1.5
90L	2 x M20 x 1.5
100L/Lx	2 x M25 x 1.5
112M	2 x M32 x 1.5
132S/Sx	2 x M32 x 1.5
132M/Mx	2 x M32 x 1.5

Cast Iron Series Dimensions: B3 Mounting



Fenner FM:P Cast Iron Series 160 - 400 IM B3 Mounting — EN600034 (IEC-DIN)

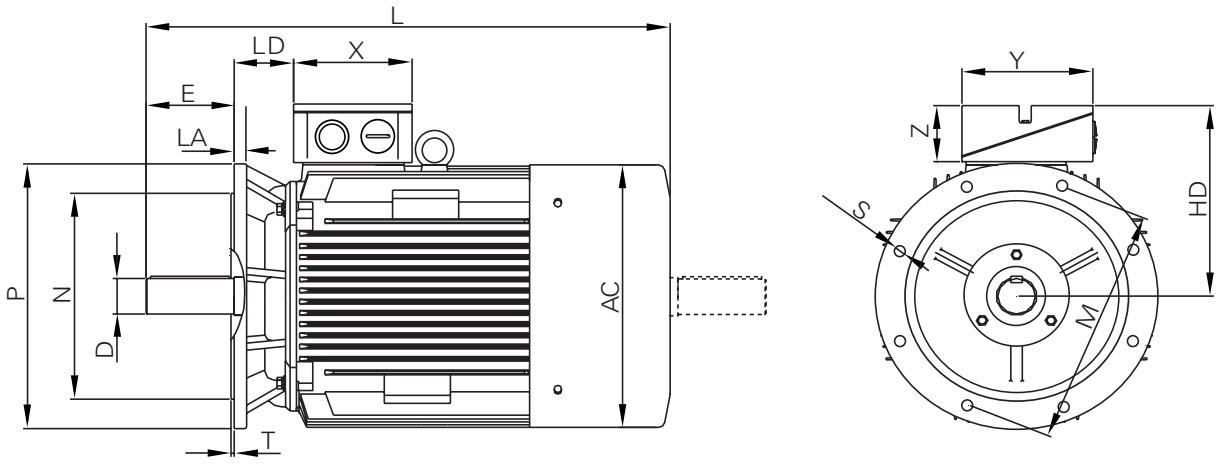
Frame	A	AA	AB	AC	B	BB	C	CA	D	DA	E	EA	H	HA	HD	K	L	LC	LD	X	Y	Z	Cable Entry
160M	254	65	314	314	210	260	108	177	42 k6	42 k6	110	110	160	20	412	15	600	713	71.5	147	128	83	2 x M40 x 1.5
160L	254	65	314	314	254	300	108	193	42 k6	42 k6	110	110	160	20	412	15	660	753	71.5	147	128	83	2 x M40 x 1.5
180M	279	70	350	358	241	310	121	221	48 k6	48 k6	110	110	180	22	453	15	688	801	86.5	147	128	83	2 x M40 x 1.5
180L	279	70	350	358	279	350	121	223	48 k6	48 k6	110	110	180	22	453	15	728	841	86.5	147	128	83	2 x M40 x 1.5
200L (2P)	318	70	390	397	305	369	133	217	55 m6	48 k6	110	110	200	25	505	19	760	873	112	188	208	95	2 x M50 x 1.5
200L	318	70	390	397	305	369	133	217	55 m6	55 m6	110	110	200	25	505	19	760	873	112	188	208	95	2 x M50 x 1.5
225S	356	75	431	446	286	368	149	237	60 m6	55 m6	140	110	225	28	549	19	807	920	91	188	208	95	2 x M50 x 1.5
225M (2P)	356	75	431	446	311	393	149	237	55 m6	48 k6	110	110	225	28	549	19	802	915	112	188	208	95	2 x M50 x 1.5
225M	356	75	431	446	311	393	149	237	60 m6	55 m6	140	110	225	28	549	19	832	945	91	188	208	95	2 x M50 x 1.5
250M (2P)	406	80	484	485	349	445	168	258	60 m6	55 m6	140	110	250	30	617	24	910	1023	98	216	252	116	2 x M63 x 1.5
250M	406	80	484	485	349	445	168	258	65 m6	55 m6	140	110	250	30	617	24	910	1023	98	216	252	116	2 x M63 x 1.5
280S (2P)	457	85	542	547	368	490	190	281	65 m6	55 m6	140	110	280	35	674	24	974	1090	107	216	252	116	2 x M63 x 1.5
280S	457	85	542	547	368	490	190	289	75 m6	60 m6	140	140	280	35	674	24	982	1127	107	216	252	116	2 x M63 x 1.5
280M (2P)	457	85	542	547	419	540	190	291	65 m6	55 m6	140	110	280	35	674	24	1035	1150	107	216	252	116	2 x M63 x 1.5
280M	457	85	542	547	419	540	190	291	75 m6	60 m6	140	140	280	35	674	24	1035	1180	107	216	252	116	2 x M63 x 1.5
315S (2P)	508	120	628	620	406	570	216	433	65 m6	65 m6	140	140	315	49	870	28	1190	1335	147	300	358	197	2 x M63 x 1.5
315S	508	120	628	620	406	570	216	433	80 m6	80 m6	170	170	315	49	870	28	1220	1395	147	300	358	197	2 x M63 x 1.5
315M (2P)	508	120	628	620	547	680	216	492	65 m6	65 m6	140	140	315	49	870	28	1300	1445	147	300	358	197	2 x M63 x 1.5
315M	508	120	628	620	457*	680	216	492	80 m6	80 m6	170	170	315	49	870	28	1330	1505	147	300	358	197	2 x M63 x 1.5
315L (2P)	508	120	628	620	457*	680	216	441	65 m6	65 m6	140	140	315	49	870	28	1300	1445	105	300	358	197	2 x M63 x 1.5
315L	508	120	628	620	457*	680	216	441	80 m6	80 m6	170	170	315	49	870	28	1330	1505	105	300	358	197	2 x M63 x 1.5
355M (2P)	610	116	726	710	500*	750	254	-	80 m6	-	170	-	355	52	1010	28	1525	-	327	360	487	200	2 x Ø70mm max
355M	610	116	726	710	500*	750	254	-	100 m6	-	210	-	355	52	1010	28	1565	-	327	360	487	200	2 x Ø70mm max
355L (2P)	610	116	726	710	560*	750	254	-	80 m6	-	170	-	355	52	1010	28	1525	-	327	360	487	200	2 x Ø70mm max
355L	610	116	726	710	560*	750	254	-	100 m6	-	210	-	355	52	1010	28	1565	-	327	360	487	200	2 x Ø70mm max
400M	686	120	806	810	630*	1090	280	-	110 m6	-	210	-	400	45	1075	35	1881	-	362	430	485	225	2 x Ø100mm max
400L	686	120	806	810	630*	1090	280	-	110 m6	-	210	-	400	45	1075	35	1881	-	362	430	485	225	2 x Ø100mm max

All Dimensions are in mm

* Additional footholes on NDE
315S/M frame at 508mm centres from front holes
355M frame at 560mm centres from front holes
355L frame at 630mm centres from front holes
400M/L frame at 710mm centres from front holes

Attention!

Thes motors are designed for use with belt and chain drives and are fitted with a NU bearing in the DE for optimum performance.
If there is no overhung load expected, please add the suffix **B** to your reference for a ball bearing to be fitted.

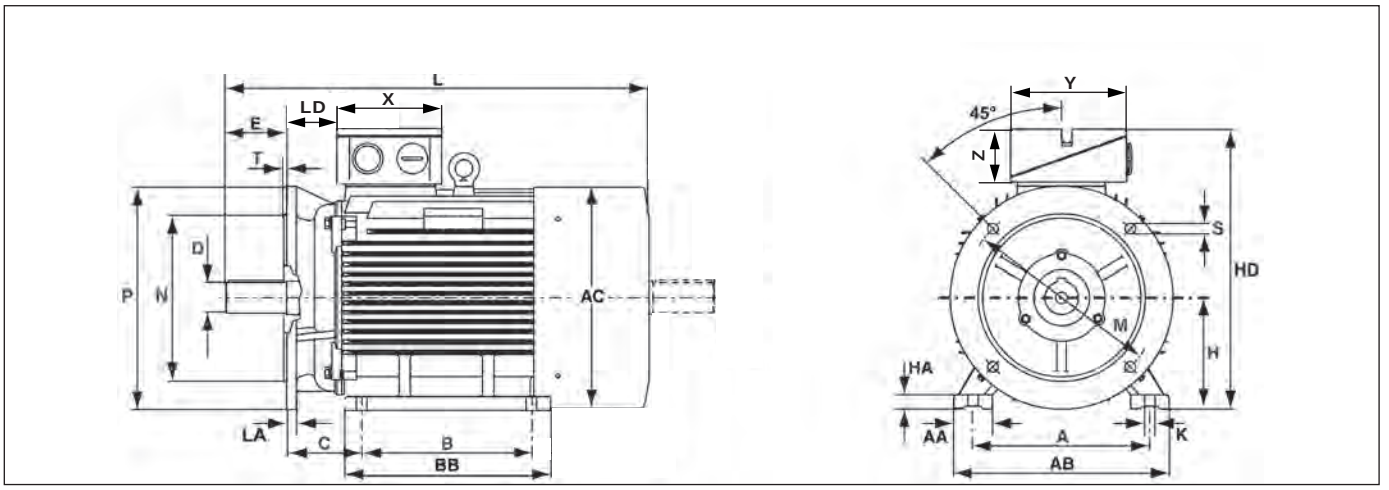


Fenner FM:P Cast Iron Series 160 - 400 IM B5 Mounting **EN600034 (IEC-DIN)**

Frame	AC	D	E	HD	L	LA	LD	M	N	P	S	T	X	Y	Z	Cable Entry
160M	314	42k6	110	412	600	14.2	71.5	300	250 j6	350	4 x Ø19	5	147	128	83	2 x M40 x 1.5
160L	314	42k6	110	412	660	14.2	71.5	300	250 j6	350	4 x Ø19	5	147	128	83	2 x M40 x 1.5
180M	358	48k6	110	453	688	15.8	86.5	300	250 j6	350	4 x Ø19	5	147	128	83	2 x M40 x 1.5
180L	358	48k6	110	453	728	15.8	86.5	300	250 j6	350	4 x Ø19	5	147	128	83	2 x M40 x 1.5
200L (2P)	397	55m6	110	505	760	16.5	112	350	300 h6	400	4 x Ø19	5	188	208	95	2 x M50 x 1.5
200L	397	55m6	110	505	760	16.5	112	350	300 h6	400	4 x Ø19	5	188	208	95	2 x M50 x 1.5
225S	446	60m6	140	549	807	20.1	91	400	350 h6	450	8 x Ø19	5	188	208	95	2 x M50 x 1.5
225M (2P)	446	55m6	110	549	802	20.1	112	400	350 h6	450	8 x Ø19	5	188	208	95	2 x M50 x 1.5
225M	446	60m6	140	549	832	20.1	91	400	350 h6	450	8 x Ø19	5	188	208	95	2 x M50 x 1.5
250M (2P)	485	60m6	140	617	910	22.5	98	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
250M	485	65m6	140	617	910	22.5	98	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
280S (2P)	547	65m6	140	674	974	20.6	107	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
280S	547	75m6	140	674	982	20.6	107	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
280M (2P)	547	65m6	140	674	1035	20.6	107	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
280M	547	75m6	140	674	1035	20.6	107	500	450 h6	550	8 x Ø19	5	216	252	116	2 x M63 x 1.5
315S (2P)	620	65m6	140	870	1190	22.6	147	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
315S	620	80m6	170	870	1220	22.6	147	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
315M (2P)	620	65m6	140	870	1300	22.6	147	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
315M	620	80m6	170	870	1330	22.6	147	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
315L (2P)	620	65m6	140	870	1300	22.6	105	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
315L	620	80m6	170	870	1330	22.6	105	600	550 h6	660	8 x Ø24	6	300	358	197	2 x M63 x 1.5
355M (2P)	710	80m6	170	1010	1525	24.5	327	740	680 h6	800	8 x Ø24	6	360	487	200	2 x Ø70mm max
355M	710	100m6	210	1010	1565	24.5	327	740	680 h6	800	8 x Ø24	6	360	487	200	2 x Ø70mm max
355L (2P)	710	80m6	170	1010	1525	24.5	327	740	680 h6	800	8 x Ø24	6	360	487	200	2 x Ø70mm max
355L	710	100m6	210	1010	1565	24.5	327	740	680 h6	800	8 x Ø24	6	360	487	200	2 x Ø70mm max
400M	810	110m6	210	1075	1881	24.5	362	940	880 h6	1000	8 x Ø28	6	430	485	225	2 x Ø100mm max
400L	810	110m6	210	1075	1881	24.5	362	940	880 h6	1000	8 x Ø28	6	430	485	225	2 x Ø100mm max

All Dimensions are in mm

Cast Iron Series Dimensions: B35 Mounting



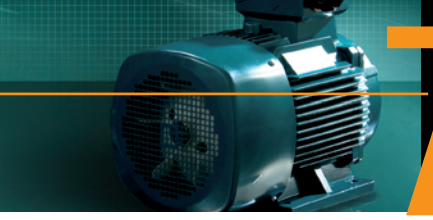
Fenner FM:P Cast Iron Series 160 - 400 IM B35 Mounting — EN600034 (IEC-DIN)

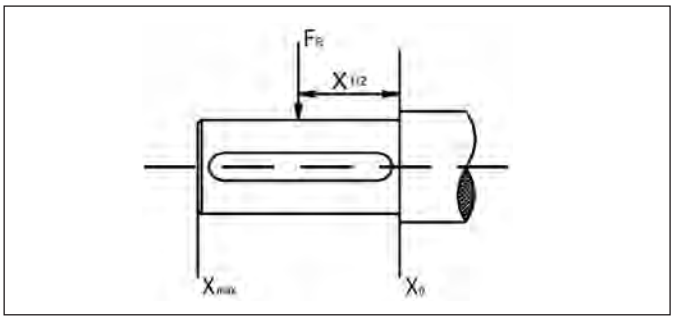
Frame	A	AA	AB	AC	B	BB	C	D	E	H	HA	HD	K	L	LA	LD	M	N	P	S	T	Cable Entry
160M	254	65	314	314	210	260	108	42 k6	110	160	20	412	15	600	14.2	71.5	300	250 j6	350	4 x Ø19	5	2 x M40 x 1.5
160L	254	65	314	314	254	300	108	42 k6	110	160	20	412	15	660	14.2	71.5	300	250 j6	350	4 x Ø19	5	2 x M40 x 1.5
180M	279	70	350	358	241	310	121	48 k6	110	180	22	453	15	688	15.8	86.5	300	250 j6	350	4 x Ø19	5	2 x M40 x 1.5
180L	279	70	350	358	279	350	121	48 k6	110	180	22	453	15	728	15.8	86.5	300	250 j6	350	4 x Ø19	5	2 x M40 x 1.5
200L (2P)	318	70	390	397	305	369	133	55 m6	110	200	25	505	19	760	16.5	112	350	300 h6	400	4 x Ø19	5	2 x M50 x 1.5
200L	318	70	390	397	305	369	133	55 m6	110	200	25	505	19	760	16.5	112	350	300 h6	400	4 x Ø19	5	2 x M50 x 1.5
225S	356	75	431	446	286	368	149	60 m6	140	225	28	549	19	807	20.1	91	400	350 h6	450	8 x Ø19	5	2 x M50 x 1.5
225M (2P)	356	75	431	446	311	393	149	55 m6	110	225	28	549	19	802	20.1	112	400	350 h6	450	8 x Ø19	5	2 x M50 x 1.5
225M	356	75	431	446	311	393	149	60 m6	140	225	28	549	19	832	20.1	91	400	350 h6	450	8 x Ø19	5	2 x M50 x 1.5
250M (2P)	406	80	484	485	349	445	168	60 m6	140	250	30	617	24	910	22.5	98	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
250M	406	80	484	485	349	445	168	65 m6	140	250	30	617	24	910	22.5	98	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
280S (2P)	457	85	542	547	368	490	190	65 m6	140	280	35	674	24	974	20.6	107	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
280S	457	85	542	547	368	490	190	75 m6	140	280	35	674	24	982	20.6	107	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
280M (2P)	457	85	542	547	419	540	190	65 m6	140	280	35	674	24	1035	20.6	107	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
280M	457	85	542	547	419	540	190	75 m6	140	280	35	674	24	1035	20.6	107	500	450 h6	550	8 x Ø19	5	2 x M63 x 1.5
315S (2P)	508	120	628	620	406	570	216	65 m6	140	315	49	870	28	1190	22.6	147	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
315S	508	120	628	620	406	570	216	80 m6	170	315	49	870	28	1220	22.6	147	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
315M (2P)	508	120	628	620	547	680	216	65 m6	140	315	49	870	28	1300	22.6	147	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
315M	508	120	628	620	457*	680	216	80 m6	170	315	49	870	28	1330	22.6	147	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
315L (2P)	508	120	628	620	457*	680	216	65 m6	140	315	49	870	28	1300	22.6	105	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
315L	508	120	628	620	457*	680	216	80 m6	170	315	49	870	28	1330	22.6	105	600	550 h6	660	8 x Ø24	6	2 x M63 x 1.5
355M (2P)	610	116	726	710	500*	750	254	80 m6	170	355	52	1010	28	1525	24.5	327	740	680 h6	800	8 x Ø24	6	2 x Ø70mm max
355M	610	116	726	710	500*	750	254	100 m6	210	355	52	1010	28	1565	24.5	327	740	680 h6	800	8 x Ø24	6	2 x Ø70mm max
355L (2P)	610	116	726	710	560*	750	254	80 m6	170	355	52	1010	28	1525	24.5	327	740	680 h6	800	8 x Ø24	6	2 x Ø70mm max
355L	610	116	726	710	560*	750	254	100 m6	210	355	52	1010	28	1565	24.5	327	740	680 h6	800	8 x Ø24	6	2 x Ø70mm max
400M	686	120	806	810	630*	1090	280	110 m6	210	400	45	1075	35	1881	24.5	362	940	880 h6	1000	8 x Ø28	6	2 x Ø100mm max
400L	686	120	806	810	630*	1090	280	110 m6	210	400	45	1075	35	1881	24.5	362	940	880 h6	1000	8 x Ø28	6	2 x Ø100mm max

All Dimensions are in mm

* Additional footholes on NDE
315S/M frame at 508mm centres from front holes
355M frame at 560mm centres from front holes
355L frame at 630mm centres from front holes
400M/L frame at 710mm centres from front holes

Motors supplied as B35 are fitted with a ball bearing as standard





Where: D = diameter of the pulley (mm)
P = power of the motor (kW)
n = motor rated speed (Rev/min)
k = belt tension factor, k=2.0 - 2.5 for V-belts
FR(x) = permissible radial force (N)

Allowable Radial Loads for Horizontal and Vertically Mounted Fenner FM:P & FM:S Motors

The following tables give the permissible radial forces in Newtons assuming zero axial force ** In case of higher radial force than given in the ball bearing column a NU selection must be made. The values are based on normal conditions at 50Hz and calculated at 20,000 working hours for the 2 pole motors and 40,000 working hours for 4, 6 and 8 pole motors. For 60Hz the value must be reduced by 10%.

$$D = \frac{1.9 \times 107 \times k \times P}{n * FR\,(X_0 / X_{1/2} / X_{max})}$$

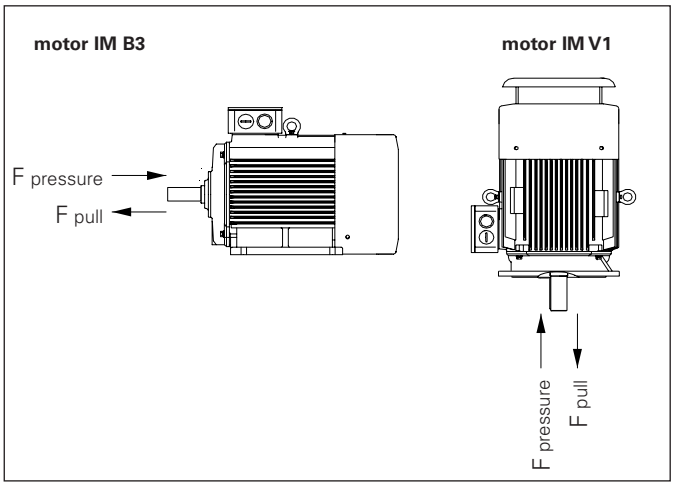
** = if axial loads are expected, please consult your local Authorised Fenner Distributor.

Permissible Radial Loads for Horizontal and Vertical

Frame Size	Pole	Maximum Radial Force (FR) X0 N	X1/2 N	Xmax N
56	2	250	180	100
	4	250	180	100
63	2	360	300	230
	4	360	300	230
71	2	470	400	320
	4	470	400	320
	6	470	400	320
80	2	670	610	550
	4	730	650	590
	6	830	750	680
	8	920	820	750
90	2	740	660	590
	4	800	710	630
	6	920	810	730
	8	1010	890	800
100	2	1030	920	820
	4	1110	990	890
	6	1270	1130	1020
	8	1400	1240	1120
112	2	1490	1330	1200
	4	1600	1430	1290
	6	1840	1640	1480
	8	2020	1800	1630
132	2	2160	1900	1690
	4	2330	2040	1820
	6	2670	2340	2080
	8	2940	2570	2290

Type	Poles	BALL BEARING FR_0	$FR_{0.5}$	FR_{max}	ROLLER BEARING FR_0	$FR_{0.5}$	FR_{max}
160M	2	2388	2087	1853	4487	3920	3481
	4	3009	2629	2334	5653	4939	4385
	6	3445	3010	2672	6471	5654	5020
	8	3791	3313	2941	7123	6223	5525
160L	2	2424	2146	1925	4553	4031	3616
	4	3054	2704	2425	5737	5079	4556
	6	3496	3095	2776	6567	5814	5215
	8	3848	3406	3056	7228	6399	5740
180M	2	3363	2991	2692	6491	5772	5196
	4	4237	3768	3392	8178	7272	6547
180L	4	4271	3832	3474	8244	7395	6705
	6	4889	4386	3977	9437	8466	7676
	8	5381	5828	4377	10386	9318	8448
200L	2	3829	3463	3161	7060	6385	5828
	4	4825	4363	3982	8896	8045	7342
	6	5523	4995	4559	10183	9209	8405
	8	6079	5497	5018	11208	10136	9251
225S	4	5358	4718	4215	10623	9355	8357
	8	6750	5945	5311	13384	11786	10530
225M	2	4279	3885	3558	8483	7704	7055
	4	5388	4772	4281	10683	9461	8489
	6	6179	5481	4924	12250	10866	9763
	8	6792	6017	5401	13466	11930	10708
250M	2	4857	4357	3951	9573	8588	7787
	4	6119	5489	4977	12061	10821	9811
	6	7004	6284	5698	13807	12386	11231
	8	7709	6916	6271	15196	13633	12361
280S	2	4808	4345	3963	9477	8565	7812
	4	7793	7048	6433	17403	15738	14365
	6	8921	8068	7364	19921	18016	16444
	8	9819	8880	8105	21926	19829	18099
280M	2	4850	4413	4049	9559	8699	7981
	4	7856	7154	6567	17544	15976	14665
	6	8993	8189	7517	20083	18287	16787
	8	9898	9014	8274	22104	20128	18476
315S	2	6222	5722	5297	13894	12778	11828
	4	9039	8175	7462	20146	18220	16630
	6	10347	9358	8541	23062	20857	19037
	8	11389	10300	9401	25383	22956	20953
315M	2	6302	5853	5463	14073	13069	12199
	4	9153	8374	7717	20399	18664	17200
	6	10477	9586	8834	23352	21365	19689
	8	11532	10551	9723	25702	23515	21671
315L	2	6302	5853	5463	14073	13069	12199
	4	9153	8374	7717	20399	18664	17200
	6	10477	9586	8834	23352	21365	19689
	8	11532	10551	9723	25702	23515	21671
355M	2	6251	5891	5570	13958	13155	12439
	4	12276	11218	10328	28301	25862	23810
	6	14052	12841	11823	32397	29605	27256
	8	15350	14047	12948	35388	32384	29851
355L	2	6251	5891	5570	13958	13155	12439
	4	12276	11218	10328	28301	25862	23810
	6	14052	12841	11823	32397	29605	27256
	8	15467	14134	13013	35657	32584	29999
400M	4	13689	12639	11738	37480	34605	32140
	6	15670	14468	13437	42903	39613	36791
	8	17247	15924	14790	47221	43600	40494
400L	4	13689	12639	11738	37480	34605	32140
	6	15670	14468	13437	42903	39613	36791
	8	17247	15924	14790	47221	43600	40494

Permissible Axial Loads



Permissible Axial Loads for Horizontal and Vertical Fenner Motors

The following table gives the permissible axial forces in Newtons, assuming zero radial force**. In this case the motor should be ordered with standard ball bearings.

If the axial force is greater than that given in the table, an angular contact bearing should be ordered. The values are based on normal conditions at 50 Hz and calculated at 20.000 working hours for two pole motors and 40.000 hours for 4, 6 and 8 pole motors. At 60Hz the values must be reduced by 10%.

Fpressure is calculated for a fixed bearing at the DE.

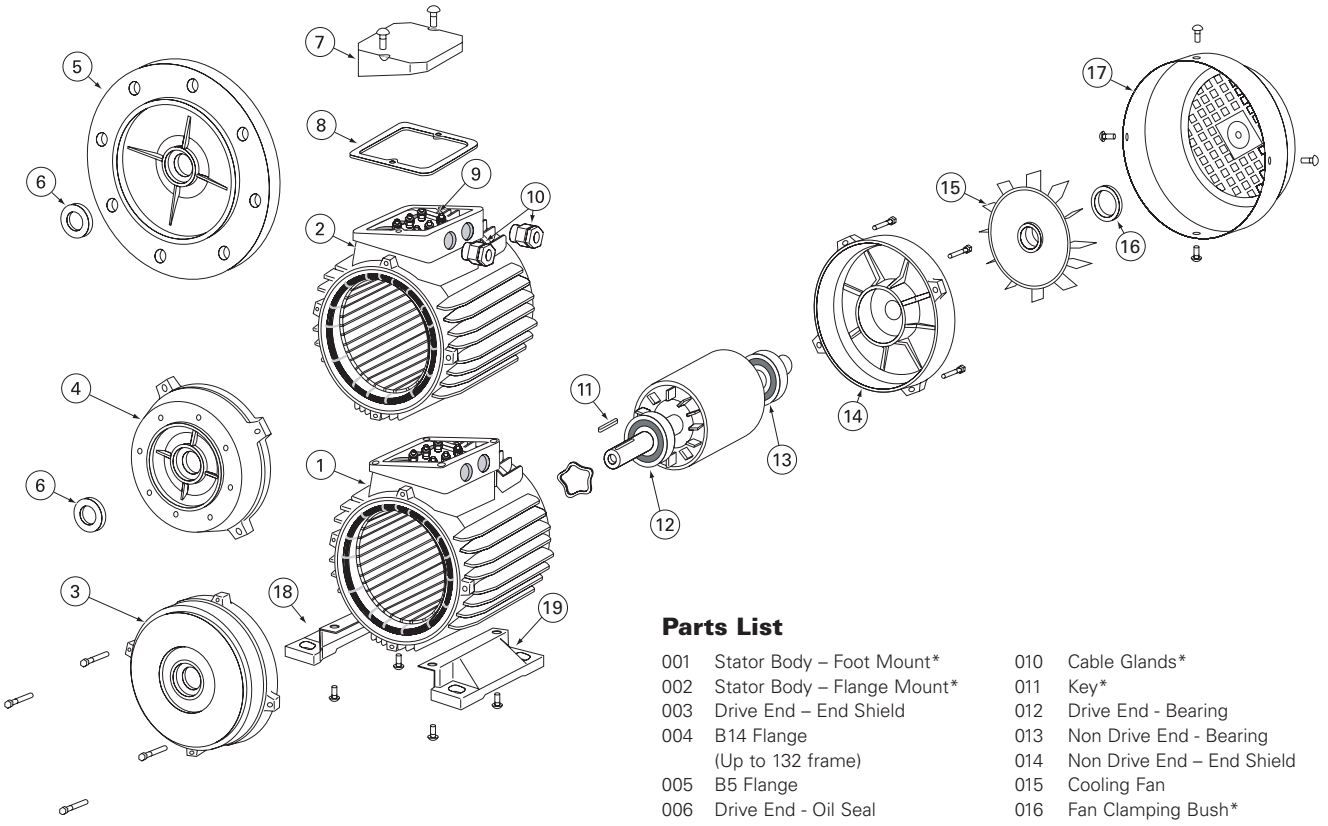
** If FR and FA both apply contact your local Fenner Authorised Distributor.

Permissible Axial Loads for Horizontal and Vertical FM:P Motors

Frame Size	Pole	Maximum Axial Force (FA)			
		B3 Fpressure	B3 Fpull	V1 Fpressure	V1 Fpull
56	2	200	200	230	180
	4	240	240	260	200
63	2	250	250	260	230
	4	280	280	300	260
71	2	270	270	290	255
	4	350	350	370	320
	6	440	440	460	420
80	2	380	380	400	360
	4	470	470	490	450
	6	590	590	620	560
	8	620	620	650	595
90	2	440	440	470	410
	4	550	550	600	510
	6	620	620	680	460
	8	640	640	700	580
100	2	610	610	670	570
	4	750	750	840	710
	6	880	880	970	820
	8	895	895	970	845
112	2	1220	1220	1300	1170
	4	1440	1440	1520	1370
	6	1650	1650	1740	1580
	8	1780	1780	1880	1710
132	2	1500	1500	1620	1430
	4	1780	1780	1970	1610
	6	1820	1820	2000	1660
	8	1920	1920	2100	1760

Frame Size	Pole	Maximum Axial Force (FA)			
		B3 Fpressure	B3 Fpull	V1 Fpressure	V1 Fpull
160	2	1650	1650	1950	1350
	4	2100	2100	2470	1720
	6	2450	2450	2800	2050
	8	2650	2650	3050	2210
180	2	2100	2100	2450	1720
	4	2600	2600	3200	200
	6	4890	4390	3980	2280
	8	5380	4830	4380	2550
200	2	2400	2400	2940	1840
	4	3120	3120	3850	2390
	6	3480	3480	4350	2610
	8	3950	3950	4810	3090
225	2	2720	2720	3420	2020
	4	3480	3480	4370	2590
	6	3890	3890	5040	2820
	8	4330	4330	5330	3330
250	2	3100	3100	3940	2260
	4	3900	3900	5000	2800
	6	4450	4450	5570	3230
	8	4950	4950	6380	3580
280	2	5300	3100	6500	2100
	4	6300	4400	7800	3000
	6	6700	4300	7900	2900
	8	7100	5020	9100	3520
315	2	5900	3800	8000	2000
	4	7100	5100	10700	3150
	6	7600	5800	11800	3500
	8	8100	6300	12500	4400
355	2	6100	1850	14000	800
	4	9800	3900	18300	2500*
	6	10500	4700	20700	3500*
	8	12500	6000	21500	3600*
400	2	–	–	–	–
	4	11200	3900	18500	1600*
	6	12500	4800	19500	2200*
	8	12800	4950	21500	2900*

* Standard motors with enforced bearing arrangement



Parts List

001	Stator Body – Foot Mount*	010	Cable Glands*
002	Stator Body – Flange Mount*	011	Key*
003	Drive End – End Shield	012	Drive End - Bearing
004	B14 Flange (Up to 132 frame)	013	Non Drive End - Bearing
005	B5 Flange	014	Non Drive End – End Shield
006	Drive End - Oil Seal	015	Cooling Fan
007	Terminal Box Lid	016	Fan Clamping Bush*
008	Terminal Box Gasket	017	Fan Cover
009	Terminal Block	018	Left Foot*
		019	Right Foot*

* For all alluminium multi mount motors

Replacement parts are stocked for motors up to 200 frame

To Order Spare Parts for the FM:P Range:

FIRST THREE DIGITS:
Motor material and efficiency

Code	Range	Material
170	Standard Efficiency	Aluminium
171	Standard Efficiency	Cast Iron
172	Premium Efficiency	Aluminium
173	Premium Efficiency	Cast Iron

FOURTH DIGIT:
Frame size

Code	Frame
A	56
B	63
C	71
D	80
E	90
F	100
G	112
H	132
J	160
K	180
L	200
M	225
N	250
P	280
R	315
S	355
T	400
U	450
V	500
W	560

FIFTH DIGIT:
When ordering spare parts always use 9 as the fifth digit.

SIXTH, SEVENTH & EIGHTH DIGIT:
Please select relevant item number from the spare parts list above.

Fenner FM:P Bearings

Frame Size	Poles	Driving End		Non Driving End		
		Ball Bearing	NU Bearing	Ball Bearing	Regreasable Bearings	V1 Mounting
6201 2RZ	56	2 - 4	**6201 ZZ**	–	**6201 2RZ**	–
63	2 - 4	**6201 ZZ**	–	**6201 ZZ**	–	6201 ZZ
71	2 - 6	**6202 ZZ**	–	**6202 ZZ**	–	6202 ZZ
80	2 - 8	**6204 ZZ**	–	**6204 ZZ**	–	6204 ZZ
90	2 - 8	**6205 ZZ**	–	**6205 ZZ**	–	6205 ZZ
100	2 - 8	**6206 ZZ**	–	**6206 ZZ**	–	6206 ZZ
112	2 - 8	**6206 ZZ**	–	**6206 ZZ**	–	6206 ZZ
132	2 - 8	**6208 ZZ**	–	**6208 ZZ**	–	6208 ZZ
160	2 - 12	**6309 ZZ C3**	**NU 309**	**6309 ZZ C3**	**6309 C3**	6309 ZZ C3
180	2 - 12	**6311 ZZ C3**	**NU 311**	**6311 ZZ C3**	**6311 C3**	6311 ZZ C3
200	2 - 12	**6312 ZZ C3**	**NU 312**	**6312 ZZ C3**	**6312 C3**	6312 ZZ C3
225	2 - 12	**6313 ZZ C3**	**NU 313**	**6313 ZZ C3**	**6313 C3**	6313 ZZ C3
250	2 - 12	**6314 ZZ C3**	**NU 314**	**6314 ZZ C3**	**6314 C3**	6314 ZZ C3
280 280	2 4 - 12	**6314 C3** **6317 C3**	**NU 314** **NU 317**	– –	**6314 C3** **6317 C3**	6314 C3-EQ* 6317 C3-EQ*
315 315	2 4 - 12	**6317 C3** **6319 C3**	**NU 317** **NU 319**	– –	**6317 C3** **6319 C3**	6317 C3-EQ* 6319 C3-EQ*
355 355	2 4 - 12	**6317 C3** **6322 C3**	**NU 317** **NU 322**	– –	**6317 C3** **6320 C3**	7317 B 7320 B
400 400	2 4 - 12	**6317 C3** **6326 C3**	**NU 317** **NU 326**	– –	**6317 C3** **6326 C3**	7317 B 7326 B
450 450	2 4 - 12	**6319 C3** **6328 C3**	**NU 319** **NU 328**	– –	**6319 C3** **6328 C3**	7319 B 7328 B
500	4 - 12	**6330 C3**	**NU 330**	–	**6330 C3**	7330 B
560	4 - 12	**6334 C3**	**NU 334**	–	**6330 C3**	7330 B

*EQ = SKF Explorer Quality
Bold type indicates standard bearings.

Electrical Connections

Connection cables and earthing requirementnts should conform to IEE regulations.

It is recommended that a suitable overload is fitted to protect the motor windings. Line fuses only protect the cables from short circuit not the motor.

Ensure that all terminals are tight and that the correct terminal arrangements are observed.

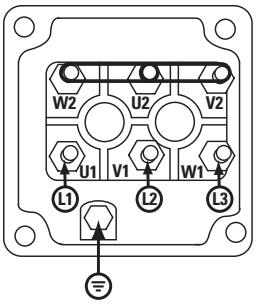
All motors are capable of running with two voltages.

Smaller motors are suitable for a 230/400V supply and larger motors are suitable for a 400/690V supply.

It is only possible to use a 400V Star/Delta starter on motors that are wound 400/690V - for this type of start, links must be removed.

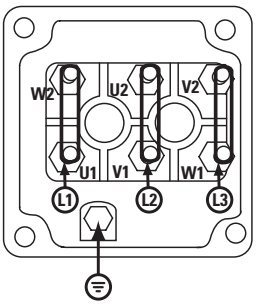
Terminal Marking and Direction of Rotation

In accordance with the current standard, if the supply is connected to the motor's stator terminals, which are marked U1, V1 and W1 and the phase sequence of supply is 1, 2 & 3, then the direction of rotation will be clockwise when viewed from the drive-end.



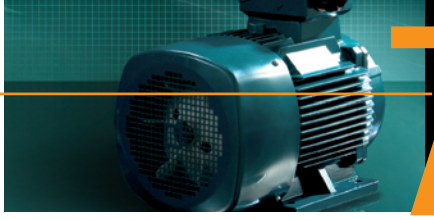
STAR CONNECTION
This is the higher of the two voltages shown on the plate.

400V on a 230 / 400V motor
690V on a 400 / 690V motor



DELTA CONNECTION
This is the lower of the two voltages shown on the plate.

230V on a 230 / 400V motor
400V on a a 400 / 690V motor



MOTOR SLIDE BASES

Fenner motor slide bases cover the full range of motors up to frame size 280.

Slide Bases are available in two versions:

- The MPB is a heavy duty single plate base available for motors from 90 to 280 frame.
- The MB is a lightweight and easy to mount dual-plate base available for motors from 56 to 132 frame.

Compare the features and benefits of Fenner bases with your current method!

Both ranges are specifically designed for extreme drive loads and are manufactured without welding in heavy gauge pre-slotted galvanised steel for maximum resistance to corrosion.

For Offshore and special process applications all bases can be supplied to special order coated or manufactured in Stainless Steel.

Unlike slide rails the development of the Motor Slide Base has been market led. A new technology offering the manufacturer reductions in design errors, time savings in production and thus cost savings over the whole manufacturing process.

Maintenance and production engineers now have the ability to maintain absolute belt alignment throughout the drive tensioning process meaning fast in situ belt tensioning without the removal of guards and thus no plant down time.

Features

- Large range accommodating motor frames from 56 - 280
- Fully adjustable operation
- Compact design
- Robust and plated screw adjustment
- Pre slotting for precision adjustment
- No welding points
- Availability in Galvanised or Stainless Steel
- Usage for friction drives, pumps, chain drives
- Usage with all types and makes of motors

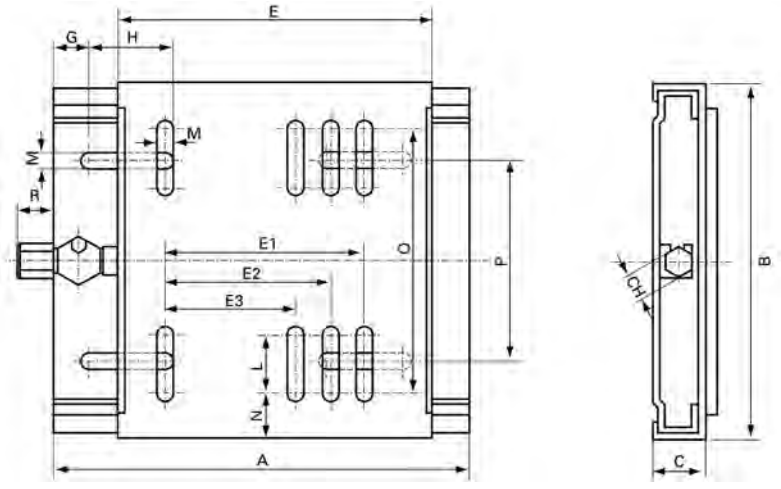
Benefits: Original Equipment

- Competitive Price
- Reduces design errors
- Reduces design time
- Reduces fitting time
- Reduces positioning time
- No drilling required to fit
- Accurate and positive alignment every time
- Ex-stock deliveries Nation-wide

Benefits: Maintenance

- No plant down-time
- Institute drive adjustment
- Drive tensioning without removal of guards
- Corrosion resistant finish
- Rapid adjustment feature (optional)
- Totally maintenance free

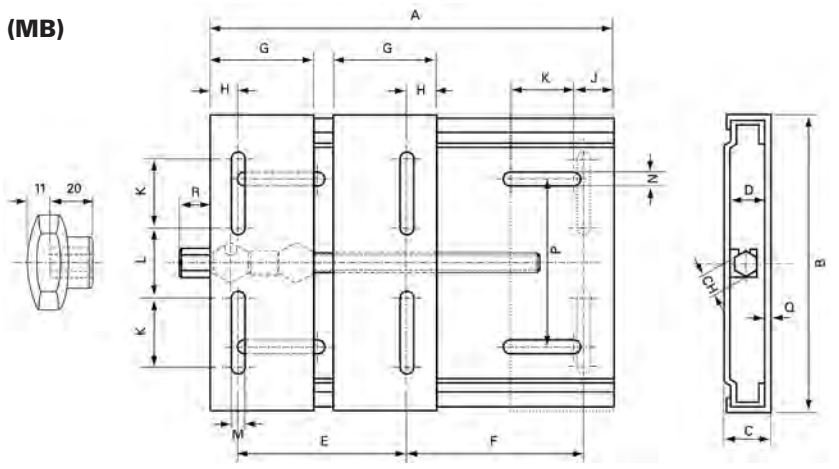
Mono Plate Base (MPB)



Dimensions

Product Code	Type	Motor Frame Size	A	B	C	CH	E	E3	E2	E1	G	H	L	M	N	O	P	R	Weight Kg
047A9012	MPB 90/112	90-100-112	307	213	33	19	255	140	160	190	28	50	50.0	10.5	25.5	162	108	30	4.1
047B1322	MPB 100/132-2	100-112-132	340	290	40	22	286	160	190	216	28	63	47.5	12.5	37.5	215	165	30	7.9
047C1032	MPB 100/132	100-112-132	430	290	40	22	286	160	190	216	28	63	47.5	12.5	37.5	215	165	30	8.9
047D1682	MPB 160/180-2	160-180	430	370	40	22	380		254	279	30	62	62.0	12.5	41.5	287	248	30	12.0
047P1618	MPB 160/180	160-180	490	370	40	22	380		254	279	30	62	62.0	12.5	41.5	287	248	30	12.7
047E2022	MPB 200/225	200-225	585	450	50	22	468		318	356	30	60	52.0	17.0	49.0	352	300	30	23.7
047F0250	MPB 250*	250	600	470	65	22	515			406	30	60	70.0	22.0	50.5	369	320	30	28.1
047G0280	MPB 280*	280	735	570	65	22	585			457	30	70	70.0	22.0	55.0	460	420	30	38.2

Twin Plate Base (MB)



Dimensions

Product Code	Type	Motor Frame Size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	Weight kg
047K6380	MB 63/80	63 - 80	210	195	33	27	100	70	70	20	25	50.0	43	10.5	10.5	19	98	3	30	2.3
047L6310	MB 63/100	63 - 100	270	195	33	27	100	130	70	20	25	50.0	43	10.5	10.5	19	98	3	30	2.7
047M9012	MB 90/112	90 - 112	307	213	33	27	100	165	70	20	29	50.0	62	10.5	10.5	19	108	3	30	3.5
047M9032	MB 90/132	90 – 132	430	290	40	32	140	240	95	27	29	62.5	90	13.0	13.0	22	165	4	30	7.4
047N9322	MB 90/132-2	90 - 132	340	290	40	32	140	150	95	27	29	62.5	90	13.0	13.0	22	165	4	30	6.3

SITE ADJUSTMENT KNOB – for types 63/80 + 63/100 with 19mm hexagon - for types 90/132 with 22mm hexagon.

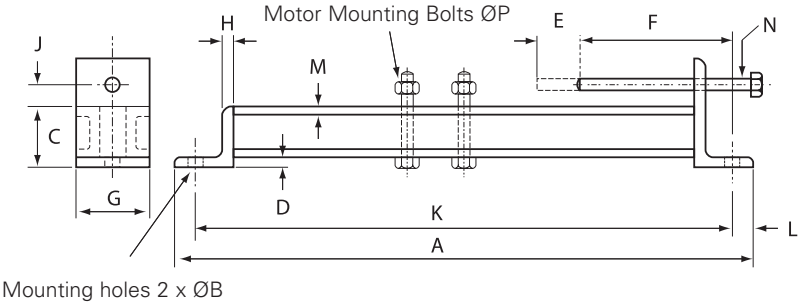
Table of Adjustments – Motor Sizes

Type	Adjustments	63 M	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M	Additional adjustments with slots
MB 63/80	E	100	112	125							F+50
	F	70	58	45							
MB 63/100	E	100	112	125	140	140	160				
	F	130	118	105	90	90	70				
MB90/112	E				140	140	160	190			
	F				127	127	107	77			
MB 90/132	E				140	140	160	190	216	216	F+62.5
	F				240	240	220	190	164	164	
MB 90/132-2	E				140	140	160	190	216	216	
	F				240	240	220	190	164	164	

Dimensions, form and technical data are not binding.

FENNER SLIDE RAILS

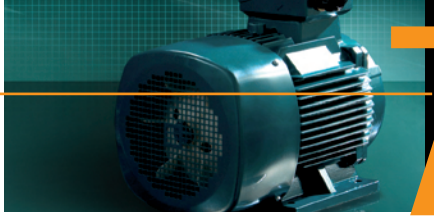
Are made from fabricated steel to provide a simple and accurate method of mounting electric motors to machine bed plates. Each product code refers to one complete set for one motor and includes slide rails, tensioning bolts and motor mounting bolts.



Mounting holes 2 x ØB

Dimensions

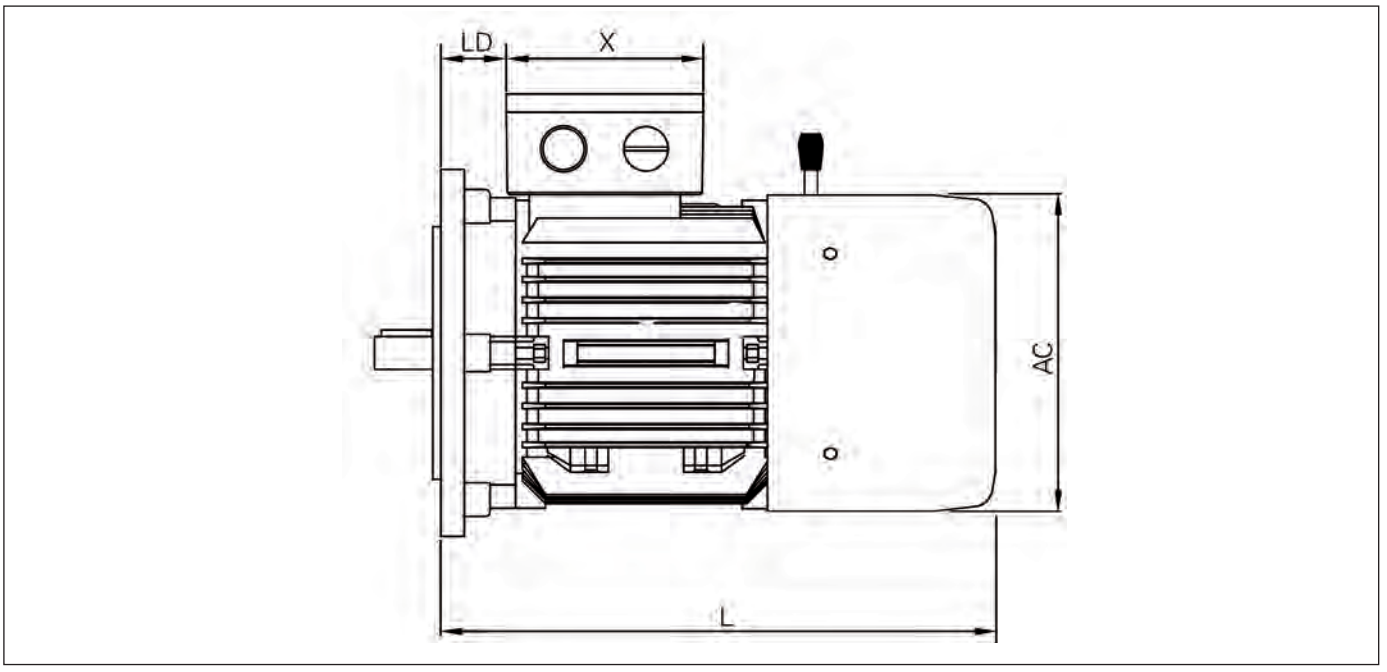
Product Code	Frame Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P
076K0000	63-90	355	10	30	10	95	45	35	8	6	325	20	2.00	M10	4xM8x40
076L0000	100-132	470	12	44	12	160	50	50	10	6	430	20	3.00	M10	4xM10x65
076M0000	160-180	615	15	64	14	190	60	65	12	10	565	25	3.15	M12	4xM12x90
076N0000	200-225	785	19	82	30	230	70	80	20	12	725	35	4.00	M16	4xM16x110
076P0000	250-280	945	24	82	20	300	58	110	20	16	885	30	3.15	M20	6xM20x130
076R0000	315-355	1215	28	100	25	375	70	110	24	20	1115	50	5.00	M24	6xM24x150



Brake Motors (M/N)

Fenner Brake motors are available with (N) or without (M) Hand release lever and are standard failsafe brakes rectified in the terminal box from the supply to the motor terminals. When a supply voltage is sent to the motor, the rectifier is energised releasing the brake and allowing the motor to run. When the voltage is removed, the brake coil is de-energised and the spring applies the brake to stop the motor.

DIMENSIONS



2 POLE

kW	Speed	Frame	400V Amps	Brake Torque Nm	AC	L	LD	X	Cut-in	Cut-out	J BRAKE	dB (A)	kg
0.37	2730	71M	0.97	12	145	307	27	94	30ms	15ms	0.00014	50	8.5
0.55	2760	71M	1.42	12	145	307	27	94	30ms	15ms	0.00014	50	9.5
0.75	2770	80M	1.77	16	165	353	27	105	30ms	15ms	0.00021	52	13
1.1	2770	80M	2.51	16	165	353	27	105	30ms	15ms	0.00021	52	13
1.5	2840	90S	3.28	20	185	367	30	105	40ms	15ms	0.00039	56	15
2.2	2840	90L	4.61	20	185	392	30	105	40ms	15ms	0.00039	56	20
3	2840	100L	6.03	40	205	474	26	112	45ms	20ms	0.00104	59	27
4	2880	112M	7.88	60	230	483	32	112	85ms	25ms	0.00135	61	35
5.5	2900	132S	10.53	90	270	553	38	112	95ms	50ms	0.00219	64	46
7.5	2920	132S	14.14	90	270	553	38	112	95ms	50ms	0.00219	64	56
11	2940	160M	19.96	180	320	705	64	143	95ms	50ms	0.00438	68	91
15	2940	160M	26.61	180	320	705	64	143	95ms	50ms	0.00438	68	109

4 POLE

kW	Speed	Frame	400V Amps	Brake Torque Nm	AC	L	LD	X	Cut-in	Cut-out	J BRAKE	dB (A)	kg
0.25	1360	71M	0.84	12	145	307	27	94	30ms	15ms	0.00014	50	6.5
0.37	1370	71M	1.1	12	145	307	27	94	30ms	15ms	0.00014	50	8.3
0.55	1370	80M	1.58	16	165	353	27	105	30ms	15ms	0.00021	52	9.6
0.75	1380	80M	1.93	16	165	353	27	105	30ms	15ms	0.00021	52	13
1.1	1400	90S	2.84	20	185	367	30	105	40ms	15ms	0.00039	56	18
1.5	1400	90L	3.45	20	185	392	30	105	40ms	15ms	0.00039	56	18
2.2	1420	100L	4.84	40	205	474	26	112	45ms	20ms	0.00104	59	26
3	1420	100L	6.47	40	205	474	26	112	45ms	20ms	0.00104	59	30
4	1430	112M	8.26	60	230	483	32	112	85ms	25ms	0.00135	61	35
5.5	1460	132S	11.03	90	270	553	38	112	95ms	50ms	0.00219	64	55
7.5	1460	132M	14.64	90	270	564	38	112	95ms	50ms	0.00219	64	65
11	1460	160M	20.64	180	320	705	64	143	95ms	50ms	0.00438	68	94
15	1460	160L	28.15	200	320	705	64	143	100ms	60ms	0.00408	68	109

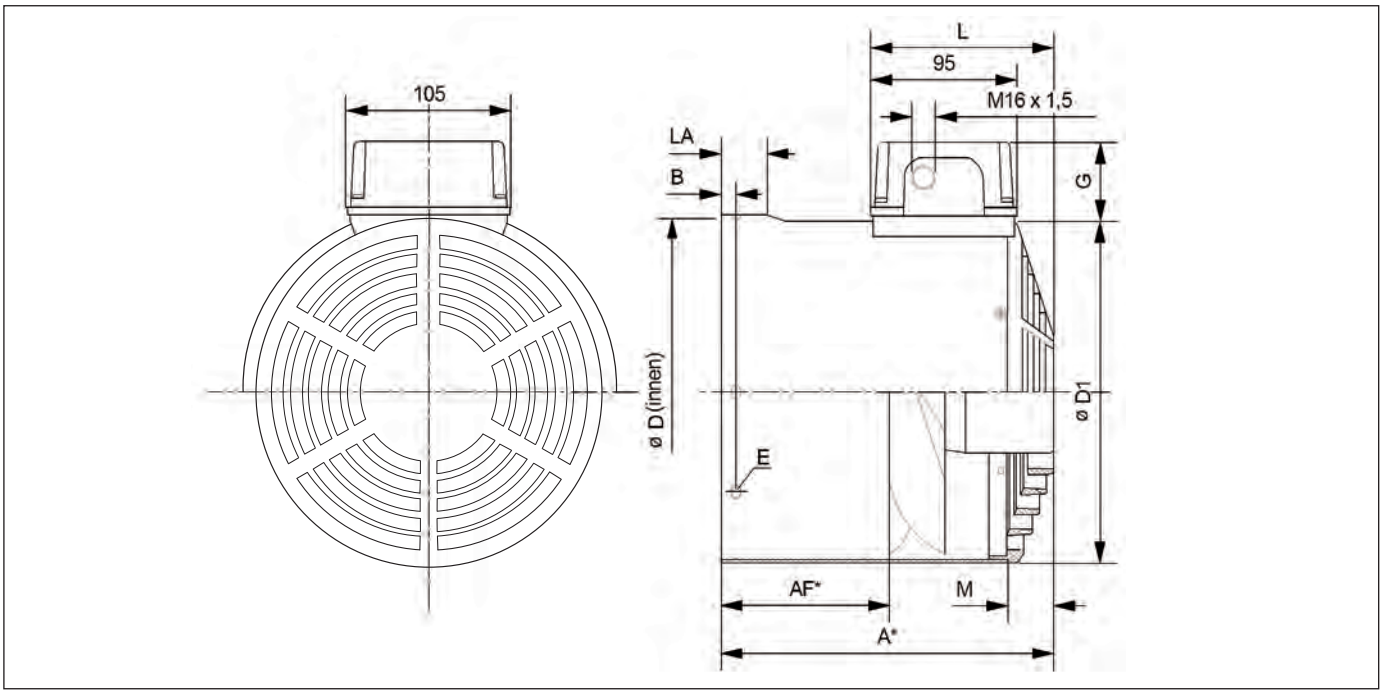
Force Vent Motors (Z)

Fenner motors are available with fixed speed cooling systems for applications that require speed control via an inverter below 25Hz operation.

The "Z" series force-vent units are pre-wired for a 230V 1 phase supply but the capacitor can easily be removed to operate on a 230/400V 3 phase 50Hz supply.

These blowers are enclosed to IP66 and come with a seperate terminal box for electrical connections to be made.

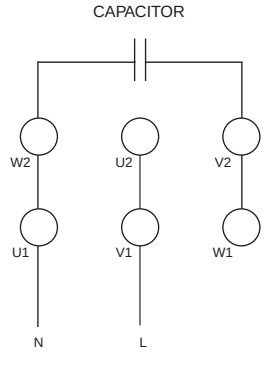
DIMENSIONS



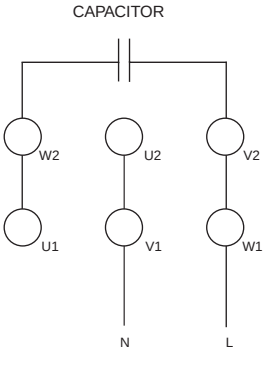
																230V ~1		230 - 400V ~3		
SIZE	IEC	Fan Ø	m3/hr	db (A)	kg	A	AF	B	D	D1	E	G	L	LA	M	A	W	A^{230V}	A^{400V}	W
860Z0071	71	132	60	51	2.95	170	75	10	138	139	5.5 x 7	53	107	25	20	0.12	41	0.1	0.06	33
860Z0080	80	150	88	55	3.1	170	75	15	154	157	5.5 x 7	53	107	-	20	0.13	44	0.1	0.06	34.0
860Z0090	90	169	169	58	3.4	180	75	10	174	177	5.5 x7	53	117	-	30	0.27	87	0.28	0.16	90
860Z0100	100	187	208	59	3.65	190	85	15	194	195	5.5 x7	53	117	25	30	0.29	94	0.28	0.16	93
860Z0112	112	210	295	61	3.95	195	90	21	218	219	5.5 x7	53	117	40	30	0.31	107	0.28	0.16	94
860Z0132	132	250	450	69	4.15	240	113	22	258	258	5.5 x7	54	127	45	40	0.59	185	0.45	0.24	148
860Z0160	160	300	780	74	5.2	300	148	20	312	311	5.5 x7	54	127	50	40	0.93	225	0.85	0.51	280

ELECTRICAL CONNECTION

230V 1 Phase 50Hz

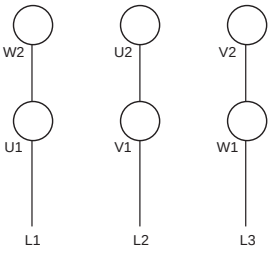


CLOCKWISE ROTATION

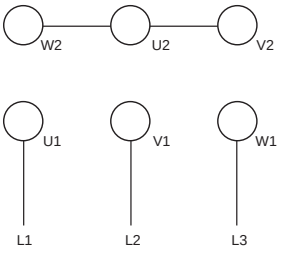


ANTI-CLOCKWISE ROTATION

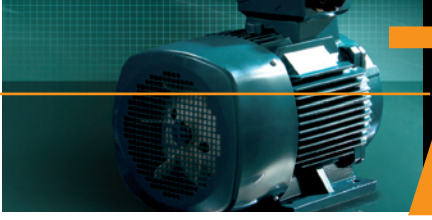
230/400V 3 Phase 50Hz



230V 3 Phase 50Hz
DELTA



400V 3 Phase 50Hz
STAR



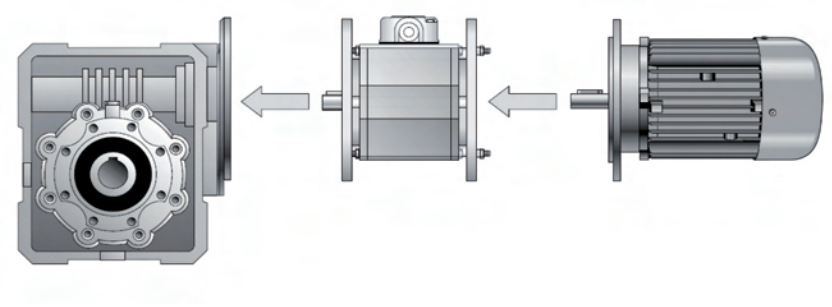
Clutch/Brake Units (L)

Fenner Clutch/Brake units (Series L) are designed to fit between motor and gearbox using a standrad B5 IEC flange. The range is available for 63-112 frames and are sealed to IP55 and controlled by 24V DC signal.

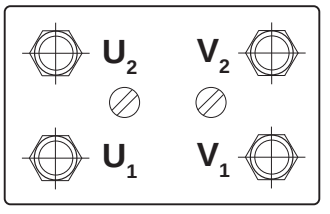
DIMENSIONS

DATA	Symbol	Units	860L07 _	860L09 _	860L11 _	860L14 _
Nominal Torque	M	Nm	7.5	15	30	75
Input Electric Power	P	W	12	17	22	35
Rated Voltage	Vn	Vdc	24	24	24	24
Rated Current	In	A	0.5	0.7	0.92	1.46
Moment of Inertia	J	kgm2	0.14 • 10-3	0.56 • 10-3	1.25 • 10-3	4.15 • 10-3
Permissable friction work per operation	Wm	KJ	7	10	33	55
Permissable friction work per hour	Wh	KJ/h	260	300	330	360
Total friction work (operational life)	Wt	MJ	280	500	730	1220
Switch-on-time (clutch or brake)	t1	ms	20	30	45	60
Switch-off-time (clutch or brake)	t2	ms	30	60	75	100
Air Gap	s	mm	0.3	0.35	0.35	0.35
Weight	m	kg	4.6	6.9	10.3	16.5

ASSEMBLY DIAGRAM

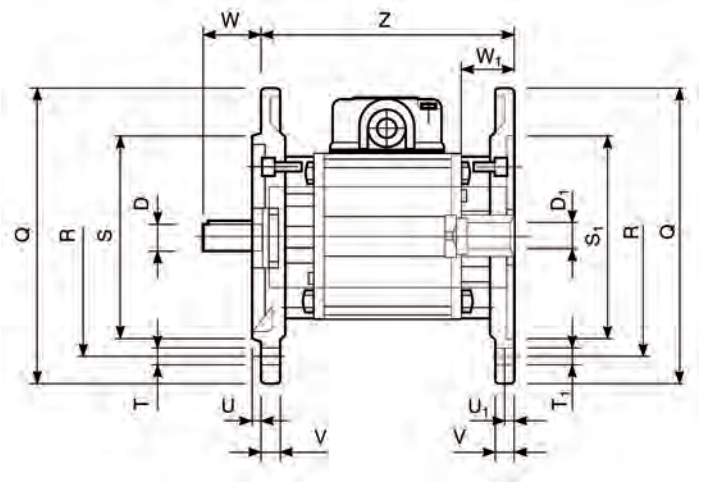


ELECTRICAL CONNECTION



U_1 Shared
U_2 Brake
V_1 Not Used
V_2 Clutch

DIMENSIONS



SIZE	IEC	Size	Nm	W	Amps	D	D1	Q	R	S	S1	T	T1	U	U1	V	W	W1	Z	kg ~
860L0763	63	07	7.5	12	0.5	11 h6	11 G7	140	115	95 h8	95 H8	9	M8	3	3.5	10	23	24	137	4.6
860L0971	71	09	15	17	0.7	14 h6	14 G7	160	130	110 h8	110 H8	9	M8	3.5	4	10	30	31	160	6.9
860L1180	80	11	30	22	0.92	19 h6	19 G7	200	165	130 h8	130 H8	11	M10	3.5	4	12	40	41	190	10.3
860L1190	90	11	30	22	0.92	24 h6	24 G7	200	165	130 h8	130 H8	11	M10	3.5	4	12	50	51	190	10.3
860L1410	100	14	75	35	1.46	28 h6	28 G7	250	215	180 h8	180 H8	14	M12	4	4.5	14	60	61	224	16.5
860L1411	112	14	75	35	1.46	28 h6	28 G7	250	215	180 h8	180 H8	14	M12	4	4.5	14	60	61	224	16.5

~ Weight given excludes motor - for additional motor dimensions and motor weight refer to page XXX

Fenner Disc Variators (X)

Fenner Disc Variators use a friction system to vary drive transmission speed. To correctly select a variator, you need to know the required torque and refer to the selection tables below.

Care must be taken to ensure that the number of starts does not exceed 10 per minute. You should apply an appropriate service factor to the variator selection to ensure that there is sufficient torque for the application.

The Fenner variator range offers an IEC B5 flange on both input and output to enable fitting between gearhead and standard motor. The range is available in 63-90 frame in Aluminium design and from 100-132 frame in a Cast Iron housing.

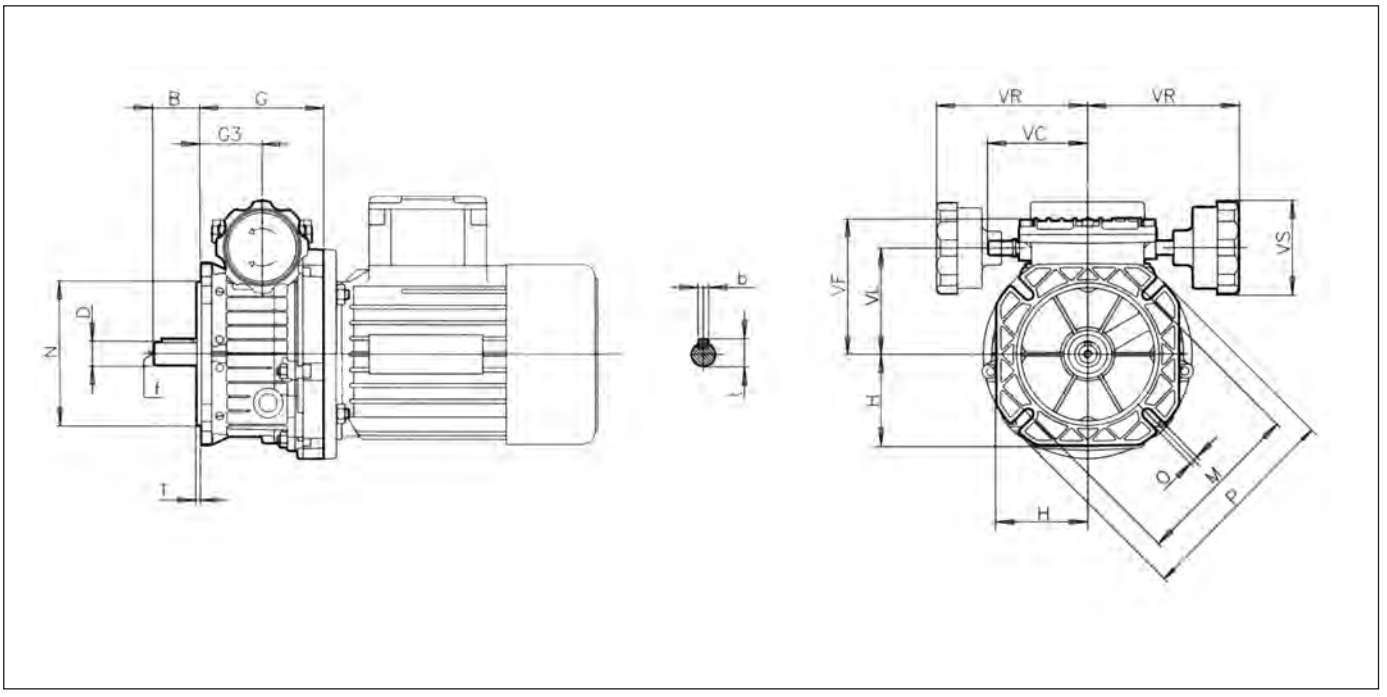
Speed range is available as 5:1 or 6:1 depending on the size of the unit - refer to selection tables below.

The range offers silent, vibration-free running while maintaining a relatively high efficiency.

SELECTION

Motor Size	2P	Speed Range	Output Torque	4P	Speed Range	Output Torque
0.18kW	-	-	-	860X0201	880 - 170rpm	1.6 - 3.3Nm
0.25kW	860X0203	1760 - 340rpm	1.1 - 2.7Nm	860X0506	1000 - 170rpm	2.0 - 6.0Nm
0.37kW	860X0509	2000 - 340rpm	1.7 - 4.0Nm	860X0508	1000 - 170rpm	3.0 - 6.0Nm
0.55kW	860X0510	2000 - 340rpm	2.2 - 6.0Nm	860X1016	1000 - 170rpm	4.4 - 12.0Nm
0.75kW	860X1019	2000 - 340rpm	3.2 - 6.0Nm	860X1018	1000 - 170rpm	6.0 - 12.0Nm
1.1kW	860X1020	2000 - 340rpm	4.4 - 12.0Nm	860X2024	1000 - 190rpm	9.0 - 24.0Nm
1.5kW	860X2026	2000 - 380rpm	6.0 - 24.0Nm	860X2028	1000 - 190rpm	12.0 - 24.0Nm
2.2kW	860X2029	2000 - 380rpm	9.0 - 24.0Nm	860X3036	1000 - 190rpm	18.0 - 48.0Nm
3.0kW	-	-	-	860X3038	1000 - 190rpm	24.0 - 48.0Nm
4.0kW	-	-	-	860X5046	1000 - 190rpm	32.0 - 64.0Nm
5.5kW	-	-	-	860X9054	1000 - 190rpm	44.0 - 144.0Nm
7.5kW	-	-	-	860X9056	1000 - 190rpm	60.0 - 144.0Nm

DIMENSIONS



SIZE	IEC	b	B	D	f	G	G3	H	M	N	O	P	t	T	VC	VF	VL	VR	VS	kg ~
860X02 _ _	63	4	23	11 j6	-	82.5	40	62.5	115	95 f8	9	140	12.5	3	79.5	91.5	69	116.5	71	2.3
860X05 _ _	71	5	30	14 j6	M6	104.0	47	70	130	110 f8	9	160	16.0	3.5	79.5	104.5	82	116.5	71	4.0
860X10 _ _	80	6	40	19 j6	M6	131.5	57	90	165	130 f8	11	200	21.5	3.5	89.5	127.0	103	126.5	71	6.7
860X20 _ _	90	8	60	28 j6	M10	173.0	105.5	108	215	180 f8	14	250	27.0	4	97	152.0	108	117.0	90	-
860X30 _ _	100	8	80	38 j6	M12	207.5	123.5	134	265	230 f8	14	300	31.0	5	135	186.5	134	155.0	120	-
860X50 _ _	112	8	80	38 j6	M12	207.5	123.5	134	265	230 f8	14	300	31.0	5	135	186.5	134	155.0	120	-
860X90 _ _	132	10	80	42 k6	M12	266.0	164.5	165	300	250 f8	18	350	41.0	5	161	233.5	165	183.0	120	-

~ Weight given excludes motor - for additional motor dimensions and motor weight refer to pages165-168

Lubrication

The Fenner range of variators are pre-filled for use in a horizontal mounting position. Should the mounting position be different it is important to top up the lubricant according to the table below.

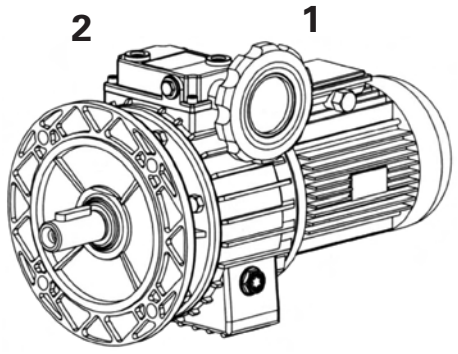
Sizes X02 / X05 and X10 are maintenance free but larger units require routine maintenance - for details of oil changes and lubricant type please refer to installation and maintenance instructions supplied with unit.

Size	B3/B5	B6/B7	B8	V1	V5	V3	V6
860X02 _ _	0.11	0.11	0.29	0.29	0.29	0.29	0.29
860X05 _ _	0.15	0.15	0.46	0.46	0.46	0.46	0.46
860X10 _ _	0.38	0.38	0.86	0.86	0.86	0.86	0.86
860X20 _ _	0.80	0.80	0.80	1.72	1.72	1.09	1.09
860X30 _ _	1.55	1.55	1.55	2.75	2.75	2.29	2.29
860X50 _ _	1.55	1.55	1.55	2.75	2.75	2.29	2.29
860X90 _ _	2.58	2.58	2.58	4.47	4.47	4.24	4.24

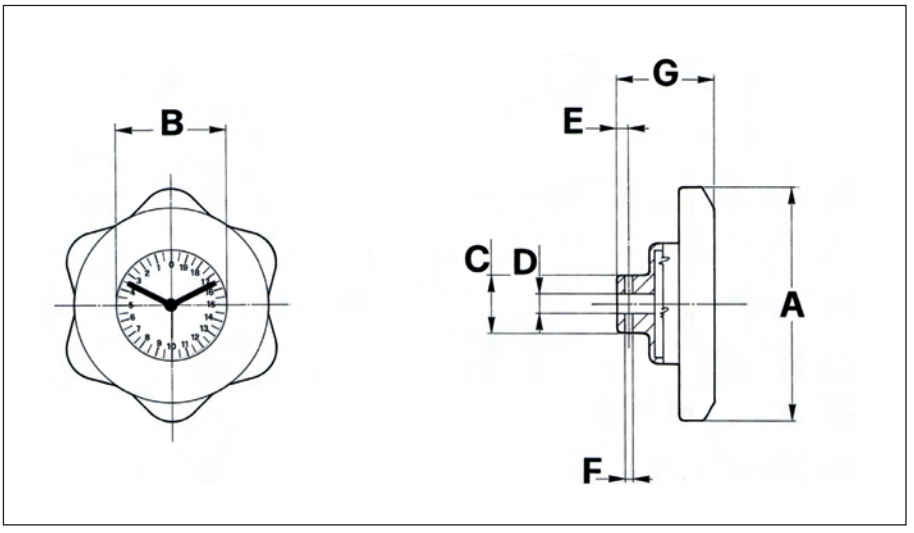
Control Options

The standard Control wheel can be positioned on either side of the variator. The standard position is on the LEFT Hand side as viewed from the motor side of the unit when control shaft is at the top.

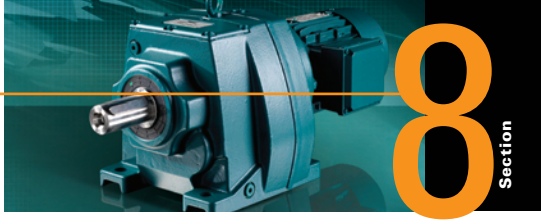
An alternative Gravitational Indicator is also available which indicates the operational speed. The position of the handwheel is necessary to ensure supply of the correct component - see below for details.



Size	POSITION 1	POSITION 2
860X02 _ _	860X0001	860X0004
860X05 _ _	860X0001	860X0004
860X10 _ _	860X0001	860X0004
860X20 _ _	860X0002	860X0005
860X30 _ _	860X0003	860X0006
860X50 _ _	860X0003	860X0006
860X90 _ _	860X0003	860X0006



SIZE	A	B	C	D	E	F	G
860X0001	71	55	26	10	5	4	34
860X0002	90	57	22	10	6	4	47
860X0003	120	57	30	12	6	5	50
860X0004	71	55	26	10	5	4	34
860X0005	90	57	22	10	6	4	47
860X0006	120	57	30	12	6	5	50



Fenner®
SERIES M
COAXIAL

The innovative Fenner Series M coaxial gearbox combines high load carrying capacity with high efficiency and reliability suitable for a wide variety of applications.



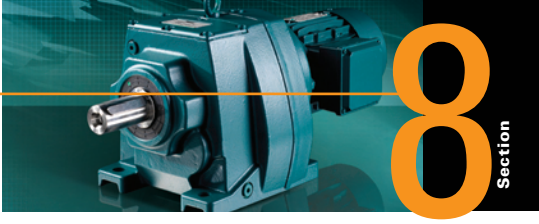
- Drives up to 90kW
- Dimensionally interchangeable with the market leaders
- High ratio combinations available in multi-stage units
- Oil tight gearhead enables motor removal without spillage
- Accepts standard IEC motors without modification
- ATEX Certification available Ex

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available, any special motor features required (brake, thermistors, flameproof etc.)
- **If non-motorised:** type of prime mover, rotational speed of prime mover, power rating of prime mover, is an input shaft coupling required? if so, prime mover shaft dia.
- **Foot mounted or flange mounted?** if flange mounted, flange diameter required, if foot mounted, is an output shaft coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine** constant or variable over what range?
- **Power absorbed by driven machine** (or required output torque)
- **Hours/day duty & start/stop frequency**

SERIES M

	Page
Motorised Selection	189
Motorised Dimensions	202
Non Motorised Selection	204
Non Motorised Dimensions	211
Exact Ratios	214
Overhung Load Capacities	215
Installation & Maintenance	216
Ordering Instructions	217



MOTORISED UNITS SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Motor Power

Refer to the selection tables on pages 190 to 201 and choose a motor power equal to or in excess of that required, if the motor power is not known then from the formula below determine the power requirements of the driven machine and select a motor power in excess of the calculated machine absorbed power.

$$P_A = \frac{T \times N}{9550}$$

P_A = Machine absorbed power (kW)
T = Machine absorbed torque (Nm)
n_2 = Machine speed (Rev/Min)

(c) Unit Selection

Refer to the selection tables on pages 190 to 201 and choose a motor power equal to or closest above that calculated in step **(b)**. Then read down the column headed "Nominal Output" until a speed equal to or near to the required speed is found. On this line read across to the service factor column and check that the service factor exceeds the value from step **(a)**. If the service factor is either lower or much higher than that required check the speeds at each side of the required speed to see if a more suitable unit and factor can be found.

(d) Overhung and Thrust Loading

If an indirect drive is used between the gearmotor and the driven machine, then the overhung load should be calculated using one of the formula on page 215. This value should be compared with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

EXAMPLE 1

A Series M foot mounted gearmotor is required to drive a uniformly loaded mixer using a 4 kW electric motor at 88 rev/min. The mixer operates 8 hours a day and stops and starts every hour

A coupling is to be used to connect the gearmotor to the mixer.

(a) Service Factor

From table 1 below the service factor for a Uniformly Loaded Mixer is 1.0. The mixer stops and starts every hour therefore the stop/start factor is 1.0

(b) Motor Power

Series M gearmotor units fitted with 4 kW motors are described on page 195.

(c) Unit Selection

Reading down the column headed "Nominal Output", it is found that there are two unit selections at 88 rev/min, at the first one of these read across to the maximum service factor column, it can be seen that the unit size 862A2046 has a service factor of 1.07. This exceeds the 1.00 service factor required and therefore is suitable for the application. The fourth digit (letter A) signifies a foot mounted unit, therefore the code is correct for the unit required. If another mounting style is required a different letter is used in place of the A, for details see page 217.

(d) Overhung and Thrust Loading

As no external loads are present, no further checks are necessary.

EXAMPLE 2

A non-uniformly loaded conveyor absorbs 1600 Nm at the head shaft which has to rotate at 52 rev/min. A 2:1 chain-drive utilising a triplex chain drive with 19T + 38T sprockets connects the head shaft drum to a foot mounted gearmotor.

The conveyor stops and starts 4 times a day. Select a suitable size Series M gearmotor for over 16 hours a day operation.

(a) Service Factor

From table 1 below the Service Factor is 1.50
From table 2 the starting factor is 1.00.

(b) Motor Power

As the motor power is not known, it is necessary to calculate the power requirements of the driven machine with the following formula:

$$\text{Machined absorbed power} = \frac{1600 \times 52}{9550}$$
$$= 8.71 \text{ kW}$$

The nearest motor is an 11.0kW motor and is found on page 196-197.

(c) Unit Selection

Reading down the column headed "Nominal Output" it is found that 100 rev/min is nearest to the required output speed of 104 rev/min and by referring to the column headed 'Service Factor' the only gearmotor selection at this speed has a service factor of 2.46 which is more than adequate for the application. The code for this selection is seen to be 865A1966. As the service factors for the two units at speeds above and below 100 rev/min are inadequate for the application the 865A1966 is selected.

(d) Overhung and Thrust Loading

As the 19-T sprocket will impose a radial load on the gearmotor output shaft, it is necessary to calculate its value by using the formula below. See page 215 for further explanation.

$$\text{Overhung load} = \frac{\text{Torque} \times 1000 \times K}{r}$$
$$= \frac{800 \times 1000 \times 1.0}{77.16}$$
$$= 10368 \text{ N.}$$

The maximum overhung load value for 865A1966 unit selected is 21675N which exceeds the value calculated above and is therefore suitable for the application.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

For ATEX certified gear units please consult your local Authorised Distributor.

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 217 for fourth digit of code and page 307 for motor details.

0.18 KW MOTOR

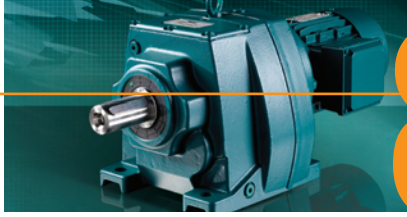
Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
365	4	13.10	860A0902	1681
270	6	11.00	860A1002	1778
238	6	10.20	860A1102	1826
210	7	9.50	860A1202	1856
178	9	8.07	860A1005	1874
164	10	7.80	860A1402	1873
152	10	7.40	860A1502	1872
138	12	6.61	860A1205	1874
121	13	6.10	860A1702	1874
106	15	5.60	860A1802	1874
93	17	5.00	860A1902	1854
84	19	4.50	860A2002	1890
79	21	4.27	860A1705	1822
76	21	4.10	860A2102	1877
69	24	3.70	860A2202	1852
59	28	3.20	860A2302	1881
55	30	2.97	860A2005	1786
49	33	2.70	860A2502	1819
42	39	2.30	860A2602	1878
38	43	2.10	860A2702	1854
38	43	3.70	801A2702	4000
33	50	3.20	801A2902	4000
33	50	3.96	861A2902	4000
31	52	1.60	860A2902	1890
29	56	2.80	801A3002	4000
29	56	3.57	861A3002	4000
27	60	1.20	860A3002	1849
26	64	2.50	801A3102	3956
26	64	3.19	861A3102	4000
25	66	1.35	860A2705	1540
24	68	1.00	860A3102	1900
24	68	2.40	**801A4402**	4000
24	68	3.07	**861A4402**	4000
23	69	1.30	**860A4402**	1724
22	76	2.09	801A2905	3824
22	75	2.10	**801A4502**	4000
22	76	2.69	861A2905	4000
22	75	2.78	**861A4502**	4000
21	80	1.05	860A2905	1496
21	76	1.20	**860A4502**	1590
20	82	1.90	**801A4602**	4000
20	82	2.53	**861A4602**	3743
19	84	1.10	**860A4602**	1780
19	86	1.85	801A3005	3706
19	86	2.41	861A3005	4000
19	88	3.82	**802A4602**	7200
17	98	1.63	801A3105	3571
17	96	1.70	**801A4702**	3913
17	98	2.09	861A3105	4000
17	96	2.16	**861A4702**	3913
17	96	3.51	**802A4702**	7200
16	98	0.90	**860A4702**	1450
14	115	1.40	**801A4902**	4000
14	115	1.81	**861A4902**	3654
14	115	2.93	**802A4902**	7200
14	115	3.89	**862A4902**	7200
12	134	1.20	**801A5002**	3976
12	134	1.55	**861A5002**	3976
12	138	2.45	**802A5002**	7102
12	138	3.25	**862A5002**	7200
11	149	1.10	**801A5102**	4000
11	149	1.40	**861A5102**	3718
10	155	2.17	**802A5102**	7200
10	155	2.89	**862A5102**	7200
9.0	180	0.90	**801A5302**	4000
9.0	180	1.15	**861A5302**	3173
9.0	180	1.87	**802A5302**	7178
9.0	181	2.48	**862A5302**	6660
8.5	192	3.24	**803A5302**	7200
8.5	205	1.65	**802A5402**	7034
8.5	205	2.19	**862A5402**	6902
7.9	206	1.02	**861A5402**	3420
7.3	224	2.79	**803A5402**	7200
7.0	233	1.45	**802A5502**	7200
7.0	233	1.93	**862A5502**	6628
6.9	234	0.89	**861A5502**	2660
6.4	254	2.46	**803A5502**	7200
5.9	276	1.22	**802A5305**	6295
5.9	276	1.63	**862A5305**	6195
5.6	293	2.13	**803A5305**	7200
5.2	312	1.08	**802A5405**	5901
5.2	313	1.44	**862A5405**	5820
4.8	342	1.83	**803A5405**	7200
4.6	354	0.95	**802A5505**	6203
4.6	355	1.27	**862A5505**	5274
4.2	387	1.61	**803A5505**	6215

0.25 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
373	6	9.62	860A0906	1670
276	8	8.07	860A1006	1764
243	9	7.53	860A1106	1810
214	10	6.95	860A1206	1829
168	13	5.75	860A1406	1841
156	14	5.41	860A1506	1840
123	18	4.48	860A1706	1845
109	21	4.09	860A1806	1845
95	24	3.70	860A1906	1800
86	26	3.33	860A2006	1879
78	29	3.02	860A2106	1850
70	32	2.75	860A2206	1796
60	38	2.34	860A2306	1860
53	43	3.68	801A2506	4000
50	45	1.96	860A2506	1724
44	52	3.07	801A2606	4000
43	53	1.68	860A2606	1853
39	59	1.52	860A2706	1802
39	58	2.73	801A2706	4000
39	58	3.57	861A2706	3837
34	68	2.35	801A2906	4000
34	68	2.91	861A2906	3921
32	71	1.17	860A2906	1880
30	77	2.07	801A3006	4000
30	77	2.63	861A3006	3828
28	81	0.88	860A3006	1790
26	87	1.82	801A3106	3906
26	87	2.34	861A3106	3941
25	92	0.97	860A2707	1121
25	92	1.73	**801A4406**	4000
25	91	1.75	801A2707	3712
25	92	2.26	**861A4406**	3884
25	91	2.30	861A2707	3695
24	94	0.95	**860A4406**	1520
24	94	3.56	**802A4406**	7200
22	103	0.87	**860A4506**	1230
22	106	1.51	801A2907	3619
22	102	1.57	**801A4506**	4000
22	106	1.94	861A2907	3562
22	102	2.05	**861A4506**	3772
22	104	3.23	**802A4506**	7200
20	112	1.43	**801A4606**	4000
20	112	1.86	**861A4606**	3443
19	120	1.33	801A3007	3365
19	120	1.73	861A3007	3508
19	120	2.81	**802A4606**	7191
19	120	3.73	**862A4606**	7200
17	136	1.17	801A3107	3071
17	131	1.22	**801A4706**	3812
17	136	1.51	861A3107	3419
17	131	1.59	**861A4706**	3812
17	130	2.58	**802A4706**	7171
17	131	3.43	**862A4706**	7200
15	156	2.16	**802A4906**	7200
15	157	2.87	**862A4906**	6902
14	157	1.02	**801A4906**	4000
14	157	1.33	**861A4906**	3251
14	162	3.86	**803A4906**	7200
12	183	0.87	**801A5006**	3950
12	183	1.14	**861A5006**	3950
12	187	1.80	**802A5006**	6988
12	188	2.39	**862A5006**	6965
12	194	3.22	**803A5006**	7200
11	203	1.03	**861A5106**	3390
11	211	1.60	**802A5106**	7200
11	211	2.12	**862A5106**	6764
10	232	2.69	**803A5106**	7200
9.2	245	0.85	**861A5306**	2209
9.2	245	1.37	**802A5306**	7153
9.2	246	1.83	**862A5306**	6030
8.7	262	2.39	**803A5306**	7200
8.1	278	1.21	**802A5406**	6841
8.1	279	1.61	**862A5406**	6555
7.5	305	2.05	**803A5406**	7200
7.2	317	1.07	**802A5506**	7200
7.2	317	1.42	**862A5506**	5962
6.9	328	1.03	**802A5107**	6144
6.9	329	1.37	**862A5107**	5841
6.6	346	1.81	**803A5506**	7200
6.3	362	1.73	**803A5107**	6562
5.9	383	0.88	**802A5307**	5239
5.9	383	1.17	**862A5307**	5023
5.6	408	1.53	**803A5307**	6914
5.2	434	1.03	**862A5407**	4280
4.8	475	1.32	**803A5407**	6375
4.6	493	0.91	**862A5507**	3331
4.2	538	1.16	**803A5507**	5067

0.37 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
373	9	6.50	860A0908	1652
276	12	5.45	860A1008	1740
243	14	5.09	860A1108	1782
214	15	4.70	860A1208	1782
168	20	3.89	860A1408	1787
156	22	3.65	860A1508	1785
123	27	3.03	860A1708	1795
109	31	2.77	860A1808	1795
95	35	2.50	860A1908	1708
86	39	2.25	860A2008	1860
80	42	3.73	801A2108	4000
78	43	2.04	860A2108	1804
70	48	1.86	860A2208	1702
69	49	3.24	801A2208	4000
64	53	2.97	801A2308	4000
64	53	3.89	861A2308	3856
60	56	1.58	860A2308	1824
53	64	2.49	801A2508	3963
53	64	3.26	861A2508	3681
50	67	1.32	860A2508	1562
44	77	2.08	801A2608	4000
44	77	2.71	861A2608	3727
43	78	1.14	860A2608	1810
39	87	1.03	860A2708	1710
39	86	1.85	801A2708	4000
39	86	2.41	861A2708	3560
34	100	1.59	801A2908	4000
34	102	1.97	861A2908	3786
33	103	0.87	860A2512	924
30	114	1.40	801A3008	4000
30	114	1.77	861A3008	3533
29	119	3.76	862A2612	7200
26	129	1.23	801A3108	3819
26	130	1.58	861A3108	3840
26	130	3.44	862A2712	7200
25	136	1.17	**801A4408**	4000
25	136	1.53	**861A4408**	3686
24	140	2.41	**802A4408**	7087
24	141	3.18	**862A4408**	7200
22	153	1.04	801A2912	3267
22	151	1.06	**801A4508**	4000
22	153	1.34	861A2912	2812
22	151	1.38	**861A4508**	3383
22	154	2.18	**802A4508**	7200
22	155	2.90	**862A4508**	7200



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
21	160	2.54	862A2912	7200
20	174	0.92	801A3012	2779
20	166	0.96	**801A4608**	4000
20	173	1.20	861A3012	2666
20	166	1.26	**861A4608**	2930
19	178	1.90	**802A4608**	7176
19	178	2.13	862A3012	7200
19	178	2.52	**862A4608**	6687
19	173	3.60	**803A4508**	7200
18	192	3.24	**803A4608**	7200
17	197	0.81	801A3112	2215
17	194	0.82	**801A4708**	3640
17	197	1.04	861A3112	2423
17	194	1.08	**861A4708**	3640
17	199	1.35	862A3112	7200
17	193	1.75	**802A4708**	7123
17	193	2.32	**862A4708**	7005
16	216	3.99	**863A4412**	10000
15	232	1.46	**802A4908**	7200
15	232	1.94	**862A4908**	6393
15	220	2.13	803A3112	7200
15	220	2.84	**803A4708**	7200
15	231	3.76	**863A4512**	10000
14	232	0.90	**861A4908**	2560
14	240	2.61	**803A4908**	7200
13	252	0.83	861A4612	1674
12	277	1.22	**802A5008**	6793
12	278	1.62	**862A5008**	6563
12	287	2.17	**803A5008**	7200
12	291	2.98	**863A4712**	10000
12	274	3.16	**863A4612**	10000
11	312	1.08	**802A5108**	7200
11	313	1.44	**862A5108**	6028
10	344	1.82	**803A5108**	7200
9.3	361	2.40	**863A4912**	10000
9.2	363	0.93	**802A5308**	7110
9.2	364	1.23	**862A5308**	4950
8.7	388	1.61	**803A5308**	7200
8.1	412	0.82	**802A5408**	6510
8.1	413	1.09	**862A5408**	5960
7.9	426	2.04	**863A5012**	10000
7.5	451	1.39	**803A5408**	7200
7.2	469	0.96	**862A5508**	4820
7.2	466	1.86	**863A5112**	10000
6.6	512	1.22	**803A5508**	7200
6.1	555	0.81	**862A5312**	3013
5.9	569	1.54	**863A5312**	10000
5.7	590	1.06	**803A5312**	6424
5.3	635	1.39	**863A5412**	8970
4.9	688	0.91	**803A5412**	4961
4.7	711	1.25	**863A5512**	7760
4.3	779	0.80	**803A5512**	3099
0.55 KW MOTOR				
379	13	4.43	860A0916	1625
280	18	3.72	860A1016	1705
246	20	3.47	860A1116	1740
218	23	3.21	860A1216	1711
170	29	2.65	860A1416	1706
158	32	2.49	860A1516	1703
127	39	3.63	801A1716	4000
125	40	2.07	860A1716	1720
115	44	3.35	801A1816	4000
110	46	1.89	860A1816	1720
102	50	3.04	801A1916	4000
102	50	3.85	861A1916	4000
97	52	1.70	860A1916	1570
89	57	2.80	801A2016	4000
89	56	3.60	861A2016	3972
87	58	1.54	860A2016	1831
81	62	2.55	801A2116	3942
81	62	3.31	861A2116	3934
79	64	1.39	860A2116	1736
71	70	1.27	860A2216	1558

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
70	72	2.21	801A2216	3885
70	72	2.88	861A2216	3798
65	78	2.03	801A2316	4000
65	78	2.65	861A2316	3719
61	82	1.08	860A2316	1770
54	94	1.70	801A2516	3908
54	93	2.23	861A2516	3380
52	97	3.44	802A2516	7200
51	99	0.90	860A2516	1320
46	109	0.82	860A2217	603
45	112	1.42	801A2616	4000
45	112	1.85	861A2616	3469
44	115	2.94	802A2616	7200
44	115	3.90	862A2616	7200
40	126	1.26	801A2716	4000
40	127	1.65	861A2716	3143
40	125	2.69	802A2716	7200
40	125	3.58	862A2716	7200
34	147	1.08	801A2916	4000
34	148	1.34	861A2916	3584
33	154	2.19	802A2916	7200
33	154	2.30	862A2916	7200
30	167	0.95	801A3016	4000
30	167	1.21	861A3016	3091
29	171	1.98	802A3016	7200
29	171	2.12	862A3016	7200
27	190	0.84	801A3116	3690
27	190	1.08	861A3116	3690
27	190	2.76	803A3016	7200
26	196	0.82	801A2717	2481
26	195	1.07	861A2717	2391
26	191	1.41	802A3116	7200
26	191	1.41	862A3116	7200
25	200	1.04	**861A4416**	3390
24	205	1.64	**802A4416**	6917
24	207	2.17	**862A4416**	6869
24	212	2.21	803A3116	7200
24	208	3.61	**863A4416**	10000
23	221	0.94	**861A4516**	2800
23	221	3.47	**863A4516**	10000
22	228	0.90	861A2917	1687
22	227	1.49	**802A4516**	7200
22	227	1.98	**862A4516**	6652
22	231	3.75	863A2917	10000
21	243	0.86	**861A4616**	2160
21	237	1.42	802A2917	6266
21	237	1.71	862A2917	6249
21	241	2.60	803A2917	7200
20	258	0.81	861A3017	1403
20	254	2.46	**803A4516**	7200
19	264	1.28	802A3017	6393
19	261	1.29	**802A4616**	7154
19	264	1.43	862A3017	6053
19	261	1.72	**862A4616**	5918
19	266	2.63	863A3017	10000
19	263	3.10	**863A4616**	10000
18	283	1.19	**802A4716**	7050
18	284	1.58	**862A4716**	6714
18	282	2.21	**803A4616**	7200
18	280	2.97	**863A4716**	10000
17	296	0.91	802A3117	6939
17	296	0.91	862A3117	6678
17	294	1.85	803A3017	7200
17	294	2.02	863A3117	10000
16	318	1.06	**802A4417**	4951
16	322	1.94	**803A4716**	7200
15	340	0.99	**802A4916**	7200
15	340	1.32	**862A4916**	5629
15	328	1.43	803A3117	6908
14	350	0.96	**802A4517**	5849
14	351	1.28	**862A4517**	4710
14	351	1.78	**803A4916**	7200
14	348	2.49	**863A4916**	10000
12	407	0.83	**802A5016**	6500

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
12	408	1.10	**862A5016**	5960
12	422	1.48	**803A5016**	7200
12	409	2.12	**863A5016**	10000
12	419	3.94	**864A5016**	20000
11	459	0.98	**862A5116**	4900
11	447	1.94	**863A5116**	10000
11	461	3.58	**864A5116**	20000
10	505	1.24	**803A5116**	7200
9.4	534	0.84	**862A5316**	3329
9.1	548	1.58	**863A5316**	10000
8.9	565	2.92	**864A5316**	20000
8.8	568	1.10	**803A5316**	7200
8.2	611	1.42	**863A5416**	9140
8.1	617	2.67	**864A5416**	20000
7.6	662	0.95	**803A5416**	7200
7.3	684	1.27	**863A5516**	7940
7.0	707	2.33	**864A5516**	20000
6.7	751	0.83	**803A5516**	7200
6.4	781	0.80	**803A5117**	3831
6.3	791	3.12	**865A5217**	29600
5.9	846	1.03	**863A5317**	5591
5.7	876	1.88	**864A5317**	20000
5.7	875	2.82	**865A5317**	29500
5.3	945	0.94	**863A5417**	4721
5.3	952	1.73	**864A5417**	20000
4.7	1057	0.84	**863A5517**	4084
4.6	1093	1.51	**864A5517**	20000
0.75 KW MOTOR				
377	18	3.24	860A0918	1596
279	24	2.72	860A1018	1665
246	28	2.54	860A1118	1694
217	32	2.34	860A1218	1633
177	39	3.47	801A1418	4000
169	40	1.94	860A1418	1616
157	44	1.82	860A1518	1612
156	44	3.14	801A1518	4000
156	44	3.76	861A1518	4000
127	55	1.51	860A1718	1636
127	54	2.65	801A1718	4000
127	54	3.28	861A1718	4000
114	60	2.45	801A1818	4000
114	60	3.07	861A1818	4000
110	63	1.38	860A1818	1636
102	68	2.22	801A1918	4000
102	69	2.81	861A1918	4000
96	72	1.25	860A1918	1417
89	78	2.04	801A2018	3968
89	77	2.63	861A2018	3957
86	79	1.12	860A2018	1800
81	85	3.64	802A2118	6430
80	85	1.86	801A2118	3878
80	85	2.42	861A2118	3898
78	88	1.02	860A2118	1660
71	96	0.93	860A2218	1400
70	99	1.61	801A2218	3757
70	99	2.11	861A2218	3689
69	100	3.16	802A2218	6750
64	107	1.48	801A2318	4000
64	107	1.94	861A2318	3568
64	107	2.99	802A2318	6880
63	110	0.81	860A1923	722
54	128	1.24	801A2518	3847
54	128	1.63	861A2518	3045
52	133	2.51	802A2518	7052
52	134	3.36	862A2518	6723
45	154	1.04	801A2618	4000
45	154	1.35	861A2618	3182
44	157	2.15	802A2618	7124
44	157	2.85	862A2618	6875
42	165	0.97	801A2323	3023
42	165	3.77	803A2618	7200
40	173	0.92	801A2718	4000
40	173	1.20	861A2718	2680

Motorised Selection

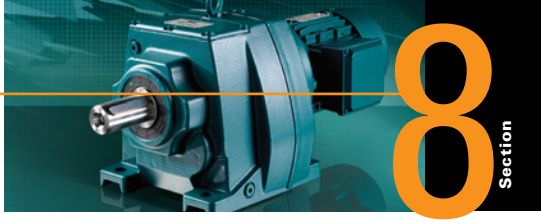
Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**

See page 217 for fourth digit of code and page 307 for motor details.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
40	172	1.96	802A2718	7147
40	172	2.62	862A2718	6769
36	194	3.21	803A2718	7200
35	198	0.81	801A2523	2141
34	202	0.98	861A2918	3360
34	205	3.04	803A2523	7200
33	211	1.60	802A2918	6970
33	210	1.68	862A2918	6865
32	213	2.93	803A2918	7200
30	229	0.88	861A3018	2600
29	237	0.88	861A2623	1521
29	234	1.44	802A3018	7178
29	234	1.55	862A3018	6658
29	235	2.97	863A3018	10000
27	255	2.45	803A2623	7200
26	262	1.03	802A3118	7200
26	262	1.03	862A3118	7200
26	260	2.02	803A3018	7200
26	261	2.28	863A3118	10000
24	281	1.20	**802A4418**	6729
24	283	1.59	**862A4418**	6502
24	291	1.61	803A3118	7200
24	285	2.64	**863A4418**	9458
23	300	2.08	803A2723	7010
23	303	2.54	**863A4518**	9349
22	310	1.09	**802A4518**	7200
22	311	1.44	**862A4518**	6044
22	315	2.75	863A2923	9183
21	324	1.04	802A2923	5229
21	324	1.25	862A2923	5192
21	328	1.90	803A2923	6813
20	348	1.80	**803A4518**	7200
19	360	0.94	802A3023	5497
19	357	0.95	**802A4618**	7130
19	360	1.05	862A3023	4778
19	358	1.26	**862A4618**	5064
19	363	1.93	863A3023	9043
19	359	2.26	**863A4618**	9454
18	388	0.87	**802A4718**	6970
18	389	1.16	**862A4718**	6390
18	386	1.61	**803A4618**	7200
18	383	2.17	**863A4718**	9288
17	401	1.35	803A3023	7193
17	402	1.48	863A3123	9208
16	416	3.72	864A3123	20000
15	466	0.97	**862A4918**	4780
15	447	1.05	803A3123	6584
15	441	1.42	**803A4718**	7200
14	481	1.30	**803A4918**	7200
14	476	1.82	**863A4918**	8661
14	493	3.34	**864A4918**	20000
12	577	1.08	**803A5018**	7200
12	560	1.55	**863A5018**	8450
12	573	2.88	**864A5018**	19337
11	612	1.42	**863A5118**	7996
11	630	2.62	**864A5118**	19051
10	691	0.91	**803A5118**	7200
10	700	3.53	**865A5218**	29600
9.2	741	0.84	**803A4923**	3882
9.1	751	1.16	**863A5318**	6910
8.8	773	2.13	**864A5318**	19410
8.8	771	3.20	**865A5318**	29600
8.1	837	1.04	**863A5418**	5530
8.1	845	1.95	**864A5418**	18989
7.9	870	3.28	**865A5023**	29500
7.3	936	0.93	**863A5518**	3899
7.2	960	2.98	**865A5123**	29500
7.0	968	1.70	**864A5518**	18252
6.3	1079	2.29	**865A5223**	29442
5.7	1195	1.38	**864A5323**	17044
5.7	1193	2.07	**865A5323**	29330
5.3	1299	1.27	**864A5423**	16406
4.6	1491	1.11	**864A5523**	15789

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.1 KW MOTOR				
393	25	3.88	801A0924	3750
376	26	2.20	860A0924	1543
280	36	3.19	801A1024	3950
280	36	3.73	861A1024	3920
278	36	1.85	860A1024	1596
254	40	3.02	801A1124	4000
254	39	3.51	861A1124	3970
245	41	1.72	860A1124	1613
224	45	2.79	801A1224	3992
224	45	3.24	861A1224	3990
216	47	1.59	860A1224	1496
176	57	2.36	801A1424	4000
176	57	2.78	861A1424	4000
169	60	1.32	860A1424	1459
157	65	1.24	860A1524	1452
155	65	2.13	801A1524	4000
155	65	2.55	861A1524	4000
124	82	1.03	860A1724	1490
126	80	1.80	801A1724	4000
126	80	2.23	861A1724	4000
114	89	1.66	801A1824	4000
114	89	2.09	861A1824	4000
112	90	3.13	802A1824	5720
109	92	0.94	860A1824	1490
100	102	1.51	801A1924	4000
100	102	1.91	861A1924	4000
96	106	0.85	860A1924	1150
97	105	2.80	802A1924	5940
88	115	1.39	801A2024	3913
88	114	1.79	861A2024	3931
86	117	2.60	802A2024	6130
86	117	3.82	862A2024	5743
81	125	2.48	802A2124	6229
81	125	3.58	862A2124	5832
80	126	1.26	801A2124	3767
80	126	1.64	861A2124	3836
70	145	1.10	801A2224	3534
70	145	1.43	861A2224	3498
68	148	2.15	802A2224	6512
68	148	3.02	862A2224	6042
64	158	1.02	801A2324	4000
64	158	1.32	861A2324	3303
64	158	2.03	802A2324	6624
64	159	2.83	862A2324	5957
55	184	3.39	803A2324	7200
53	189	0.84	801A2524	3740
53	189	1.11	861A2524	2459
52	196	1.71	802A2524	6794
52	197	2.28	862A2524	6188
52	196	3.18	803A2524	7200
45	227	0.92	861A2624	2680
44	231	1.46	802A2624	6991
44	232	1.94	862A2624	6307
44	231	3.63	863A2624	9517
42	241	0.87	861A2327	2340
42	244	2.56	803A2624	7200
40	255	0.82	861A2724	1870
40	253	1.33	802A2724	7055
40	253	1.78	862A2724	6025
40	252	3.35	863A2724	9379
35	286	2.18	803A2724	7200
33	310	1.09	802A2924	6568
33	310	1.14	862A2924	6279
33	302	2.86	863A2924	9338
32	314	1.99	803A2924	7200
29	344	0.98	802A3024	7140
29	345	1.05	862A3024	5712
29	347	2.02	863A3024	9397
26	386	0.87	802A2727	5074
26	386	1.17	862A2727	4327
26	383	1.37	803A3024	7200
26	385	1.55	863A3124	10000
25	399	3.85	864A3124	20000
24	414	0.82	**802A4424**	6400
24	417	1.08	**862A4424**	5860

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
24	428	1.10	803A3124	7200
24	420	1.79	**863A4424**	8510
23	438	1.43	803A2727	6680
23	427	3.74	**864A4424**	20000
22	458	0.98	**862A4524**	4980
22	446	1.72	**863A4524**	8210
22	460	1.88	863A2927	7755
21	473	0.86	802A2927	3343
21	479	1.31	803A2927	6136
21	486	3.39	864A2927	20000
21	470	3.51	**864A4524**	20000
20	513	1.22	**803A4524**	7200
19	526	0.85	**862A4624**	3570
19	529	1.32	863A3027	7370
19	529	1.54	**863A4624**	8500
19	530	3.11	**864A4624**	20000
19	530	3.11	864A3027	20000
18	568	1.10	**803A4624**	7200
18	564	1.48	**863A4724**	8043
17	585	0.93	803A3027	7182
17	586	1.02	863A3127	7823
17	608	2.55	864A3127	18720
17	598	2.76	**864A4724**	20000
15	649	0.96	**803A4724**	7200
15	669	3.69	865A3227	29600
15	669	3.94	**865A4824**	29600
14	708	0.88	**803A4924**	7200
14	702	1.24	**863A4924**	6317
14	726	2.27	**864A4924**	18631
14	739	3.57	**865A4924**	29600
13	751	3.23	865A3327	29600
12	825	1.05	**863A5024**	5740
12	844	1.95	**864A5024**	18177
12	831	3.44	**865A5024**	29500
11	900	0.96	**863A5124**	4490
11	928	1.78	**864A5124**	17391
11	919	3.11	**865A5124**	29500
10	1031	2.40	**865A5224**	29413
9.4	1070	0.81	**863A4927**	3539
9.0	1109	3.76	**866A5324**	49600
8.8	1138	1.45	**864A5324**	18378
8.8	1135	2.17	**865A5324**	29397
8.0	1244	1.33	**864A5424**	17221
7.9	1270	2.25	**865A5027**	29282
7.2	1401	2.04	**865A5127**	29258
7.1	1410	3.13	**866A5127**	49100
7.0	1424	1.16	**864A5524**	15194
6.8	1473	2.83	**866A5227**	49100
6.4	1575	1.57	**865A5227**	29166
5.9	1694	2.46	**866A5327**	48700
5.8	1744	0.95	**864A5327**	11871
5.8	1740	1.42	**865A5327**	29033
5.3	1895	0.87	**864A5427**	10117



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.5 KW MOTOR				
396	34	2.87	801A0928	3728
396	34	3.38	861A0928	3690
379	36	1.63	860A0928	1484
282	49	2.36	801A1028	3917
282	48	2.76	861A1028	3898
280	49	1.36	860A1028	1517
256	54	2.23	801A1128	3967
256	54	2.59	861A1128	3948
246	56	1.27	860A1128	1521
225	61	2.06	801A1228	3984
225	61	2.40	861A1228	3982
218	63	1.18	860A1228	1340
184	75	3.59	802A1037	5180
178	78	1.74	801A1428	4000
178	78	2.06	861A1428	4000
170	81	0.97	860A1428	1280
164	85	3.36	802A1137	5270
158	88	0.91	860A1528	1270
156	88	1.57	801A1528	4000
156	89	1.89	861A1528	4000
146	95	3.08	802A1237	5360
127	108	1.33	801A1728	4000
127	108	1.65	861A1728	4000
115	120	1.23	801A1828	4000
115	120	1.54	861A1828	4000
113	122	2.31	802A1828	5611
113	122	3.47	862A1828	5158
102	137	1.12	801A1928	4000
102	137	1.41	861A1928	4000
97	142	2.07	802A1928	5814
97	143	3.15	862A1928	5238
89	156	1.03	801A2028	3850
89	155	1.32	861A2028	3902
87	159	1.92	802A2028	5915
87	159	2.82	862A2028	5630
82	170	1.83	802A2128	6000
82	170	2.64	862A2128	5710
81	171	0.93	801A2128	3640
81	171	1.21	861A2128	3764
79	176	3.37	803A2028	7200
70	197	0.81	801A2228	3280
70	197	1.06	861A2228	3280
70	197	3.17	803A2128	7200
69	202	1.59	802A2228	6240
69	202	2.23	862A2228	5869
66	210	2.97	803A2228	7200
65	214	0.97	861A2328	3000
65	215	1.50	802A2328	6333
65	215	2.09	862A2328	5651
61	226	3.59	863A2328	9023
56	249	2.51	803A2328	7200
54	256	0.82	861A2528	1789
53	262	3.14	863A2528	8800
52	265	1.26	802A2528	6499
52	267	1.68	862A2528	5575
52	266	2.35	803A2528	7200
44	313	1.08	802A2628	6840
44	314	1.43	862A2628	5658
44	313	2.68	863A2628	8966
42	330	1.89	803A2628	7200
40	342	0.99	802A2728	6950
40	342	1.31	862A2728	5153
40	342	2.47	863A2728	8670
36	388	1.61	803A2728	7200
34	409	2.11	863A2928	8583
33	420	0.80	802A2928	6110
33	420	0.84	862A2928	5610
33	426	1.47	803A2928	7200
32	432	3.82	864A2928	20000
29	483	0.93	862A2637	2754
29	470	1.49	863A3028	8708
29	471	3.50	864A3028	20000
27	519	1.02	803A3028	7200
26	526	0.85	862A2737	2754
26	521	1.14	863A3128	10000
26	536	3.75	865A3128	29700
25	541	2.85	864A3128	19737
24	580	0.81	803A3128	7200
24	568	1.33	**863A4428**	7426
24	579	2.76	**864A4428**	19600
23	597	1.05	803A2737	6301
23	604	1.27	**863A4528**	6908
22	628	1.38	863A2937	6122
22	636	2.59	**864A4528**	19310
21	654	0.96	803A2937	5363
21	663	2.49	864A2937	18642
21	668	3.70	865A3328	29600
20	694	0.90	**803A4528**	7200
19	722	0.97	863A3037	5457
19	717	1.14	**863A4628**	7410
19	723	2.28	864A3037	18360
19	717	2.30	**864A4628**	18882
18	764	1.09	**863A4728**	6620
17	829	1.87	864A3137	17258
17	810	2.04	**864A4728**	19178
17	822	2.37	865A3137	29600
17	797	3.58	**865A4728**	29600
15	913	2.70	865A3237	29472
15	906	2.91	**865A4828**	29462
14	949	0.91	**863A4928**	3640
14	983	1.68	**864A4928**	17066
14	1000	2.64	**865A4928**	29434
13	1025	2.37	865A3337	29372
13	1059	3.56	**866A4928**	49600
12	1143	1.44	**864A5028**	16851
12	1126	2.54	**865A5028**	29348
11	1257	1.31	**864A5128**	15494
11	1244	2.30	**865A5128**	29320
11	1250	3.53	**866A5128**	49300
10	1396	1.77	**865A5228**	29200
10	1303	3.19	**866A5228**	49300
9.1	1502	2.77	**866A5328**	48965
8.9	1541	1.07	**864A5328**	17200
8.9	1537	1.61	**865A5328**	29166
8.4	1630	2.31	**866A4937**	48700
8.2	1670	2.64	**866A5037**	48700
8.1	1684	0.98	**864A5428**	15200
7.9	1732	1.65	**865A5037**	29034
7.3	1858	3.42	**867A5137**	66800
7.2	1910	1.50	**865A5137**	28982
7.1	1923	2.29	**866A5137**	48200
7.0	1929	0.86	**864A5528**	11700
6.8	2009	2.07	**866A5237**	48136
6.7	2035	3.17	**867A5237**	66700
6.4	2148	1.15	**865A5237**	28851
6.0	2265	2.85	**867A5337**	66700
5.9	2310	1.81	**866A5337**	47734
5.8	2373	1.04	**865A5337**	28693
5.3	2547	2.49	**867A5437**	66600
5.0	2715	2.34	**867A5537**	66500
4.4	3113	2.07	**867A5637**	66400
4.4	3101	3.26	**868A5637**	80900
2.2 KW MOTOR				
398	51	3.96	802A0936	4526
396	51	1.95	801A0936	3690
396	51	2.31	861A0936	3690
379	53	1.11	860A0936	1380
283	71	3.29	802A1036	4718
282	72	1.61	801A1036	3860
282	71	1.88	861A1036	3860
280	72	0.93	860A1036	1380
256	79	1.52	801A1136	3910
256	79	1.77	861A1136	3910
252	80	3.09	802A1136	4800
246	82	0.87	860A1136	1360
225	90	1.41	801A1236	3970
225	89	1.63	861A1236	3970
225	90	2.89	802A1236	4881
178	114	1.19	801A1436	4000
178	114	1.40	861A1436	4000
177	115	2.51	802A1436	5024
177	115	3.90	862A1436	4843
156	130	1.07	801A1536	4000
156	130	1.29	861A1536	4000
156	130	2.29	802A1536	5095
156	130	3.44	862A1536	4915
152	134	3.53	803A1145	7200
136	150	3.39	803A1245	7200
131	156	1.99	802A1736	5179
131	156	2.88	862A1736	4998
127	159	0.91	801A1736	4000
127	159	1.12	861A1736	4000
121	168	3.03	803A1445	7200
115	176	0.84	801A1836	4000
115	177	1.05	861A1836	4000
114	178	1.58	802A1836	5420
114	179	2.37	862A1836	5026
106	193	3.18	803A1836	7200
102	202	0.96	861A1936	4000
99	205	3.69	863A1936	8331
98	208	1.42	802A1936	5594
98	208	2.15	862A1936	5026
95	214	2.77	803A1545	7200
92	222	2.37	803A1936	7200
89	227	0.90	861A2036	3850
88	232	3.39	863A2036	8633
87	232	1.31	802A2036	5539
87	233	1.93	862A2036	5431
84	243	2.50	803A1745	7200
84	243	3.18	863A1745	8620
82	248	1.25	802A2136	5598
82	248	1.81	862A2136	5497
81	251	0.83	861A2136	3640
79	258	2.31	803A2036	7200
79	256	3.10	863A2136	9020
76	267	2.96	863A1845	8440
71	288	2.17	803A2136	7200
69	293	1.09	802A2236	5764
69	294	1.53	862A2236	5567
69	293	2.74	863A2236	8833
66	307	2.03	803A2236	7200
66	307	2.63	863A1945	8126
65	314	1.03	802A2336	5822
65	314	1.43	862A2336	5113
61	333	1.58	803A1945	7200
61	330	2.46	863A2336	8092
58	349	1.29	862A2045	5700
58	348	2.35	863A2045	7790
56	364	1.72	803A2336	7200
55	373	1.21	862A2145	5750
53	383	2.15	863A2536	7680
52	388	0.86	802A2536	5983
52	390	1.15	862A2536	4504
52	389	1.61	803A2536	7200
52	390	3.48	864A2145	20000
47	433	1.44	803A2145	7200
46	442	1.02	862A2245	5060
46	439	1.90	863A2245	6963
46	442	3.30	864A2245	20000
44	459	0.98	862A2636	4522
44	457	1.84	863A2636	8002
43	471	0.95	862A2345	4450
43	469	3.47	864A2636	20290
42	483	1.30	803A2636	7200
41	500	1.69	863A2736	7430
41	500	3.08	864A2345	20000
40	502	0.90	862A2736	3645
39	515	3.20	864A2736	20215
36	567	1.10	803A2736	7200
34	598	1.44	863A2936	7261

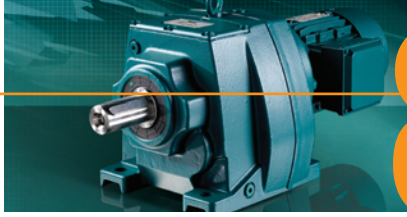
Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 217 for fourth digit of code and page 307 for motor details.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
34	604	2.73	864A2545	20000
33	622	1.02	803A2936	7200
32	631	2.61	864A2936	18821
32	634	3.89	865A2936	29615
29	687	1.02	863A3036	7502
29	689	2.39	864A3036	18617
29	699	3.46	865A3036	29617
28	724	0.86	803A2645	7200
27	749	1.16	863A2745	5217
26	790	1.95	864A3136	19279
26	783	2.56	865A3136	29563
24	846	1.89	**864A4436**	18900
24	847	3.06	**865A4436**	29523
23	897	0.97	863A2945	3265
23	870	2.84	865A3236	29546
22	930	1.77	**864A4536**	18103
21	947	1.74	864A2945	16267
21	976	2.53	865A3336	29429
21	939	2.81	**865A4536**	29423
20	1033	1.60	864A3045	15492
19	1049	1.57	**864A4636**	16927
19	1049	2.65	865A3045	29400
19	1049	2.72	**865A4636**	29429
18	1112	3.96	**866A4736**	49582
17	1184	1.31	864A3145	14699
17	1183	1.39	**864A4736**	17742
17	1174	1.66	865A3145	29390
17	1166	2.45	**865A4736**	29376
16	1304	1.89	865A3245	29250
15	1325	1.99	**865A4836**	29220
15	1346	2.80	**866A4836**	49102
14	1437	1.15	**864A4936**	14328
14	1464	1.66	865A3345	28975
14	1462	1.80	**865A4936**	29144
13	1548	2.43	**866A4936**	48771
13	1587	2.78	**866A5036**	48771
13	1588	4.00	**867A5036**	66923
12	1671	0.99	**864A5036**	14531
12	1645	1.74	**865A5036**	29082
11	1837	0.90	**864A5136**	12174
11	1818	1.57	**865A5136**	29006
11	1828	2.41	**866A5136**	48360
11	1768	3.59	**867A5136**	66826
10	2040	1.21	**865A5236**	28826
10	1904	2.18	**866A5236**	48326
10	1935	3.34	**867A5236**	66726
9.2	2155	3.00	**867A5336**	66730
9.1	2196	1.90	**866A5336**	47855
8.9	2247	1.10	**865A5336**	28762
8.6	2328	1.62	**866A4945**	46378
8.4	2385	1.85	**866A5045**	46425
8.2	2474	1.16	**865A5045**	28600
8.2	2425	2.62	**867A5436**	66636
7.7	2584	2.46	**867A5536**	66536
7.4	2728	1.05	**865A5145**	28500
7.3	2746	1.61	**866A5145**	46625
7.0	2870	1.45	**866A5245**	46450
6.8	2903	3.79	**868A5536**	80900
6.7	2957	2.18	**867A5636**	66442
6.7	2951	3.42	**868A5636**	80900
6.5	3067	0.81	**865A5245**	28300
6.1	3299	1.26	**866A5345**	46044
6.1	3234	2.00	**867A5345**	66373
6.1	3230	3.13	**868A5345**	80900
5.5	3638	1.75	**867A5445**	66232
5.2	3878	1.64	**867A5545**	66115
5.1	3894	2.82	**868A5445**	80900
4.6	4359	2.52	**868A5545**	80900
4.5	4446	1.45	**867A5645**	65962
4.5	4428	2.28	**868A5645**	80865

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
3.0 KW MOTOR				
398	69	2.91	802A0938	4476
283	98	2.41	802A1038	4648
283	98	3.87	862A1038	4395
260	107	2.87	863A0953	8020
252	110	2.26	802A1138	4720
252	110	3.73	862A1138	4450
228	122	3.87	803A1138	7200
225	123	2.12	802A1238	4791
225	123	3.34	862A1238	4504
204	136	3.73	803A1238	7200
187	148	2.87	863A1053	8470
182	153	3.34	803A1438	7200
177	157	1.84	802A1438	4911
177	157	2.86	862A1438	4733
167	166	2.87	863A1153	8620
156	177	1.68	802A1538	4968
156	178	2.52	862A1538	4790
152	183	2.87	863A1253	8750
143	194	3.05	803A1538	7200
131	212	1.46	802A1738	5026
131	212	2.11	862A1738	4850
126	221	2.73	803A1738	7200
126	221	3.23	863A1738	7698
116	239	2.87	863A1453	9090
114	244	1.16	802A1838	5202
114	244	1.74	862A1838	4855
114	243	3.03	863A1838	7607
106	263	2.33	803A1838	7200
102	271	2.73	863A1553	9240
99	279	2.71	863A1938	7670
98	284	1.04	802A1938	5343
98	284	1.58	862A1938	4762
92	303	1.74	803A1938	7200
88	316	2.48	863A2038	7956
87	317	0.96	802A2038	5110
87	317	1.42	862A2038	5204
84	330	2.34	863A1753	7950
82	339	0.92	802A2138	5140
82	339	1.33	862A2138	5254
79	352	1.69	803A2038	7200
79	349	2.27	863A2138	8480
78	354	3.83	864A2138	18200
77	363	2.18	863A1853	7683
71	394	1.59	803A2138	7200
69	402	1.12	862A2238	5221
69	399	2.02	863A2238	8190
69	402	3.64	864A2238	18800
67	417	1.94	863A1953	7218
66	419	1.49	803A2238	7200
65	429	1.05	862A2338	4500
61	451	1.80	863A2338	7040
61	456	3.37	864A2338	19500
59	472	1.73	863A2053	6718
56	497	1.26	803A2338	7200
53	523	1.58	863A2538	6400
52	532	0.85	862A2538	3280
52	530	1.18	803A2538	7200
50	548	2.90	864A2538	20000
46	599	2.43	864A2253	18233
44	623	1.35	863A2638	6898
43	640	2.55	864A2638	18667
42	658	0.95	803A2638	7200
41	682	1.24	863A2738	6022
41	678	2.27	864A2353	18181
40	693	3.37	865A2738	29600
39	702	2.35	864A2738	18492
36	773	0.81	803A2738	7200
35	783	3.15	865A2838	29600
34	815	1.06	863A2938	5750
34	819	2.01	864A2553	18181
32	860	1.92	864A2938	17475
32	865	2.85	865A2938	29492
30	930	0.93	863A2653	2898

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
29	939	1.76	864A3038	17036
29	953	2.54	865A3038	29478
28	1002	3.87	866A3138	46600
27	1017	0.85	863A2753	2898
26	1078	1.43	864A3138	18755
26	1068	1.88	865A3138	29407
25	1113	3.73	866A3238	48400
24	1154	1.39	**864A4438**	18100
24	1155	2.24	**865A4438**	29335
24	1157	3.26	**866A4438**	29500
23	1187	2.08	865A3238	29370
23	1198	3.47	866A3338	49452
22	1285	1.28	864A2953	13552
22	1268	1.30	**864A4538**	16724
22	1242	3.35	866A2953	49400
21	1332	1.85	865A3338	29234
21	1281	2.06	**865A4538**	29235
21	1285	2.93	**866A4538**	29500
20	1401	1.18	864A3053	12214
20	1386	3.04	866A3053	49100
20	1366	3.23	**866A4638**	29500
19	1430	1.15	**864A4638**	14693
19	1423	1.95	865A3053	29067
19	1431	2.00	**865A4638**	29194
19	1488	2.60	866A3153	48845
18	1517	2.91	**866A4738**	48921
17	1606	0.96	864A3153	11775
17	1614	1.02	**864A4738**	16100
17	1593	1.22	865A3153	29150
17	1590	1.80	**865A4738**	29120
17	1668	2.49	866A3253	48681
16	1769	1.40	865A3253	28995
16	1736	3.57	**867A4838**	66900
15	1806	1.46	**865A4838**	28944
15	1835	2.05	**866A4838**	48286
15	1787	2.33	866A3353	48436
14	1959	0.84	**864A4938**	11200
14	1985	1.22	865A3353	28520
14	1994	1.32	**865A4938**	28813
14	1933	3.21	**867A4938**	66700
13	2111	1.79	**866A4938**	47825
13	2164	2.04	**866A5038**	47825
13	2165	2.93	**867A5038**	66738
12	2244	1.27	**865A5038**	28779
11	2480	1.15	**865A5138**	28648
11	2492	1.77	**866A5138**	47287
11	2410	2.63	**867A5138**	66611
10	2782	0.89	**865A5238**	28400
10	2596	1.60	**866A5238**	47214
10	2639	2.45	**867A5238**	66511
10	2704	3.73	**868A5238**	80900
9.2	2938	2.20	**867A5338**	66484
9.2	2936	3.44	**868A5338**	80900
9.1	2995	1.39	**866A5338**	46586
8.9	3065	0.81	**865A5338**	28300
8.2	3307	1.92	**867A5438**	66345
7.7	3524	1.80	**867A5538**	66245
7.7	3538	3.11	**868A5438**	80900
6.8	3959	2.78	**868A5538**	80900
6.7	4032	1.60	**867A5638**	66103
6.7	4025	2.51	**868A5638**	80900
6.2	4387	1.47	**867A5353**	66000
6.2	4382	2.30	**868A5353**	80900
5.5	4935	1.29	**867A5453**	65812
5.2	5260	1.21	**867A5553**	65675
5.1	5282	2.08	**868A5453**	80900
4.6	5913	1.86	**868A5553**	80854
4.5	6031	1.07	**867A5653**	65462
4.5	6007	1.68	**868A5653**	80825



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
4.0 KW MOTOR				
400	92	2.19	802A0946	4413
400	92	3.17	862A0946	4160
390	94	3.24	863A0946	7490
323	114	3.17	803A1046	7200
285	129	1.82	802A1046	4561
285	130	2.92	862A1046	4345
282	131	3.24	863A1046	7780
261	141	2.16	863A0955	7888
254	145	1.71	802A1146	4620
254	146	2.82	862A1146	4394
251	147	3.24	863A1146	7930
230	162	2.92	803A1146	7200
228	161	3.24	863A1246	8050
226	163	1.60	802A1246	4678
226	163	2.52	862A1246	4438
205	180	2.82	803A1246	7200
188	196	2.16	863A1055	8290
183	202	2.52	803A1446	7200
178	208	1.39	802A1446	4770
178	208	2.16	862A1446	4596
175	213	2.97	863A1446	8370
168	221	2.16	863A1155	8420
157	235	1.27	802A1546	4809
157	236	1.90	862A1546	4634
154	241	2.75	863A1546	8510
144	258	2.30	803A1546	7200
132	281	1.10	802A1746	4835
132	281	1.60	862A1746	4666
127	292	2.06	803A1746	7200
126	293	2.44	863A1746	7128
115	321	2.29	863A1846	6943
115	322	3.97	864A1455	16700
114	323	0.88	802A1846	4930
114	324	1.31	862A1846	4653
106	348	1.76	803A1846	7200
103	359	3.70	864A1555	17000
100	370	2.04	863A1946	6844
98	377	1.19	862A1946	4445
92	402	1.31	803A1946	7200
88	421	1.07	862A2046	4920
88	419	1.88	863A2046	7110
86	428	3.32	864A2046	17400
85	437	1.76	863A1755	7114
83	449	1.00	862A2146	4950
80	463	1.71	863A2146	7804
79	466	1.28	803A2046	7200
79	469	2.89	864A2146	16986
77	482	1.64	863A1855	6738
74	498	2.95	864A1855	18100
71	521	1.20	803A2146	7200
70	531	0.85	862A2246	4790
70	529	1.52	863A2246	7385
69	531	2.75	864A2246	17340
67	556	1.13	803A2246	7200
67	553	1.46	863A1955	6083
64	579	2.67	864A1955	17670
62	597	1.36	863A2346	5724
62	604	2.55	864A2346	17752
59	626	1.30	863A2055	5379
58	641	2.21	864A2055	17998
56	658	0.95	803A2346	7200
55	671	3.93	865A2446	27400
53	702	0.89	803A2546	7200
53	693	1.19	863A2546	4800
53	702	1.93	864A2155	16537
52	713	3.70	865A2155	27900
51	726	2.19	864A2546	17785
50	740	3.56	865A2546	28200
47	791	1.06	863A2255	3650
47	800	3.58	865A2255	29000
46	795	1.84	864A2255	16025
45	826	1.02	863A2646	5520
44	847	1.92	864A2646	16763
44	837	2.77	865A2646	29300
42	886	3.22	865A2355	29500
41	903	0.94	863A2746	4240
40	930	1.77	864A2746	16338
40	918	2.55	865A2746	28783
36	1036	0.83	863A2355	3030
36	1037	2.38	865A2846	29111
34	1087	1.52	864A2555	15909
34	1098	3.79	866A2946	43600
32	1139	1.45	864A2946	15792
32	1146	2.15	865A2946	29338
30	1244	1.33	864A3046	15060
30	1227	3.41	866A3046	45100
29	1266	1.30	864A2655	12812
29	1262	1.92	865A3046	29305
28	1325	2.92	866A3146	46066
27	1392	1.18	864A2755	11852
26	1427	1.08	864A3146	18100
26	1415	1.42	865A3146	29212
25	1474	2.82	866A3246	47800
24	1528	1.05	**864A4446**	17100
24	1530	1.69	**865A4446**	29100
24	1532	2.46	**866A4446**	29411
23	1572	1.57	865A3246	29151
23	1586	2.62	866A3346	48813
22	1705	0.97	864A2955	10159
22	1679	0.98	**864A4546**	15000
22	1696	1.56	**865A4546**	29000
22	1647	2.53	866A2955	48566
22	1637	3.79	**867A4546**	66900
21	1763	1.40	865A3346	28990
21	1702	2.21	**866A4546**	29411
20	1859	0.89	864A3055	8116
20	1887	1.47	865A3055	28652
20	1838	2.30	866A3055	47958
20	1809	2.44	**866A4646**	29411
20	1807	3.51	**867A4646**	66800
19	1894	0.87	**864A4646**	11900
19	1895	1.51	**865A4646**	28900
19	1974	1.96	866A3155	48027
18	2009	2.19	**866A4746**	48094
18	2036	3.12	**867A4746**	66841
17	2113	0.92	865A3155	28850
17	2105	1.36	**865A4746**	28800
17	2212	1.88	866A3255	47784
16	2346	1.05	865A3255	28677
16	2299	2.70	**867A4846**	66800
15	2392	1.10	**865A4846**	28600
15	2430	1.55	**866A4846**	47267
15	2370	1.75	866A3355	47481
14	2634	0.92	865A3355	27952
14	2641	1.00	**865A4946**	28400
14	2559	2.42	**867A4946**	66611
13	2795	1.35	**866A4946**	46641
13	2865	1.54	**866A5046**	46641
13	2867	2.21	**867A5046**	66507
12	2971	0.96	**865A5046**	28400
11	3283	0.87	**865A5146**	28200
11	3438	1.21	**866A5246**	45824
11	3300	1.34	**866A5146**	45946
11	3192	1.99	**867A5146**	66342
11	3419	3.22	**868A5146**	80900
11	3153	3.49	**868A5046**	80900
10	3633	1.04	**866A4855**	44125
10	3495	1.85	**867A5246**	66242
10	3580	2.82	**868A5246**	80900
9.3	3891	1.66	**867A5346**	66176
9.3	3887	2.60	**868A5346**	80900
9.2	3965	1.05	**866A5346**	45000
8.7	4188	0.90	**866A4955**	40408
8.5	4291	1.03	**866A5055**	40575
8.3	4379	1.45	**867A5446**	65981
7.8	4666	1.36	**867A5546**	65881
7.7	4684	2.35	**868A5446**	80900
7.4	4941	0.89	**866A5155**	42575
7.1	5164	0.81	**866A5255**	42113
6.9	5242	2.10	**868A5546**	80900
6.8	5339	1.21	**867A5646**	65678
6.8	5329	1.90	**868A5646**	80900
6.2	5819	1.11	**867A5355**	65533
6.2	5812	1.74	**868A5355**	80900
5.5	6546	0.97	**867A5455**	65287
5.2	6978	0.91	**867A5555**	65125
5.2	7006	1.57	**868A5455**	80900
4.6	7843	1.40	**868A5555**	80798
4.5	8000	0.81	**867A5655**	64837
4.5	7968	1.27	**868A5655**	80775
5.5 KW MOTOR				
399	127	1.59	802A0954	4320
399	127	2.30	862A0954	4160
392	129	2.37	863A0954	7393
322	157	2.30	803A1054	7200
284	179	1.32	802A1054	4430
284	180	2.12	862A1054	4270
283	179	2.37	863A1054	7647
261	195	1.57	863A0957	7690
261	195	3.16	864A0957	14328
253	200	1.24	802A1154	4470
253	202	2.04	862A1154	4310
252	202	2.37	863A1154	7709
229	223	2.12	803A1154	7200
229	221	2.37	863A1254	7732
226	226	1.16	802A1254	4510
226	225	1.83	862A1254	4340
204	249	2.04	803A1254	7200
188	270	1.57	863A1057	8020
184	276	3.16	864A1057	15164
182	279	1.83	803A1454	7200
178	287	1.02	802A1454	4560
178	287	1.56	862A1454	4390
175	292	2.17	863A1454	7722
173	295	3.95	864A1454	15336
168	303	1.57	863A1157	8120
166	307	3.16	864A1157	15442
157	325	0.92	802A1554	4570
157	326	1.38	862A1554	4400
154	330	2.00	863A1554	7667
154	331	3.68	864A1554	15648
149	341	3.16	864A1257	15614
143	356	1.67	803A1554	7200
131	389	1.16	862A1754	4390
127	403	1.50	803A1754	7200
127	402	1.78	863A1754	6273
126	405	3.23	864A1754	16175
115	441	1.67	863A1854	5948
114	447	0.95	862A1854	4350
111	455	2.94	864A1854	16393
106	480	1.27	803A1854	7200
100	507	1.49	863A1954	5604
98	520	0.86	862A1954	3970
96	534	2.65	864A1954	16821
92	554	0.95	803A1954	7200
89	574	1.37	863A2054	5840
86	586	2.42	864A2054	15526
80	634	1.25	863A2154	6791
79	644	0.93	803A2054	7200
79	643	2.11	864A2154	15166
71	719	0.87	803A2154	7200
70	725	1.11	863A2254	6178
70	728	2.00	864A2254	15150
70	728	3.88	865A2254	25256
67	760	1.06	863A1957	4379
66	767	0.82	803A2254	7200
66	774	3.69	865A1957	25700
63	812	3.52	865A2354	26068
62	818	0.99	863A2354	3751
62	828	1.86	864A2354	15130

Motorised Selection

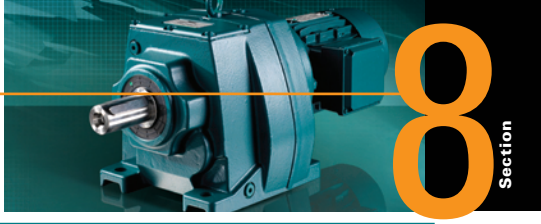
Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**

See page 217 for fourth digit of code and page 307 for motor details.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
59	861	0.95	863A2057	3369
58	885	2.98	865A2057	25816
55	919	2.87	865A2454	26609
53	949	0.87	863A2554	2400
52	981	2.69	865A2157	26386
51	994	1.60	864A2554	14463
50	1025	2.60	865A2554	27177
48	1059	3.56	866A2554	38534
45	1147	2.02	865A2654	28168
44	1161	1.40	864A2654	13907
41	1252	3.52	866A2754	40553
40	1274	1.29	864A2754	13107
40	1258	1.86	865A2754	27558
39	1309	3.18	866A2854	41131
36	1421	1.74	865A2854	28377
34	1505	2.76	866A2954	42931
32	1562	1.06	864A2954	13268
32	1570	1.57	865A2954	29107
30	1704	0.97	864A3054	12097
30	1681	2.49	866A3054	44336
29	1729	1.40	865A3054	29046
28	1816	2.13	866A3154	45266
27	1914	0.86	864A2757	6963
26	1939	1.04	865A3154	28919
25	2020	2.06	866A3254	46900
25	1981	3.12	**867A4454**	66702
24	2154	1.15	865A3254	28821
24	2100	1.79	**866A4454**	29277
23	2173	1.91	866A3354	47854
22	2332	1.62	**866A4554**	29277
22	2265	1.84	866A2957	47316
22	2244	2.76	**867A4554**	66848
21	2416	1.02	865A3354	28624
20	2595	1.07	865A3057	28030
20	2528	1.67	866A3057	46245
20	2479	1.78	**866A4654**	29277
20	2476	2.56	**867A4654**	66731
19	2714	1.43	866A3157	46800
18	2753	1.60	**866A4754**	46853
18	2791	2.28	**867A4754**	66754
17	3042	1.37	866A3257	46437
17	3000	3.67	**868A4754**	80900
16	3150	1.97	**867A4854**	66650
15	3329	1.13	**866A4854**	45738
15	3259	1.28	866A3357	46050
15	3269	3.39	**868A4854**	80900
14	3507	1.77	**867A4954**	66477
14	3553	3.12	**868A4954**	80900
13	3831	0.98	**866A4954**	44866
13	3926	1.12	**866A5054**	44866
13	3929	1.62	**867A5054**	66161
12	4320	2.55	**868A5054**	80900
11	4711	0.88	**866A5254**	43739
11	4522	0.98	**866A5154**	43934
11	4374	1.45	**867A5154**	65938
11	4686	2.35	**868A5154**	80900
10	4789	1.35	**867A5254**	65838
10	4906	2.06	**868A5254**	80900
9.3	5331	1.21	**867A5354**	65715
9.3	5327	1.90	**868A5354**	80900
8.3	6002	1.06	**867A5454**	65436
7.8	6394	0.99	**867A5554**	65336
7.8	6419	1.71	**868A5454**	80900
6.9	7183	1.53	**868A5554**	80900
6.8	7316	0.88	**867A5654**	65042
6.8	7302	1.38	**868A5654**	80900
6.2	8002	0.81	**867A5357**	64833
6.2	7992	1.26	**868A5357**	80900
5.2	9633	1.14	**868A5457**	80900
4.6	10784	1.02	**868A5557**	80713
4.5	10956	0.92	**868A5657**	80700

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
7.5 KW MOTOR				
393	175	1.74	863A0956	7265
393	175	3.49	864A0956	13458
284	244	1.74	863A1056	7470
277	250	3.49	864A1056	13997
261	265	2.32	864A0965	14100
253	274	1.74	863A1156	7415
249	278	3.49	864A1156	14177
230	302	1.74	863A1256	7310
224	311	3.37	864A1256	14357
184	377	2.32	864A1065	14850
176	396	1.59	863A1456	6860
173	402	2.91	864A1456	14612
166	419	2.32	864A1165	15100
155	449	1.47	863A1556	6545
155	450	2.71	864A1556	14670
149	465	2.32	864A1265	15100
127	545	1.31	863A1756	5134
126	550	2.38	864A1756	14656
117	597	3.95	865A1465	22500
116	599	1.23	863A1856	4621
113	615	3.93	865A1856	22600
112	618	2.17	864A1856	14523
104	668	3.67	865A1565	23000
102	689	1.10	863A1956	3952
99	702	3.60	865A1956	23200
96	726	1.95	864A1956	14395
94	747	3.39	865A1665	23300
89	780	1.02	863A2056	4148
87	797	1.78	864A2056	13028
87	802	3.27	865A2056	23212
82	849	3.11	865A1765	22983
81	862	0.92	863A2156	5440
79	874	1.55	864A2156	12740
78	886	2.98	865A2156	23415
70	985	0.82	863A2256	4570
70	989	1.47	864A2256	12230
70	990	2.86	865A2256	24134
63	1103	2.59	865A2356	24702
62	1125	1.37	864A2356	11635
58	1203	1.18	864A2065	11344
58	1193	3.16	866A2065	35800
56	1249	3.02	866A2456	36300
55	1249	2.11	865A2456	25554
53	1317	1.03	864A2165	9803
53	1321	2.85	866A2165	36900
51	1352	1.18	864A2556	10034
50	1379	1.91	865A2556	25813
48	1440	2.62	866A2556	37839
47	1475	2.99	866A2656	38185
46	1491	0.98	864A2265	8297
45	1558	1.49	865A2656	26659
44	1578	1.03	864A2656	10200
41	1688	0.91	864A2365	7954
41	1709	1.37	865A2756	25925
41	1702	2.59	866A2756	39480
41	1688	3.76	867A2756	66500
40	1731	0.95	864A2756	8800
39	1778	2.34	866A2856	40372
37	1855	3.48	867A2856	66800
36	1932	1.28	865A2856	27400
34	2038	0.81	864A2565	7954
34	2046	2.03	866A2956	42040
33	2134	1.16	865A2956	28800
33	2060	3.14	867A2956	66700
30	2285	1.83	866A3056	43318
29	2350	1.03	865A3056	28700
28	2468	1.57	866A3156	44200
27	2583	1.04	865A2765	22912
25	2746	1.51	866A3256	45700
25	2692	2.30	**867A4456**	66670
24	2908	0.85	865A2865	24802
24	2854	1.32	**866A4456**	29100
24	2812	3.73	**868A4456**	66400

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
23	2953	1.41	866A3356	46576
23	3049	2.03	**867A4556**	66779
22	3170	1.19	**866A4556**	29100
22	3089	1.35	866A2965	45650
22	3097	3.45	**868A4556**	66400
20	3447	1.22	866A3065	43962
20	3369	1.31	**866A4656**	29100
20	3365	1.89	**867A4656**	66640
19	3702	1.05	866A3165	45163
18	3741	1.18	**866A4756**	45200
18	3792	1.67	**867A4756**	66637
18	3712	2.96	**868A4656**	66400
17	4148	1.00	866A3265	44642
17	4078	2.70	**868A4756**	80900
16	4280	1.45	**867A4856**	66450
15	4525	0.83	**866A4856**	43700
15	4444	0.94	866A3365	44140
15	4443	2.50	**868A4856**	80900
14	4766	1.30	**867A4956**	66300
14	4828	2.30	**868A4956**	80900
13	5335	0.83	**866A5056**	42500
13	5339	1.19	**867A5056**	65700
12	5871	1.87	**868A5056**	80900
11	5944	1.07	**867A5156**	65400
11	6368	1.73	**868A5156**	80900
10	6508	0.99	**867A5256**	65300
10	6667	1.51	**868A5256**	80900
9.3	7245	0.89	**867A5356**	65100
9.3	7239	1.40	**868A5356**	80900
7.8	8723	1.26	**868A5456**	80900
6.9	9762	1.13	**868A5556**	80900
6.8	9923	1.02	**868A5656**	80900
6.2	10899	0.93	**868A5365**	80900
5.2	13136	0.84	**868A5465**	80900
11.0 KW MOTOR				
394	257	2.39	864A0966	13197
392	258	1.18	863A0966	7040
283	359	1.18	863A1066	7160
278	365	2.39	864A1066	13625
252	403	1.18	863A1166	6900
250	406	2.39	864A1166	13768
229	443	1.18	863A1266	6570
225	454	2.31	864A1266	13910
196	522	3.83	865A1366	20209
176	579	3.59	865A1466	20624
175	584	1.08	863A1466	5350
174	587	1.99	864A1466	13346
158	648	3.35	865A1566	21072
155	657	1.85	864A1566	12957
154	661	1.00	863A1566	4580
141	726	3.08	865A1666	20720
127	803	0.89	863A1766	3140
126	805	1.63	864A1766	11998
124	827	2.83	865A1766	21211
115	882	0.83	863A1866	2300
114	899	2.69	865A1866	21464
112	904	1.48	864A1866	11250
100	1026	2.46	865A1966	21675
96	1062	1.34	864A1966	10251
91	1121	3.36	866A1667	32000
88	1155	3.26	866A2066	32215
87	1165	1.22	864A2066	8656
87	1171	2.24	865A2066	21760
81	1269	2.97	866A1767	32600
79	1278	1.06	864A2166	8493
79	1296	2.04	865A2166	21602
79	1283	2.94	866A2166	32896
75	1362	3.24	866A2266	33324
70	1446	1.02	864A2266	7120
70	1447	1.95	865A2266	22170
67	1515	2.91	866A2366	32667
64	1585	0.98	864A1967	6260
63	1613	1.77	865A2366	22312



Motorised Selection

Otherc ombinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
62	1644	0.94	864A2366	5517
59	1740	2.17	866A2067	33980
58	1755	0.81	864A2067	4690
57	1780	3.48	867A2466	60039
56	1826	1.45	865A2466	23709
56	1826	2.06	866A2466	35310
53	1927	1.96	866A2167	34597
51	1976	0.80	864A2566	2284
51	1982	3.13	867A2566	61744
50	2026	1.31	865A2566	23427
50	2053	2.15	866A2267	35273
48	2105	1.79	866A2566	36623
47	2188	1.31	865A2267	21381
47	2156	2.05	866A2666	37054
45	2278	1.02	865A2666	24028
45	2276	1.94	866A2367	35797
45	2224	2.85	867A2666	63271
41	2499	0.94	865A2766	23066
41	2487	1.77	866A2766	37602
41	2468	2.57	867A2766	65208
39	2600	1.60	866A2866	39044
37	2712	2.38	867A2866	65228
37	2740	3.63	868A2866	80924
36	2824	0.87	865A2866	25688
36	2777	1.99	**867A4166**	50560
35	2857	3.41	**868A4166**	66432
34	3037	0.87	865A2567	19700
34	2990	1.39	866A2966	40481
34	2964	3.37	868A2966	80900
33	3057	2.02	**867A4266**	50560
33	3021	2.15	867A2966	66000
30	3339	1.25	866A3066	41536
30	3340	1.90	867A2667	64772
30	3324	3.31	**868A4266**	66432
29	3453	1.83	**867A4366**	50560
28	3607	1.07	866A3166	42333
27	3715	1.71	867A2767	64702
26	3769	2.92	**868A4366**	66432
25	4024	1.04	866A3266	43600
25	3935	1.57	**867A4466**	66616
25	4062	1.59	867A2867	63983
24	4172	0.90	**866A4466**	28788
24	4110	2.55	**868A4466**	66275
23	4316	0.96	866A3366	44339
23	4457	1.39	**867A4566**	66658
22	4633	0.81	**866A4566**	28788
22	4531	1.43	867A2967	65900
22	4526	2.36	**868A4566**	66275
20	5030	0.84	866A3067	39966
20	4924	0.90	**866A4666**	28788
20	4919	1.29	**867A4666**	66481
18	5543	1.15	**867A4766**	66433
18	5426	2.03	**868A4666**	66206
17	5960	1.85	**868A4766**	80900
16	6256	0.99	**867A4866**	66100
15	6494	1.71	**868A4866**	80900
14	6966	0.89	**867A4966**	65988
14	7057	1.57	**868A4966**	80900
12	8581	1.28	**868A5066**	80900
11	9307	1.18	**868A5166**	80900
10	9745	1.04	**868A5266**	80900
9.4	10580	0.95	**868A5366**	80900
7.7	12887	0.85	**868A5067**	80900

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
15.0 KW MOTOR				
656	213	3.49	865A0174	15400
476	295	3.49	865A0274	17100
443	315	3.49	866A0374	23700
441	319	3.41	865A0668	17400
425	331	3.29	865A0374	17700
396	349	1.76	864A0968	12900
394	356	3.06	865A0768	18000
390	358	3.49	866A0474	24700
379	371	2.93	865A0474	18200
327	427	3.49	865A0574	18600
324	429	3.49	866A0574	26000
318	440	3.81	865A0968	18700
299	468	3.35	866A0674	26100
294	478	2.28	865A0674	18700
287	487	3.59	865A1068	18900
279	496	1.76	864A1068	13200
277	505	3.11	866A0774	26300
263	535	2.03	865A0774	18884
256	544	3.34	865A1168	19200
251	552	1.76	864A1168	13300
237	587	3.08	865A0874	19305
232	598	3.49	866A0874	27100
226	617	1.70	864A1268	13400
220	636	3.02	865A1268	19500
213	653	3.49	866A0974	27300
212	662	2.87	865A0974	19663
197	710	2.82	865A1368	19772
196	707	3.49	866A1074	27700
181	770	3.49	866A1174	28100
177	787	2.64	865A1468	20227
175	798	1.47	864A1468	11900
158	881	2.46	865A1568	20381
156	893	1.36	864A1568	11000
144	965	3.49	866A1274	29200
142	987	2.27	865A1668	19486
137	1024	3.63	866A1668	29400
131	1065	2.12	865A1374	20033
127	1093	1.20	864A1768	8959
124	1124	2.08	865A1768	19966
121	1147	3.28	866A1768	30000
116	1196	3.25	866A1868	30200
114	1222	1.98	865A1868	20266
113	1228	1.09	864A1868	7509
106	1322	1.85	865A1574	20033
103	1351	3.00	866A1968	30954
100	1395	1.81	865A1968	19933
97	1444	0.98	864A1968	5299
94	1478	1.71	865A1674	19166
89	1569	2.40	866A2068	31354
88	1592	1.65	865A2068	20202
87	1584	0.90	864A2068	3659
83	1682	1.57	865A1774	18045
81	1719	3.61	867A2168	55200
80	1744	2.16	866A2168	31312
79	1761	1.50	865A2168	19528
78	1771	3.58	867A1874	55600
76	1832	1.50	865A1874	18329
75	1851	2.38	866A2268	31628
73	1902	3.34	867A2268	56100
71	1967	1.44	865A2268	19926
69	2008	3.13	867A1974	56600
67	2091	1.37	865A1974	17921
67	2060	2.14	866A2368	30688
65	2142	2.96	867A2368	56772
64	2192	1.30	865A2368	19580
58	2389	1.10	865A2074	17688
57	2419	2.56	867A2468	58681
56	2482	1.06	865A2468	21600
56	2482	1.52	866A2468	34179
53	2648	1.00	865A2174	16802
52	2680	3.72	868A2568	79400
51	2740	0.96	865A2568	20700

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
51	2694	2.30	867A2568	60368
49	2860	1.32	866A2568	35232
47	2969	0.96	865A2274	17028
47	2929	1.51	866A2668	35762
46	3023	2.10	867A2668	61752
42	3291	0.87	865A2374	15725
42	3277	3.26	868A2668	80900
41	3380	1.30	866A2768	35456
41	3354	1.89	867A2768	63733
39	3533	1.18	866A2868	37527
39	3540	3.05	868A2768	80900
37	3685	1.75	867A2868	63433
37	3724	2.67	868A2868	80827
36	3774	1.47	**867A4168**	49920
35	3882	2.51	**868A4168**	66304
34	4064	1.02	866A2968	38700
34	4029	2.48	868A2968	80900
33	4154	1.49	**867A4268**	49920
33	4091	1.58	867A2968	65200
32	4393	1.00	866A2674	33272
30	4538	0.92	866A3068	39500
30	4532	1.40	867A2674	62684
30	4517	2.44	**868A4268**	66304
29	4692	1.34	**867A4368**	49920
28	4917	2.18	868A2674	79109
27	5075	0.87	866A2774	31505
27	5041	1.26	867A2774	63248
27	5122	2.15	**868A4368**	66304
26	5348	1.16	**867A4468**	66554
26	5308	2.03	868A2774	78890
25	5511	1.17	867A2874	62008
25	5573	1.81	868A2874	80800
24	5585	1.88	**868A4468**	66133
23	6057	1.02	**867A4568**	66520
23	6045	1.67	868A2974	80823
22	6147	1.05	867A2974	65390
22	6151	1.74	**868A4568**	66133
20	6684	0.95	**867A4668**	66300
18	7533	0.84	**867A4768**	66200
18	7373	1.49	**868A4668**	65986
17	8100	1.36	**868A4768**	80900
15	8825	1.26	**868A4868**	80900
14	9591	1.16	**868A4968**	80900
12	11661	0.94	**868A5068**	80900
11	12648	0.87	**868A5168**	80900
18.5 KW MOTOR				
676	253	2.84	866A0175	20700
659	261	2.84	865A0175	15306
574	299	3.60	865A0476	16006
484	355	2.84	866A0275	23000
479	362	2.84	865A0275	16936
445	390	2.79	865A0676	17283
445	386	2.84	866A0375	23560
427	406	2.68	865A0375	17513
399	435	2.50	865A0776	17871
392	439	2.84	866A0475	24536
381	456	2.39	865A0475	18013
360	477	3.35	865A0876	18271
336	510	3.41	867A0575	44500
326	527	2.84	866A0575	25813
321	537	3.12	865A0976	18560
306	560	3.41	867A0675	45000
301	574	2.73	866A0675	25866
290	594	2.94	865A1076	18760
279	620	2.53	866A0775	26066
268	639	3.41	867A0775	45700
259	664	2.74	865A1176	19025
242	709	3.41	867A0875	46300
233	734	2.84	866A0875	26843
222	776	2.47	865A1276	19255
221	780	3.41	867A0975	46800
215	801	2.84	866A0975	27043
202	847	3.80	866A1376	27300

Motorised Selection

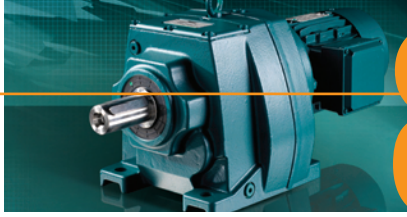
Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**

See page 217 for fourth digit of code and page 307 for motor details.

Nominal Output Rev/Min	Output Torque Nm	Servce Factor	Unit Selection	Overhung Load N
199	866	2.31	865A1376	19390
193	885	3.41	867A1075	47600
185	927	3.59	866A1476	27700
179	960	2.16	865A1476	19692
176	973	3.41	867A1175	48400
171	1000	3.42	866A1576	28166
160	1076	2.02	865A1576	19777
157	1094	3.41	867A1275	49300
143	1205	1.86	865A1676	18406
142	1214	3.41	867A1375	50100
139	1238	2.97	866A1676	29096
126	1373	1.70	865A1776	18877
125	1366	3.41	867A1475	51200
123	1402	2.69	866A1776	29661
118	1460	2.66	866A1876	29861
115	1491	1.62	865A1876	19031
113	1513	3.41	867A1575	52000
106	1622	1.51	865A1575	18648
105	1632	3.85	867A1976	52700
104	1649	2.46	866A1976	30551
102	1703	1.49	865A1976	18408
99	1742	3.41	867A1675	53100
95	1814	1.39	865A1675	17237
92	1860	3.33	867A2076	53508
89	1943	1.35	865A2076	18651
89	1916	1.97	866A2076	30602
87	1978	3.00	867A1775	54200
83	2063	1.28	865A1775	15741
82	2099	2.95	867A2176	54351
81	2129	1.77	866A2176	29926
80	2150	1.23	865A2176	17714
79	2174	2.92	867A1875	54733
77	2248	1.22	865A1875	15982
76	2260	1.95	866A2276	30244
73	2322	2.73	867A2276	55137
71	2402	1.18	865A2276	17963
69	2463	2.55	867A1975	55550
68	2514	1.75	866A2376	28955
67	2566	1.11	865A1975	15055
65	2615	2.43	867A2376	55689
64	2676	1.07	865A2376	17190
61	2809	2.21	867A2075	56896
61	2787	3.87	868A2376	75200
59	2932	0.90	865A2075	14694
58	2954	2.10	867A2476	57493
56	3030	1.24	866A2476	33189
56	3003	3.50	868A2476	77000
53	3249	0.81	865A2175	13271
52	3288	1.89	867A2576	59164
52	3272	3.05	868A2576	78603
49	3492	1.08	866A2576	34026
48	3576	1.23	866A2676	34631
46	3690	1.72	867A2676	60423
45	3789	1.16	866A2375	29364
43	4002	2.67	868A2676	79736
41	4126	1.07	866A2776	33578
41	4094	1.55	867A2776	62442
40	4313	0.96	866A2876	36200
39	4321	2.50	868A2776	79675
38	4499	1.44	867A2876	61862
37	4578	0.82	866A2475	31417
37	4607	1.20	**867A4176**	49360
37	4546	2.19	868A2876	80742
36	4739	2.05	**868A4176**	66192
34	4995	1.29	867A2976	64500
34	4918	2.03	868A2976	80900
33	5071	1.22	**867A4276**	49360
32	5391	0.82	866A2675	29636
31	5560	1.14	867A2675	60857
30	5514	1.99	**868A4276**	66192
29	5728	1.10	**867A4376**	49360
27	6185	1.03	867A2775	61977
27	6253	1.76	**868A4376**	66192
26	6529	0.95	**867A4476**	66500

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
25	6762	0.96	867A2875	60279
25	6818	1.54	**868A4476**	66008
23	7394	0.84	**867A4576**	66400
22	7543	0.86	867A2975	64945
22	7509	1.42	**868A4576**	66008
19	9002	1.22	**868A4676**	65793
17	9888	1.11	**868A4776**	80900
16	10774	1.03	**868A4876**	80900
14	11708	0.95	**868A4976**	80900
12	13538	0.81	**868A4675**	80900
22.0 KW MOTOR				
1029	200	3.60	866A0178	18100
994	206	3.60	865A0178	13447
730	280	3.60	866A0278	20200
722	284	3.50	865A0278	14860
671	305	3.60	866A0378	20600
659	311	2.39	865A0184	15213
644	318	3.39	865A0378	15413
591	346	3.60	866A0478	21400
574	356	3.03	865A0478	15913
495	412	3.40	865A0578	16813
491	413	3.60	866A0578	22800
484	422	2.39	866A0284	22847
479	430	2.39	865A0284	16773
453	451	3.39	866A0678	23300
445	463	2.35	865A0678	17166
427	483	2.25	865A0384	17326
420	488	3.19	866A0778	23800
399	517	2.11	865A0778	17743
392	522	2.39	866A0484	24373
381	542	2.01	865A0484	17826
360	568	2.82	865A0878	18143
352	579	3.60	866A0878	25300
336	606	2.87	867A0584	44375
323	632	3.60	866A0978	25600
321	639	2.63	865A0978	18420
306	666	2.87	867A0684	44865
298	685	3.60	866A1078	25900
290	707	2.47	865A1078	18620
274	746	3.60	866A1178	26200
268	760	2.87	867A0784	45546
259	789	2.30	865A1178	18850
242	844	2.87	867A0884	46127
233	873	2.39	866A0884	26586
222	923	2.08	865A1278	19020
221	927	2.87	867A0984	46617
219	934	3.36	866A1278	26800
202	1008	3.19	866A1378	27102
199	1030	1.94	865A1378	19009
193	1053	2.87	867A1084	47389
185	1103	3.02	866A1478	27502
179	1142	1.82	865A1478	19257
176	1158	2.87	867A1184	48169
171	1189	2.88	866A1578	27933
160	1279	1.70	865A1578	19172
157	1301	2.87	867A1284	49031
143	1433	1.56	865A1678	17327
142	1444	2.87	867A1384	49812
139	1473	2.50	866A1678	28793
131	1558	3.81	867A1778	50400
126	1632	1.43	865A1778	17788
125	1625	2.87	867A1484	50854
123	1666	2.26	866A1778	29323
119	1716	3.70	867A1878	51300
118	1736	2.24	866A1878	29523
115	1774	1.36	865A1878	17895
113	1799	2.87	867A1584	51558
105	1941	3.24	867A1978	52028
104	1961	2.06	866A1978	30248
102	2025	1.25	865A1978	16884
99	2071	2.87	867A1684	52476
95	2157	1.17	865A1684	15308
92	2212	2.80	867A2078	52817

Nominal Output Rev/Min	Output Torque Nm	Max Service Factor	Unit Selection	Overhung Load N
89	2311	1.13	865A2078	17200
89	2278	1.65	866A2078	29848
83	2454	1.08	865A1784	13436
82	2496	2.48	867A2178	53502
81	2532	1.49	866A2178	28540
80	2557	1.03	865A2178	15899
77	2673	1.02	865A1884	13634
76	2688	1.64	866A2278	28660
73	2761	2.30	867A2278	54175
71	2856	0.99	865A2278	15999
68	2990	1.47	866A2378	27223
68	2999	3.53	868A2278	73600
67	3051	0.94	865A1984	12190
65	3110	2.04	867A2378	54606
64	3182	0.90	865A2378	14800
61	3314	3.26	868A2378	74382
58	3512	1.76	867A2478	56306
56	3604	1.05	866A2478	32200
56	3571	2.94	868A2478	75965
52	3911	1.59	867A2578	57960
52	3891	2.56	868A2578	77807
49	4152	0.91	866A2578	32800
48	4253	1.04	866A2678	33500
46	4388	1.45	867A2678	59094
43	4758	2.25	868A2678	78572
41	4907	0.90	866A2778	31700
41	4869	1.30	867A2778	61151
39	5139	2.10	868A2778	78450
38	5350	1.21	867A2878	60291
37	5479	1.02	**867A4178**	48800
37	5406	1.84	868A2878	80657
36	5636	1.73	**868A4178**	66080
34	5940	1.09	867A2978	63800
34	5849	1.71	868A2978	80900
33	6031	1.02	**867A4278**	48800
31	6613	0.96	867A2684	59030
30	6557	1.68	**868A4278**	66080
29	6812	0.93	**867A4378**	48800
28	7175	1.49	868A2684	75975
27	7355	0.86	867A2784	60706
27	7436	1.48	**868A4378**	66080
26	7746	1.39	868A2784	75375
25	8042	0.80	867A2884	58551
25	8133	1.24	868A2884	80706
25	8108	1.29	**868A4478**	65884
23	8821	1.14	868A2984	80752
22	8930	1.20	**868A4578**	65884
19	10704	1.03	**868A4678**	65600
17	11758	0.94	**868A4778**	80900
16	12812	0.87	**868A4878**	80900



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
30.0 KW MOTOR				
1029	273	2.64	866A0188	17995
994	281	2.64	865A0188	13326
730	382	2.64	866A0288	19960
722	387	2.56	865A0288	14700
671	416	2.64	866A0388	20460
663	422	1.76	865A0191	15000
644	434	2.48	865A0388	15200
591	473	2.64	866A0488	21260
574	486	2.22	865A0488	15700
506	548	3.17	867A0588	39200
495	562	2.49	865A0588	16600
491	563	2.64	866A0588	22626
481	584	1.76	865A0291	16400
461	602	3.17	867A0688	40200
453	615	2.49	866A0688	23056
445	632	1.72	865A0688	16900
429	656	1.66	865A0391	16900
420	666	2.34	866A0788	23556
404	684	3.17	867A0788	41800
399	705	1.54	865A0788	17450
394	709	1.76	866A0491	24000
383	736	1.48	865A0491	17400
365	763	3.17	867A0888	43000
360	774	2.06	865A0888	17850
352	790	2.64	866A0888	25056
339	817	3.08	868A0591	56900
333	839	3.17	867A0988	44100
330	845	1.76	865A0591	17800
323	862	2.64	866A0988	25356
321	872	1.93	865A0988	18100
302	921	3.08	868A0691	58400
298	934	2.64	866A1088	25621
297	947	1.15	865A0691	17600
292	952	3.17	867A1088	44800
290	964	1.81	865A1088	18300
280	1000	1.57	866A0791	25300
274	1027	2.64	866A1188	25886
266	1060	1.03	865A0791	17700
265	1047	3.17	867A1188	45300
259	1077	1.69	865A1188	18450
256	1080	3.08	868A0791	59600
243	1145	3.08	868A0891	60000
240	1163	1.56	865A0891	18200
237	1176	3.17	867A1288	45800
234	1185	1.76	866A0891	26000
222	1259	1.52	865A1288	18450
219	1274	2.46	866A1288	26417
216	1287	3.08	868A0991	60800
214	1310	1.45	865A0991	18400
214	1302	3.17	867A1388	46300
202	1374	2.34	866A1388	26649
199	1405	1.42	865A1388	18136
189	1470	3.17	867A1488	47100
185	1504	2.21	866A1488	27049
184	1511	3.08	868A1091	62000
179	1558	1.33	865A1488	18263
171	1621	2.11	866A1588	27400
171	1627	3.17	867A1588	47800
163	1699	3.08	868A1191	63200
160	1744	1.24	865A1588	17790
150	1858	3.08	868A1291	64200
149	1873	3.17	867A1688	48800
143	1955	1.15	865A1688	14859
139	2009	1.83	866A1688	28100
135	2062	3.08	868A1391	65300
131	2125	2.79	867A1788	49517
126	2226	1.05	865A1788	15300
123	2272	1.66	866A1788	28550
119	2343	1.01	865A1491	15700
119	2340	2.71	867A1888	50288
118	2368	1.64	866A1888	28750
115	2419	1.00	865A1888	15300
114	2435	1.59	866A1591	28300
113	2455	3.08	868A1491	67100
107	2618	0.94	865A1591	14100
105	2647	2.38	867A1988	50461
104	2675	1.51	866A1988	29227
102	2762	0.92	865A1988	13400
102	2724	3.08	868A1591	68200
97	2849	3.65	868A1988	68600
95	2927	0.86	865A1691	10900
93	3010	1.25	866A1691	28700
92	3027	2.05	867A2088	51237
89	3107	1.21	866A2088	28127
89	3096	3.21	868A2088	69600
88	3191	1.86	867A1791	51584
82	3403	1.82	867A2188	51562
81	3453	1.09	866A2188	25372
81	3428	3.00	868A2188	70600
79	3507	1.81	867A1891	51887
76	3665	1.20	866A2288	25268
73	3765	1.69	867A2288	51975
70	3975	1.58	867A1991	52100
68	4078	1.08	866A2388	23264
68	4089	2.59	868A2288	71941
65	4241	1.50	867A2388	52132
61	4532	1.37	867A2091	52612
61	4520	2.39	868A2388	72513
60	4674	0.81	866A2091	24100
58	4790	1.29	867A2488	53590
56	4870	2.16	868A2488	73600
54	5103	1.21	867A2191	52868
52	5333	1.16	867A2588	55208
52	5306	1.88	868A2588	75987
49	5654	1.12	867A2291	53775
46	5984	1.06	867A2688	56057
43	6488	1.65	868A2688	75912
41	6639	0.96	867A2788	58200
39	7008	1.54	868A2788	75650
38	7296	0.89	867A2888	56700
37	7372	1.35	868A2888	80463
36	7685	1.27	**868A4188**	65824
34	7976	1.25	868A2988	80900
30	8942	1.23	**868A4288**	65824
28	9735	1.10	868A2691	72393
27	10240	1.08	**868A4388**	65824
26	10509	1.03	868A2791	71356
25	11034	0.92	868A2891	80600
25	11057	0.95	**868A4488**	65600
23	11968	0.84	868A2991	80671
22	12178	0.88	**868A4588**	65600
20	13413	0.82	**868A4291**	64700
37.0 KW MOTOR				
1023	335	2.15	866A0194	17904
997	345	2.15	865A0194	13220
732	469	2.15	866A0294	19839
724	476	2.09	865A0294	14560
673	511	2.15	866A0394	20339
646	534	2.02	865A0394	15023
593	581	2.15	866A0494	21139
576	597	1.81	865A0494	15513
511	669	3.77	868A0594	50300
508	674	2.58	867A0594	39071
497	690	2.03	865A0594	16413
493	693	2.15	866A0594	22473
463	740	2.58	867A0694	40071
455	756	2.02	866A0694	22843
454	754	3.77	868A0694	52100
447	777	1.40	865A0694	16666
421	818	1.91	866A0794	23343
405	841	2.58	867A0794	41648
400	867	1.26	865A0794	17193
386	884	3.77	868A0794	54600
366	938	2.58	867A0894	42825
366	937	3.77	868A0894	55400
361	952	1.68	865A0894	17593
353	972	2.15	866A0894	24843
339	1008	2.50	868A0592	56704
334	1031	2.58	867A0994	43913
325	1060	2.15	866A0994	25143
325	1054	3.77	868A0994	57400
322	1072	1.57	865A0994	17820
307	1114	1.71	867A0692	44290
302	1136	2.50	868A0692	58176
299	1148	2.15	866A1094	25378
293	1171	2.58	867A1094	44590
291	1185	1.48	865A1094	18020
277	1237	3.77	868A1094	58800
275	1251	2.15	866A1194	25613
266	1287	2.58	867A1194	45066
259	1323	1.37	865A1194	18100
256	1332	2.50	868A0792	59320
246	1391	3.77	868A1194	59600
238	1446	2.58	867A1294	45543
225	1521	3.77	868A1294	60200
223	1548	1.24	865A1294	17960
222	1552	1.71	867A0992	45836
219	1566	2.00	866A1294	26082
214	1602	2.58	867A1394	46020
203	1690	1.91	866A1394	26252
203	1688	3.77	868A1394	60900
199	1727	1.16	865A1394	17372
190	1807	2.58	867A1494	46773
186	1849	1.80	866A1494	26652
184	1864	2.50	868A1092	61608
179	1915	1.09	865A1494	17393
172	1993	1.72	866A1594	26933
171	2000	2.58	867A1594	47368
170	2009	3.77	868A1494	62400
163	2096	2.50	868A1192	62780
161	2144	1.02	865A1594	16581
158	2177	1.71	867A1292	47880
153	2230	3.77	868A1594	63400
149	2303	2.58	867A1694	48181
147	2336	3.77	868A1694	63900
144	2403	0.93	865A1694	12700
142	2416	1.71	867A1392	48579
139	2469	1.49	866A1694	27493
135	2544	2.50	868A1392	64768
132	2612	2.27	867A1794	48745
129	2662	3.44	868A1794	65200
126	2719	1.71	867A1492	49375
123	2792	1.35	866A1794	27873
119	2876	2.21	867A1894	49402
118	2911	1.34	866A1894	28073
114	3011	1.71	867A1592	49668
111	3066	3.33	868A1894	66700
105	3254	1.93	867A1994	49098
104	3288	1.23	866A1994	28421
99	3466	1.71	867A1692	49805
98	3502	2.97	868A1994	67981
92	3709	1.67	867A2094	49855
90	3819	0.99	866A2094	26621
90	3805	2.61	868A2094	68981
88	3935	1.51	867A1792	49993
86	3996	2.50	868A1792	69288
82	4183	1.48	867A2194	49865
81	4245	0.89	866A2194	22600
81	4214	2.44	868A2194	69783
79	4326	1.47	867A1892	50155
76	4505	0.98	866A2294	22300
74	4628	1.37	867A2294	50050
74	4632	2.20	868A1892	70620
70	4902	1.28	867A1992	50000
68	5022	0.88	866A2394	19800
68	5026	2.11	868A2294	70489
65	5213	1.22	867A2394	49967
65	5286	1.97	868A1992	71327
62	5556	1.94	868A2394	70879

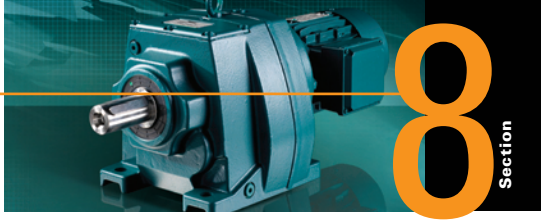
Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 217 for fourth digit of code and page 307 for motor details.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
61	5590	1.11	867A2092	50005
60	5731	1.94	868A2092	72900
58	5888	1.05	867A2494	51215
57	5986	1.75	868A2494	71531
54	6315	1.76	868A2192	74046
52	6555	0.95	867A2594	52800
52	6522	1.53	868A2594	74395
49	6974	0.91	867A2292	50450
46	7355	0.86	867A2694	53400
43	7855	0.81	867A2392	50204
43	7975	1.34	868A2694	73585
39	8614	1.25	868A2794	73200
37	9061	1.10	868A2894	80293
36	9447	1.03	**868A4194**	65600
35	9804	1.02	868A2994	80900
31	10991	1.00	**868A4294**	65600
28	12006	0.89	868A2692	69259
27	12464	0.88	**868A4394**	65600
26	12961	0.83	868A2792	67840
45.0 KW MOTOR				
1023	408	1.77	866A0195	17800
997	420	1.77	865A0195	13100
732	571	1.77	866A0295	19700
724	579	1.72	865A0295	14400
673	622	1.77	866A0395	20200
646	650	1.66	865A0395	14800
593	707	1.77	866A0495	21000
576	727	1.49	865A0495	15300
511	813	3.10	868A0595	50294
508	820	2.12	867A0595	38925
497	840	1.67	865A0595	16200
493	842	1.77	866A0595	22300
463	900	2.12	867A0695	39925
455	919	1.66	866A0695	22600
454	917	3.10	868A0695	51979
447	945	1.15	865A0695	16400
421	995	1.57	866A0795	23100
405	1023	2.12	867A0795	41475
400	1055	1.03	865A0795	16900
386	1075	3.10	868A0795	54449
366	1141	2.12	867A0895	42625
366	1139	3.10	868A0895	55249
361	1158	1.38	865A0895	17300
353	1182	1.77	866A0895	24600
339	1226	2.06	868A0593	56480
334	1254	2.12	867A0995	43700
325	1289	1.77	866A0995	24900
325	1281	3.10	868A0995	57218
322	1303	1.29	865A0995	17500
307	1355	1.41	867A0693	43983
302	1381	2.06	868A0693	57920
299	1397	1.77	866A1095	25100
293	1424	2.12	867A1095	44350
291	1441	1.21	865A1095	17700
277	1504	3.10	868A1095	58588
275	1521	1.77	866A1195	25300
266	1565	2.12	867A1195	44800
259	1610	1.13	865A1195	17700
256	1620	2.06	868A0793	59000
246	1691	3.10	868A1195	59358
238	1759	2.12	867A1295	45250
225	1850	3.10	868A1295	59943
223	1883	1.02	865A1295	17400
222	1888	1.41	867A0993	45420
219	1905	1.65	866A1295	25700
214	1947	2.12	867A1395	45700
203	2055	1.57	866A1395	25800
203	2053	3.10	868A1395	60628
199	2102	0.95	865A1395	16500
190	2197	2.12	867A1495	46400
186	2249	1.48	866A1495	26200
184	2267	2.06	868A1093	61160
179	2329	0.89	865A1495	16400

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
172	2424	1.41	866A1595	26400
171	2433	2.12	867A1595	46875
170	2444	3.10	868A1495	62052
163	2549	2.06	868A1193	62300
161	2608	0.83	865A1595	15200
158	2647	1.41	867A1293	47267
153	2712	3.10	868A1595	63022
149	2802	2.12	867A1695	47475
147	2841	3.10	868A1695	63507
139	3003	1.23	866A1695	26800
135	3094	2.06	868A1393	64160
132	3177	1.87	867A1795	47863
129	3238	2.83	868A1795	64762
126	3307	1.41	867A1493	48586
123	3396	1.11	866A1795	27100
119	3498	1.82	867A1895	48391
118	3540	1.10	866A1895	27300
114	3662	1.41	867A1593	48660
111	3729	2.74	868A1895	66171
105	3958	1.59	867A1995	47540
104	3999	1.02	866A1995	27500
99	4216	1.41	867A1693	48380
98	4259	2.44	868A1995	67275
92	4511	1.37	867A2095	48275
90	4645	0.81	866A2095	24900
90	4628	2.15	868A2095	68275
88	4786	1.24	867A1793	48173
86	4860	2.06	868A1793	68360
82	5088	1.22	867A2195	47925
81	5125	2.02	868A2195	68850
79	5261	1.21	867A1893	48175
74	5629	1.13	867A2295	47850
74	5634	1.81	868A1893	69500
70	5962	1.05	867A1993	47600
68	6113	1.73	868A2295	68830
65	6341	1.00	867A2395	47493
65	6429	1.62	868A1993	69848
62	6757	1.60	868A2395	69020
61	6798	0.91	867A2093	47025
60	6970	1.59	868A2093	71566
58	7161	0.87	867A2495	48500
57	7280	1.44	868A2495	69167
54	7681	1.45	868A2193	72336
52	7932	1.26	868A2595	72575
43	9699	1.10	868A2695	70925
39	10477	1.03	868A2795	70400
37	11020	0.90	868A2895	80200

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
55.0 KW MOTOR				
511	994	2.53	868A0596	50062
508	1002	1.73	867A0596	38741
463	1100	1.73	867A0696	39741
454	1120	2.53	868A0696	51828
405	1250	1.73	867A0796	41258
386	1314	2.53	868A0796	54260
366	1394	1.73	867A0896	42375
366	1393	2.53	868A0896	55060
339	1498	1.68	868A0597	56200
334	1533	1.73	867A0996	43433
325	1566	2.53	868A0996	56992
307	1657	1.15	867A0697	43600
302	1688	1.68	868A0697	57600
293	1740	1.73	867A1096	44050
277	1839	2.53	868A1096	58324
266	1913	1.73	867A1196	44466
256	1980	1.68	868A0797	58600
246	2067	2.53	868A1196	59056
238	2150	1.73	867A1296	44883
225	2261	2.53	868A1296	59622
222	2307	1.15	867A0997	44900
214	2380	1.73	867A1396	45300
203	2510	2.53	868A1396	60288
190	2686	1.73	867A1496	45933
184	2771	1.68	868A1097	60600
171	2974	1.73	867A1596	46258
170	2987	2.53	868A1496	61618
163	3116	1.68	868A1197	61700
158	3236	1.15	867A1297	46500
153	3315	2.53	868A1596	62550
149	3423	1.73	867A1696	46591
147	3472	2.53	868A1696	63026
135	3782	1.68	868A1397	63400
132	3883	1.53	867A1796	46760
129	3957	2.31	868A1796	64215
126	4042	1.15	867A1497	47600
119	4275	1.49	867A1896	47126
114	4476	1.15	867A1597	47400
111	4557	2.24	868A1896	65511
105	4837	1.30	867A1996	45593
99	5153	1.15	867A1697	46600
98	5206	2.00	868A1996	66391
92	5513	1.12	867A2096	46300
90	5657	1.76	868A2096	67391
88	5850	1.02	867A1797	45900
86	5940	1.68	868A1797	67200
82	6219	1.00	867A2196	45500
81	6264	1.64	868A2196	67683
79	6430	0.99	867A1897	45700
74	6880	0.92	867A2296	45100
74	6886	1.48	868A1897	68100
70	7287	0.86	867A1997	44600
68	7472	1.42	868A2296	66757
65	7750	0.82	867A2396	44400
65	7858	1.32	868A1997	68000
62	8259	1.31	868A2396	66674
60	8519	1.30	868A2097	69900
57	8898	1.18	868A2496	66211
54	9388	1.18	868A2197	70200
52	9695	1.03	868A2596	70300
43	11855	0.90	868A2696	67600
39	12805	0.84	868A2796	66900



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
75.0 KW MOTOR				
514	1347	1.87	868A0598	49798
511	1358	1.28	867A0598	38375
466	1491	1.28	867A0698	39375
457	1518	1.87	868A0698	51526
408	1694	1.28	867A0798	40825
389	1780	1.87	868A0798	53883
369	1889	1.28	867A0898	41875
369	1886	1.87	868A0898	54683
336	2076	1.28	867A0998	42900
327	2122	1.87	868A0998	56539
295	2357	1.28	867A1098	43450
278	2490	1.87	868A1098	57796
268	2592	1.28	867A1198	43800
247	2802	1.87	868A1198	58452
239	2912	1.28	867A1298	44150
227	3062	1.87	868A1298	58981
216	3224	1.28	867A1398	44500
204	3399	1.87	868A1398	59609
191	3638	1.28	867A1498	45000
172	4028	1.28	867A1598	45025
171	4046	1.87	868A1498	60750
154	4490	1.87	868A1598	61607
150	4637	1.28	867A1698	44825
148	4703	1.87	868A1698	62035
133	5259	1.13	867A1798	44554
130	5360	1.71	868A1798	63120
120	5791	1.10	867A1898	44597
111	6173	1.65	868A1898	64190
106	6552	0.96	867A1998	41700
98	7052	1.47	868A1998	64625
90	7662	1.30	868A2098	65625
82	8484	1.21	868A2198	65350
68	10220	1.05	868A2298	62610
62	11186	0.97	868A2398	62003
57	12052	0.87	868A2498	60300

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
90.0 KW MOTOR				
514	1616	1.56	868A0599	49600
511	1630	1.07	867A0599	38100
466	1789	1.07	867A0699	39100
457	1821	1.56	868A0699	51300
408	2033	1.07	867A0799	40500
389	2136	1.56	868A0799	53600
369	2267	1.07	867A0899	41500
369	2264	1.56	868A0899	54400
336	2492	1.07	867A0999	42500
327	2546	1.56	868A0999	56200
295	2829	1.07	867A1099	43000
278	2989	1.56	868A1099	57400
268	3110	1.07	867A1199	43300
247	3361	1.56	868A1199	58000
239	3494	1.07	867A1299	43600
227	3675	1.56	868A1299	58500
216	3869	1.07	867A1399	43900
204	4079	1.56	868A1399	59100
191	4365	1.07	867A1499	44300
172	4834	1.07	867A1599	44100
171	4855	1.56	868A1499	60200
154	5388	1.56	868A1599	60900
150	5565	1.07	867A1699	43500
148	5644	1.56	868A1699	61300
133	6311	0.94	867A1799	42900
130	6432	1.42	868A1799	62300
120	6949	0.91	867A1899	42700
111	7407	1.38	868A1899	63200
98	8462	1.23	868A1999	63300
90	9195	1.08	868A2099	64300
82	10281	1.02	868A2199	63600
68	12144	0.87	868A2299	59500
62	13424	0.80	868A2399	58500

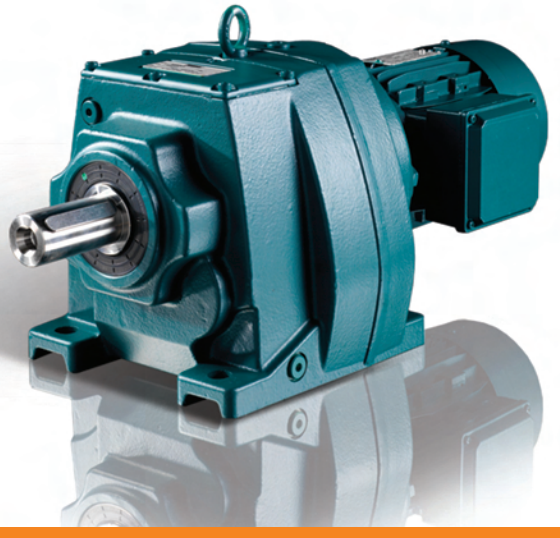
For ATEX certified gear units please consult your local Authorised Distributor.

Fenner®
THE LANGUAGE OF POWER TRANSMISISONS

Series M

Flexible and Efficient
The Cost Effective Alternative

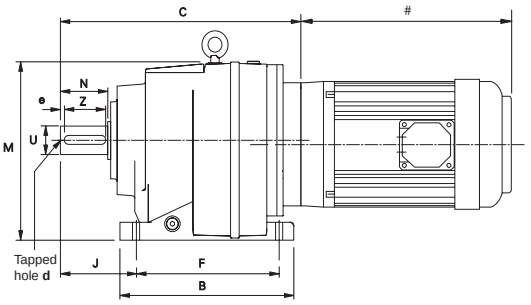
- Dimesionally interchangeable with market leaders
- Versatile mounting
- Backstops easily fitted
- Oil tight gearhead enables motor removal without modification
- Accepts standard IEC motors
- Ratios from 1.5:1 to 11,000:1

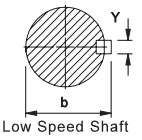


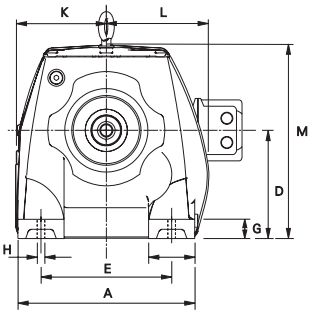
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Dimensions Motorised

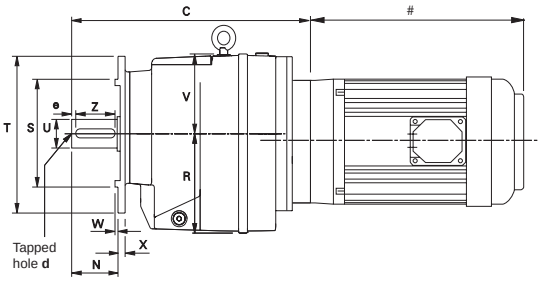
FOOT MOUNTED

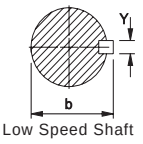


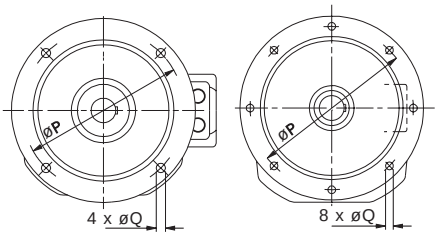




FLANGE MOUNTED







4 holes **Q** dia on **P**. p.c.d. (sizes 860-864)

8 holes **Q** dia on **P**. p.c.d. (sizes 865-868)

*for motor dimensions see page 307

Unit Size	A	B	D	E	F	G	H	J	K	L	M	N	P	Q	R	S*	T*	U	V	W*	X*	Y	Z	d	b	e
860	135	131	75	110	110	12	10	58	76	76	149	40	130	9.0	76	110	160	20/k6	74	3.5	10	6	32	M6	22.5	4
801	145	152	90	110	130	16	10	75	84	86	180	50	130	9.0	91	110	160	25/k6	90	3.5	10	8	40	M10	28.0	4
861	145	152	90	110	130	16	10	75	84	86	180	50	165	11.0	91	130	200	25/k6	90	3.5	10	8	40	M10	28.0	4
802	190	200	115	135	165	20	15	90	97	107	208	60	165	11.0	115	130	200	30/k6	93	3.5	11	8	50	M10	33.0	4
862	190	200	115	135	165	20	15	100	97	107	208	70	215	13.5	115	180	250	35/k6	93	4.0	11	8	60	M12	33.0	7
803	210	235	130	150	195	24	15	100	110	110	214	70	215	13.5	130	180	250	35/k6	84	4.0	11	10	60	M12	38.0	7
863	230	245	140	170	205	25	19	115	119	133	250	80	265	13.5	140	230	300	40/k6	110	4.0	11	12	70	M16	43.0	5
864	290	310	180	215	260	35	19	140	167	153	310	100	300	17.5	182	250	350	50/k6	130	5.0	17	14	80	M16	53.5	10
865	340	365	225	250	310	40	23	160	200	172	394	120	400	18.0	230	350	450	60/m6	169	5.0	18	18	100	M20	64.0	10
866	400	440	250	290	370	45	27	185	225	203	446	140	400	18.0	260	350	450	70/m6	196	5.0	22	20	110	M20	74.5	15
867	450	490	265	340	410	50	34	220	242	228	483	170	500	18.0	278	450	550	90/m6	218	5.0	25	25	140	M24	95.0	15
868	530	590	300	380	500	50	41	260	278	268	551	210	500	18.0	318	450	550	100/m6	251	5.0	25	28	180	M24	106.0	15

*The unit will be supplied with this flange diameter unless otherwise specified. For a list of alternative flange diameters see table below.

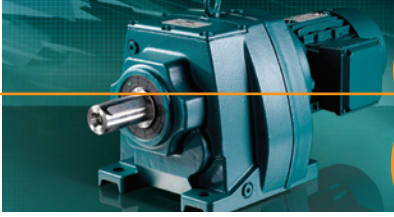
For motor details refer to page 307

DIMENSION 'C' FOR ALL UNITS

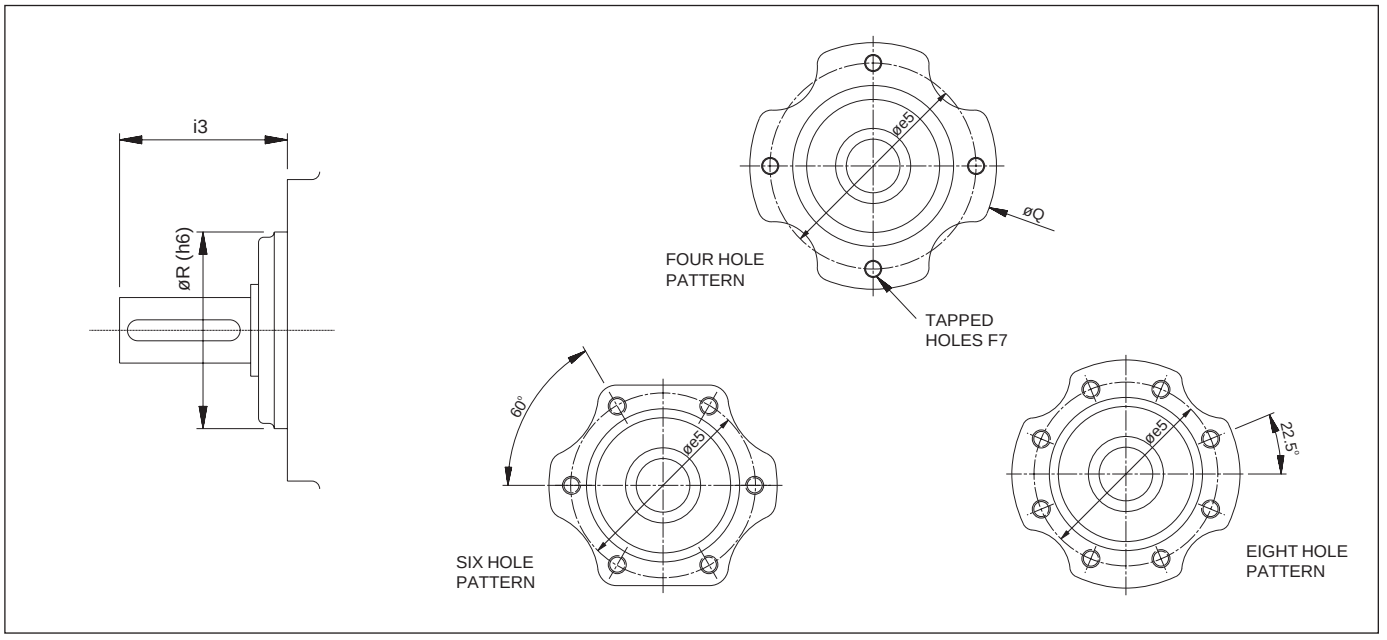
Unit Size		Motor Frame Size												
		63	71	80	90	100	112	132	160	180	200	225	250	280
860	Double	209	213	226	236									
	Triple	224	228	241	251									
801	Double	240	244	257	267									
	Triple	253	257	270	280									
861	Double	240	244	257	267									
	Triple	253	257	270	280									
802	Double			294	304	329	329							
	Triple	300	304	317	327									
862	Double			304	314	339	339							
	Triple	310	314	327	337									
803	Double			325	335	360	360							
	Triple	331	335	348	358									
863	Double			362	372	382	382	384						
	Triple			377	387	412	412							
864	Double			442	442	442	442	442	448					
	Triple			462	472	482	482							
865	Double			524	523	523	523	523	564	564	564	591		
	Triple			549	549	555	555							
866	Double					596	596	596	631	631	631	658		
	Triple			647	647	647	647	647	688	688				
867	Double					717	717	717	710	710	710	710	710	710
	Triple						779	779	772	772	772	772		
868	Double					832	832	832	825	825	825	825	825	825
	Triple						904	904	897	897	897	897		

ALTERNATIVE GEARBOX FLANGE SIZES

Unit Size	P	Q	S	T	W	X
860	100	9.0	80	120	3.0	9
	115	9.0	95	140	3.0	9
	165	11.0	130	200	3.5	10
801	100	6.6	80	120	3.0	10
	115	9.0	95	140	3.0	10
	165	11.0	130	200	3.5	10
861	100	6.6	80	120	3.0	10
	115	9.0	95	140	3.0	10
	130	9.0	110	160	3.5	10
802	115	9.0	95	140	3.0	11
	130	9.0	110	160	3.5	11
	215	13.5	180	250	4.0	11
862	115	9.0	95	140	3.0	11
	130	9.0	110	160	3.5	11
	165	11.0	130	200	3.5	11
803	165	11.0	130	200	4.0	11
	265	13.5	230	300	4.0	11
863	165	11.0	130	200	3.5	11
	215	13.5	180	250	4.0	11
864	265	13.5	230	300	4.0	17



FACE MOUNTING (B14)



Unit Size	øe5	F7	i3	øQ	øR
860	75 pcd	4 Holes M8 x 1.25 x12 Deep	54	98	52
801/861	96 pcd	4 Holes M8 x 1.25 x 15 Deep	62 / 62	115	75
802/862	105 pcd	4 Holes M12 x 1.75 x 21 Deep	74 / 84	130	85
803/863	124 pcd	6 Holes M12 x 1.75 x 21 Deep	84 / 94	152	102
864	170 pcd	8 Holes M12 x 1.75 x 21 Deep	120	195	145

SELECTION OF NON-MOTORISED REDUCER UNITS

(a) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Power Required

Determine either the absorbed torque (Nm) or the input power (kW) required by the machine.

The absorbed Torque can be calculated using the following formula:

$$T = \frac{P \times 9550}{n_2}$$

T = required output torque (Nm)

P = absorbed power (kW)

n_2 = machine speed (Rev/Min)

(c) Design Power

Multiply either the absorbed torque (Nm) or the power (kW) by the service factor determined in (**a**)

(d) Ratio Required

Divide the input shaft speed by the required output shaft speed to determine the gear ratio.

(e) Unit Selection

In the selection pages: 205 to 210 refer to the gear ratio closest to the value determined in step (**d**).

Check in column 2 for the nearest input shaft speed, then read across the table at this speed until a unit is found with either an output torque or input power that equals or exceeds the design power value determined in step (**c**) above. Column 3 gives the approximate output shaft speed for the selected speed and ratio combination.

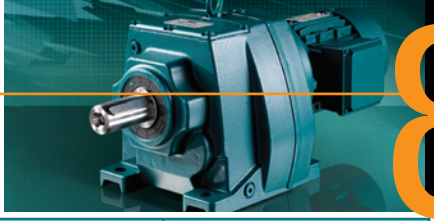
TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1	1.03	1.06	1.1	1.15	1.2



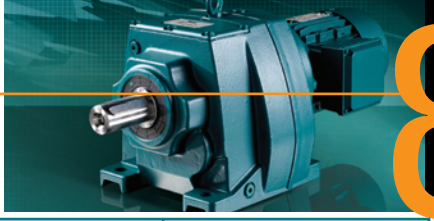
DOUBLE REDUCTION RATINGS SIZES 860, 801, 861, 802

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	860 Input Power kW	860 Output Torque Nm	860 Overhung Load Fra (kN)	801 Input Power kW	801 Output Torque Nm	801 Overhung Load Fra (kN)	861 Input Power kW	861 Output Torque Nm	861 Overhung Load Fra (kN)	802 Input Power kW	802 Output Torque Nm	802 Overhung Load Fra (kN)
		2900	806	3.97	47	0.98	7.00	79	3.00	8.45	96	2.05	14.20	161	2.05
09	3.6	1450	403	2.49	59	0.98	4.39	100	3.10	5.18	118	2.30	8.87	203	2.30
		960	267	1.89	68	0.98	3.33	115	3.10	3.88	134	2.30	6.72	233	2.60
		725	201	1.53	73	0.98	2.74	126	3.10	3.18	146	2.30	5.57	256	3.45
		2900	580	3.34	54	0.98	5.76	92	3.00	6.87	110	2.05	11.80	188	2.05
10	5	1450	290	2.09	68	0.98	3.61	116	3.10	4.22	135	2.30	7.37	237	2.45
		960	192	1.55	76	0.98	2.70	131	3.10	3.16	153	2.30	5.59	272	3.20
		725	145	1.22	79	1.00	2.13	137	3.15	2.59	167	2.30	4.49	290	4.60
		2900	518	3.10	57	0.98	5.44	96	3.05	6.47	114	2.05	11.00	198	2.05
11	5.6	1450	259	1.95	71	0.98	3.41	121	3.10	3.97	140	2.30	6.91	249	2.60
		960	171	1.41	78	1.00	2.50	134	3.10	2.97	159	2.30	5.23	286	3.40
		725	129	1.11	82	1.02	1.97	140	3.15	2.44	173	2.30	4.12	298	4.70
		2900	460	2.87	60	0.98	5.04	101	3.05	5.98	120	2.10	10.30	208	2.10
12	6.3	1450	230	1.80	75	0.98	3.16	127	3.10	3.67	147	2.30	6.46	262	2.90
		960	152	1.27	80	1.00	2.27	138	3.10	2.74	167	2.32	4.79	294	4.60
		725	115	1.01	84	1.04	1.80	145	3.20	2.25	182	2.35	3.78	307	4.75
		2900	363	2.48	66	0.98	4.36	111	3.10	5.13	130	2.10	8.94	229	2.30
14	8	1450	181	1.49	79	0.98	2.67	136	3.10	3.15	161	2.30	5.61	289	3.45
		960	120	1.06	85	1.04	1.88	145	3.25	2.36	182	2.35	3.99	310	4.70
		725	91	0.84	90	1.18	1.51	154	3.50	1.93	198	2.40	3.16	326	5.10
		2900	322	2.36	67	0.98	4.02	116	3.10	4.71	136	2.10	8.29	241	2.40
15	9	1450	161	1.40	80	1.00	2.41	140	3.10	2.89	168	2.30	5.13	299	4.60
		960	107	1.00	87	1.09	1.71	150	3.40	2.17	190	2.35	3.61	319	4.85
		725	81	0.78	90	1.30	1.37	159	3.90	1.78	207	2.50	2.89	338	6.00
		2900	264	2.04	74	0.98	3.53	125	3.10	4.11	146	2.10	7.44	258	2.60
17	11	1450	132	1.16	84	1.02	2.04	145	3.15	2.52	179	2.30	4.46	311	4.70
		960	87	0.82	90	1.30	1.46	158	3.55	1.89	203	2.40	3.17	333	5.55
		725	66	0.62	90	1.45	1.12	160	4.00	1.47	209	2.75	2.42	338	6.40
		2900	242	1.89	77	0.98	3.31	130	3.10	3.84	151	2.15	6.82	272	2.90
18	12	1450	121	1.06	87	1.04	1.88	148	3.20	2.36	186	2.35	3.99	320	4.75
		960	80	0.72	90	1.40	1.34	160	3.70	1.75	209	2.55	2.79	338	6.00
		725	60	0.55	90	1.50	1.01	160	4.00	1.32	209	2.80	2.11	338	6.40
		2900	207	1.70	80	0.98	3.05	136	3.10	3.52	158	2.15	6.20	288	3.10
19	14	1450	104	0.96	90	1.09	1.71	153	3.30	2.16	194	2.35	3.53	329	4.85
		960	69	0.63	90	1.40	1.18	160	3.85	1.54	209	2.75	2.40	338	6.40
		725	52	0.48	90	1.50	0.89	160	4.00	1.16	209	2.85	1.81	338	6.70
		2900	181	1.56	81	0.98	2.79	141	3.10	3.28	166	2.15	5.86	304	3.50
20	16	1450	91	0.86	90	1.18	1.57	160	3.50	2.02	205	2.40	3.25	338	5.10
		960	60	0.57	90	1.45	1.04	160	4.00	1.36	209	2.80	2.15	338	6.50
		725	45	0.43	90	1.50	0.79	160	4.00	1.03	209	2.90	1.62	338	7.10
		2900	161	1.44	83	1.00	2.54	142	3.10	3.03	169	2.30	5.52	306	4.50
21	18	1450	81	0.78	90	1.35	1.43	160	3.90	1.86	208	2.45	3.04	338	5.55
		960	53	0.52	90	1.48	0.94	160	4.00	1.23	209	2.80	2.01	338	6.70
		725	40	0.39	90	1.60	0.71	160	4.00	0.93	209	3.05	1.52	338	7.20
		2900	145	1.33	84	1.00	2.26	145	3.15	2.76	177	2.30	4.81	315	4.60
22	20	1450	73	0.71	90	1.40	1.24	160	3.95	1.62	209	2.60	2.57	338	6.00
		960	48	0.47	90	1.50	0.82	160	4.00	1.07	209	2.90	1.70	338	7.1.0
		725	36	0.35	90	1.60	0.62	160	4.00	0.81	209	3.10	1.28	338	7.20
		2900	132	1.17	86	1.02	2.11	147	3.15	2.61	182	2.30	4.56	319	4.70
23	22	1450	66	0.61	90	1.45	1.14	160	4.00	1.49	209	2.75	2.41	338	6.40
		960	44	0.40	90	1.55	0.76	160	4.00	0.99	209	3.05	1.59	338	7.10
		725	33	0.30	90	1.90	0.57	160	4.00	0.75	209	3.10	1.20	338	7.20
		2900	104	1.01	90	1.05	1.83	153	3.20	2.30	193	2.35	3.82	331	4.80
25	28	1450	52	0.51	90	1.48	0.95	160	4.00	1.25	209	2.80	1.94	338	6.70
		960	34	0.34	90	1.60	0.63	160	4.00	0.82	209	3.10	1.29	338	7.20
		725	26	0.25	90	1.90	0.48	160	4.00	0.62	209	3.15	0.97	338	7.20
		2900	91	0.87	90	1.18	1.59	160	3.50	2.04	205	2.40	3.31	338	5.10
26	32	1450	45	0.44	90	1.50	0.80	160	4.00	1.04	209	2.90	1.65	338	7.10
		960	30	0.29	90	1.90	0.53	160	4.00	0.69	209	3.10	1.09	338	7.20
		725	23	0.22	90	1.90	0.40	160	4.00	0.52	209	3.15	0.82	338	7.20
		2900	81	0.79	90	1.35	1.42	160	3.90	1.85	209	2.45	3.02	338	8.55
27	36	1450	40	0.39	90	1.60	0.71	160	4.00	0.92	209	3.05	1.51	338	7.20
		960	27	0.26	90	1.90	0.47	160	4.00	0.61	209	3.15	1.00	338	7.20
		725	20	0.20	90	1.90	0.35	160	4.00	0.46	209	3.15	0.75	338	7.20
		2900	64	0.61	84	1.45	1.22	160	4.00	1.43	188	2.60	2.47	338	6.40
29	45	1450	32	0.30	84	1.90	0.61	160	4.00	0.75	199	3.10	1.23	338	7.20
		960	21	0.20	84	1.90	0.40	160	4.00	0.52	206	3.15	0.82	338	7.20
		725	16	0.15	84	1.90	0.30	160	4.00	0.40	209	3.15	0.62	338	7.20
		2900	58	0.46	72	1.48	1.07	160	4.00	1.29	192	2.75	2.22	338	6.50
30	50	1450	29	0.23	72	1.90	0.54	160	4.00	0.68	203	3.10	1.11	338	7.20
		960	19	0.15	72	1.90	0.35	160	4.00	0.46	208	3.15	0.73	338	7.20
		725	15	0.11	72	1.90	0.27	160	4.00	0.35	208	3.15	0.55	338	7.20
		2900	52	0.40	71	1.50	0.95	160	4.00	1.21	205	2.80	1.58	269	6.70
31	56	1450	26	0.20	71	1.90	0.47	160	4.00	0.61	206	3.15	0.79	270	7.20
		960	17	0.13	71	1.90	0.31	160	4.00	0.40	206	3.15	0.52	270	7.20
		725	13	0.10	71	1.90	0.24	160	4.00	0.30	206	3.15	0.40	270	7.20

Non Motorised Selection

DOUBLE REDUCTION RATINGS SIZES 862, 803, 863 AND 864

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	862			803			863			864		
				Input Power kW	Output Torque Nm	Overhung Load Fra (kN)	Input Power kW	Output Torque Nm	Overhung Load Fra (kN)	Input Power kW	Output Torque Nm	Overhung Load Fra (kN)	Input Power kW	Output Torque Nm	Overhung Load Fra (kN)
9	3.6	2900	806	23.10	263	2.80	-	-	-	26.10	304	3.50	41.30	479	5.50
		1450	403	12.80	292	2.80	-	-	-	13.10	306	3.50	20.70	483	6.20
		960	267	8.44	293	2.80	-	-	-	8.65	307	3.50	13.70	484	6.25
		725	201	6.38	293	2.80	-	-	-	6.53	307	3.50	10.30	485	6.36
10	5	2900	580	19.70	317	2.80	23.10	326	4.00	26.10	423	3.50	41.30	683	5.60
		1450	290	11.80	382	2.80	12.80	362	4.35	13.10	425	3.50	20.70	686	6.20
		960	192	7.84	383	2.80	8.44	363	4.45	8.65	425	3.50	13.70	688	6.35
		725	145	5.92	383	2.85	6.38	363	4.50	6.53	426	3.50	10.30	688	6.50
11	5.6	2900	518	18.60	336	2.80	19.70	393	4.10	24.50	447	3.50	41.30	760	5.80
		1450	259	11.30	409	2.80	11.80	473	4.45	13.10	477	3.50	20.70	763	6.25
		960	171	7.54	412	2.80	7.84	474	4.50	8.65	478	3.50	13.70	764	6.40
		725	129	5.69	413	2.85	5.92	474	5.00	6.53	478	3.50	10.30	765	6.60
12	6.3	2900	460	17.50	354	2.80	18.60	416	4.20	23.20	464	3.50	40.60	832	6.00
		1450	230	10.20	413	2.85	11.40	510	4.45	13.10	525	3.50	20.70	849	6.30
		960	152	6.74	413	2.90	7.54	511	4.60	8.65	526	3.50	13.70	851	6.50
		725	115	5.09	414	2.90	5.69	511	5.20	6.53	526	3.50	10.30	851	6.70
14	8	2900	363	14.80	381	2.80	17.50	438	4.30	19.90	519	3.50	34.90	926	6.20
		1450	181	8.55	441	2.85	10.20	512	4.45	12.50	655	3.50	20.70	1100	6.35
		960	120	5.77	450	2.90	6.74	512	4.70	8.65	687	3.50	13.70	1100	6.70
		725	91	4.36	450	2.95	5.09	512	5.20	6.53	687	3.60	10.30	1100	7.25
15	9	2900	322	13.40	391	2.80	15.20	484	4.35	18.40	547	3.50	32.50	967	6.20
		1450	161	7.69	450	2.90	9.30	594	4.50	11.50	689	3.50	20.50	1220	6.50
		960	107	5.09	450	2.95	6.15	594	5.20	8.24	743	3.50	13.70	1240	7.10
		725	81	3.84	450	3.00	4.64	594	6.50	6.52	780	3.70	10.30	1240	8.00
17	11	2900	264	11.70	406	2.80	14.00	507	4.45	16.30	589	3.50	28.40	1040	6.20
		1450	132	6.45	450	2.90	8.34	604	4.70	10.00	726	3.50	17.90	1310	6.60
		960	87	4.27	450	2.95	5.55	607	5.85	7.06	773	3.60	13.60	1500	7.50
		725	66	3.22	450	4.00	4.19	607	7.20	5.59	811	4.25	10.30	1520	9.00
18	12	2900	242	10.50	418	2.85	12.50	538	4.45	15.40	611	3.50	25.80	1060	6.30
		1450	121	5.31	426	2.90	7.11	613	5.20	9.28	740	3.60	16.30	1340	6.90
		960	80	3.52	427	3.25	4.79	625	6.50	6.58	793	3.70	12.40	1540	8.50
		725	60	2.66	427	4.20	3.62	625	7.20	5.13	819	4.20	10.20	1690	9.00
19	14	2900	207	9.28	432	2.85	10.60	527	4.45	14.10	644	3.50	23.30	1120	6.30
		1450	104	4.82	450	2.95	5.31	528	5.20	8.31	761	3.60	14.70	1410	6.90
		960	69	3.19	450	4.00	3.52	528	7.20	5.84	808	4.00	11.20	1620	9.00
		725	52	2.41	450	4.25	2.66	528	7.20	4.53	830	4.50	8.82	1700	9.50
20	16	2900	181	8.50	442	2.85	10.10	584	4.50	13.20	684	3.50	21.70	1150	6.38
		1450	91	4.32	450	2.95	5.16	596	5.85	7.58	786	3.50	13.40	1420	7.25
		960	60	2.86	450	4.10	3.42	597	7.20	5.22	818	4.20	8.85	1420	9.00
		725	45	2.16	450	4.50	2.58	597	7.20	4.05	841	4.65	6.68	1420	9.50
21	18	2900	161	8.08	448	2.90	9.28	598	4.50	12.30	700	3.50	19.90	1160	6.50
		1450	81	4.05	450	3.00	4.85	626	6.50	6.93	794	3.60	11.70	1360	8.00
		960	53	2.68	450	4.20	3.21	626	7.20	4.77	826	4.50	7.74	1360	9.25
		725	40	2.02	450	4.50	2.42	626	7.20	3.71	849	5.10	5.85	1360	10.00
22	20	2900	145	6.85	450	2.90	8.75	601	4.60	11.20	731	3.50	18.30	1200	6.50
		1450	73	3.42	450	3.50	4.55	626	7.20	6.14	804	3.90	11.10	1460	8.50
		960	48	2.26	450	4.50	3.01	626	7.20	4.23	837	4.60	7.34	1460	9.50
		725	36	1.71	450	5.60	2.27	626	7.20	3.28	861	6.25	5.54	1460	12.30
23	22	2900	132	6.41	450	2.90	7.50	610	4.90	10.10	748	3.50	16.60	1230	6.60
		1450	66	3.20	450	4.00	3.84	626	7.20	5.50	813	4.20	10.30	1540	9.00
		960	44	2.12	450	4.50	2.54	626	7.20	3.79	847	5.10	6.84	1540	10.00
		725	33	1.60	450	6.30	1.92	626	7.20	2.93	867	7.40	5.16	1540	12.30
25	28	2900	104	5.17	450	2.90	7.07	614	5.20	8.97	768	3.50	14.00	1260	6.90
		1450	52	2.58	450	4.25	3.60	626	7.20	4.81	825	4.50	8.80	1580	9.25
		960	34	1.71	450	5.60	2.38	626	7.20	3.32	860	6.25	6.13	1670	12.30
		725	26	1.29	450	7.20	1.80	626	7.20	2.53	867	8.00	4.63	1670	14.00
26	32	2900	91	4.39	450	2.95	5.81	626	5.80	7.70	786	3.50	12.20	1280	7.25
		1450	45	2.19	450	4.50	2.90	626	7.20	4.11	840	4.65	7.72	1620	9.50
		960	30	1.45	450	6.30	1.92	626	7.20	2.81	867	7.40	5.36	1700	13.50
		725	23	1.10	450	7.20	1.45	626	7.20	2.12	868	9.20	4.04	1700	16.20
27	36	2900	81	4.02	450	3.00	4.93	626	6.50	7.10	792	3.60	11.40	1310	8.00
		1450	40	2.01	450	5.00	2.47	626	7.20	3.79	847	5.10	7.18	1650	10.00
		960	27	1.33	450	7.20	1.63	626	7.20	2.57	867	8.00	4.88	1700	14.00
		725	20	1.00	450	7.20	1.23	626	7.20	1.94	868	9.20	3.69	1700	16.20
29	45	2900	64	3.03	415	4.00	4.51	626	7.20	6.03	806	3.90	9.51	1340	9.00
		1450	32	1.55	424	5.60	2.25	626	7.20	3.23	863	6.25	5.99	1690	12.30
		960	21	1.06	439	7.20	1.49	626	7.20	2.15	868	9.20	3.98	1700	16.20
		725	16	0.82	450	7.20	1.13	626	7.20	1.62	868	9.20	3.01	1700	16.20
30	50	2900	58	2.48	379	4.00	3.03	514	7.20	4.56	700	4.20	8.79	1350	9.20
		1450	29	1.24	379	6.30	1.55	526	7.20	2.28	700	7.40	5.48	1690	13.50
		960	19	0.82	379	7.20	1.06	544	7.20	1.51	701	9.20	3.65	1700	16.20
		725	15	0.62	379	7.20	0.82	557	7.20	1.14	701	9.20	2.76	1700	16.20
31	56	2900	52	1.58	269	4.25	2.48	469	7.20	3.49	595	4.50	7.72	1360	9.25
		1450	26	0.79	270	7.20	1.24	470	7.20	1.75	596	9.20	4.36	1540	16.20
		960	17	0.52	270	7.20	0.82	470	7.20	1.16	596	9.20	2.91	1550	16.20
		725	13	0.40	270	7.20	0.62	470	7.20	0.87	596	9.20	2.19	1550	16.20

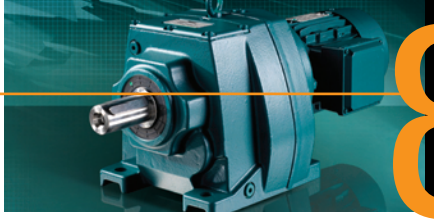


DOUBLE REDUCTION RATINGS SIZES 865 - 868

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	865 Input Power kW	865 Output Torque Nm	865 Overhung Load Fra (kN)	866 Input Power kW	866 Output Torque Nm	866 Overhung Load Fra (kN)	867 Input Power kW	867 Output Torque Nm	867 Overhung Load Fra (kN)	868 Input Power kW	868 Output Torque Nm	868 Overhung Load Fra (kN)
		2900	2071	96.10	452	10.00	156.00	719	12.00	-	-	-	-	-	-
1	1.4	1450	1036	60.60	574	10.00	78.20	722	12.00	-	-	-	-	-	-
		960	686	46.00	661	10.10	51.80	722	12.20	-	-	-	-	-	-
		725	518	38.20	727	10.10	39.10	723	12.20	-	-	-	-	-	-
		2900	1611	82.20	534	10.00	156.00	1010	12.00	-	-	-	-	-	-
2	1.8	1450	806	51.80	677	10.10	78.20	1010	12.20	-	-	-	-	-	-
		960	533	39.30	779	10.10	51.80	1010	12.20	-	-	-	-	-	-
		725	403	32.60	856	10.20	39.10	1010	12.30	-	-	-	-	-	-
		2900	1318	77.50	565	10.00	156.00	1100	12.00	-	-	-	-	-	-
3	2.2	1450	659	48.80	716	10.10	78.20	1100	12.20	-	-	-	-	-	-
		960	436	37.10	824	10.20	51.80	1100	12.30	-	-	-	-	-	-
		725	330	30.80	906	10.20	39.10	1100	12.30	-	-	-	-	-	-
		2900	1160	72.90	596	10.00	147.00	1170	12.00	-	-	-	-	-	-
4	2.5	1450	580	45.90	756	10.10	78.20	1250	12.20	-	-	-	-	-	-
		960	384	34.90	869	10.20	51.80	1250	12.30	-	-	-	-	-	-
		725	290	28.90	956	10.40	39.10	1250	12.40	-	-	-	-	-	-
		2900	1036	96.10	909	10.00	156.00	1490	12.00	195.00	1810	28.00	274.00	2520	35.00
5	2.8	1450	518	60.60	1150	10.10	78.20	1490	12.20	97.40	1810	28.70	137.00	2520	36.00
		960	343	46.00	1320	10.20	51.80	1500	12.30	64.50	1810	29.50	90.60	2520	37.50
		725	259	38.20	1460	10.40	39.10	1500	12.40	48.70	1810	30.00	68.50	2520	38.00
		2900	906	63.60	671	10.10	126.00	1310	12.20	195.00	1980	28.30	274.00	2840	35.50
6	3.2	1450	453	40.00	850	10.20	75.20	1570	12.30	97.40	1990	29.20	137.00	2840	37.00
		960	300	30.40	978	10.40	49.80	1570	12.40	64.50	1990	30.00	90.60	2840	38.00
		725	227	25.20	1070	10.60	37.60	1570	12.40	48.70	1990	31.00	68.50	2840	39.00
		2900	806	58.60	692	10.10	118.00	1330	12.20	195.00	2250	28.30	274.00	3320	35.50
7	3.6	1450	403	36.90	876	10.20	69.70	1570	12.30	97.40	2260	29.20	137.00	3330	37.00
		960	267	28.10	1010	10.40	46.10	1570	12.40	64.50	2260	30.00	90.60	3330	38.00
		725	201	22.80	1090	10.60	34.80	1570	12.40	48.70	2260	31.00	68.50	3330	39.00
		2900	725	82.20	1070	10.10	156.00	2090	12.20	195.00	2510	28.30	274.00	3520	35.50
8	4	1450	363	51.80	1360	10.20	78.20	2090	12.30	97.40	2510	29.50	137.00	3530	37.50
		960	240	39.30	1560	10.60	51.80	2090	12.40	64.50	2510	31.00	90.60	3530	39.00
		725	181	32.60	1710	10.80	39.10	2100	12.50	48.70	2510	32.50	68.50	3530	40.00
		2900	644	77.50	1130	10.10	152.00	2200	12.20	195.00	2760	28.30	274.00	3970	35.50
9	4.5	1450	322	48.80	1440	10.20	78.20	2280	12.30	97.40	2760	29.50	137.00	3970	37.50
		960	213	37.10	1650	10.60	51.80	2280	12.40	64.50	2760	31.00	90.60	3970	39.00
		725	161	30.80	1810	10.80	39.10	2280	12.50	48.70	2760	32.50	68.50	3970	40.00
		2900	580	82.20	1330	10.10	144.00	2260	12.20	195.00	3130	28.70	274.00	4650	36.00
10	5	1450	290	51.80	1680	10.40	78.20	2470	12.40	97.40	3140	30.00	137.00	4660	38.00
		960	192	39.30	1930	10.80	51.80	2470	12.50	64.50	3140	32.50	90.60	4660	40.00
		725	145	32.60	2120	11.00	39.10	2470	12.50	48.70	3140	35.00	68.50	4660	41.00
		2900	518	77.50	1410	10.10	137.00	2340	12.20	195.00	3440	28.70	274.00	5240	36.00
11	5.6	1450	259	48.80	1780	10.40	78.20	2690	12.40	97.40	3450	30.00	137.00	5240	38.00
		960	171	37.10	2040	10.80	51.80	2690	12.50	64.50	3450	32.50	90.60	5240	40.00
		725	129	30.70	2250	11.00	39.10	2690	12.50	48.70	3450	35.00	68.50	5240	41.00
		2900	460	63.60	1350	10.20	119.00	2550	12.30	195.00	3880	29.20	274.00	5730	37.00
12	6.3	1450	230	40.00	1700	10.60	72.90	3140	12.40	97.40	3880	31.00	137.00	5730	39.00
		960	152	30.40	1960	11.00	51.80	3370	12.50	64.50	3880	35.00	90.60	5730	41.00
		725	115	25.20	2150	11.40	39.10	3370	13.00	48.70	3880	38.00	68.50	5730	43.00
		2900	408	58.60	1390	10.20	113.00	2620	12.30	195.00	4300	29.20	274.00	6370	37.00
13	7.1	1450	204	36.90	1760	10.60	69.50	3230	12.40	97.40	4300	31.00	137.00	6360	39.00
		960	135	28.10	2020	11.00	51.80	3640	12.50	64.50	4300	35.00	90.60	6360	41.00
		725	102	23.30	2220	11.40	39.10	3640	13.00	48.70	4300	38.00	68.50	6370	43.00
		2900	363	63.60	1670	10.20	107.00	2700	12.30	195.00	4840	29.50	274.00	7570	37.50
14	8	1450	181	39.50	2080	10.80	65.50	3330	12.50	97.40	4840	32.50	137.00	7570	40.00
		960	120	29.60	2360	11.40	49.00	3760	13.00	64.50	4840	38.00	90.60	7570	43.00
		725	91	24.30	2560	13.00	39.10	3980	15.00	48.70	4850	42.00	68.50	7570	46.00
		2900	322	58.60	1720	10.20	102.00	2780	12.30	186.00	5110	29.50	274.00	8410	37.50
15	9	1450	161	36.80	2170	10.80	62.40	3420	12.50	97.40	5360	32.50	137.00	8400	40.00
		960	107	27.50	2450	11.40	46.70	3870	13.00	64.50	5370	38.00	90.60	8400	43.00
		725	81	22.60	2670	13.00	38.30	4210	15.00	48.70	5370	42.00	68.50	8410	46.00
		2900	290	47.40	1560	10.40	88.30	2990	12.40	173.00	5470	30.00	248.00	7980	38.00
16	10	1450	145	29.80	1970	11.00	54.20	3680	12.50	97.40	6170	35.00	137.00	8800	41.00
		960	96	22.70	2260	13.00	36.80	3770	15.00	64.50	6180	42.00	90.60	8810	46.00
		725	73	18.80	2480	15.70	27.8	3770	15.90	48.70	6180	45.00	68.50	8810	52.00
		2900	264	43.10	1610	10.40	81.40	3120	12.40	165.00	5900	30.00	227.00	8270	38.00
17	11	1450	132	27.10	2040	11.00	49.10	3770	12.50	82.70	5940	35.00	137.00	9980	41.00
		960	87	20.60	2340	13.00	32.50	3770	15.00	54.70	5940	42.00	90.60	9990	46.00
		725	66	17.10	2570	15.70	24.50	3770	15.90	41.30	5940	45.00	68.40	9990	52.00

DOUBLE REDUCTION RATINGS SIZES 865 - 868

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	865 Input Power kW	865 Output Torque Nm	865 Overhung Load Fra (kN)	866 Input Power kW	866 Output Torque Nm	866 Overhung Load Fra (kN)	867 Input Power kW	867 Output Torque Nm	867 Overhung Load Fra (kN)	868 Input Power kW	868 Output Torque Nm	868 Overhung Load Fra (kN)
18	12	2900	242	47.40	1930	10.60	79.10	3160	12.40	136.00	5370	31.00	241.00	10200	39.00
		1450	121	29.60	2420	11.40	48.60	3890	13.00	80.30	6350	38.00	121.00	10200	43.00
		960	80	22.20	2740	13.00	36.40	4400	15.00	53.20	6350	42.00	79.80	10200	46.00
		725	60	17.50	2860	17.00	27.50	4410	23.00	40.10	6350	51.00	60.20	10200	60.00
19	14	2900	207	43.10	2000	10.60	72.90	3290	12.40	131.00	5880	31.00	215.00	10400	39.00
		1450	104	27.10	2530	11.40	44.80	4050	13.00	70.30	6290	38.00	108.00	10400	43.00
		960	69	20.30	2860	15.70	32.20	4410	15.90	46.50	6290	45.00	71.30	10400	52.00
		725	52	15.30	2860	17.00	24.30	4410	23.00	35.10	6290	51.00	53.80	10400	60.00
20	16	2900	181	32.90	1750	10.80	65.90	3460	12.50	119.00	6070	32.50	172.00	8970	40.00
		1450	91	20.70	2210	13.00	35.90	3770	15.00	60.80	6200	42.00	106.00	11100	46.00
		960	60	15.70	2530	17.00	23.70	3770	23.00	40.20	6200	51.00	70.20	11100	60.00
		725	45	12.40	2640	22.40	17.90	3770	28.00	30.40	6200	56.00	53.00	11100	70.00
21	18	2900	161	29.90	1760	10.80	60.40	3520	12.50	108.00	6200	32.50	161.00	9260	40.00
		1450	81	18.90	2230	13.00	32.30	3770	15.00	53.90	6200	42.00	96.20	11100	46.00
		960	53	14.30	2560	17.00	21.40	3770	23.00	35.70	6200	51.00	63.70	11100	60.00
		725	40	11.20	2640	22.40	16.10	3770	28.00	26.90	6200	56.00	48.10	11100	70.00
22	20	2900	145	32.90	2160	11.00	58.90	3650	12.50	94.10	5980	35.00	153.00	10600	41.00
		1450	73	20.70	2730	15.70	35.60	4410	15.90	49.90	6350	45.00	76.70	10600	52.00
		960	48	14.30	2860	22.40	23.50	4410	28.00	33.00	6350	56.00	50.70	10600	70.00
		725	36	10.80	2860	26.20	17.80	4410	34.00	24.90	6350	60.00	38.30	10600	79.00
23	22	2900	132	29.90	2190	11.00	54.90	3770	12.50	88.60	6350	35.00	142.00	10800	41.00
		1450	66	18.90	2760	15.70	32.00	4410	15.90	44.30	6350	45.00	70.70	10800	52.00
		960	44	12.90	2860	22.40	21.20	4410	28.00	29.30	6350	56.00	46.80	10800	70.00
		725	33	9.75	2860	26.20	16.00	4410	34.00	22.10	6350	60.00	35.40	10800	79.00
24	25	2900	116	22.60	1880	11.40	45.20	3760	13.00	76.70	6200	38.00	115.00	9530	43.00
		1450	58	14.20	2370	17.00	22.70	3770	23.00	38.30	6200	51.00	63.80	10600	60.00
		960	38	10.50	2640	26.20	15.00	3770	34.00	25.40	6200	60.00	42.20	10600	79.00
		725	29	7.93	2640	28.00	11.30	3770	40.00	19.10	6200	64.00	31.90	10600	79.00
25	28	2900	104	20.70	1900	11.40	39.50	3770	13.00	68.90	6200	38.00	109.00	9770	43.00
		1450	52	13.00	2400	17.00	19.70	3770	23.00	34.40	6200	51.00	55.60	9970	60.00
		960	34	9.51	2640	26.20	13.00	3770	34.00	22.80	6200	60.00	36.80	9980	79.00
		725	26	7.18	2640	28.00	9.85	3770	40.00	17.20	6200	64.00	27.80	9980	79.00
26	32	2900	91	22.60	2330	13.00	43.10	4220	15.00	62.90	6350	42.00	97.60	10700	46.00
		1450	45	13.80	2860	22.40	22.50	4410	28.00	31.40	6350	56.00	48.80	10700	70.00
		960	30	9.16	2860	28.00	14.90	4410	40.00	20.80	6350	64.00	32.30	10700	79.00
		725	23	6.92	2860	28.00	11.20	4410	40.00	15.70	6350	64.00	24.40	10700	79.00
27	36	2900	81	20.70	2350	13.00	39.10	4410	15.00	56.60	6350	42.00	91.30	10800	46.00
		1450	40	12.50	2860	22.40	19.50	4410	28.00	28.30	6350	56.00	45.60	10800	70.00
		960	27	8.30	2860	28.00	12.90	4410	40.00	18.70	6350	64.00	30.20	10800	79.00
		725	20	6.26	2860	28.00	9.76	4410	40.00	14.10	6350	64.00	22.80	10800	79.00
28	40	2900	73	19.30	2460	15.70	35.30	4160	15.90	49.40	6090	45.00	75.70	9400	52.00
		1450	36	9.62	2470	26.20	17.60	4160	34.00	26.20	6460	60.00	39.90	9940	79.00
		960	24	6.37	2470	28.00	11.70	4160	40.00	17.40	6460	64.00	26.90	10100	79.00
		725	18	4.81	2470	28.00	8.82	4160	40.00	13.10	6460	64.00	20.30	10100	79.00
29	45	2900	64	17.40	2470	15.70	30.70	4160	15.90	45.00	6160	45.00	70.20	9460	52.00
		1450	32	8.71	2470	26.20	15.30	4160	34.00	23.60	6460	60.00	37.10	10000	79.00
		960	21	5.77	2470	28.00	10.10	4160	40.00	15.60	6460	64.00	24.80	10100	79.00
		725	16	4.35	2470	28.00	7.66	4160	40.00	11.80	6460	64.00	18.70	10100	79.00
30	50	2900	58	15.60	2430	17.00	27.90	4250	23.00	36.70	5660	51.00	50.10	8130	60.00
		1450	29	9.14	2860	28.00	14.00	4260	40.00	18.40	5660	64.00	25.10	8140	79.00
		960	19	6.05	2860	28.00	9.25	4260	40.00	12.20	5660	64.00	16.60	8140	79.00
		725	15	4.57	2860	28.00	6.98	4260	40.00	9.19	5660	64.00	12.50	8140	79.00
31	56	2900	52	12.10	2120	17.00	23.70	3870	23.00	36.70	6020	51.00	46.50	8440	60.00
		1450	26	5.71	2000	28.00	11.80	3870	40.00	18.40	6030	64.00	23.20	8450	79.00
		960	17	3.67	1940	28.00	7.84	3870	40.00	12.20	6030	64.00	15.40	8450	79.00
		725	13	2.72	1910	28.00	5.92	3870	40.00	9.19	6030	64.00	11.60	8450	79.00
32	63	2900	46	12.70	2470	22.40	22.70	4160	28.00	33.80	6360	56.00	50.10	9270	70.00
		1450	23	6.35	2470	28.00	11.40	4160	40.00	17.20	6460	64.00	25.10	9270	79.00
		960	15	4.21	2470	28.00	7.52	4160	40.00	11.40	6460	64.00	16.60	9280	79.00
		725	12	3.18	2470	28.00	5.68	4160	40.00	8.59	6460	64.00	12.50	9280	79.00
33	71	2900	41	11.30	2470	22.40	21.20	4160	28.00	32.00	6400	56.00	46.50	9620	70.00
		1450	20	5.66	2470	28.00	10.60	4160	40.00	16.10	6460	64.00	23.20	9630	79.00
		960	14	3.67	2420	28.00	7.02	4160	40.00	10.70	6460	64.00	15.40	9630	79.00
		725	10	2.72	2380	28.00	5.30	4160	40.00	8.07	6460	64.00	11.60	9630	79.00



TRIPLE REDUCTION RATINGS SIZES 860 - 864

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	860 Input Power kW	860 Output Torque Nm	860 Overhung Load Fra (kN)	801 Input Power kW	801 Output Torque Nm	801 Overhung Load Fra (kN)	861 Input Power kW	861 Output Torque Nm	861 Overhung Load Fra (kN)	802 Input Power kW	802 Output Torque Nm	802 Overhung Load Fra (kN)
44	56	2900	52	0.50	90	1.50	0.89	159	4.00	1.17	209	2.80	1.57	287	6.70
		1450	26	0.25	90	1.90	0.45	160	4.00	0.58	209	3.15	0.92	338	7.20
		960	17	0.16	90	1.90	0.30	160	4.00	0.39	209	3.15	0.61	338	7.20
		725	13	0.12	90	1.90	0.22	160	4.00	0.29	209	3.15	0.46	338	7.20
45	63	2900	46	0.45	90	1.50	0.81	160	4.00	1.06	209	2.90	1.46	293	7.10
		1450	23	0.22	90	1.90	0.41	160	4.00	0.53	209	3.15	0.84	338	7.20
		960	15	0.15	90	1.90	0.27	160	4.00	0.35	209	3.15	0.55	338	7.20
		725	12	0.11	90	1.90	0.20	160	4.00	0.26	209	3.15	0.42	338	7.20
46	71	2900	41	0.41	90	1.60	0.74	160	4.00	0.97	209	3.00	1.31	302	7.20
		1450	20	0.20	90	1.90	0.37	160	4.00	0.48	209	3.15	0.73	338	7.20
		960	14	0.13	90	1.90	0.24	160	4.00	0.32	209	3.15	0.48	338	7.20
		725	10	0.10	90	1.90	0.18	160	4.00	0.24	209	3.15	0.36	338	7.20
47	80	2900	36	0.35	90	1.70	0.63	160	4.00	0.82	209	3.10	1.22	307	7.20
		1450	18	0.17	90	1.90	0.31	160	4.00	0.41	209	3.15	0.67	338	7.20
		960	12	0.12	90	1.90	0.21	160	4.00	0.27	209	3.15	0.44	338	7.20
		725	9	0.09	90	1.90	0.16	160	4.00	0.20	209	3.15	0.33	338	7.20
49	100	2900	29	0.29	90	1.90	0.53	160	4.00	0.69	209	3.15	1.07	324	7.20
		1450	15	0.14	90	1.90	0.26	160	4.00	0.34	209	3.15	0.56	338	7.20
		960	10	0.10	90	1.90	0.17	160	4.00	0.23	209	3.15	0.37	338	7.20
		725	7	0.07	90	1.90	0.13	160	4.00	0.17	209	3.15	0.28	338	7.20
50	112	2900	26	0.25	90	1.90	0.45	160	4.00	0.59	209	3.15	0.93	338	7.20
		1450	13	0.12	90	1.90	0.23	160	4.00	0.29	209	3.15	0.47	338	7.20
		960	9	0.08	90	1.90	0.15	160	4.00	0.19	209	3.15	0.31	338	7.20
		725	6	0.06	90	1.90	0.11	160	4.00	0.15	209	3.15	0.23	338	7.20
51	125	2900	23	0.22	90	1.90	0.41	160	4.00	0.53	209	3.15	0.83	338	7.20
		1450	12	0.11	90	1.90	0.20	160	4.00	0.27	209	3.15	0.41	338	7.20
		960	8	0.07	90	1.90	0.14	160	4.00	0.18	209	3.15	0.27	338	7.20
		725	6	0.06	90	1.90	0.10	160	4.00	0.13	209	3.15	0.21	338	7.20
53	160	2900	18	0.19	90	1.90	0.34	160	4.00	0.44	209	3.15	0.71	338	7.20
		1450	9	0.09	90	1.90	0.17	160	4.00	0.22	209	3.15	0.36	338	7.20
		960	6	0.06	90	1.90	0.11	160	4.00	0.15	209	3.15	0.23	338	7.20
		725	5	0.05	90	1.90	0.08	160	4.00	0.11	209	3.15	0.18	338	7.20
54	180	2900	16	0.16	90	1.90	0.29	160	4.00	0.39	209	3.15	0.63	338	7.20
		1450	8	0.08	90	1.90	0.15	160	4.00	0.19	209	3.15	0.31	338	7.20
		960	5	0.05	90	1.90	0.10	160	4.00	0.13	209	3.15	0.21	338	7.20
		725	4	0.04	90	1.90	0.07	160	4.00	0.10	209	3.15	0.16	338	7.20
55	200	2900	15	0.14	90	1.90	0.26	160	4.00	0.34	209	3.15	0.55	338	7.20
		1450	7	0.07	90	1.90	0.13	160	4.00	0.17	209	3.15	0.28	338	7.20
		960	5	0.05	90	1.90	0.09	160	4.00	0.11	209	3.15	0.18	338	7.20
		725	4	0.04	90	1.90	0.06	160	4.00	0.09	209	3.15	0.14	338	7.20

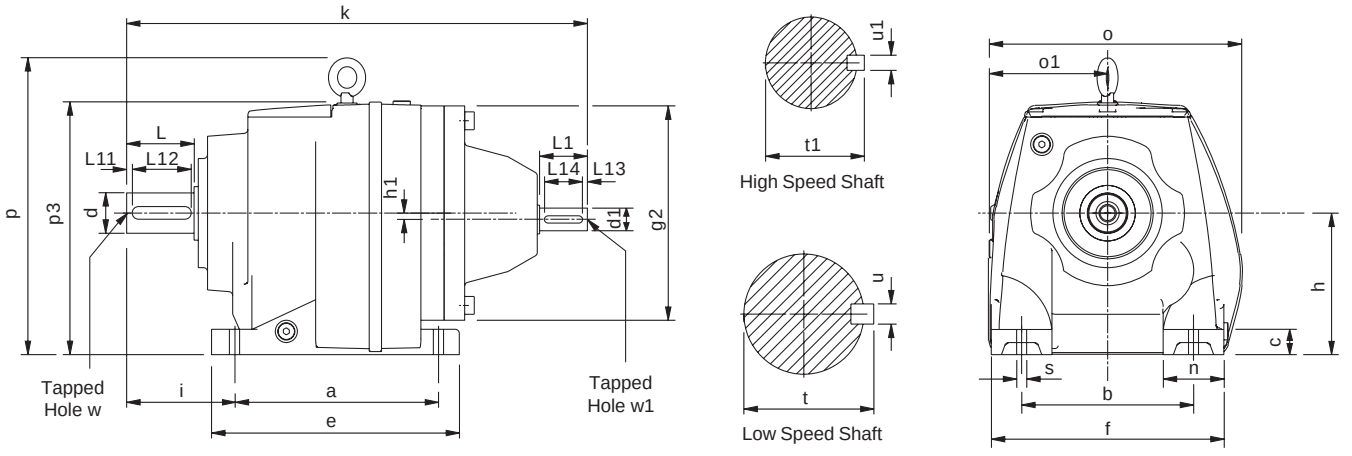
Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	862 Input Power kW	862 Output Torque Nm	862 Overhung Load fra (kN)	803 Input Power kW	803 Output Torque Nm	803 Overhung Load fra (kN)	863 Input Power kW	863 Output Torque Nm	863 Overhung Load fra (kN)	864 Input Power kW	864 Output Torque Nm	864 Overhung Load fra (kN)
44	56	2900	52	2.42	443	4.20	-	-	-	3.47	640	4.50	6.94	1300	9.25
		1450	26	1.22	450	7.20	-	-	-	2.03	754	8.10	4.23	1600	16.20
		960	17	0.81	450	7.20	-	-	-	1.54	865	9.20	2.96	1700	16.20
		725	13	0.61	450	7.20	-	-	-	1.17	868	9.20	2.23	1700	16.20
45	63	2900	46	2.14	431	4.50	2.42	549.00	7.20	3.30	649	4.65	6.50	1340	9.50
		1450	23	1.11	450	7.20	1.38	626.00	7.20	1.95	770	9.20	3.97	1650	16.20
		960	15	0.74	450	7.20	0.91	626.00	7.20	1.45	868	9.20	2.71	1700	16.20
		725	12	0.56	450	7.20	0.69	626.00	7.20	1.09	868	9.20	2.04	1700	16.20
46	71	2900	41	1.91	443	5.00	2.14	534.00	7.20	2.88	673	5.10	5.96	1390	10.00
		1450	20	0.97	450	7.20	1.24	623.00	7.20	1.74	815	9.20	3.62	1700	16.20
		960	14	0.64	450	7.20	0.82	626.00	7.20	1.22	868	9.20	2.39	1700	16.20
		725	10	0.48	450	7.20	0.62	626.00	7.20	0.92	868	9.20	1.80	1700	16.20
47	80	2900	36	1.78	450	5.60	1.91	549.00	7.20	2.74	682	6.30	5.47	1440	12.30
		1450	18	0.89	450	7.20	1.09	626.00	7.20	1.67	833	9.20	3.21	1700	16.20
		960	12	0.59	450	7.20	0.72	626.00	7.20	1.15	868	9.20	2.12	1700	16.20
		725	9	0.44	450	7.20	0.54	626.00	7.20	0.87	868	9.20	1.60	1700	16.20
49	100	2900	29	1.49	450	6.30	1.79	558.00	7.20	2.31	714	7.40	4.78	1520	14.00
		1450	15	0.74	450	7.20	1.00	626.00	7.20	1.40	868	9.20	2.65	1700	16.20
		960	10	0.49	450	7.20	0.66	626.00	7.20	0.93	868	9.20	1.75	1700	16.20
		725	7	0.37	450	7.20	0.50	626.00	7.20	0.70	868	9.20	1.32	1700	16.20
50	112	2900	26	1.24	450	7.20	1.56	585.00	7.20	2.06	751	9.20	4.29	1600	16.20
		1450	13	0.62	450	7.20	0.83	626.00	7.20	1.19	868	9.20	2.27	1700	16.20
		960	9	0.41	450	7.20	0.55	626.00	7.20	0.79	868	9.20	1.50	1700	16.20
		725	6	0.31	450	7.20	0.42	626.00	7.20	0.60	874	9.20	1.13	1700	16.20
51	125	2900	23	1.10	450	7.20	1.37	613.00	7.20	1.94	774	9.20	4.02	1640	16.20
		1450	12	0.55	450	7.20	0.70	626.00	7.20	1.09	868	9.20	2.07	1700	16.20
		960	8	0.36	450	7.20	0.46	626.00	7.20	0.72	868	9.20	1.37	1700	16.20
		725	6	0.28	450	7.20	0.35	626.00	7.20	0.55	883	9.20	1.03	1700	16.20
53	160	2900	18	0.95	450	7.20	1.24	626.00	7.20	1.70	828	9.20	3.39	1700	16.20
		1450	9	0.47	450	7.20	0.62	626.00	7.20	0.89	868	9.20	1.69	1700	16.20
		960	6	0.31	450	7.20	0.41	626.00	7.20	0.59	875	9.20	1.12	1700	16.20
		725	5	0.24	450	7.20	0.31	626.00	7.20	0.45	888	9.20	0.85	1720	16.20
54	180	2900	16	0.83	450	7.20	1.06	626.00	7.20	1.58	858	9.20	3.10	1700	16.20
		1450	8	0.42	450	7.20	0.53	626.00	7.20	0.80	868	9.20	1.55	1700	16.20
		960	5	0.28	450	7.20	0.35	626.00	7.20	0.54	886	9.20	1.02	1700	16.20
		725	4	0.21	450	7.20	0.26	626.00	7.20	0.41	888	9.20	0.79	1730	16.20
55	200	2900	15	0.74	450	7.20	0.94	626.00	7.20	1.43	868	9.20	2.70	1700	16.20
		1450	7	0.37	450	7.20	0.47	626.00	7.20	0.71	868	9.20	1.35	1700	16.20
		960	5	0.24	450	7.20	0.31	626.00	7.20	0.48	888	9.20	0.90	1710	16.20
		725	4	0.18	450	7.20	0.23	626.00	7.20	0.36	888	9.20	0.69	1750	16.20

Non Motorised Selection

TRIPLE REDUCTION RATINGS SIZES 865 - 868

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Nominal Output speed Rev/Min	865 Input Power kW	865 Output Torque Nm	865 Overhung Load Fra (kN)	866 Input Power kW	866 Output Torque Nm	866 Overhung Load Fra (kN)	867 Input Power kW	867 Output Torque Nm	867 Overhung Load Fra (kN)	868 Input Power kW	868 Output Torque Nm	868 Overhung Load Fra (kN)
41	40	2900	73	-	-	-	-	-	-	35.00	4380.00	45.00	58.10	7520.00	52.00
		1450	36	-	-	-	-	-	-	21.90	5530.00	60.00	37.50	9740.00	79.00
		960	24	-	-	-	-	-	-	15.60	5940.00	64.00	26.60	10500.00	79.00
		725	18	-	-	-	-	-	-	12.30	6200.00	64.00	21.30	11100.00	79.00
42	45	2900	64	-	-	-	-	-	-	38.90	5360.00	45.00	62.70	9430.00	52.00
		1450	32	-	-	-	-	-	-	22.20	6170.00	60.00	36.40	11000.00	79.00
		960	21	-	-	-	-	-	-	15.10	6350.00	64.00	24.10	11000.00	79.00
		725	16	-	-	-	-	-	-	11.40	6350.00	64.00	18.20	11000.00	79.00
43	50	2900	58	-	-	-	-	-	-	35.00	5460.00	51.00	58.10	9930.00	60.00
		1450	29	-	-	-	-	-	-	20.10	6310.00	64.00	32.10	11000.00	79.00
		960	19	-	-	-	-	-	-	13.40	6350.00	64.00	21.20	11000.00	79.00
		725	15	-	-	-	-	-	-	10.10	6350.00	64.00	16.00	11000.00	79.00
44	56	2900	52	11.20	2100	17.00	17.90	3380.00	23.00	29.60	5270.00	51.00	46.70	8680.00	60.00
		1450	26	6.84	2590	28.00	9.94	3770.00	40.00	17.30	6190.00	64.00	28.10	10500.00	79.00
		960	17	4.62	2640	28.00	6.57	3770.00	40.00	11.40	6200.00	64.00	19.70	11100.00	79.00
		725	13	3.49	2640	28.00	4.95	3770.00	40.00	8.63	6200.00	64.00	14.80	11100.00	79.00
45	63	2900	46	10.40	2170	22.40	16.60	3490.00	28.00	26.80	5380.00	56.00	44.00	9020.00	70.00
		1450	23	6.29	2640	28.00	8.95	3770.00	40.00	15.30	6200.00	64.00	26.00	10700.00	79.00
		960	15	4.16	2640	28.00	5.91	3770.00	40.00	10.10	6200.00	64.00	17.80	11100.00	79.00
		725	12	3.14	2640	28.00	4.46	3770.00	40.00	7.66	6200.00	64.00	13.50	11100.00	79.00
46	71	2900	41	10.10	2350	22.40	16.40	3640.00	28.00	26.60	5920.00	56.00	44.80	11000.00	70.00
		1450	20	6.10	2860	28.00	9.85	4410.00	40.00	14.20	6350.00	64.00	22.30	11000.00	79.00
		960	14	4.03	2860	28.00	6.51	4410.00	40.00	9.39	6350.00	64.00	14.80	11000.00	79.00
		725	10	3.04	2860	28.00	4.91	4410.00	40.00	7.09	6350.00	64.00	11.10	11000.00	79.00
47	80	2900	36	9.38	2420	26.20	15.20	3760.00	34.00	24.10	6060.00	60.00	40.70	11000.00	79.00
		1450	18	5.49	2860	28.00	8.87	4410.00	40.00	12.60	6350.00	64.00	20.30	11000.00	79.00
		960	12	3.63	2860	28.00	5.86	4410.00	40.00	8.33	6350.00	64.00	13.40	11000.00	79.00
		725	9	2.74	2860	28.00	4.42	4410.00	40.00	6.29	6350.00	64.00	10.10	11000.00	79.00
48	90	2900	32	8.15	2400	26.20	12.60	3770.00	34.00	20.90	5930.00	60.00	34.40	10100.00	79.00
		1450	16	4.46	2640	28.00	6.27	3770.00	40.00	10.90	6200.00	64.00	18.80	11100.00	79.00
		960	11	2.95	2640	28.00	4.15	3770.00	40.00	7.21	6200.00	64.00	12.40	11100.00	79.00
		725	8	2.23	2640	28.00	3.13	3770.00	40.00	5.44	6200.00	64.00	9.39	11100.00	79.00
49	100	2900	29	7.60	2480	28.00	10.90	3770.00	40.00	19.20	6050.00	64.00	32.20	10300.00	79.00
		1450	15	4.04	2640	28.00	5.45	3770.00	40.00	9.79	6200.00	64.00	17.30	11100.00	79.00
		960	10	2.67	2640	28.00	3.60	3770.00	40.00	6.48	6200.00	64.00	11.50	11100.00	79.00
		725	7	2.02	2640	28.00	2.72	3770.00	40.00	4.89	6200.00	64.00	8.66	11100.00	79.00
50	112	2900	26	7.36	2690	28.00	11.80	4180.00	40.00	18.00	6350.00	64.00	28.30	11000.00	79.00
		1450	13	3.89	2860	28.00	6.22	4410.00	40.00	8.95	6350.00	64.00	14.10	11000.00	79.00
		960	9	2.57	2860	28.00	4.11	4410.00	40.00	5.92	6350.00	64.00	9.34	11000.00	79.00
		725	6	1.94	2860	28.00	3.10	4410.00	40.00	4.47	6350.00	64.00	7.05	11000.00	79.00
51	125	2900	23	6.86	2770	28.00	10.70	4360	40.00	16.10	6350	64.00	26.10	11000	79.00
		1450	12	3.52	2860	28.00	5.40	4410	40.00	8.04	6350	64.00	13.00	11000	79.00
		960	8	2.33	2860	28.00	3.57	4410	40.00	5.32	6350	64.00	8.61	11000	79.00
		725	6	1.76	2860	28.00	2.70	4410	40.00	4.02	6350	64.00	6.50	11000	79.00
52	140	2900	21	5.46	2470	28.00	9.82	4160	40.00	15.00	6460	64.00	22.90	10100	79.00
		1450	10	2.71	2470	28.00	4.89	4160	40.00	7.47	6460	64.00	11.40	10100	79.00
		960	7	1.79	2470	28.00	3.23	4170	40.00	4.94	6460	64.00	7.54	10100	79.00
		725	5	1.35	2470	28.00	2.44	4170	40.00	3.73	6460	64.00	5.69	10100	79.00
53	160	2900	18	4.94	2470	28.00	8.53	4160	40.00	13.50	6460	64.00	21.10	10100	79.00
		1450	9	2.46	2470	28.00	4.25	4170	40.00	6.71	6460	64.00	10.50	10100	79.00
		960	6	1.62	2470	28.00	2.81	4170	40.00	4.44	6460	64.00	6.95	10100	79.00
		725	5	1.23	2480	28.00	2.13	4200	40.00	3.35	6460	64.00	5.25	10100	79.00
54	180	2900	16	5.15	2860	28.00	8.03	4410	40.00	11.70	6350	64.00	19.00	11000	79.00
		1450	8	2.57	2860	28.00	4.00	4410	40.00	5.86	6350	64.00	9.49	11000	79.00
		960	5	1.70	2860	28.00	2.65	4410	40.00	3.88	6350	64.00	6.28	11000	79.00
		725	4	1.28	2860	28.00	2.00	4410	40.00	2.93	6350	64.00	4.74	11000	79.00
55	200	2900	15	4.59	2860	28.00	7.48	4410	40.00	11.00	6350	64.00	17.00	11000	79.00
		1450	7	2.29	2860	28.00	3.73	4410	40.00	5.50	6350	64.00	8.48	11000	79.00
		960	5	1.51	2860	28.00	2.47	4410	40.00	3.64	6350	64.00	5.61	11000	79.00
		725	4	1.14	2860	28.00	1.86	4410	40.00	2.75	6350	64.00	4.23	11000	79.00
56	225	2900	13	3.59	2470	28.00	6.31	4160	40.00	9.80	6460	64.00	15.40	10100	79.00
		1450	6	1.79	2470	28.00	3.15	4170	40.00	4.89	6460	64.00	7.66	10100	79.00
		960	4	1.19	2480	28.00	2.10	4210	40.00	3.23	6460	64.00	5.07	10100	79.00
		725	3	0.89	2480	28.00	1.61	4270	40.00	2.44	6460	64.00	3.83	10100	79.00
57	250	2900	12	3.20	2470	28.00	5.88	4160	40.00	9.21	6460	64.00	13.70	10100	79.00
		1450	6	1.59	2470	28.00	2.93	4170	40.00	4.59	6460	64.00	6.84	10100	79.00
		960	4	1.06	2480	28.00	1.97	4240	40.00	3.04	6460	64.00	4.53	10100	79.00
		725	3	0.80	2480	28.00	1.50	4270	40.00	2.29	6460	64.00	3.42	10100	79.00

FOOT MOUNTED - DOUBLE AND TRIPLE REDUCTIONS



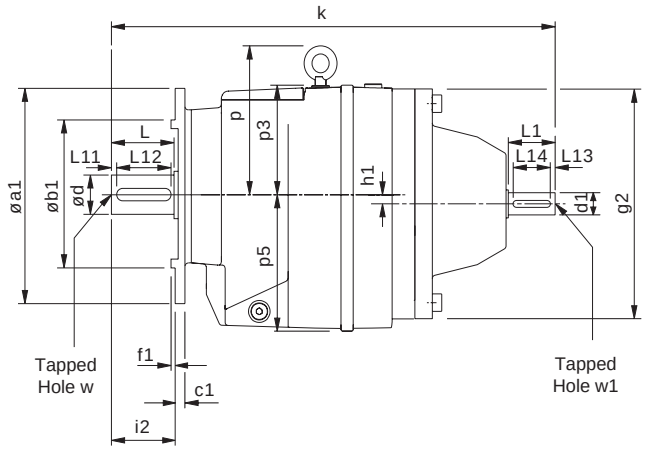
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801	130	110	16	152	145	140	90	-	75	317	330	35	170	84	-	180	10
861	130	110	16	152	145	140	90	-	75	317	330	35	170	84	-	180	10
802	165	135	20	200	190	180	115	-	90	369	377	55	204	97	-	208	15
862	165	135	20	200	190	180	115	-	100	379	387	55	204	97	-	208	15
803	195	150	24	235	210	180	130	14.5	100	400	408	60	220	110	246	214	15
863	205	170	25	245	230	212	140	-	115	440	452	60	252	119	295	250	19
864	260	215	35	310	290	250	180	-	140	555	540	75	320	167	360	310	19
865	310	250	40	365	340	300	225	-	160	660	662	90	372	200	433	394	23
866	370	290	45	440	400	360	250	-	185	782	784	110	428	225	505	446	27
867	410	340	50	490	450	400	265	-	220	907	969	110	470	242	563	483	34
868	500	380	50	590	530	460	300	-	260	1022	1094	150	546	278	630	551	41

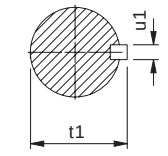
SIZE	High Speed Shaft							Low Speed Shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
860	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	20 k6	40	4	32	22.5	6	M6 x 1.0 x 16 deep
801	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	25 k6	50	4	40	28.0	8	M10 x 1.5 x 22 deep
861	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	25 k6	50	4	40	28.0	8	M10 x 1.5 x 22 deep
802 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	30 k6	60	4	50	33.0	8	M10 x 1.5 x 22 deep
862 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	35 k6	70	7	60	38.0	10	M12 x 1.75 x 28 deep
803 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	35 k6	70	7	60	38.0	10	M12 x 1.75 x 28 deep
863 *	24 k6	50	5	40	27.0	8	M8 x 1.25 x 19 deep	40 k6	80	5	70	43.0	12	M16 x 2.0 x 36 deep
864 *	28 k6	60	5	50	31.0	8	M10 x 1.5 x 22 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 x 36 deep
865 *	38 k6	80	5	70	41.0	10	M12 x 1.75 x 28 deep	60 m6	120	10	100	64.0	18	M20 x 2.5 x 42 deep
866 *	42 k6	110	10	70	45.0	12	M16 x 2.0 x 36 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 x 42 deep
867	55 m6	110	10	90	59.0	16	M20 x 2.5 x 42 deep	90 m6	170	15	140	95.0	25	M24 x 3.0 x 50 deep
868	55 m6	110	10	90	59.0	16	M20 x 2.5 x 42 deep	100 m6	210	15	180	106.0	28	M24 x 3.0 x 50 deep

* Triple reduction units have different input shaft dimensions to those shown, refer to the table on page 213 for details.

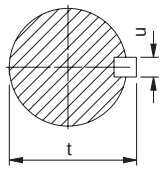
Dimensions - Non Motorised

FLANGE MOUNTED - DOUBLE AND TRIPLE REDUCTIONS



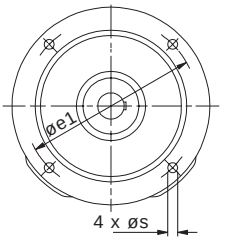


High Speed Shaft

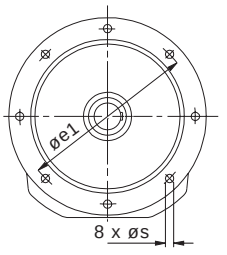


Low Speed Shaft

Sizes 860 - 864



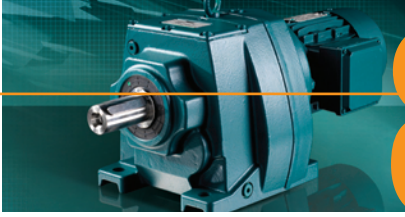
Sizes 865 - 868



Sizes 860 - 864 are also available as C-Flange (B14) mounting.

SIZE	øa1	øb1	c1	øe1	f1	øg2	h1	i2	Double k	Triple k	p	p3	p5	s
	120	80	9	100	3.0	40	9.0							
860	140	95	9	115	3.0	140	-	40	286	301	-	74	76	9
	160	110	10	130	3.5	40	9.0							
	200	130	10	165	3.5	40	11.0							
	120	80	10	100	3.0	140	-							
801	140	95	10	115	3.0	50	9.0	50	317	330	-	90	91	6.6
	160	110	10	130	3.5	50	9.0							
	200	130	10	165	3.5	50	11.0							
	120	80	10	100	3.0	140	-							
861	140	95	10	115	3.0	50	9.0	50	317	330	-	90	91	6.6
	160	110	10	130	3.5	50	9.0							
	200	130	10	165	3.5	50	11.0							
	140	95	11	115	3.0	180	-							
802	160	110	11	130	3.5	60	9.0	60	369	377	-	93	115	9
*	200	130	11	165	3.5	60	11.0							
	250	180	11	215	4.0	60	13.5							
	140	95	11	115	3.0	180	-							
862	160	110	11	130	3.5	70	9.0	70	379	387	-	93	115	9
*	200	130	11	165	3.5	70	11.0							
	250	180	11	215	4.0	70	13.5							
	200	130	11	165	4.0	180	14.5							
803	250	180	11	215	4.0	70	13.5	70	400	408	116	84	130	11
*	300	230	11	265	4.0	70	13.5							
	200	130	11	165	3.5	80	11.0							
863	250	180	11	215	4.0	212	-	80	440	452	155	110	140	13.5
*	300	230	11	265	4.0	80	13.5							
864	300	230	17	265	4.0	250	-	100	555	540	180	130	182	13.5
*	350	250	17	300	5.0	100	17.5							
865	450	350	18	400	5.0	300	-	140	660	662	198	-	230	18
866	450	350	22	400	5.0	360	-	140	782	784	245	-	260	18
867	550	450	25	500	5.0	400	-	170	907	969	288	-	278	18
868	550	450	25	500	5.0	460	-	210	1022	1094	320	-	318	18

* Triple reduction units have different input shaft dimensions to those shown, refer to the table on page 213 for details.



SIZE	High Speed Shaft							Low Speed Shaft						
	d1	L1	L13	L14	t1	u1	w1	d	L	L11	L12	t	u	w
860	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	20 k6	40	4	32	22.5	6	M6 x 1 x 16 deep
801	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	25 k6	50	4	40	28.0	8	M10 x 1.5 x 22 deep
861	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep	25 k6	50	4	40	28.0	8	M10 x 1.5 x 22 deep
802 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	30 k6	60	4	50	33.0	8	M10 x 1.5 x 22 deep
862 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	35 k6	70	7	60	38.0	10	M12 x 1.75 x 28 deep
803 *	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep	35 k6	70	7	60	38.0	10	M12 x 1.75 x 28 deep
863 *	24 k6	50	5	40	27.0	8	M8 x 1.25 x 19 deep	40 k6	80	5	70	43.0	12	M16 x 2.0 x 36 deep
864 *	28 k6	60	5	50	31.0	8	M10 x 1.5 x 22 deep	50 k6	100	10	80	53.5	14	M16 x 2.0 x 36 deep
865 *	38 k6	80	5	70	41.0	10	M12 x 1.75 x 28 deep	60 m6	120	10	100	64.0	18	M20 x 2.5 x 42 deep
866	42 k6	110	10	70	45.0	12	M16 x 2.0 x 36 deep	70 m6	140	15	110	74.5	20	M20 x 2.5 x 42 deep
867	55 m6	110	10	90	59.0	16	M20 x 2.5 x 42 deep	90 m6	170	15	140	95.0	25	M24 x 3.0 x 50 deep
868	55 m6	110	10	90	59.0	16	M20 x 2.5 x 42 deep	100 m6	210	15	180	106.0	28	M24 x 3.0 x 50 deep

TRIPLE REDUCTION INPUT SHAFT DETAILS

SIZE	d1	L1	L13	L14	t1	u1	w1
802	16 k6	40	4	32	18.0	5	M5 x 0.8 x 12 deep
862	16 K6	40	4	32	18.0	5	M5 x 0.8 x 12 deep
803	16 k6	40	4	32	18.0	5	M5 x 1.0 x 12 deep
863	19 k6	40	4	32	21.5	6	M6 x 1.0 x 16 deep
864	24 k6	50	5	40	27.0	8	M8 x 1.25 x 19 deep
865	28 k6	60	5	50	31.0	8	M10 x 1.5 x 22 deep
866	38 k6	80	5	70	41.0	10	m12 x 1.75 x 2.8 deep

Exact Gear Ratios

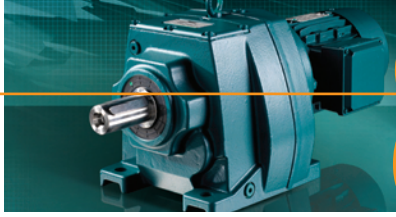
DOUBLE AND TRIPLE REDUCTION RATIOS – NOMINAL OUTPUT SPEEDS BASED ON AN INPUT SPEED OF 1440 REV/MIN

Code	Nominal Output Speed rev/min	860	801	861	802	862	803	863	864	865	866	867	868
01	1029	-	-	-	-	-	-	-	-	1.48	1.44	-	-
02	800	-	-	-	-	-	-	-	-	2.04	2.02	-	-
03	655	-	-	-	-	-	-	-	-	2.28	2.19	-	-
04	576	-	-	-	-	-	-	-	-	2.56	2.49	-	-
05	514	-	-	-	-	-	-	-	-	2.97	2.99	2.90	2.89
06	450	-	-	-	-	-	-	-	-	3.30	3.24	3.19	3.25
07	400	-	-	-	-	-	-	-	-	3.69	3.50	3.64	3.82
08	360	-	-	-	-	-	-	-	-	4.09	4.18	4.03	4.03
09	320	3.75	3.59	3.59	3.59	3.59	-	3.68	3.68	4.58	4.55	4.42	4.54
10	288	5.07	5.03	5.03	5.04	5.04	4.44	5.09	5.21	5.07	4.94	5.04	5.33
11	257	5.76	5.55	5.55	5.65	5.65	6.24	5.72	5.79	5.69	5.37	5.54	6.01
12	229	6.53	6.30	6.30	6.34	6.34	6.99	6.29	6.44	6.63	6.72	6.21	6.55
13	203	-	-	-	-	-	-	-	-	7.40	7.26	6.88	7.27
14	180	8.35	8.00	8.00	8.05	8.05	7.85	8.22	8.33	8.22	7.95	7.78	8.67
15	160	9.00	9.09	9.09	9.13	9.13	9.97	9.34	9.35	9.19	8.58	8.62	9.62
16	144	-	-	-	-	-	-	-	-	10.27	10.59	9.89	10.07
17	131	11.36	11.15	11.15	10.89	10.89	11.30	11.35	11.47	11.71	11.98	11.20	11.43
18	120	12.88	12.37	12.37	12.54	12.54	13.48	12.48	12.92	12.74	12.51	12.39	13.32
19	103	14.72	14.05	14.05	14.58	14.58	15.52	14.34	15.04	14.53	14.16	14.03	15.13
20	90	16.37	15.97	15.97	16.31	16.31	18.05	16.26	16.69	16.59	16.43	15.97	16.43
21	80	18.05	17.58	17.58	17.39	17.39	20.20	17.94	18.26	18.43	18.25	18.00	18.11
22	72	19.86	20.23	20.23	20.61	20.61	21.53	20.54	20.66	20.59	19.41	20.01	21.75
23	65	23.27	21.99	21.99	22.00	22.00	25.51	23.23	23.32	22.87	21.57	22.55	23.97
24	58	-	-	-	-	-	-	-	-	26.04	26.03	25.46	26.07
25	51	27.92	26.40	26.40	27.30	27.30	27.24	26.93	28.27	28.74	29.99	28.35	28.25
26	45	32.54	31.68	31.68	32.19	32.19	33.80	32.12	32.97	32.31	30.76	31.89	34.51
27	40	36.16	35.69	35.69	35.25	35.25	39.86	35.17	36.21	35.67	35.44	35.52	37.39
28	36	-	-	-	-	-	-	-	-	40.25	37.06	39.01	39.42
29	32	43.54	41.49	41.49	43.20	43.20	43.64	42.21	44.38	44.44	42.70	43.45	42.71
30	29	49.91	47.09	47.09	48.15	48.15	53.49	48.56	48.46	49.07	47.93	48.63	51.27
31	26	56.72	53.54	53.54	54.00	54.00	59.61	53.96	55.80	55.18	51.49	51.74	57.52
32	23	-	-	-	-	-	-	-	-	61.13	57.75	59.49	58.57
33	20	-	-	-	-	-	-	-	-	68.74	62.05	63.29	65.70
41	**36**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**39.93**	**41.36**
42	**32**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**44.18**	**48.21**
43	**29**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**50.02**	**54.75**
44	**26**	**58.46**	**57.03**	**57.03**	**58.38**	**58.38**	**-**	**58.95**	**60.33**	**59.85**	**60.23**	**56.93**	**59.46**
45	**23**	**64.45**	**62.87**	**62.87**	**64.29**	**64.29**	**72.28**	**62.83**	**66.02**	**66.49**	**66.93**	**64.17**	**65.55**
46	**20**	**70.93**	**69.19**	**69.19**	**73.95**	**73.95**	**79.60**	**74.47**	**74.69**	**74.27**	**71.17**	**71.32**	**78.70**
47	**18**	**83.10**	**81.07**	**81.07**	**80.40**	**80.40**	**91.56**	**79.51**	**84.31**	**82.51**	**79.08**	**80.39**	**86.76**
48	**16**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**93.92**	**95.44**	**90.75**	**94.35**
49	**14**	**99.70**	**97.26**	**97.26**	**96.52**	**96.52**	**99.54**	**98.66**	**102.20**	**103.68**	**109.97**	**101.07**	**102.23**
50	**13**	**116.22**	**113.37**	**113.37**	**115.82**	**115.82**	**119.50**	**116.34**	**119.19**	**116.55**	**112.77**	**113.69**	**124.89**
51	**12**	**129.13**	**125.97**	**125.97**	**130.50**	**130.50**	**143.40**	**127.39**	**130.92**	**128.66**	**129.94**	**126.62**	**135.31**
52	**10**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**145.20**	**135.88**	**139.07**	**142.66**
53	**9**	**155.51**	**151.69**	**151.69**	**151.71**	**151.71**	**161.57**	**156.12**	**160.45**	**160.29**	**156.57**	**154.89**	**154.57**
54	**8**	**178.24**	**173.87**	**173.87**	**172.19**	**172.19**	**187.83**	**174.01**	**175.21**	**177.00**	**175.74**	**173.37**	**185.56**
55	**7**	**202.57**	**197.60**	**197.60**	**195.75**	**195.75**	**213.19**	**195.15**	**201.75**	**199.03**	**188.81**	**184.46**	**208.15**
56	**6.5**	**-**	**-**	**-**	**-**	**-**	**242.36**	**-**	**-**	**220.51**	**211.75**	**212.09**	**211.97**
57	**6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**247.96**	**227.50**	**225.65**	**237.77**

Double reduction units are shown in normal typeface

Bold typeface indicates triple reduction units

Also available in quadruple and quintuple reduction units as tandem units, please consult your local Authorised Distributor for details.



ALLOWABLE OVERHUNG LOADS

Units are fitted with input and output bearings of ample proportions to cater for the radial and thrust loads imposed by the gear loads, leaving sufficient capacity for taking overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Permissible overhung loads vary according to the direction of rotation. The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and the load applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to your Distributor for further details. In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life.

All units will accept 100% momentary overload on stated capacities.

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to either shaft, one of the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

T = Absorbed torque at shaft in Nm.
kW = Absorbed power at shaft in (kW).
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n = Rev/min of shaft
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

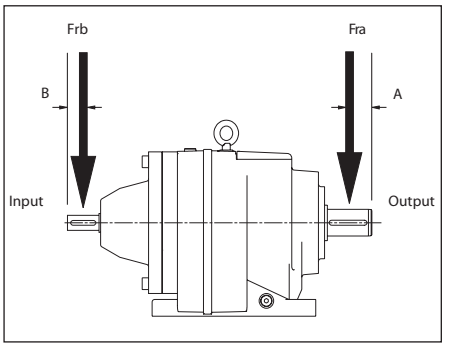
(1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.

(2) Mount the sprocket, gear or pulley on a separate shaft, supported with bearings and couple to the output shaft by means of a Fenner shaft coupling.

(3) Use a special extended output shaft and support the free end with an outrigger bearing.

Axial Thrust Capacities (N)

No check or calculation is required for axial loads towards or away from the unit up to 50% of the permissible overhung load. If the axial thrust exceeds these values or if there is a combination of axial thrust loads and overhung loads please refer to your local Authorised Distributor.



Output shaft dimensions refer to both motorised and non motorised units.

DISTANCE MIDWAY ALONG SHAFT EXTENSION

Size of unit	No. of Reductions	Dimension A (mm)	Dimension B (mm)
860	2 - 3	20	20
801	2 - 3	25	20
861	2 - 5	25	20
802	2 - 5	30	20
862	2 - 5	35	20
803	2 - 5	35	20
863	2	40	25
	3	40	20
	4 - 5	40	20
864	2	50	30
	3	50	25
	4 - 5	50	20
865	2	60	40
	3	60	30
	4 - 5	60	20
866	2	70	55
	3	70	40
	4 - 5	70	25
867	2 - 3	85	55
	4	85	25
	5	85	20
868	2 - 3	105	55
	4	105	25
	5	105	20

ALLOWABLE INPUT SHAFT OVERHUNG LOADS FRB (KN) @1450 REV/MIN

Unit Size	2 Stage	3 Stage	4 Stage	5 Stage
860	1.50	1.65	-	-
801	1.65	1.75	-	-
861	1.56	1.75	1.50	1.50
802	1.20	1.50	1.50	1.50
862	1.10	1.50	1.50	1.50
803	0.90	1.50	1.50	1.50
863	1.65	1.80	1.50	1.50
864	1.50	2.25	1.75	1.75
865	1.50	3.50	1.75	1.75
866	2.55	4.20	2.25	2.25
867	6.90	12.00	2.25	2.25
868	7.10	12.00	2.25	2.25

* For Output Shaft Overhung Load Capacities see the relevant selection tables

Freedom from vibration and correct alignment are the two main points to be considered when installing Gearmotors. Attention to these points will prolong the life and efficiency of the entire drive.

The shafts of the prime mover, unit and driven equipment, should be in as perfect alignment as possible. Misaligned shafts impose abnormal stress on bearings and couplings, leading to excessive wear and possibly early failure. Vibration accelerates bearing and gear wear, resulting in noisy operation. Alignment can be maintained and vibration eliminated, by mounting the drive on rigid foundations of adequate proportions and dowelling the units in position.

Fenaflex couplings are recommended when the shaft alignment cannot be assured and also when protection from peak and vibratory torques is desirable. After installation, regular inspection should be carried out to check the tightness of the fixing bolts and also the accuracy of alignment.

LUBRICATION

Gearmotors and Reducers

Sizes 860 to 863

Motorised and Reducer types of sizes 860 to 863 are supplied ready filled with the appropriate amount of lubricant for the mounting position identified in the original order. (If the unit is to be mounted in a different position to that originally intended then the amount of lubricant in the unit will require amending - see table below for required quantities).

Sizes 864 to 868

Motorised and Reducer types of sizes 864 to 868 are despatched without oil for the customer to fill on site once installed. The different mounting positions are indicated below with the appropriate oil levels. The units have several oil fill and drain plug locations to cater for all mounting positions. A list of approved lubricants is supplied in the table below. All sizes will require an oil change at regular intervals depending on the operating temperature. Initial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life shown in the table.

Warning: Do not overfill as excess lubricant may cause overheating and leakage.

Oil Changes

Sizes 860 to 863 are lubricated for life except when the units are required to work in an explosive atmosphere. (94/9/EC Atex 100a Group II category 2 zones 1 &21 & category 3 zones 2 & 22). See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Intial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below.

Unit Op Temp °C	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
75 or less	17000 or 3 yrs	26000 or 3 yrs
80	12000 or 3 yrs	26000 or 3 yrs
85	8500 or 3 yrs	21000 or 3 yrs
90	6000 or 2 yrs	15000 or 3 yrs
95	4200 or 17 mths	10500 or 3 yrs
100	3000 or 12 mths	7500 or 2.5 yrs
105	2100 or 8 mths	6200 or 2 yrs
110	1500 or 6 mths	2100 or 18 mths

BREATHERS/MOUNTING POSITIONS

Sizes 860,801 and 861 are supplied for operation without breathers.

Sizes 802 to 863 are supplied for operation with breathers. To prevent leakage during transit these units are fitted with blanking plugs. It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

Sizes 864 to 868 are supplied for operation fitted with a breather but are despatched without oil.

It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet. **The mounting position should always be specified on ordering.**

LUBRICANT TYPE TEMPERATURE RANGE

ISO Viscosity	Ambient Temperature °C			
	-5°C to 20°C	-30°C to 20°C	0°C to 35°C	20°C to 50°C
EP Mineral Oil	220	-	320	460
Synthetic Oil 1	-	220	220	320
Synthetic Oil 2	-	220	320	460

Synthetic Oil 1 = Polyalphaolein based.
Synthetic Oil 2 = Polyglycol based
The recommended lubricants for Series M are EP mineral oil or synthetic oil type 1.

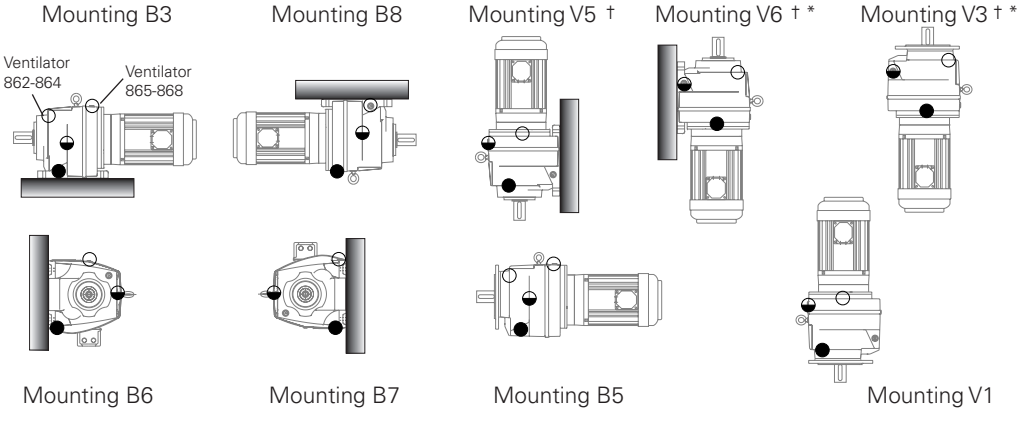
RECOMMENDED OIL GRADES

Supplier	Mineral Oils Containing EP Additives	Synthetic Lubricants Polyglycol Based	Synthetic Lubricants Polyalphaolefin based
BP	Energol GR-XP or XF	Enersyn SG-XP	Enersyn EPX
Castrol	Alpha Max or SP	Alphasyn PG	Alphasyn EP or T
Esso	Spartan EP	Glycolube	Spartan Synthetic EP
Fuchs	Renogear V or WE	Renolin PG	Renogear SG
Mobil	Mobilgear 600	Glygoyle	Mobilgear SHC
Shell	Omala or Omala F	Tivela or Tivela S	Omala HD
Texaco	Meropa or Meropa WM	Synlube CLP	Pinnacle EP
Total	Carter EP	Carter SY	Carter EP/HT
Rocol	Sapphire Hi-Torque	-	-

LUBRICANT QUANTITIES (LITRES)

Mounting Position	860		801		861		802		862		803		863		864		865		866		867		868	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
B3/B5	0.5	0.6	0.8	0.8	0.8	0.8	1.5	1.6	1.5	1.6	2.0	2.1	2.6	2.7	4.2	4.4	10.5	11.5	11	14	17	18	24	24.5
B7	0.8	0.9	1.2	1.3	1.2	1.3	1.8	1.9	1.8	1.9	2.0	2.1	2.9	3.0	6.3	6.5	12.0	12.0	22	24	31	33	49	50
B6	0.6	0.7	0.7	0.7	0.7	0.7	1.6	1.7	1.6	1.7	1.9	2.0	2.7	2.8	5.4	5.6	12.0	12.0	22	24	31	33	49	50
B8	0.8	0.9	1.2	1.2	1.2	1.2	1.8	1.9	1.8	1.9	1.7	1.8	3.0	3.1	7.3	7.5	12.0	12.0	19	21	28	30	41	43
V1/V5	0.7	0.7	1.1	1.1	1.1	1.1	2.0	2.1	2.0	2.1	2.2	2.3	3.2	3.3	6.8	6.8	16.8	16.8	32	32	47	47	72	72
V3/V6	1.0	1.1	1.4	1.6	1.4	1.6	2.6	2.7	2.6	2.7	2.8	2.9	4.7	4.8	9.3	9.7	16.4	16.5	26	28	38	40	65	67

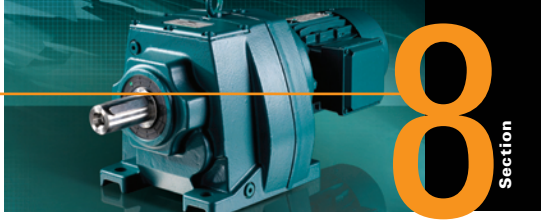
MOUNTING POSITIONS



† Gear units for use in mounting positions V1, V3, V5 and V6 should only be selected with overall ratios greater than or equal to those shown in the table below.

* Mounting positions V3 & V6 are not recommended for geared motors. Please consult your local authorised distributor.

Unit Size	Input Speed (rpm)			
	1000	1500	1800	>1800
860-864	All	All	All	Consult you local distributor
865	2:1	4:1	4.5:1	
866	4:1	8:1	9:1	
867	6.3:1	11:1	14:1	
868	12:1	18:1	22:1	



All gearboxes and geared motors are identified by an eight digit code for a unit with a standard electric motor, if a special motor type is required a ninth digit is added to the end of the normal code. These codes should be included on all enquiries, correspondence and orders.

The code is made up as follows:-

FIRST THREE DIGITS: Gearmotor type and size. Select from the tables on pages 190-201 and 205-210.

FOURTH DIGIT: Type of assembly required

A: Foot mounted motorised

B: Flange mounted motorised

D: Foot mounted with input shaft

E: Flange mounted with input shaft

G: Foot mounted - motor ready

H: Flange mounted - motor ready

FIFTH/SIXTH DIGIT: Ratio code

1. Assemblies A and B use the complete eight digit code obtained directly from the selection tables.
2. Exact gear ratios can be found on page 214.
3. For selection and specification of D & E reducer units, select from tables on page 205-210 and create code as shown.
4. For selection of motor ready units (types G & H) use motor selection tables and replace motor codes with frame codes.

SEVENTH/EIGHTH DIGIT: Type of drive code

1. Motorised units - use complete code from selection tables with if applicable, additional ninth digit for motor type.
2. Input Reducer assembly - use **00**.
3. Motor ready units are supplied to fit standard IEC motors. Insert frame code from the table below.

Code	Frame	Flange
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100/112	B14
10D	100/112	B5
13D	132	B5
16D	160	B5
18D	180	B5
20D	200	B5
22D	225	B5
25D	250	B5

NINTH DIGIT: Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table below of the motor variant required.

ELECTRIC MOTOR VARIANTS

All variants of standard IEC motors can be fitted to Fenner Gearmotors, Series M is also capable of accepting NEMA motor variants as well.

Examples of some of the variants and their ninth digit code letter are:-

CODE	ADDITIONAL FEATURE
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
L	Clutch/Brake Unit
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer to Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit

Standard clutch brake modules with IEC flanges can be fitted between motor and gearhead. Refer to page 183 for more details).

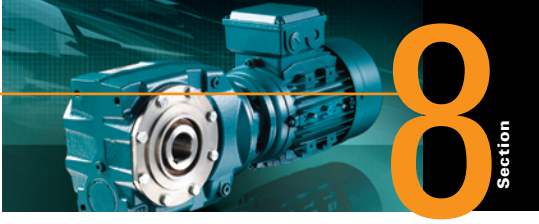
Variable speed packages are available, either integrated inverter-motors or mechanical disc variators. Refer to page 184 and 393 for more details.

Backstop modules are available formotor frame sizes 100 to 200. Refer to page 305 for more details.

Brake motors please refer to age 181.

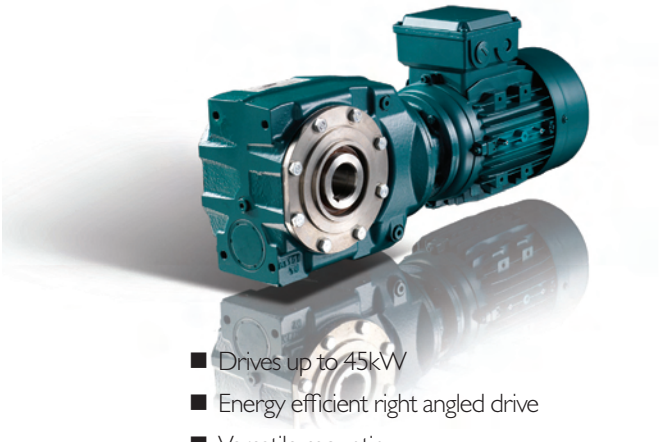
Force vent please refer to page 182.

For any of these combinations please contact your local Authorised Distributor.



Fenner®
SERIES C
HELICAL WORM

Modern design techniques enable the Fenner® Series C Helical Worm gear unit to out perform any other gearbox in terms of lowest cost /Nm.



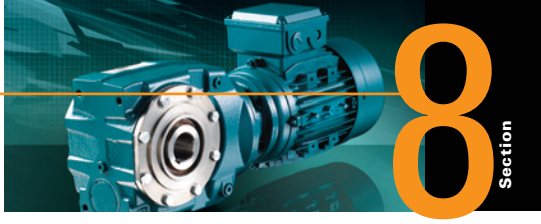
- Drives up to 45kW
- Energy efficient right angled drive
- Versatile mounting
- Ratios from 8:1 to 13,500:1 off the shelf
- Dimensionally interchangeable with the market leaders
- Accepts standard IEC motors without modification
- ATEX certification avail-Ⓔx able

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available
  any special motor features required (brake, thermistors, flameproof etc.)
- **If non-motorised:** type of prime mover
  rotational speed of prime mover
  power rating of prime mover
  is an input shaft coupling required?
  if so, prime mover shaft dia.
- **Foot, flange or shaft mounted?**
  if shaft mounted, machine shaft diameter/length
  if foot mounted, is an output shaft coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine**
  constant or variable over what range?
- **Power absorbed by driven machine**
  (or required output torque)
- **Hours/day duty & start/stop frequency**

SERIES C

	Page
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Non Motorised Selection	229
Non Motorised Dimensions	230
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(a) Absorbed Power

Calculate absorbed power (kW) to drive designated machine P.

(b) Absorbed Torque

Determine the absorbed torque and speed required by the driven machine. If the required output torque is not known it can be calculated using the following formula:

$$T = \frac{P \times 9550}{n_2}$$

T = required output torque (Nm)
P = absorbed power (kW)
n_2 = machine speed (rev/min)

(c) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive.

If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(d) Motor Power

Refer to the selection tables and choose closest motor power above the required absorbed power then find the nearest available output speed to that required. Ensure it has sufficient output torque, if not, move to next motor size.

(e) Unit Selection

At the selected output speed read downwards to the first unit with an output torque in excess of the absorbed torque from step (**b**).

Read across to column 3 and check if the service factor exceeds the value from step (**c**).

If maximum service factor equals or exceeds the value from step (**c**) read across to unit selection column, this gives the relevant product code.

If the value from step (**c**) exceeds the service factor read down to the first service factor to equal or exceed the value from step (**c**) and read across to the unit selection column.

(f) Overhung Loads

If the unit is to be fitted with an output shaft and an indirect drive attached to the shaft, calculate the overhung load value using the formula on page 234 and compare this value with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

(g) Shaft Mounted

From the relevant dimension pages determine the required machine shaft diameter. There are several bore options on most of the range.

NOTE:

(i) The output speeds in the selection table assume nominal motor speeds. In order to determine the exact output speeds of the unit refer to the motor details on page 307.

(ii) For exact ratios of series C units refer to page 232.

EXAMPLE

A Series C motorised shaft mounted gear unit is required for a uniformly loaded conveyor which absorbs 5.7 kW at 46 rpm when running for up to 16 hours/day during which it stops and starts 8 times.

(a) Absorbed power is 5.7kW

(b) Torque = $\frac{5.7 \times 9550}{46}$ = 1183 Nm

(c) From table 1 service factor is 1.25.

The machine stops and starts only 8 times a day therefore an additional stop/start factor is not required.

(d) Closest motor power above 5.7kW is 7.5kW and the nearest available speed is 46 rev/min.

(e) First unit with output torque in excess of 1183 Nm is capable of 1424 Nm and has a maximum service factor of 1.37.

Service factor exceeds 1.25 from step (**c**) therefore read across to unit selection column for product code, 875A1156.

(f) From column 5 the overhung load capacity is 37565 N. If an indirect drive is fitted calculate the load using the formula on page 234 and compare it with this value.

(g) Shaft diameter needs to be 70 mm. So the standard bore option can be used.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR FS

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

For ATEX certified gear units please consult your local Authorised Distributor.

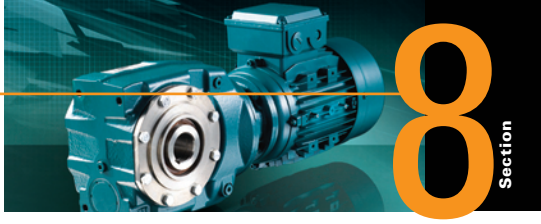
Motorised Selection

Bold print denotes triple reduction gearbox. Higher ratios available—consult your local Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.18KW MOTOR				
158	8	9.03	870A0102	2858
117	12	7.30	870A0202	2857
103	13	6.67	870A0302	2857
91	15	6.09	870A0402	2857
83	14	5.83	870A0502	2856
71	19	5.11	870A0602	2856
66	20	4.84	870A0702	2856
62	19	4.77	870A0802	2856
54	22	4.36	870A0902	2855
48	25	4.02	870A1002	2855
40	33	3.38	870A1102	2844
37	31	3.39	870A1202	2844
35	34	3.22	870A1302	2844
30	44	2.72	870A1402	2841
26	52	2.44	870A1502	2831
24	47	2.51	870A1602	2841
21	54	2.29	870A1702	2830
18	71	2.00	870A1802	2825
18	72	2.84	871A1802	5284
17	79	1.85	870A1902	2818
17	80	2.39	871A1902	5284
16	71	1.94	870A2002	2825
16	73	3.11	871A2002	5287
13	82	1.73	870A2102	2816
13	84	2.77	871A2102	5285
12	108	1.20	870A2202	2801
12	108	1.20	871A2202	5280
12	107	3.23	872A2202	7438
11	122	1.03	870A2302	2796
11	123	1.03	871A2302	5278
11	121	3.19	872A2302	7438
10	113	1.32	870A2402	2801
10	116	1.32	871A2402	5278
8.7	124	1.20	870A2502	2796
8.7	127	2.02	871A2502	5280
8.6	133	3.61	872A2502	7436
7.2	176	1.13	**871A4502**	5278
6.8	153	0.97	**870A4602**	2780
6.8	157	1.75	**871A4602**	5271
6.5	174	2.76	872A2602	7433
6.3	168	0.88	870A2602	2770
6.3	172	1.20	871A2602	5271
6.0	178	1.55	**871A4702**	5271
5.7	196	2.45	872A2702	7437
5.7	206	3.71	873A2702	11852
5.5	194	1.03	871A2702	5261
5.2	265	2.89	**873A4802**	11830
4.7	273	1.42	**872A4902**	7430
4.5	237	1.17	**871A5002**	5250
4.5	297	2.57	**873A4902**	11728
4.4	246	1.95	**872A5002**	7432
4.2	275	2.78	**873A5002**	11828
4.0	330	3.84	**874A5102**	28143
3.8	275	1.00	**871A5102**	5240
3.7	286	1.67	**872A5102**	7428
3.7	297	2.57	**873A5102**	11828
3.7	384	3.49	**874A5202**	27930
3.4	374	1.02	**872A5202**	7421
3.4	390	1.96	**873A5202**	11704
3.3	429	3.12	**874A5302**	29161
3.0	425	0.90	**872A5302**	7416
3.0	440	1.74	**873A5302**	11661
2.7	394	1.21	**872A5402**	7421
2.7	419	1.83	**873A5402**	11707
2.7	479	2.65	**874A5402**	29152
2.4	435	1.10	**872A5502**	7420
2.4	469	1.63	**873A5502**	11707
2.4	522	2.43	**874A5502**	29152
1.8	610	1.25	**873A5602**	11600
1.8	701	1.80	**874A5602**	29130
1.6	688	1.11	**873A5702**	11500
1.6	784	1.61	**874A5702**	29116

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.25KW MOTOR				
159	12	6.64	870A0106	2856
118	16	5.37	870A0206	2855
104	18	4.90	870A0306	2854
92	21	4.48	870A0406	2854
84	20	4.29	870A0506	2853
72	27	3.76	870A0606	2852
66	28	3.56	870A0706	2852
62	27	3.51	870A0806	2852
54	31	3.21	870A0906	2849
48	34	2.95	870A1006	2849
41	46	2.49	870A1106	2837
38	43	2.49	870A1206	2837
38	44	3.98	871A1206	5286
35	47	2.37	870A1306	2837
35	47	3.78	871A1306	5286
30	62	2.00	870A1406	2831
30	61	3.35	871A1406	5285
26	72	1.79	870A1506	2821
26	71	2.92	871A1506	5281
24	66	1.85	870A1606	2831
24	66	2.96	871A1606	5283
21	75	1.69	870A1706	2818
21	74	2.70	871A1706	5281
19	98	2.09	871A1806	5277
19	99	3.83	872A1806	7437
18	99	1.47	870A1806	2808
17	110	1.36	870A1906	2804
17	109	1.76	871A1906	5277
17	111	3.45	872A1906	7436
16	99	1.43	870A2006	2808
16	99	2.29	871A2006	5284
13	115	1.27	870A2106	2800
13	114	2.04	871A2106	5279
13	137	2.91	**872A4006**	7433
12	149	0.88	870A2206	2780
12	151	0.98	**870A4106**	2780
12	147	0.88	871A2206	5269
12	154	1.31	**871A4106**	5268
12	145	2.70	872A2206	7435
12	156	2.55	**872A4106**	7430
11	138	1.07	**870A4206**	2790
11	142	1.68	**871A4206**	5271
11	164	2.34	872A2306	7436
11	151	3.25	**872A4206**	7427
11	173	3.05	873A2306	11838
10	151	0.97	870A2406	2780
10	148	1.00	**870A4306**	2780
10	156	1.61	871A2406	5269
10	162	2.97	872A2406	7436
8.9	169	0.88	870A2506	2770
8.7	172	1.46	871A2506	5264
8.7	181	2.65	872A2506	7431
8.2	234	3.27	**873A4406**	11817
7.6	253	3.02	**873A4506**	11796
7.5	243	1.61	**872A4506**	7427
7.0	222	2.16	**872A4606**	7430
6.5	252	3.03	873A2606	11817
6.3	233	0.88	871A2606	5250
6.3	235	2.04	872A2606	7425
5.7	265	1.82	872A2706	7434
5.7	280	2.73	873A2706	11796
5.6	354	3.78	**874A4806**	29152
5.2	335	1.16	**872A4806**	7424
5.2	360	2.12	**873A4806**	11748
5.1	386	3.46	**874A4906**	29143
4.7	372	1.04	**872A4906**	7419
4.7	404	1.89	**873A4906**	11644
4.4	335	1.44	**872A5006**	7424
4.4	374	2.05	**873A5006**	11744
4.4	422	3.01	**874A5006**	28013
4.1	449	2.82	**874A5106**	26909
3.8	390	1.24	**872A5106**	7214
3.8	404	1.89	**873A5106**	11744

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
3.7	522	2.56	**874A5206**	26449
3.5	530	1.44	**873A5206**	11592
3.3	584	2.29	**874A5306**	29117
3.0	599	1.28	**873A5306**	11500
2.8	535	0.90	**872A5406**	7400
2.8	651	1.95	**874A5406**	29096
2.7	569	1.34	**873A5406**	11600
2.6	710	1.79	**874A5506**	29096
2.4	637	1.20	**873A5506**	11600
1.9	953	1.32	**874A5606**	29048
1.7	1066	1.18	**874A5706**	29018
0.37KW MOTOR				
161	18	4.49	870A0108	2852
119	24	3.63	870A0208	2850
105	27	3.31	870A0308	2849
92	30	3.03	870A0408	2849
84	30	2.90	870A0508	2847
72	39	2.54	870A0608	2844
67	41	2.41	870A0708	2844
63	39	2.37	870A0808	2844
63	41	3.78	871A0808	5286
56	45	2.17	870A0908	2840
56	46	3.47	871A0908	5284
49	50	2.00	870A1008	2840
49	52	3.21	871A1008	5284
41	67	1.68	870A1108	2826
41	68	2.82	871A1108	5280
38	63	1.68	870A1208	2826
38	65	2.69	871A1208	5282
35	68	1.60	870A1308	2826
35	70	2.55	871A1308	5282
30	90	1.35	870A1408	2815
30	91	2.26	871A1408	5282
26	104	1.21	870A1508	2805
26	105	1.97	871A1508	5274
25	96	1.25	870A1608	2815
25	98	2.00	871A1608	5278
21	108	1.14	870A1708	2799
21	110	1.82	871A1708	5274
19	143	0.99	870A1808	2780
19	145	1.41	871A1808	5266
19	147	2.59	872A1808	7434
17	159	0.92	870A1908	2780
17	161	1.19	871A1908	5266
17	165	2.33	872A1908	7432
17	171	3.55	873A1908	11909
16	143	0.97	870A2008	2780
16	146	1.54	871A2008	5280
16	159	3.00	872A2008	74342
14	169	1.38	871A2108	5270
14	171	2.82	872A2108	7429
13	200	1.02	**871A4008**	5255
13	215	1.82	872A2208	7432
13	204	1.96	**872A4008**	7427
13	230	2.74	873A2208	11797
12	228	0.89	**871A4108**	5249
12	232	1.72	**872A4108**	7422
11	210	1.14	**871A4208**	5255
11	243	1.58	872A2308	7434
11	219	2.19	**872A4208**	7424
11	257	2.06	873A2308	11780
10	232	1.09	871A2408	5250
10	225	1.09	**871A4308**	5250
10	240	2.00	**872A2408**	7434
10	235	2.05	**872A4308**	7422
10	257	2.97	873A2408	11780
8.9	279	2.74	873A2508	11780
8.8	268	1.79	872A2508	7424
8.8	340	3.94	**874A4408**	29139
8.7	255	1.00	871A2508	5240
8.7	309	1.28	**872A4408**	7416
8.2	346	2.21	**873A4408**	11741
8.2	361	3.71	**874A4508**	29145



Motorised Selection

Bold print denotes triple reduction gearbox. Higher ratios available—consult your local Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
7.5	360	1.09	**872A4508**	7416
7.5	375	2.04	**873A4508**	11701
7.2	389	3.05	**874A4608**	29145
7.0	316	0.87	**871A4608**	5230
7.0	329	1.46	**872A4608**	7422
6.5	349	1.38	872A2608	7412
6.5	373	2.05	873A2608	11741
6.2	449	2.71	**874A4708**	29127
6.1	375	1.29	**872A4708**	7416
5.8	392	1.23	872A2708	7430
5.8	415	1.84	873A2708	11701
5.6	523	2.56	**874A4808**	29109
5.2	533	1.44	**873A4808**	11609
5.1	572	2.34	**874A4908**	29091
4.7	599	1.28	**873A4908**	11500
4.5	496	0.97	**872A5008**	7410
4.4	624	2.03	**874A5008**	26917
4.3	553	1.38	**873A5008**	11600
4.1	665	1.91	**874A5108**	24796
3.9	577	0.84	**872A5108**	7390
3.9	599	1.28	**873A5108**	11600
3.7	773	1.73	**874A5208**	23910
3.5	784	0.98	**873A5208**	11400
3.3	864	1.55	**874A5308**	29041
2.8	963	1.32	**874A5408**	29001
2.6	1051	1.21	**874A5508**	29001
1.9	1411	0.89	**874A5808**	28909
0.55KW MOTOR				
164	26	3.06	870A0116	2847
121	35	2.47	870A0216	2844
107	39	2.26	870A0316	2841
107	40	3.76	871A0316	5283
94	45	2.07	870A0416	2841
94	46	3.45	871A0416	5285
86	44	1.98	870A0516	2838
86	45	3.17	871A0516	5283
74	57	1.73	870A0616	2833
74	58	2.88	871A0616	5283
68	61	1.64	870A0716	2833
68	62	2.74	871A0716	5283
64	58	1.62	870A0816	2833
64	60	2.58	871A0816	5283
56	66	1.48	870A0916	2825
56	67	2.37	871A0916	5280
50	74	1.36	870A1016	2825
50	76	2.19	871A1016	5280
42	99	3.44	872A1116	7440
42	98	1.15	870A1116	2809
42	99	1.92	871A1116	5274
40	98	3.85	872A1216	7440
39	93	1.15	870A1216	2809
39	95	1.83	871A1216	5276
36	100	1.09	870A1316	2809
36	102	1.74	871A1316	5276
36	110	3.51	872A1316	7440
31	132	0.92	870A1416	2890
31	133	1.54	871A1416	5276
31	141	2.71	872A1416	7440
27	153	0.83	870A1516	2880
27	155	1.35	871A1516	5262
27	152	2.56	872A1516	7440
25	140	0.85	870A1616	2890
25	143	1.36	871A1616	5269
25	147	2.81	872A1616	7440
21	162	1.24	871A1716	5262
21	165	2.58	872A1716	7440
21	180	3.99	873A1716	11896
19	213	0.97	871A1816	5250
19	215	1.76	872A1816	7431
19	230	3.31	873A1816	11844
19	243	3.85	874A1916	29200
17	236	0.81	871A1916	5250
17	241	1.59	872A1916	7426

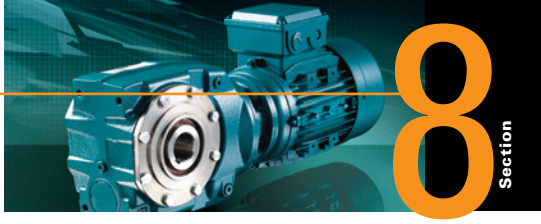
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
17	251	2.42	873A1916	11844
17	271	3.79	874A2016	29200
15	233	2.05	872A2016	7426
15	250	3.06	873A2016	11844
15	303	3.45	874A2116	29200
14	250	1.92	872A2116	7422
14	265	2.88	873A2116	11844
14	330	2.94	874A2216	29200
13	316	1.24	872A2216	7426
13	338	1.87	873A2216	11724
11	357	1.08	872A2316	7430
11	376	1.41	873A2316	11695
11	366	2.64	874A2316	29200
10	352	1.37	872A2416	7430
10	377	2.03	873A2416	11695
10	413	2.71	874A2416	29200
9	394	1.22	872A2516	7412
9	409	1.87	873A2516	11695
9	454	2.51	874A2516	29200
8.3	529	2.53	**874A4516**	29106
7.3	571	2.08	**874A4616**	29106
6.7	511	0.94	872A2616	7392
6.7	548	1.40	873A2616	11626
6.7	612	1.96	874A2616	29200
6.3	658	1.85	**874A4716**	29075
6	609	1.26	873A2716	11558
6	678	1.80	874A2716	29200
6	699	3.61	875A2716	41900
5.5	782	0.98	**873A4816**	11400
5.5	767	1.74	**874A4816**	29044
5	838	1.60	**874A4916**	29013
4.3	915	1.39	**874A5016**	25273
4	975	1.30	**874A5116**	21625
3.7	1133	1.18	**874A5216**	20101
3.3	1266	1.06	**874A5316**	28926
2.8	1412	0.90	**874A5416**	28858
2.6	1540	0.82	**874A5516**	28858
0.75KW MOTOR				
165	36	2.24	870A0118	2841
165	37	3.70	871A0118	5287
119	48	1.81	870A0218	2837
119	49	3.01	871A0218	5283
105	54	1.65	870A0318	2832
105	56	2.75	871A0318	5283
93	62	1.51	870A0418	2832
93	62	2.52	871A0418	5280
85	60	1.44	870A0518	2827
85	62	2.32	871A0518	5280
72	78	1.27	870A0618	2821
72	79	2.11	871A0618	5280
72	79	3.57	872A0618	7440
67	84	1.20	870A0718	2821
67	85	2.00	871A0718	5280
67	89	3.30	872A0718	7439
63	80	1.18	870A0818	2821
63	82	1.89	871A0818	5280
63	87	3.94	872A0818	7439
55	90	1.08	870A0918	2810
55	93	1.73	871A0918	5276
55	95	3.68	872A0918	7439
49	101	1.00	870A1018	2810
49	104	1.60	871A1018	5276
49	107	3.37	872A1018	7438
42	134	0.84	870A1118	2790
42	136	1.41	871A1118	5267
42	135	2.51	872A1118	7437
39	127	0.84	870A1218	2790
39	131	1.34	871A1218	5270
39	134	2.81	872A1218	7437
35	140	1.27	871A1318	5270
35	151	2.56	872A1318	7437
30	182	1.13	871A1418	5270
30	193	1.98	872A1418	7437

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
30	205	3.38	873A1418	11868
26	212	0.98	871A1518	5250
26	208	1.87	872A1518	7435
26	218	3.24	873A1518	11848
26	222	3.96	874A1518	29187
25	196	1.00	871A1618	5260
25	201	2.06	872A1618	7435
25	215	3.24	873A1618	11878
22	222	0.91	871A1718	5250
22	226	1.89	872A1718	7433
22	247	2.91	873A1718	11848
22	262	3.70	874A1718	29182
19	295	1.29	872A1818	7427
19	314	2.42	873A1818	11771
19	304	3.04	874A1818	29182
19	333	2.81	874A1918	29176
17	330	1.16	872A1918	7420
17	344	1.77	873A1918	11771
15	319	1.50	872A2018	7420
15	342	2.24	873A2018	11771
15	371	2.77	874A2018	29175
14	343	1.41	872A2118	7414
14	363	2.11	873A2118	11771
14	415	2.52	874A2118	29175
13	432	0.91	872A2218	7420
13	409	0.98	**872A4018**	7407
13	462	1.37	873A2218	11642
13	452	2.15	874A2218	29175
12	465	0.86	**872A4118**	7395
11	440	1.09	**872A4218**	7401
11	515	1.03	873A2318	11600
11	516	1.64	**873A4218**	11690
11	502	1.93	874A2318	29163
10	472	1.02	**872A4318**	7395
10	516	1.48	873A2418	11600
10	566	1.98	874A2418	29157
10	578	3.99	875A2418	41882
9	539	0.89	872A2518	7400
9	560	1.37	873A2518	11600
9	621	1.83	874A2518	29157
9	633	3.71	875A2518	41883
8	710	1.10	**873A4418**	11500
8	725	1.85	**874A4518**	29603
7	749	1.02	873A2618	11500
7	700	1.09	**873A4618**	11500
7	838	1.43	874A2618	29127
7	836	2.95	875A2618	41867
6	833	0.92	873A2718	11500
6	928	1.31	874A2718	29090
6	957	2.64	875A2718	41875
5	1050	1.28	**874A4818**	28971
4	1252	1.01	**874A5018**	23447
3.5	1550	0.86	**874A5218**	15869

Motorised Selection

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Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.1KW MOTOR				
165	53	1.52	870A0124	2831
165	54	2.51	871A0124	5286
165	53	3.88	872A0124	7440
120	71	1.23	870A0224	2824
120	72	2.04	871A0224	5279
120	74	3.20	872A0224	7440
105	80	1.12	870A0324	2817
105	82	1.87	871A0324	5280
105	81	3.02	872A0324	7440
93	91	1.03	870A0424	2817
93	92	1.71	871A0424	5275
93	92	2.80	872A0424	7438
85	88	0.98	870A0524	2810
85	91	1.57	871A0524	5275
85	93	3.41	872A0524	7440
72	115	0.86	870A0624	2800
72	117	1.43	871A0624	5275
72	116	2.42	872A0624	7440
68	123	0.82	870A0724	2800
68	125	1.36	871A0724	5275
68	131	2.25	872A0724	7437
68	137	3.86	873A0724	11944
64	117	0.80	870A0824	2800
64	121	1.28	871A0824	5275
64	128	2.68	872A0824	7437
55	136	1.18	871A0924	5268
55	140	2.50	872A0924	7437
55	149	3.97	873A0924	11944
48	153	1.09	871A1024	5268
48	158	2.29	872A1024	7435
48	167	3.65	873A1024	11936
41	201	0.95	871A1124	5254
41	199	1.71	872A1124	7433
41	216	2.88	873A1124	11820
38	193	0.91	871A1224	5260
38	197	1.91	872A1224	7433
38	208	3.05	873A1224	11836
34	206	0.87	871A1324	5260
34	222	1.74	872A1324	7433
34	235	2.77	873A1324	11832
30	284	1.34	872A1424	7434
30	302	2.30	873A1424	11795
30	290	3.00	874A1424	29166
27	307	1.27	872A1524	7428
27	322	2.20	873A1524	11764
27	327	2.69	874A1524	29166
25	297	1.40	872A1624	7428
25	317	2.20	873A1624	11811
25	338	2.79	874A1624	29168
22	333	1.28	872A1724	7422
22	364	1.98	873A1724	11764
22	386	2.51	874A1724	29152
19	434	0.88	872A1824	7420
19	463	1.64	873A1824	11644
19	448	2.07	874A1824	29152
17	506	1.20	873A1924	11644
17	490	1.91	874A1924	29136
15	470	1.02	872A2024	7410
15	503	1.52	873A2024	11644
15	547	1.88	874A2024	29133
15	546	3.88	875A2024	41877
14	504	0.95	872A2124	7400
14	534	1.43	873A2124	11644
14	612	1.71	874A2124	29133
14	621	2.16	**874A4024**	29097
14	612	3.53	875A2124	41884
12	680	0.93	873A2224	11500
12	665	1.46	874A2224	29133
12	718	1.87	**874A4124**	29029
12	756	3.77	875A2324	41868
11	687	1.11	**873A4224**	11500
11	739	1.31	874A2324	29100
11	749	1.47	**874A4224**	29087
10	773	0.99	**873A4324**	11500
10	833	1.34	874A2424	29084
10	851	2.71	875A2424	41852
9	914	1.25	874A2524	29084
9	932	2.52	875A2524	41855
7	1234	0.97	874A2624	29000
7	1230	2.01	875A2624	41810
6	1366	0.89	874A2724	28900
6	1409	1.79	875A2724	41833
6	1485	3.76	876A2724	53800
1.5KW MOTOR				
162	72	1.12	870A0128	2820
162	73	1.85	871A0128	5285
162	72	2.87	872A0128	7440
120	96	0.91	870A0228	2810
120	98	1.51	871A0228	5275
120	100	2.36	872A0228	7440
105	109	0.83	870A0328	2800
105	111	1.38	871A0328	5276
105	110	2.23	872A0328	7440
105	116	3.82	873A0328	11945
93	125	1.27	871A0428	5270
93	125	2.07	872A0428	7437
93	130	3.56	873A0428	11923
86	123	1.16	871A0528	5270
86	126	2.52	872A0528	7440
86	131	3.94	873A0528	11942
74	158	1.06	871A0628	5270
74	157	1.79	872A0628	7440
74	164	3.08	873A0628	11904
67	170	1.01	871A0728	5270
67	177	1.66	872A0728	7436
67	186	2.85	873A0728	11904
63	164	0.95	871A0828	5270
63	174	1.98	872A0828	7436
63	182	3.18	873A0828	11904
56	185	0.87	871A0928	5260
56	190	1.85	872A0928	7436
56	202	2.93	873A0928	11904
49	207	0.80	871A1028	5260
49	214	1.69	872A1028	7432
49	226	2.70	873A1028	11889
43	270	1.26	872A1128	7428
43	292	2.13	873A1128	11762
43	278	2.85	874A1128	28940
39	268	1.41	872A1228	7428
39	282	2.25	873A1228	11789
34	301	1.29	872A1328	7428
34	318	2.04	873A1328	11783
30	384	0.99	872A1428	7430
30	409	1.70	873A1428	11712
30	393	2.21	874A1428	29142
28	415	0.94	872A1528	7420
28	436	1.63	873A1528	11668
28	443	1.98	874A1528	29142
25	402	1.03	872A1628	7420
25	429	1.63	873A1628	11734
25	458	2.06	874A1628	29144
22	451	0.95	872A1728	7410
22	493	1.46	873A1728	11668
22	523	1.85	874A1728	29117
20	627	1.21	873A1828	11500
20	606	1.53	874A1828	29117
18	685	0.89	873A1928	11500
18	663	1.41	874A1928	29089
18	677	3.78	875A1928	41845
16	682	1.12	873A2028	11500
16	740	1.39	874A2028	29084
16	739	2.87	875A2028	41861
14	724	1.06	873A2128	11500
14	829	1.27	874A2128	29084
14	841	1.59	**874A4028**	29056
14	829	2.60	**875A2128**	41872
13	901	1.08	874A2228	29084
13	897	3.08	875A2228	41872
12	1000	0.97	874A2328	29027
12	972	1.38	**874A4128**	28960
12	1024	2.78	875A2328	41844
11	1014	1.08	**874A4228**	29006
10	1128	0.99	874A2428	29000
10	1152	2.00	875A2428	41817
9	1238	0.92	874A2528	29000
9	1262	1.86	875A2528	41822
8	1445	0.93	**874A4528**	28900
6.5	1666	1.48	875A2628	41744
6.5	1803	3.09	876A2628	53736
5.6	1908	1.33	875A2728	41784
5.6	2011	2.77	876A2728	53727
2.2KW MOTOR				
165	107	1.27	871A0136	5282
165	106	1.96	872A0136	7440
165	109	3.40	873A0136	11928
121	144	1.03	871A0236	5268
121	147	1.62	872A0236	7440
121	152	2.80	873A0236	11905
110	163	0.94	871A0336	5270
110	161	1.53	872A0336	7440
110	170	2.61	873A0336	11905
97	183	0.87	871A0436	5260
97	182	1.42	872A0436	7435
97	191	2.44	873A0436	11866
88	185	1.72	872A0536	7440
88	191	2.69	873A0536	11900
88	205	3.49	874A0536	27500
76	230	1.22	872A0636	7440
76	240	2.11	873A0636	11833
76	237	3.70	874A0636	28200
67	259	1.13	872A0736	7433
67	272	1.95	873A0736	11833
67	269	3.42	874A0736	29200
62	254	1.35	872A0836	7433
62	266	2.18	873A0836	11833
62	282	2.77	874A0836	29200
57	278	1.26	872A0936	7433
57	296	2.01	873A0936	11833
57	315	2.54	874A0936	29200
50	312	1.16	872A1036	7426
50	331	1.84	873A1036	11808
50	347	2.37	874A1036	29200
43	395	0.86	872A1136	7420
43	427	1.46	873A1136	11660
43	406	1.95	874A1136	28748
40	391	0.96	872A1236	7420
40	413	1.54	873A1236	11708
40	448	1.94	874A1236	29200
40	453	3.97	875A1236	41900
35	440	0.88	872A1336	7420
35	465	1.40	873A1336	11697
35	507	1.76	874A1336	29200
35	506	3.64	875A1336	41900
30	598	1.16	873A1436	11566
30	575	1.51	874A1436	29100
30	576	3.77	875A1436	41063
28	637	1.11	873A1536	11500
28	648	1.36	874A1536	29100
28	646	3.48	875A1536	41638
25	627	1.11	873A1636	11600
25	670	1.41	874A1636	29104
25	690	2.84	875A1636	41900
22	720	1.00	873A1736	11500
22	764	1.27	874A1736	29056
22	797	2.52	875A1736	41900
20	886	1.05	874A1836	29056
20	901	2.76	875A1836	41828
18	970	0.96	874A1936	29008
18	989	2.59	875A1936	41805



Motorised Selection

Bold print denotes triple reduction gearbox. Higher ratios available—consult your local Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
16	1082	0.95	874A2036	29000
16	1081	1.96	875A2036	41833
15	1211	1.78	875A2136	41852
14	1211	0.87	874A2136	29000
14	1229	1.09	**874A4036**	28983
14	1311	2.10	875A2236	41852
14	1280	3.79	876A2136	53722
13	1376	3.23	876A2236	53731
12	1421	0.94	**874A4136**	28838
12	1497	1.90	875A2336	41804
12	1539	2.92	876A2336	53714
10	1684	1.37	875A2436	41756
10	1772	2.98	876A2436	53696
9	1845	1.27	875A2536	41765
9	1950	2.78	876A2536	53679
7	2435	1.01	875A2636	41630
7	2635	2.12	876A2636	53625
6	2789	0.91	875A2736	41700
6	2939	1.90	876A2736	53600
4	3876	1.44	876A2645	53443
4	4064	2.17	877A2645	87347
3.0KW MOTOR				
171	147	0.93	871A0138	5280
171	145	1.44	872A0138	7440
171	149	2.50	873A0138	11894
123	200	1.19	872A0238	7440
123	208	2.05	873A0238	11858
123	201	3.64	874A0238	24654
116	220	1.12	872A0338	7440
116	232	1.92	873A0338	11858
116	227	3.37	874A0338	25318
100	249	1.04	872A0438	7432
100	260	1.79	873A0438	11802
100	249	3.19	874A0438	25990
90	253	1.26	872A0538	7440
90	261	1.98	873A0538	11851
90	279	2.56	874A0538	27218
80	314	0.90	872A0638	7440
80	328	1.55	873A0638	11752
80	323	2.72	874A0638	27800
70	354	0.83	872A0738	7430
70	370	1.43	873A0738	11752
70	367	2.51	874A0738	28732
62	347	0.99	872A0838	7430
62	362	1.60	873A0838	11752
62	385	2.03	874A0838	28898
58	379	0.93	872A0938	7430
58	403	1.47	873A0938	11752
58	430	1.86	874A0938	28943
58	434	3.80	875A0938	38856
50	426	0.85	872A1038	7420
50	451	1.35	873A1038	11715
50	473	1.74	874A1038	29018
50	480	3.54	875A1038	39518
45	583	1.07	873A1138	11544
45	554	1.43	874A1138	28530
45	577	3.37	875A1138	40736
40	563	1.13	873A1238	11615
40	611	1.42	874A1238	29151
40	618	2.91	875A1238	41500
35	634	1.03	873A1338	11600
35	691	1.29	874A1338	29151
35	690	2.67	875A1338	41563
33	785	2.76	875A1438	41657
31	815	0.85	873A1438	11400
31	785	1.11	874A1438	29051
29	883	1.00	874A1538	29051
29	881	2.55	875A1538	41512
26	913	1.04	874A1638	29057
26	942	2.08	875A1638	41884
22	1042	0.93	874A1738	28986
22	1087	1.85	875A1738	41869
20	1229	2.02	875A1838	41794

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
20	1250	3.41	876A1838	53723
19	1349	1.89	875A1938	41758
19	1380	3.12	876A1938	53704
16	1474	1.43	875A2038	41801
16	1578	2.98	876A2038	53684
14	1652	1.30	875A2138	41828
14	1745	2.78	876A2138	53665
13	1788	1.54	875A2238	41828
13	1877	2.37	876A2238	53681
12	2042	1.21	875A2338	41757
12	2098	2.14	876A2338	53651
12	2064	3.87	877A2338	87400
10	2296	1.00	875A2438	41686
10	2417	2.19	876A2438	53621
10	2462	3.15	877A2438	87381
9	2517	1.00	875A2538	41700
9	2660	2.04	876A2538	53592
9	2818	2.82	877A2538	87372
6.4	3593	1.55	876A2638	53497
6.4	3757	2.23	877A2638	87369
5.7	4007	1.39	876A2738	53454
5.7	4021	2.11	877A2738	87369
4.0KW MOTOR				
173	193	3.19	874A0146	22778
173	197	1.89	873A0146	11851
173	192	1.09	872A0146	7440
130	267	2.75	874A0246	24347
130	275	1.55	873A0246	11801
130	265	0.90	872A0246	7440
116	301	2.55	874A0346	24965
116	308	1.45	873A0346	11801
116	291	0.85	872A0346	7440
100	329	2.41	874A0446	25604
100	344	1.35	873A0446	11721
90	369	3.76	875A0546	34793
90	370	1.93	874A0546	26865
90	346	1.49	873A0546	11790
80	431	3.66	875A0646	35596
80	428	2.05	874A0646	27300
80	435	1.17	873A0646	11651
70	483	3.41	875A0746	36798
70	485	1.90	874A0746	28147
70	491	1.08	873A0746	11651
65	519	3.04	875A0846	37796
65	509	1.53	874A0846	28520
65	480	1.20	873A0846	11651
58	574	2.87	875A0946	38426
58	570	1.41	874A0946	28622
58	534	1.11	873A0946	11651
50	636	2.67	875A1046	39040
50	626	1.31	874A1046	28792
50	597	1.02	873A1046	11600
45	765	2.55	875A1146	40031
45	734	1.08	874A1146	28526
45	772	0.81	873A1146	11400
40	819	2.20	875A1246	41000
40	810	1.08	874A1246	29090
40	746	0.85	873A1246	11500
35	913	2.01	875A1346	41143
35	915	0.98	874A1346	29090
33	1071	3.76	876A1446	53733
33	1040	2.09	875A1446	40150
33	1039	0.84	874A1446	28990
29	1189	3.44	876A1546	53716
29	1167	1.93	875A1546	41353
26	1247	1.57	875A1646	41866
22	1440	1.40	875A1746	41832
20	1655	2.57	876A1846	53682
20	1628	1.53	875A1846	41751
18	1827	2.35	876A1946	53653
18	1787	1.43	875A1946	41701
16	1951	1.09	875A2046	41760
15	2100	3.39	877A2046	87400

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
15	2089	2.25	876A2046	53624
14	2322	3.12	877A2146	87385
14	2311	2.10	876A2146	53594
14	2188	0.99	875A2146	41800
13	2551	3.39	877A2246	87400
13	2485	1.79	876A2246	53618
12	2733	2.92	877A2346	87400
12	2779	1.62	876A2346	53573
12	2368	1.17	875A2246	41800
10	3260	2.38	877A2446	87359
10	3200	1.65	876A2446	53528
10	2704	1.05	875A2346	41700
9	3732	2.13	877A2546	87338
9	3521	1.54	876A2546	53482
6.5	4974	1.68	877A2646	87332
6.5	4758	1.17	876A2646	53338
5.7	5324	1.59	877A2746	87332
5.7	5306	1.05	876A2746	53272

Motorised Selection

Bold print denotes triple reduction gearbox. Higher ratios available—consult your local Authorised Distributor

5.5KW MOTOR

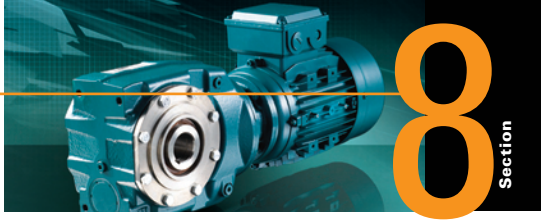
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
175	270	1.38	873A0154	11786
175	265	2.33	874A0154	22426
130	377	1.13	873A0254	11715
130	366	2.00	874A0254	23887
130	371	3.56	875A0254	31175
119	413	3.34	875A0354	31897
110	422	1.06	873A0354	11715
110	412	1.86	874A0354	24437
100	472	0.99	873A0454	11600
100	452	1.76	874A0454	25025
100	457	3.12	875A0454	32868
90	474	1.09	873A0554	11700
90	507	1.41	874A0554	26337
90	506	2.74	875A0554	34371
77	596	0.85	873A0654	11500
77	587	1.50	874A0654	26550
77	591	2.67	875A0654	35010
72	665	1.38	874A0754	27269
72	662	2.49	875A0754	36130
65	658	0.88	873A0854	11500
65	698	1.12	874A0854	27965
65	711	2.22	875A0854	37210
58	732	0.81	873A0954	11500
58	781	1.03	874A0954	28141
58	787	2.09	875A0954	37782
54	858	0.96	874A1054	28452
54	871	1.95	875A1054	38325
46	1048	1.86	875A1154	38975
41	1122	1.60	875A1254	40250
37	1251	1.47	875A1354	40512
33	1425	1.52	875A1454	39389
33	1468	2.74	876A1454	53698
29	159	1.41	875A1554	41116
29	1629	2.51	876A1554	53673
27	1709	1.15	875A1654	41837
23	1973	1.02	875A1754	41775
21	2231	1.12	875A1854	41686
21	2268	1.88	876A1854	53622
21	2272	3.34	877A1854	85716
19	2448	1.05	875A1954	41615
19	2504	1.72	876A1954	53577
19	2606	2.94	877A1954	86407
16	2863	1.64	876A2054	53533
16	2878	2.47	877A2054	87400
14	3167	1.53	876A2154	53488
14	3182	2.28	877A2154	87374
13	3405	1.30	876A2254	53525
13	3496	2.47	877A2254	87400
12	3808	1.18	876A2354	53456
12	3745	2.13	877A2354	87400
10	4385	1.21	876A2454	53387
10	4467	1.74	877A2454	87325
9	4825	1.12	876A2554	53318
9	5114	1.56	877A2554	87287
6.5	6519	0.86	876A2654	53100
6.5	6816	1.23	877A2654	87275
6	7295	1.16	877A2754	87275

7.5KW MOTOR

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
180	367	1.01	873A0156	11700
180	360	1.71	874A0156	21957
180	355	3.20	875A0156	28647
130	513	0.83	873A0256	11600
130	497	1.47	874A0256	23273
130	504	2.62	875A0256	30675
118	561	1.37	874A0356	23732
118	561	2.46	875A0356	31350
107	614	1.30	874A0456	24252
107	622	2.30	875A0456	32243
92	689	1.04	874A0556	25632
92	688	2.02	875A0556	33809
82	797	1.10	874A0656	25550
82	803	1.97	875A0656	34229
72	904	1.02	874A0756	26100
72	899	1.83	875A0756	35239
66	949	0.82	874A0856	27200
66	966	1.63	875A0856	36429
59	1070	1.54	875A0956	36922
53	1184	1.44	875A1056	37370
46	1424	1.37	875A1156	37565
41	1525	1.18	875A1256	39250
37	1701	1.08	875A1356	39671
33	1937	1.12	875A1456	38375
33	1995	2.02	876A1456	53652
33	1975	3.61	877A1456	82939
29	2173	1.04	875A1556	40800
29	2214	1.85	876A1556	53616
29	2188	3.32	877A1556	83701
26	2322	0.84	875A1656	41800
21	3032	0.82	875A1856	41600
21	3082	1.38	876A1856	53541
21	3087	2.46	877A1856	84696
19	3412	1.26	876A1956	53476
19	3541	2.17	877A1956	85806
16	3891	1.21	876A2056	53412
16	3911	1.82	877A2056	87400
14	4304	1.10	876A2156	53347
14	4324	1.67	877A2156	87358
13	4628	0.96	876A2256	53400
13	4751	1.82	877A2256	87400
12	5174	0.87	876A2356	53300
12	5089	1.57	877A2356	87400
10	5959	0.89	876A2456	53200
10	6070	1.28	877A2456	87279
9	6557	0.83	876A2556	53100
9	6949	1.15	877A2556	87219
6.5	9263	0.90	877A2656	87200
6	9913	0.85	877A2756	87200

11.0KW MOTOR

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
180	526	1.17	874A0166	21137
180	520	2.19	875A0166	28018
180	539	3.93	876A0166	44500
132	727	1.01	874A0266	22200
132	737	1.79	875A0266	29800
132	741	3.26	876A0266	47600
118	820	0.94	874A0366	22500
118	820	1.68	875A0366	30393
118	831	3.05	876A0366	48700
107	898	0.89	874A0466	22900
107	909	1.57	875A0466	31150
107	928	2.85	876A0466	50100
94	1005	1.38	875A0566	32825
94	1075	2.40	876A0566	53100
83	1174	1.35	875A0666	32862
83	1194	2.45	876A0666	53300
74	1315	1.25	875A0766	33681
74	1326	2.29	876A0766	53800
66	1413	1.12	875A0866	35062
66	1473	1.98	876A0866	53800
66	1520	3.55	877A0866	73000
59	1564	1.05	875A0966	35418
59	1652	1.85	876A0966	53800
59	1651	3.35	877A0966	74000
53	1731	0.98	875A1066	35700
53	1841	1.73	876A1066	53800
53	1869	3.05	877A1066	75400
46	2082	0.94	875A1166	35100
46	2078	1.73	876A1166	53800
46	2126	3.01	877A1166	75100
40	2229	0.81	875A1266	37500
40	2355	1.48	876A1266	53800
40	2424	2.50	877A1266	79400
35	2634	1.38	876A1366	53700
35	2601	2.36	877A1366	81000
33	2916	1.38	876A1466	53572
33	2887	2.47	877A1466	80522
29	3236	1.26	876A1566	53515
29	3198	2.27	877A1566	81258
25	3601	1.13	876A1666	53600
25	3753	1.76	877A1666	87400
22	4091	1.04	876A1766	53500
22	4231	1.60	877A1766	87400
21	4505	0.95	876A1866	53400
21	4512	1.68	877A1866	82911
19	4973	0.86	876A1966	53300
19	5176	1.48	877A1966	84754
16	5687	0.83	876A2066	53200
16	5716	1.25	877A2066	87400
14	6320	1.15	877A2166	87331
13	6945	1.25	877A2266	87400
12	7438	1.07	877A2366	87400
10	8873	0.87	877A2466	87200



Motorised Selection

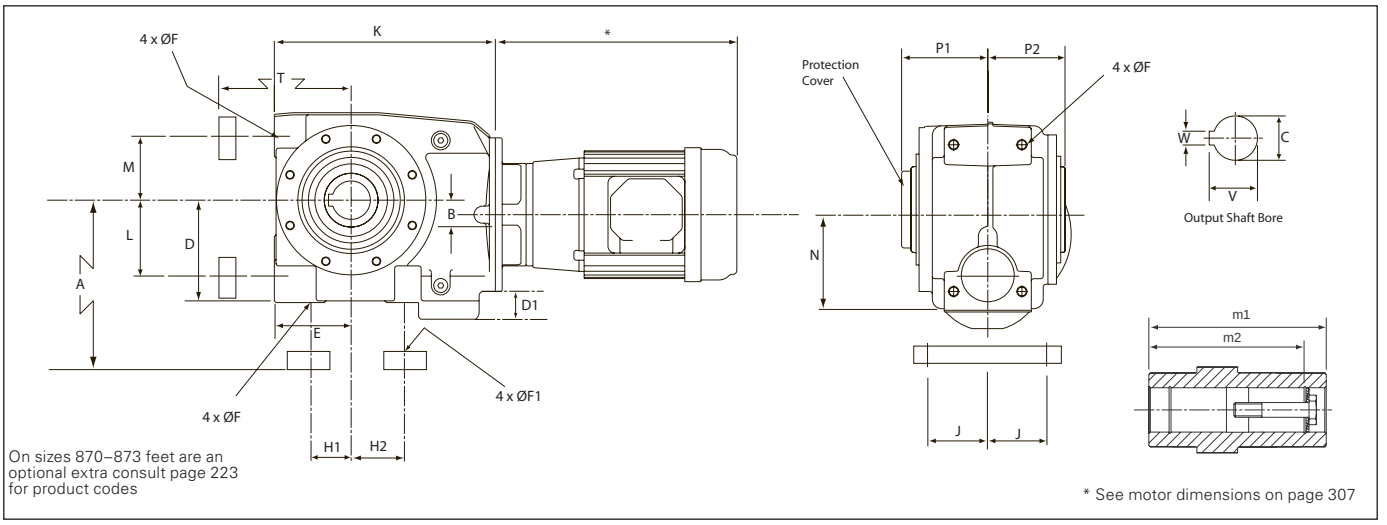
Bold print denotes triple reduction gearbox. Higher ratios available—consult your local Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
15.0KW MOTOR				
183	716	0.86	874A0168	20200
183	707	1.61	875A0168	27300
183	733	2.89	876A0168	43852
132	1001	1.32	875A0268	28800
132	1007	2.40	876A0268	46717
118	1115	1.24	875A0368	29300
118	1130	2.25	876A0368	47715
118	1116	3.99	877A0368	60823
106	1235	1.16	875A0468	29900
106	1261	2.10	876A0468	49007
106	1265	3.70	877A0468	62817
91	1366	1.02	875A0568	31700
91	1460	1.77	876A0568	52131
91	1482	3.19	877A0568	66523
82	1595	0.99	875A0668	31300
82	1622	1.80	876A0668	51889
82	1640	3.16	877A0668	67047
75	1787	0.92	875A0768	31900
75	1803	1.69	876A0768	52636
75	1766	3.02	877A0768	68664
66	1920	0.82	875A0868	33500
66	2002	1.46	876A0868	53727
66	2065	2.61	877A0868	71917
57	2245	1.36	876A0968	53727
57	2244	2.47	877A0968	72823
51	2501	1.27	876A1068	53727
51	2540	2.25	877A1068	74061
46	2824	1.27	876A1168	53586
46	2890	2.21	877A1168	73069
39	3200	1.09	876A1268	53640
39	3294	1.84	877A1268	77673
35	3579	1.02	876A1368	53540
35	3535	1.74	877A1368	79147
33	3963	1.02	876A1468	53480
33	3923	1.82	877A1468	77759
30	4398	0.93	876A1568	53400
30	4347	1.67	877A1568	78467
25	4894	0.83	876A1668	53400
25	5100	1.30	877A1668	85327
22	5750	1.18	877A1768	85945
21	6132	1.24	877A1866	80870
18	7034	1.09	877A1968	83552
16	7768	0.92	877A2068	87400
14	8589	0.84	877A2168	87300

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
18.5KW MOTOR				
183	895	2.37	876A0176	43286
133	1230	1.97	876A0276	45945
133	1251	3.44	877A0276	59054
120	1379	1.84	876A0376	46853
120	1362	3.27	877A0376	60144
106	1540	1.72	876A0476	48051
106	1544	3.03	877A0476	62045
88	1783	1.45	876A0576	51284
88	1809	2.61	877A0576	65844
82	1980	1.47	876A0676	50655
82	2002	2.59	877A0676	66038
74	2201	1.38	876A0776	51618
74	2156	2.47	877A0776	67583
64	2444	1.19	876A0876	53663
64	2522	2.14	877A0876	70970
57	2741	1.11	876A0976	53663
57	2739	2.02	877A0976	71794
51	3054	1.04	876A1076	53663
51	3101	1.84	877A1076	72890
46	3447	1.04	876A1176	53400
46	3528	1.81	877A1176	71292
39	3907	0.89	876A1276	53500
39	4021	1.51	877A1276	76163
35	4316	1.42	877A1376	77526
35	4369	0.83	876A1376	53400
33	4838	0.83	876A1476	53400
33	4790	1.49	877A1476	75342
30	5306	1.37	877A1576	76025
25	6226	1.06	877A1676	83513
22	7019	0.96	877A1776	84672
21	7486	1.10	877A1876	79085
18	8586	0.89	877A1976	82500
22.0KW MOTOR				
184	1064	1.99	876A0178	42720
184	1066	3.50	877A0178	54676
133	1462	1.65	876A0278	45173
133	1488	2.89	877A0278	58426
119	1640	1.55	876A0378	45992
119	1620	2.75	877A0378	59464
106	1831	1.45	876A0478	47096
106	1836	2.55	877A0478	61273
88	2120	1.22	876A0578	50436
88	2151	2.20	877A0578	65164
82	2355	1.24	876A0678	49421
82	2381	2.18	877A0678	65029
74	2617	1.16	876A0778	50600
74	2564	2.08	877A0778	66502
64	2906	1.00	876A0878	53600
64	2999	1.80	877A0878	70023
58	3250	0.94	876A0978	53600
58	3258	1.70	877A0978	70764
51	3632	0.88	876A1078	53600
51	3687	1.55	877A1078	71719
46	4195	1.53	877A1178	69515
39	4782	1.27	877A1278	74652
36	5133	1.20	877A1378	75905
34	5696	1.25	877A1478	72925
30	6310	1.15	877A1578	73582
25	7405	0.89	877A1678	81700
22	8347	0.81	877A1778	83400
21	8903	0.85	877A1878	77300

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
30.0KW MOTOR				
184	1452	1.46	876A0188	41426
184	1454	2.56	877A0188	53641
134	1994	1.21	876A0288	43408
134	2029	2.12	877A0288	56991
120	2237	1.14	876A0388	44023
120	2209	2.01	877A0388	57911
106	2497	1.06	876A0488	44911
106	2504	1.87	877A0488	59508
88	2891	0.89	876A0588	48500
88	2934	1.61	877A0588	63611
83	3212	0.91	876A0688	46600
83	3247	1.60	877A0688	62723
76	3497	1.52	877A0788	64032
63	4089	1.32	877A0888	67858
58	4442	1.25	877A0988	68411
51	5028	1.14	877A1088	69042
46	5721	1.12	877A1188	65453
39	6520	0.93	877A1288	71200
36	6999	0.88	877A1388	72200
34	7767	0.92	877A1488	67400
30	8605	0.84	877A1588	68000
37.0KW MOTOR				
185	1784	1.19	876A0194	40294
185	1787	2.09	877A0194	52735
134	2451	0.99	876A0294	41864
134	2494	1.72	877A0294	55735
120	2749	0.92	876A0394	42300
120	2715	1.64	877A0394	56552
106	3069	0.86	876A0494	43000
106	3078	1.52	877A0494	57964
89	3606	1.31	877A0594	62252
83	3991	1.30	877A0694	60705
76	4298	1.24	877A0794	61870
63	5026	1.07	877A0894	65964
58	5460	1.01	877A0994	66352
51	6181	0.92	877A1094	66700
46	7032	0.91	877A1194	61900
45.0KW MOTOR				
185	2170	0.98	876A0195	39000
185	2173	1.72	877A0195	51700
134	2982	0.81	876A0295	40100
134	3033	1.42	877A0295	54300
122	3302	1.35	877A0395	55000
108	3743	1.25	877A0495	56200
89	4386	1.08	877A0595	60700
83	4854	1.07	877A0695	58400
76	5228	1.02	877A0795	59400
63	6113	0.88	877A0895	63800
58	6641	0.83	877A0995	64000

Motorised Dimensions

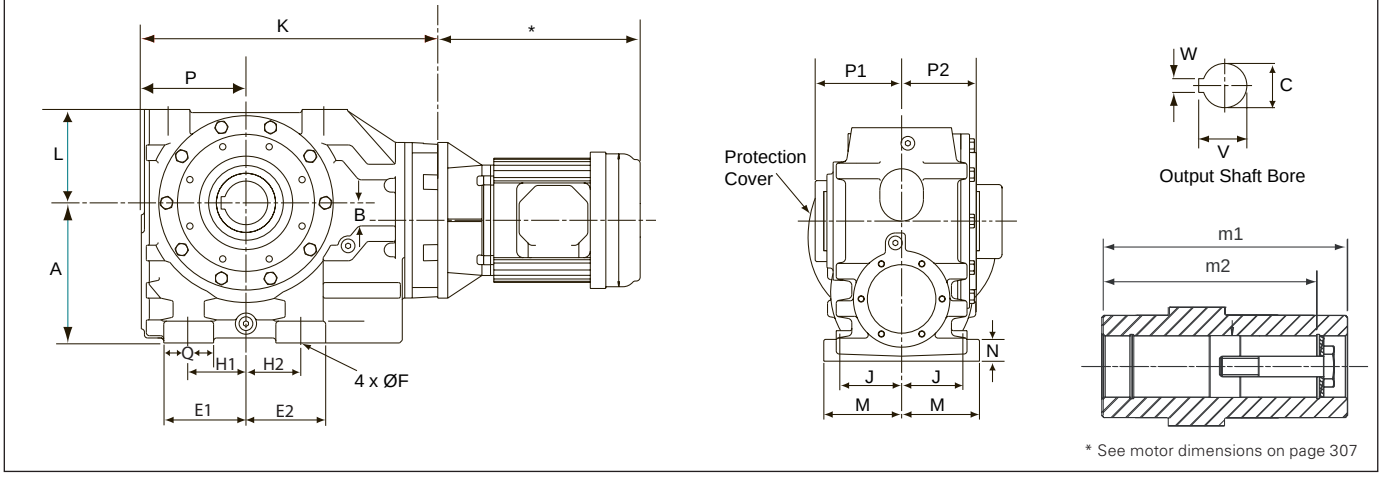


On sizes 870–873 feet are an optional extra consult page 223 for product codes

* See motor dimensions on page 307

Unit Size	A	B	C H7 †	D	D1	E	F	F1	H1	H2	J	K DOUBLE REDUCTION MOTOR FRAME SIZE 63	71	80	90	100/112	132	K Triple #	L	M	m1	m2	N	P1	P2	T	V	W
870	80	5.3	20	71	9	54	M8X15	9	35	28	45	197	201	214	224	213	-	56	40	40	124	104	70.5	70	57.0	63	22.9	6
871	100	15.0	30 (25)	86	7	64	M10X20	11	35	45	50	217	221	234	244	233	-	76	45	53	130	122	86.5	74.5	65.0	78	33.5	8
872	112	13.0	35 (30)	96	16	68	M10X18	11	45	55	55	236	240	253	263	252	-	95	77	65	140	127	96.5	79	70.0	84	38.5	10
873	140	17.0	45 (40)	120	20	90	M12X20	14	60	70	65	271	277	295	305	332	331	163	96	76	180	156	119.5	101	90.5	110	49.0	14

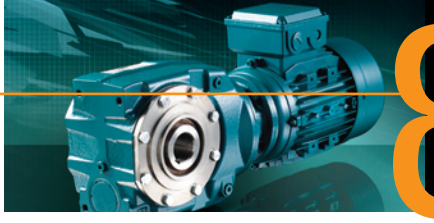
This value should be added to K Double Reduction value in the table above.
† Dimensions in brackets are the alternative bore sizes available on request.



* See motor dimensions on page 307

Unit Size	A	B	C H7 †	E1	E2	F	H1	H2	J	K DOUBLE REDUCTION MOTOR FRAME SIZE 80	90	100/112	132	160/180	200	225	K Triple #	L	M	m1	m2	N	P	P1	P2	Q	V	W
874	180	26	60(50)	108	93	18	75	60	75	400	410	421	444	452	—	—	80	122	93	218	188	28	143	125	109	67	64.6	18
874 Triple										479	489	516	515	—	—	—												
875	225	28	70(60)	132	128	22	92	88	100	470	470	476	476	506	—	—	N/A	150	119	250	220	35	168	143	125	80	75.1	20
876	280	40	90(70)	157	162	26	115	120	125	553	553	559	559	594	594	621	N/A	177	153	300	265	40	195	169	150	85	95.6	25
877	335	65	100(80)	225	195	26	170	140	150	—	—	637	637	672	672	699	N/A	230	180	350	313	45	235	198	175	110	106.6	28

This value should be added to K Double Reduction value in the table above.
† Dimensions in brackets are the alternative bore sizes available on request.



DOUBLE REDUCTION - RATINGS AT 1450 REV/MIN

Ratio Code	Nominal Ratio	Output Speed Rev/min	870		871		872		873		874		875		876		877	
			Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm
01	8	181	1.72	80	2.84	137	4.39	209	7.62	372	12.90	618	20.70	977	43.20	2120	75.90	38730
02	11.2	131	1.39	87	2.31	149	3.62	238	6.26	427	11.10	734	19.70	1320	35.90	2420	62.70	4300
03	12.5	121	1.27	90	2.11	154	3.42	247	5.85	446	10.30	768	18.50	1380	33.60	2540	59.60	4450
04	14	104	1.16	93	1.94	159	3.17	259	5.46	466	9.75	796	17.30	1430	31.40	2650	55.30	4680
05	16	90	1.11	87	1.78	144	3.86	320	6.03	517	7.81	716	15.20	1390	26.40	2580	47.70	4730
06	18	80	0.97	99	1.62	168	2.74	282	4.72	508	8.29	879	14.80	1580	26.90	2920	47.20	5180
07	20	72	0.92	101	1.54	171	2.54	295	4.37	531	7.66	921	13.80	1650	25.20	3040	45.10	5330
08	22	66	0.91	94	1.45	156	3.03	345	4.87	579	1.69	781	12.30	1580	22.00	2820	39.00	5390
09	25	58	0.83	97	1.33	161	2.83	352	4.49	594	5.69	803	11.60	1650	20.30	3050	36.90	5540
10	28	52	0.77	101	1.23	167	2.59	362	4.13	611	5.30	822	10.80	1700	19.00	3180	33.60	5710
11	32	45	0.64	113	1.08	192	1.93	341	3.26	623	5.87	1070	10.30	1950	19.00	3590	33.10	6400
12	36	40	0.65	107	1.03	176	2.16	378	3.45	637	4.35	872	8.88	1800	16.30	3490	27.50	6060
13	40	36	0.61	110	0.98	179	1.97	388	3.13	651	3.95	895	8.14	1840	15.20	3640	26.00	6150
14	45	32	0.52	122	0.87	206	1.52	382	2.60	695	4.66	1200	8.43	2170	15.20	4030	27.20	7140
15	50	29	0.46	127	0.76	209	1.44	391	2.49	709	4.30	1250	7.79	2250	13.90	4090	25.40	7390
16	56	26	0.48	120	0.77	196	1.58	415	2.49	698	3.16	946	6.35	1960	12.40	4060	19.40	6620
17	63	23	0.44	124	0.70	202	1.45	427	2.24	721	2.84	970	5.64	2010	11.40	4240	17.60	6770
18	71	20	0.38	143	0.54	206	1.06	406	1.87	766	3.38	1340	6.18	2490	10.40	4260	20.10	8250
19	80	18	0.35	147	0.46	192	0.94	404	1.71	766	3.10	1340	5.79	2560	9.51	4300	17.80	8390
20	90	16	0.37	139	0.59	227	1.15	478	1.72	766	2.13	1030	4.39	2120	9.11	4710	13.70	7120
21	100	14	0.33	143	0.53	234	1.08	482	1.62	766	1.94	1050	3.99	2160	8.48	4850	12.60	7240
22	112	13	0.23	129	0.30	130	0.70	393	1.24	748	2.27	1340	4.71	2760	7.22	4440	13.70	8650
23	125	12	0.20	127	0.19	128	0.61	386	0.79	530	1.75	1140	4.26	2850	6.53	4490	11.80	7980
24	140	10	0.25	149	0.42	252	0.77	482	1.14	766	1.52	1120	3.07	2310	6.68	5290	9.62	7760
25	160	9	0.23	149	0.39	257	0.69	482	1.05	766	1.41	1140	2.85	2350	6.22	5420	8.62	7960
26	212	7	0.17	149	0.30	206	0.53	482	0.79	766	1.10	1200	2.27	2470	4.74	5580	6.80	7370
27	250	6	0.15	149	0.20	201	0.47	482	0.71	766	1.01	1220	2.03	2530	4.25	5580	6.43	8470

Note; For ratings at input speeds other than 1450 rev/min, contact your local Authorised Distributor

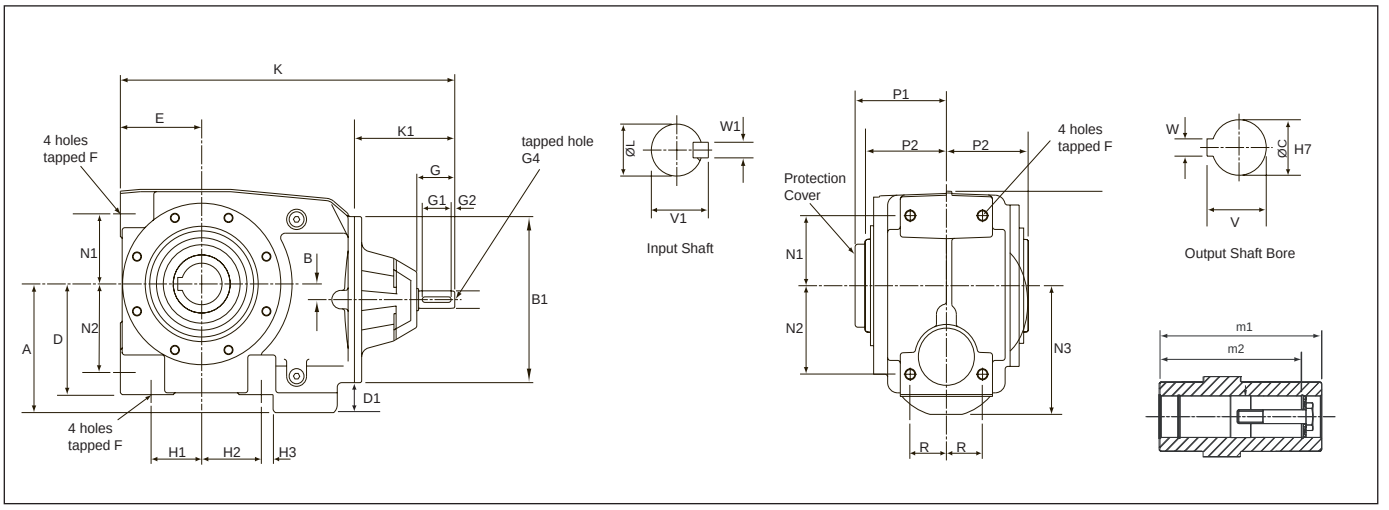
TRIPLE REDUCTION - RATINGS AT 1450 REV/MIN

Ratio Code	Nominal Ratio	Output Speed Rev/min	870		871		872		873		874	
			Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm
48	265	5.5	0.12	149	0.15	198	0.30	389	0.55	766	0.98	1340
49	280	5.2	0.11	149	0.14	197	0.27	388	0.49	766	0.90	1340
50	315	4.5	0.12	149	0.22	278	0.37	482	0.53	766	0.78	1270
51	360	4.0	0.11	149	0.19	278	0.32	482	0.49	766	0.73	1270
52	400	3.5	0.08	149	0.10	195	0.20	385	0.37	766	0.66	1340
53	450	3.2	0.07	149	0.09	195	0.17	384	0.33	766	0.59	1340
54	500	2.9	0.08	149	0.14	278	0.23	482	0.35	766	0.50	1270
55	560	2.6	0.07	149	0.13	278	0.21	482	0.31	766	0.46	1270
58	800	1.8	0.05	149	0.09	278	0.16	482	0.24	766	0.34	1260
59	900	1.6	0.05	149	0.08	278	0.14	482	0.24	766	0.31	1260

Note; For ratings at input speeds other than 1450 rev/min contact your local Distributor

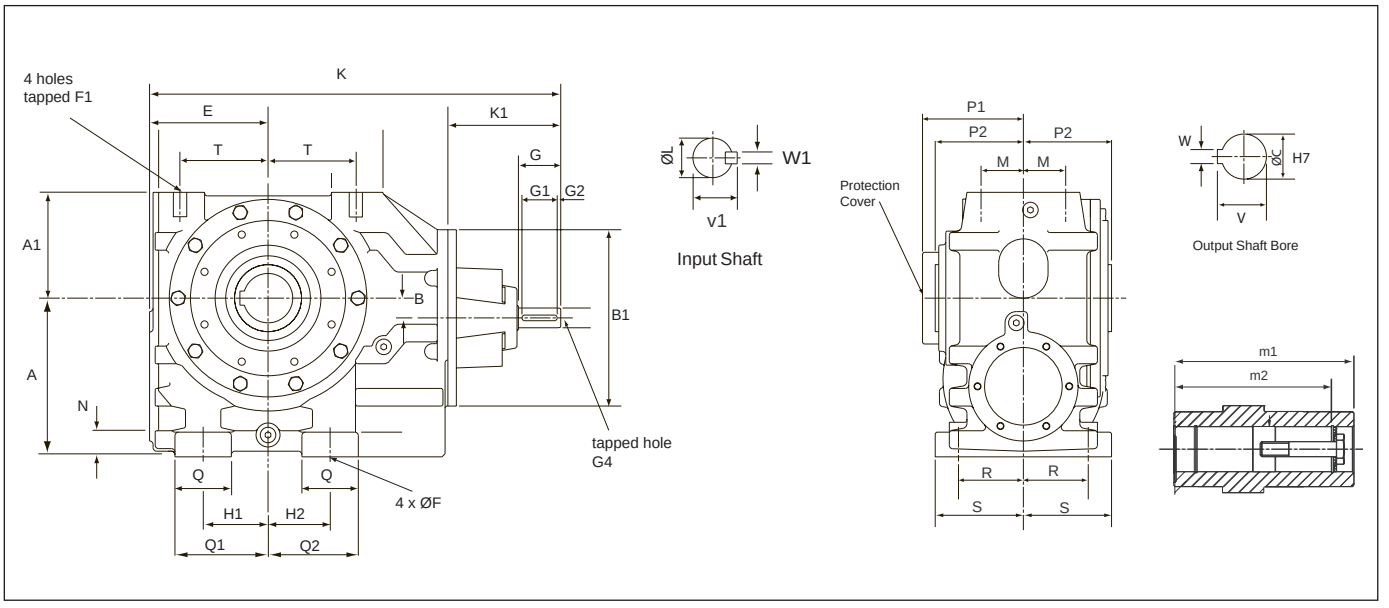
For output speeds below 6 rev/min in sizes 875–877 consult your local Distributor

Dimensions Non Motorised



Unit Size	A	B	B1	C # H7	D	D1	E	F	G	G1	G2	G4	H1	H2	K Double	K Triple	K1	L k6	m1	m2	N1	N2	N3	P1	P2	R	V	V1	W	W1
870	80	5.3	140	20	71	9	54	M8X15	40	32	4	M5X12.5	35	28	274	330	111	16	124	104	40	40	79.5	70.0	62	27	22.9	18.5	6	5
871	100	15.0	140	30	86	7	64	M10X20	40	32	4	M5X12.5	35	45	293	349	111	16	130	122	53	65	93	74.0	65	28	33.5	18.5	8	5
872	112	13.0	140	35	96	16	68	M10X18	40	32	4	M5X12.5	45	55	313	369	111	16	140	127	65	77	112	74.5	70	34	38.5	18.5	10	5
873	140	17.0	180	45	120	20	90	M12X20	40	32	4	M6X16	60	70	370	436	111	19	180	156	76	96	139.5	101.0	90	40	49.0	21.5	14	6

Alternate bores are also available, see page 228.

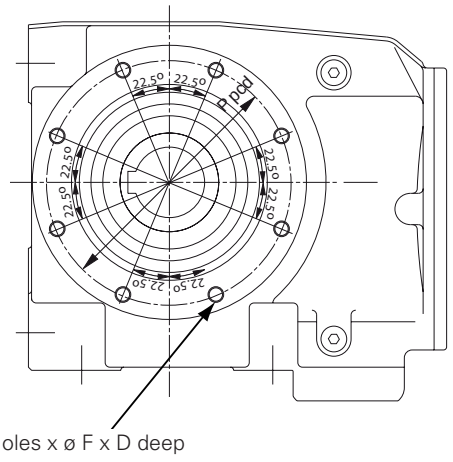


Unit Size	A	A1	B	B1	C # H7	M	E	F	F1	G	G1	G2	G4	H1	H2	K *	K1	L k6	m1	m2	N	P1	P2	Q	Q1	Q2	R	S	T	V	V1	W	W1
874	180	122	26	212	60	50	143	18	M20X34	50	40	5	M8X19	75	60	478	115	24	218	188	28	124	109	67	108	94	60	93	108	64.6	27	18	8
875	225	150	28	250	70	60	168	22	M20X34	60	50	5	M10X22	92	88	583	160	28	250	220	35	143	125	80	132	128	112.5	125	125	75.1	31	20	8
876	280	177	40	300	90	67.5	195	26	M24X45	80	70	5	M12X28	115	120	690	195	38	300	265	40	169	150	85	157	163	140	153	145	95.6	41	25	10
877	335	230	65	360	100	75	235	26	M24X45	110	70	10	M16X36	170	140	823	233	42	350	313	45	198	175	110	225	195	167.5	180	173	106.6	45	28	12

* K dimension for 874 triple reduction unit is 560mm.

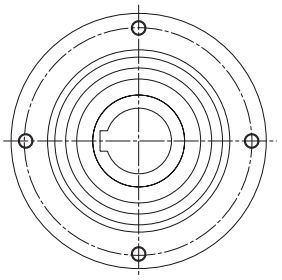
Alternate bores option available, see page 228.

871, 872, 873 & 875
Eight hole pattern

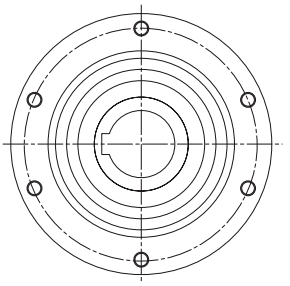


N Holes x ø F x D deep

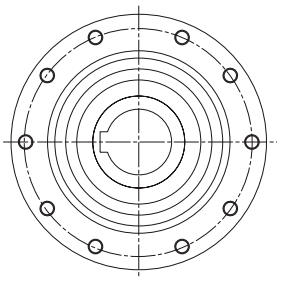
870
Four hole pattern



874 & 876
Six hole pattern

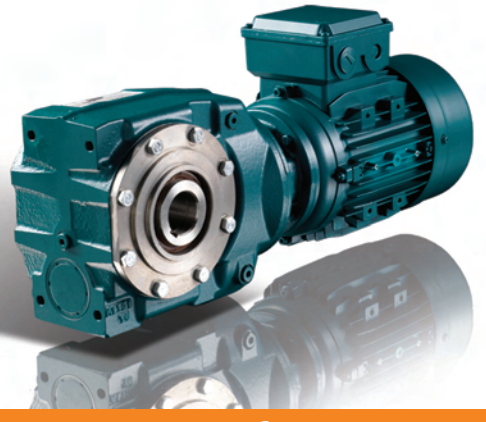


877
Ten hole pattern



Size	P pcd	F Thread Diameter	N No of Holes	D Deep
870	90	M8 x 1.25	4	22
871	107	M8 x 1.25	8	22
872	130	M8 x 1.25	8	22
873	155	M10 x 1.5	8	27
874	150	M12 x 1.75	6	22
875	195	M12 x 1.75	8	21
876	230	M16 x 2.0	6	27
877	280	M16 x 2.0	10	27

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Highly Efficient, Versatile Compact Solutions
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- Versatile mounting
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- Accepts standard IEC motors without modification
- Ratios from 8:1 to 13,500:1



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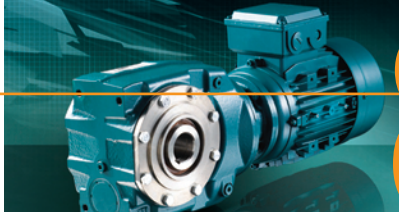
Exact Ratios

DOUBLE REDUCTION

Code	870	871	872	873	874	875	876	877	Final Reduction Worm Ratio
01	8.59	8.59	8.31	8.23	7.90	7.77	7.97	7.95	10 : 1
02	11.61	11.61	11.66	11.57	10.94	11.01	10.98	11.11	10 : 1
03	13.20	13.20	12.85	12.97	12.29	12.24	12.30	12.08	10 : 1
04	14.95	14.95	14.59	14.56	13.52	13.61	13.81	13.72	10 : 1
05	16.36	16.36	16.09	15.93	15.80	15.54	16.68	16.63	20 : 1
06	19.13	19.13	18.53	18.49	17.66	17.60	17.79	17.87	10 : 1
07	20.61	20.61	21.05	20.96	20.07	19.76	19.88	19.29	10 : 1
08	22.11	22.11	22.56	22.40	21.89	22.03	22.96	23.23	20 : 1
09	25.14	25.14	24.86	25.11	24.59	24.47	25.73	25.27	20 : 1
10	28.48	28.48	28.24	28.18	27.03	27.22	28.89	28.70	20 : 1
11	33.71	33.71	32.55	33.48	30.81	31.78	31.43	31.85	10 : 1
12	36.43	36.43	35.86	35.79	35.31	35.20	37.22	37.38	20 : 1
13	39.26	39.26	40.74	40.57	40.15	39.51	41.59	40.36	20 : 1
14	45.50	45.50	46.84	47.32	44.13	43.64	44.55	43.65	10 : 1
15	53.31	53.31	50.93	50.52	49.90	49.26	49.49	48.51	10 : 1
16	56.19	56.19	55.45	55.71	53.63	54.60	57.66	58.85	20 : 1
17	64.21	64.21	63.00	64.80	61.62	63.56	65.74	66.63	20 : 1
18	74.55	74.55	73.37	73.92	69.00	69.64	69.91	69.18	10 : 1
19	82.83	82.83	82.67	80.94	75.56	76.50	77.18	79.71	10 : 1
20	86.67	86.67	90.67	91.58	88.26	87.29	93.18	91.32	20 : 1
21	101.50	101.50	98.57	97.78	99.79	98.53	103.50	101.50	20 : 1
22	114.30	114.30	109.10	110.60	104.30	102.40	106.20	107.80	10 : 1
23	129.90	129.90	124.00	124.00	115.90	117.90	119.40	115.80	10 : 1
24	142.00	142.00	142.00	143.10	138.00	139.30	146.20	144.70	20 : 1
25	157.80	157.80	160.00	156.70	151.10	153.00	161.40	166.70	20 : 1
26	217.80	217.80	211.10	214.00	208.60	204.80	222.10	225.50	20 : 1
27	247.50	247.50	240.00	240.00	231.80	235.80	249.70	242.30	20 : 1

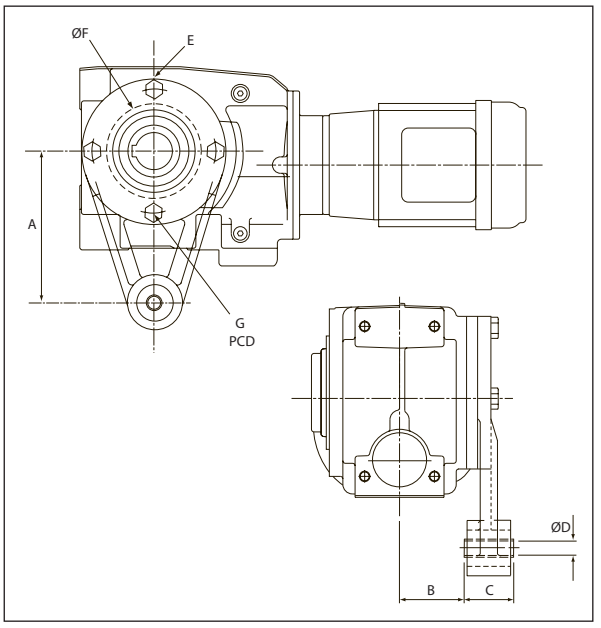
TRIPLE REDUCTION

Code	870	871	872	873	874	Final Reduction Worm Ratio
40	105.4	105.4	103.9	103.9	97.33	10:1
41	120.4	120.4	118.7	118.0	113.20	10:1
42	130.1	130.1	130.4	130.0	125.00	20:1
43	140.2	140.2	140.5	147.7	141.7	20:1
44	162.5	162.5	160.3	169.8	160.00	10:1
45	190.4	190.4	187.8	184.6	170.80	10:1
46	200.7	200.7	201.1	201.0	194.70	20:1
47	229.3	229.3	229.8	228.4	226.40	20:1
48	266.3	266.3	262.6	266.0	249.90	10 : 1
49	295.8	295.8	291.8	299.7	273.70	10 : 1
50	309.5	309.5	310.2	328.7	320.00	20 : 1
51	362.6	362.6	363.4	357.3	341.60	20 : 1
52	408.3	408.3	402.7	395.4	373.80	10 : 1
53	464.1	464.1	457.7	449.5	419.30	10 : 1
54	507.1	507.1	508.2	514.8	499.90	20 : 1
55	563.5	563.5	564.7	580.0	547.40	20 : 1
56	777.8	777.8	779.4	765.3	747.70	20 : 1
57	883.9	883.9	885.8	870.0	838.50	20 : 1



TORQUE ARM

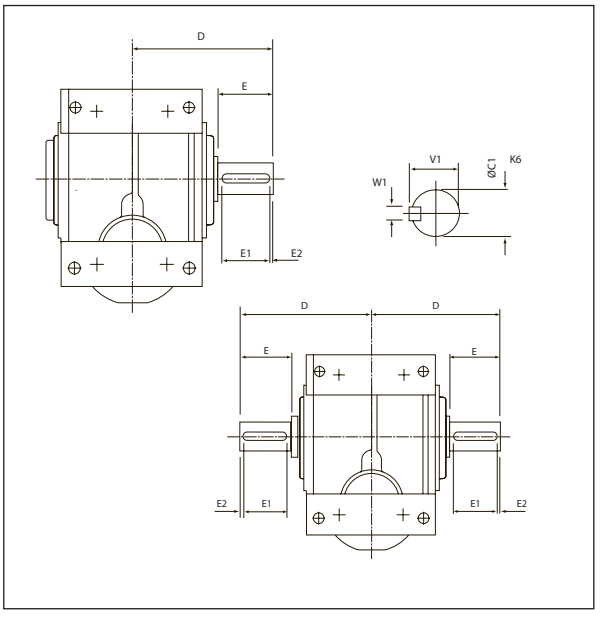
Unit Size	A	B	C	D	E	F spigot dia	G pcd	Product Code
870	110	47.0	36	10.3	4 x M8	69.99 69.969	90	870A9600
871	130	52.0	36	10.3	8 x M8	84.99 84.968	107	871A9600
872	160	52.0	36	10.3	8 x M8	104.99 104.968	130	872A9600
873	200	71.5	44	16.5	8 x M10	124.990 124.965	155	873A9600
874	250	77.5	60	16.4	6 x M12	—	150	874A9600
875	310	85.5	60	16.4	8 x M12	—	195	875A9600
876	380	98.0	80	25.0	6 x M16	—	230	876A9600
877	430	137.0	80	25.0	10 x M16	—	280	877A9600



SINGLE & DOUBLE OUTPUT SHAFTS

Unit Size	C1 k6	D	E	E1	E2	V1	W1	Product Code	
								Single Ex	Double Ex
870	20	100	35	31	3	22.5	6	870A9700	870A9800
871	25	115	46	42	3	28.0	8	871A9700	871A9800
872	30	134	60	53	3	33.0	8	872A9700	872A9800
873	35	160	63	55	3	38.0	10	873A9700	873A9800
873*	45	195	98	80	5	48.5	14	873A9701	-
874	45	195	76	70	3	48.5	14	874A9700	874A9800
875	60	255	120	110	3	64.0	18	875A9700	875A9800
876	70	295	135	125	3	74.5	20	876A9700	876A9800
877	90	366	170	160	3	95.0	25	877A9700	877A9800

* Heavy duty output shaft option



EXTENDED OUTPUT SHAFTS FOR FLANGE MOUNTED UNITS

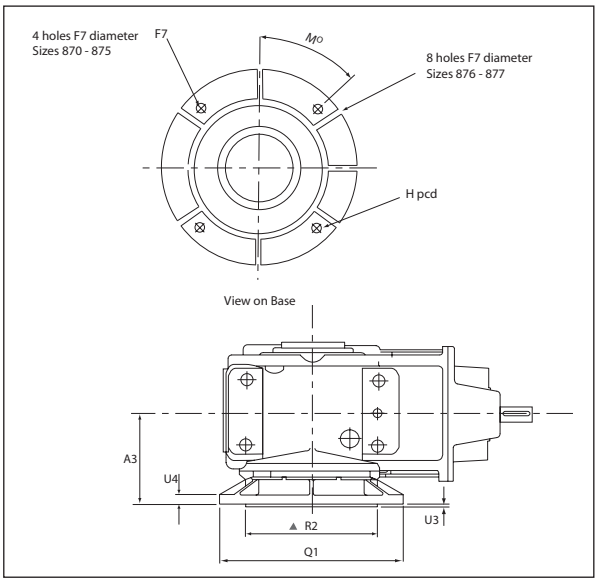
Unit Size	C1	D	E	E1	E2	V1	W1
874	45	235	90	84	3	48.5	14
875	60	290	120	110	3	64	18
876	70	340	140	125	3	74.5	20
877	90	402	170	160	3	95	25

OUTPUT FLANGE

Unit Size	A3	F7	H pcd	M	Q1	R2 ▲	U3	U4	Product Code
870*	75	6.6	100	45°	120	80	3.0	8	870A9990
870	75	9	130	45°	160	110	4.0	10	870A9900
871	86	9	130	45°	160	110	3.5	10	871A9900
872	107	11	165	45°	200	130	3.5	12	872A9900
873	120	11	165	45°	200	130	3.5	12	873A9900
874	145	14	215	45°	250	180	4.0	12	874A9900
875	170	18	300	45°	350	250	5.0	18	875A9900
876	200	18	400	22.5°	450	350	5.0	20	876A9900
877	232	18	400	22.5°	450	350	5.0	22	877A9900

* reduced diameter flange

▲ R2 < 230 mm j6
> 230 mm h6



FEET CODE

Unit Size	Product Code
870	870A9500
871	871A9500

Unit Size	Product Code
872	872A9500
873	873A9500

Overhung Load Capacities

Units are fitted with output bearings of ample proportions to cater for the radial and thrust loads imposed by the worm gear, leaving sufficient capacity for taking overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your Authorised Distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Series C	
Unit Size	A mm
870	17.5
871	23.0
872	30.0
873	31.5
874	38.0
875	60.0
876	67.5
877	85.0

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to the output shaft, one of the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

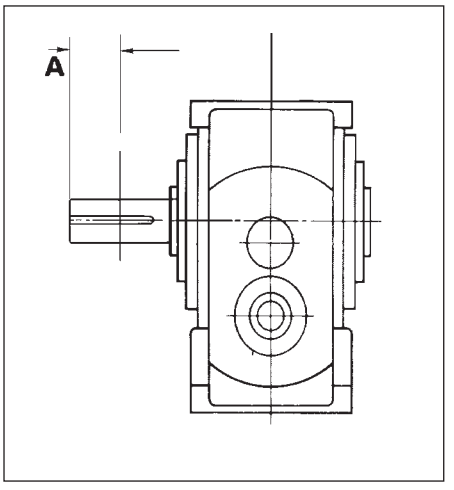
T = Absorbed torque at shaft in Nm.
kW = Absorbed power at shaft (kW).
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n = Rev/min output shaft.
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

(1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.

(2) Mount the sprocket, gear or pulley on a separate shaft, supported with bearings and couple to the output shaft by means of a Fenner shaft coupling.

(3) Use a special extended output shaft and support the free end with an outrigger bearing.



ORDERING INSTRUCTIONS

All Series C motorised worm gear units fitted with a standard electric motor are identified by an eight digit code taken from the selection tables.

If an alternative motor type is required a ninth digit is added to the standard code.

FIRST THREE DIGITS:
Gearmotor type and size

FOURTH DIGIT: Type of assembly required.
A: Geared motor (standard bore)
Z: Geared motor (alternate bore)
D: Reducer (standard bore)
Y: Reducer (alternate bore)
G: Motor ready (standard bore)
X: Motor ready (alternate bore)

FIFTH AND SIXTH DIGIT: Ratio Code.
Exact ratios can be found on page 232.

SEVENTH/EIGHTH DIGIT: Type of drive code

1. Motorised units - use complete code from selection tables.
2. Input Reducer assembly - use **00**.
3. Motor ready units are supplied to fit standard IEC motor insert frame code from table opposite.

NINTH DIGIT: Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table opposite of the motor variant required.

CODE	ADDITIONAL FEATURE
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
L	Clutch/brake unit
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer to Original Quote - Special
S	Single Phase motor
W	WIMES Spec motor (Water Industry)
X	Fitted with Variator
Z	Fitted with Force Vent unit

ELECTRIC MOTOR VARIANTS

All variants of standard IEC motors can be fitted to Fenner Gearmotors, Series C is also capable of accepting NEMA motor variants as well. Examples of some of the variants and their ninth digit code letter are in the table opposite.

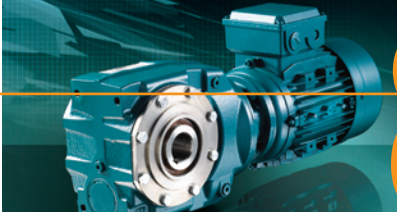
Standard clutch brake modules with IEC flanges can be fitted between motor and gearhead.

Variable speed packages are available, either belt variators or mechanical disc variators.

Backstop modules are available for motor frame sizes 100 to 200.

For any of these combinations please contact your local Authorised Distributor.

Code	Frame	Flange
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100/112	B14
10D	100/112	B5
13D	132	B5
16D	160	B5
18D	180	B5
20D	200	B5
22D	225	B5
25D	250	B5



Satisfactory performance depends on proper installation, lubrication and maintenance. All instructions given in the installation leaflet must be followed carefully.

Shaft Mounting

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs.

Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft, fit side fitting key. **DO NOT USE TAPER OR TOP FITTING KEY**.

LUBRICANT TYPE TEMPERATURE RANGE

ISO Viscosity	Ambient Temperature °C		
	-30° to 20°C	0°C to 35°C	20°C to 50°C
Synthetic Oil 1	220	320	460
Synthetic Oil 2	220	220	320

Synthetic Oil 1 = Polyglycol based
Synthetic Oil 2 = Polyalphaolefin based.
We recommend the use of a Polyglycol synthetic oil - see the note below regarding power ratings.

RECOMMENDED LUBRICANTS

Supplier	Lubricant
	POLYGLYCOL BASED SYNTHETIC
BP	ENERSYN SG-XP
CASTROL	ALPHASYN PG
ESSO	GLYCOLUBE
MOBIL	GLYGOYLE
SHELL	TIVELA
TEXACO	SYNLUBE CLP

Use the ISO viscosty grades shown in the table above.
The catalogue ratings are based on the Polyglycol range of synthetic oils recommended in the above table.
The use of mineral or other types of oil will require a gearbox derate. Please consult your local authorised distributor.

Foot Mounting

Mount the unit securely to a rigid structure. Fit the output extension shaft as required. Use flexible couplings such as Fenaflex for shaft to shaft connections and ensure that shaft misalignment is within the coupling's capacity. When a pulley or sprocket is fitted to either shaft, mount it as close as possible to the gearcase.

When fitting or removing drive components do not hammer on shaft as this will damage the bearings, Fenner Taper Lock bushes permit easy fixing and dismantling without undue force.

LUBRICATION

Sizes 870 to 873 are pre-filled for mounting position B3 with synthetic lubricant. Other mounting positions **must be specified** on order. Sizes 874 to 877 are supplied **without oil**. Before running they should be filled with an appropriate amount of the correct lubricant shown in the table, dependent on the mounting position, see below. Oil capacities are only approximate and units should be filled until oil escapes from the level plug hole.

WARNING: Do not overfill as excess lubricant may cause overheating and leakage.

Oil Changes

Sizes 870 and 871 are lubricated for life except when the units are required to work in an explosive atmosphere. (94/9/EC Atex 100a Group II category 2 zones 1 &21 & category 3 zones 2 & 22). See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Intial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below whichever is the soonest.

Unit Op Temp °C	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
65 or less	17000 or 3 Yrs	26000 or 3 Yrs
70	12000 or 3 Yrs	26000 or 3 Yrs
75	8500 or 3 Yrs	22000 or 3 Yrs
80	6000 or 2 Yrs	15000 or 3 Yrs
85	4200 or 17 Mths	10500 or 3 Yrs
90	3000 or 12 Mths	7500 or 2.5 Yrs
95	2100 or 8 Mths	6000 or 2 Yrs
100	1500 or 6 Mths	4500 or 18 Mths

BREATHERS/MOUNTING POSITIONS

Sizes 870 to 873 are supplied for operation without breathers.

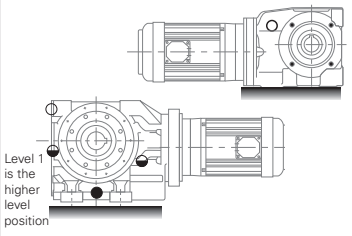
Sizes 874 to 877 are supplied for operation with breather but are despatched without oil. It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

LUBRICANT CAPACITY (LITRES)

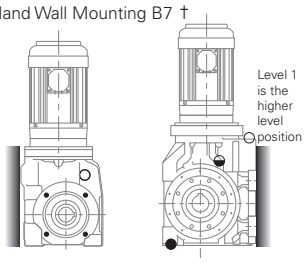
Unit Size	Double Reduction								Triple Reduction							
	B3		B8		V5 V6	B7	B6		B3		B8		V5 V6	B7	B6	
	Level 1	Level 2	Level 1	Level 2	All	All	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2	All	All	Level 1	Level 2
870	0.3	-	0.7	-	0.5	0.6	0.7	-	0.4	-	1.2	-	0.8	1.0	1.2	-
871	0.4	-	1.0	-	0.7	0.9	1.0	-	0.5	-	1.5	-	0.9	1.3	1.5	-
872	0.7	-	1.4	-	1.0	1.4	1.4	-	0.9	-	2.1	-	1.4	2.0	1.9	-
873	1.5	-	3.1	-	2.3	3.0	3.2	-	2.1	-	4.0	-	2.5	4.6	4.0	-
874	4.5	3.0	5.1	3.0	3.5	5.6	7.4	5.1	4.8	3.8	5.9	3.6	3.7	6.6	9.2	6.9
875	7.1	5.9	9.5	4.8	6.2	9.6	12	9.5	-	-	-	-	-	-	-	-
876	17	11	17	8.3	12	18	25	17	-	-	-	-	-	-	-	-
877	21	17	26	14	21	31	42	28	-	-	-	-	-	-	-	-

MOUNTING POSITIONS

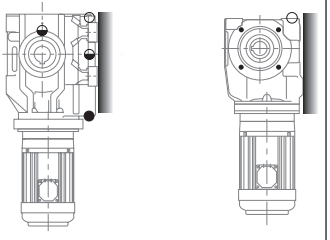
Standard Floor Mounting B3



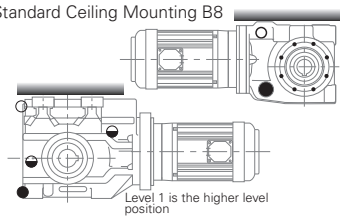
Left Hand Wall Mounting B7 †



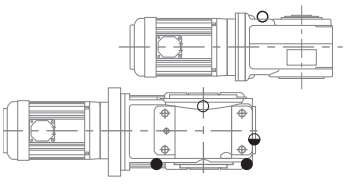
Right Hand Wall Mounting B6 † *



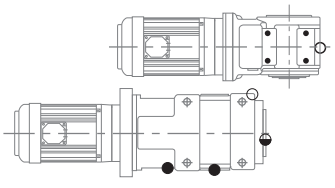
Standard Ceiling Mounting B8



Wall Mounting Shaft Down (V5)



Wall Mounting Shaft Up (V6)



Plug positions apply for sizes 862 and larger. ○ Ventilator/Filling Position ◒ Level Position ● Drain Position

† Gear units for use in mounting positions B6 & B7 should only be selected with overall ratios greater than or equal to those shown in the table below.

* Mounting position B6 is not recommended for geared motors. Consult your local authorised distributor.

Unit Size	Input Speed (rpm)			
	1000	1500	1800	>1800
870-875	All	All	All	Consult you local distributor
876	18:1	18:1	25:1	
877	18:1	40:1	63:1	

GEARBOXES



Fenner®
SERIES F
PARALLEL SHAFT

The new Fenner Series F geared motor range is primarily designed as a compact shaft mounted unit incorporating a integral torque reaction bracket.



- New range now has 11 sizes
- Input power up to 110kW
- Output torque up to 16,500 Nm
- Ratios from 5:1 to 350:1 available from stock
- Dimensionally interchangeable with market leaders
- Accepts standrdard IEC motors
- ATEX certification available

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available
  any special motor features required (brake, thermistors, flameproof etc.)
- **If non-motorised:** type of prime mover
  rotational speed of prime mover
  power rating of prime mover
  is an input shaft coupling required?
  if so, prime mover shaft dia.
- **Shaft mounting or flange mounted?**
  if shaft mounted, machine shaft diameter/length
  if flange mounted, is an output shaft and coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine**
  constant or variable over what range?
- **Power absorbed by driven machine**
  (or required output torque)
- **Hours/day duty & start/stop frequency**

SERIES F

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Motorised Dimensions	254
Non Motorised Selection	255
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Exact Ratios	264
B5 Flange Dimensions	265
B14 Flange Dimensions	266
Torque Bush Dimensions	267
Overhung Loads	268
Installation & Maintenance	269
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MOTORISED UNITS SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor Fm by Factor Fs from table 2 below.

(b) Motor Power

Refer to the selection tables on pages 240 to 253 and choose a motor power equal to or in excess of that required, if the motor power is not known then from the formula below determine the power requirements of the driven machine and select a motor power in excess of the calculated machine absorbed power.

$$P_A = \frac{T \times n}{9550}$$

P_A = machine absorbed power (kW)

T = machine absorbed torque (Nm)

n = machine speed (rev/min)

If the absorbed power is given in kW use the formula below to check the selected unit will give sufficient output torque.

Output torque values for Fenner Series F Gear Motor units are given in column two of the selection tables.

$$T = \frac{P_A \times 9550}{n}$$

T = machine absorbed torque (Nm)

P_A = machine absorbed power (kW)

n = machine speed (rev/min)

(c) Unit Selection

Refer to the selection tables on page 240 to 253 and choose the closest above that calculated in step (**b**). Then read down the column headed "Nominal Output" until a speed equal to or near to the required speed is found. On this line read across to the service factor column and check that the service factor exceeds the value from step (**a**). If the service factor is either lower or much higher than that required check the speeds at each side of the required speed to see if a more suitable unit and factor can be found.

(d) Overhung Loads

If the unit is to be fitted with an output shaft and an indirect drive attached to the shaft, calculate the overhung load value using the formula on page 268 and compare this value with the maximum allowable value given in column 5 of the selection tables.

If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

(e) Shaft Mounted

If the unit is to be shaft mounted determine the relevant machine shaft size from the dimension tables on page 254. Torque bush dimensions can be found on page 267.

SELECTION EXAMPLE

A Series F shaft mounted gearbox is required to drive a non-uniformly loaded conveyor, which absorbs 2kW at 48 rpm and operates for up to 16 hours per day. The conveyor stops and starts on average 6 times a day. Specify the shaft diameter required to fit the unit selected, a torque bush is also required please specify the relevant product code.

(a) Service Factor

From table 1 a non-uniformly loaded conveyor is classed as a moderately loaded machine and when running for up to 16 hours per day has a service factor of 1.5. The machine stops and starts only 6 times a day therefore an additional stop/start factor is not required.

(b) Motor Power

The absorbed power is given as 2kW therefore use the next largest standard motor power above this which is 2.2kW.

To determine the required torque use the absorbed power (kW) and the machine shaft speed in the formula given.

Therefore the machine absorbed Torque

$$T = \frac{2 \times 9550}{48} = 398 \text{ Nm}$$

(c) Unit Selection

The nearest standard motor power above 2 kW is 2.2 kW therefore we go to the 2.2kW geared motor selections on page 245. Reading down the column headed nominal output it is found that there are 5 units listed at 48 rpm, at the first one of these read across to service factor column, it can be seen that the unit size 781A1445 has a service factor of 1.31, which does not exceed the 1.5 required service factor therefore read down the table to a factor that equals or exceeds this.

It can be seen that the 783A1245 is the first unit with a factor above 1.5, the last two digits of the product code (45) indicate that this unit is fitted with a 6 pole motor, it is usually more economical to select a 4 pole version if possible. Therefore the next unit down 783A1736 would be selected as this is the same size gearbox (783), and has a service factor of 1.58 exceeding the required value of 1.5. The output torque for this selection is 422Nm which exceeds the required 398Nm, therefore is suitable for the application.

(d) Overhung Loads

The gearbox is to be shaft mounted therefore no overhung loads present.

(e) Shaft Mounted

The unit is to be shaft mounted, referring to page 254 we see that the hub bore size is 40mm. From page 268 the torque bush to suit the size 783 unit selected has a product code of 881A9600.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

*** See page 398 for notes on reducing service factors**

For high inertia applications, consult you local Authorised Distributor for verification of selection.

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.12KW MOTOR				
237	4	15.20	780A0448	1393
176	6	11.90	780A0548	1553
154	7	9.40	780A0413	1630
154	7	10.90	780A0748	1630
136	8	10.10	780A0848	1706
114	10	8.10	780A0513	1820
107	10	8.90	780A1048	1862
100	11	7.60	780A0713	1909
99	11	8.30	780A1148	1916
89	12	7.10	780A0813	1992
78	14	7.10	780A1248	2090
69	16	6.00	780A1013	2185
69	15	6.90	780A1448	2185
64	17	5.80	780A1113	2246
60	18	6.00	780A1548	2300
54	20	5.60	780A1648	2390
51	22	5.10	780A1213	2440
49	22	5.30	780A1748	2476
45	25	4.70	780A1413	2554
45	24	5.00	780A1848	2554
39	29	4.30	780A1513	2691
38	28	4.60	780A1948	2717
35	32	4.10	780A1613	2800
32	35	3.70	780A1713	2893
32	34	3.80	780A2048	2893
29	38	3.40	780A1813	2999
27	40	3.20	780A2248	3078
25	44	2.90	780A1913	3166
25	44	2.90	780A2348	3166
21	53	2.40	780A2013	3374
20	53	2.40	780A2448	3434
18	61	2.10	780A2548	3569
18	62	2.10	780A2213	3569
16	69	1.90	780A2313	3719
16	73	1.40	780A2748	3753
15	70	1.80	**780A3648**	3860
15	73	3.40	781A2848	7100
15	73	3.40	782A2848	7100
14	78	1.70	**780A3748**	3860
13	83	1.60	780A2413	3860
13	85	1.50	**780A3848**	3860
12	95	1.20	780A2513	3860
11	101	1.30	**780A3948**	3860
11	99	3.00	781A2713	7100
11	99	3.00	782A2713	7100
10	108	1.00	780A2713	3860
10	109	1.20	**780A3613**	3860
10	112	2.30	781A2813	7100
10	112	2.30	782A2813	7100
10	110	3.70	**781A4148**	7100
10	110	3.70	**782A4148**	7100
9.1	119	3.50	**781A3713**	7100
9.1	119	3.50	**782A3713**	7100
9.0	121	1.20	**780A3713**	3860
8.9	128	1.10	**780A4148**	3860
8.3	131	3.20	**781A3813**	7100
8.3	131	3.20	**782A3813**	7100
8.2	133	1.10	**780A3813**	3860
8.2	132	3.20	**781A4248**	7100
8.2	132	3.20	**782A4248**	7100
7.7	150	0.90	**780A4248**	3860
7.5	144	3.00	**781A3913**	7100
7.5	144	3.00	**782A3913**	7100
7.1	153	2.80	**781A4348**	7100
7.1	153	2.80	**782A4348**	7100
7.0	156	0.90	**780A3913**	3860
6.9	166	0.90	**780A4348**	3860
6.4	169	2.50	**781A4113**	7100
6.4	169	2.50	**782A4113**	7100
6.4	170	2.60	**781A4448**	7100
6.4	170	2.60	**782A4448**	7100
5.4	203	2.10	**781A4213**	7100
5.4	203	2.10	**782A4213**	7100
5.3	205	2.20	**781A4648**	7100
5.3	205	2.20	**782A4648**	7100
5.3	205	3.20	**783A4648**	9200
5.2	210	3.70	**783A4213**	9200
4.6	235	1.80	**781A4748**	7100
4.6	235	1.80	**782A4748**	7100
4.6	236	1.90	**781A4313**	7100
4.6	236	1.90	**782A4313**	7100
4.5	241	3.90	**784A4313**	11300
4.4	245	3.10	**783A4313**	9200
4.1	268	1.60	**781A4848**	7100
4.1	268	1.60	**782A4848**	7100
4.1	262	1.70	**781A4413**	7100
4.1	262	1.70	**782A4413**	7100
4.1	264	3.20	**784A4848**	11300
4.0	271	3.50	**784A4413**	11300
3.9	278	2.70	**783A4413**	9200
3.5	316	3.10	**784A4613**	11300
3.4	316	1.40	**781A4613**	7100
3.4	316	1.40	**782A4613**	7100
3.4	316	2.20	**783A4613**	9200
3.0	362	1.20	**781A4713**	7100
3.0	362	1.20	**782A4713**	7100
3.0	358	2.70	**784A4713**	11300
2.7	407	2.20	**784A4813**	11300
2.6	410	1.00	**781A4813**	7100
2.6	410	1.00	**782A4813**	7100
0.18KW MOTOR				
232	7	10.15	780A0402	1392
173	10	5.39	780A0502	1563
156	10	6.80	780A0405	1623
152	11	4.73	780A0702	1638
134	12	4.18	780A0802	1715
115	14	5.45	780A0505	1814
105	16	3.27	780A1002	1875
101	17	5.09	780A0705	1902
97	17	3.03	780A1102	1930
90	19	4.75	780A0805	1983
77	22	2.41	780A1202	2100
70	24	4.07	780A1005	2174
68	25	2.12	780A1402	2197
65	26	3.90	780A1105	2234
60	28	1.86	780A1502	2300
54	31	1.67	780A1602	2390
51	33	3.36	780A1205	2440
49	34	1.52	780A1702	2476
45	37	3.13	780A1405	2554
44	38	1.37	780A1802	2576
40	42	2.95	780A1505	2667
38	44	1.17	780A1902	2717
36	46	2.79	780A1605	2771
32	52	2.48	780A1705	2893
31	54	0.98	780A2002	2927
29	57	2.24	780A1805	2999
27	62	0.84	780A2202	3078
25	67	1.93	780A1905	3166
21	79	1.62	780A2005	3374
19	86	3.62	781A2502	7100
19	86	3.62	782A2502	7100
18	93	1.39	780A2205	3569
17	98	2.87	781A2702	7100
17	98	2.87	782A2702	7100
17	99	3.88	781A2305	7100
17	99	3.88	782A2305	7100
16	104	1.24	780A2305	3719
15	108	1.19	**780A3602**	3860
15	111	2.26	781A2802	7100
15	111	2.26	782A2802	7100
14	118	1.09	**780A3702**	3860
14	117	3.10	**781A3702**	7100
14	117	3.10	**782A3702**	7100
13	130	1.00	**780A3802**	3860
13	130	2.51	781A2505	7100
13	130	2.51	782A2505	7100
13	130	2.78	783A2505	9200
13	130	2.91	**781A3802**	7100
13	130	2.91	**782A3802**	7100
12	143	0.90	780A2505	3860
11	153	0.87	**780A3902**	3860
11	147	2.00	781A2705	7100
11	147	2.00	782A2705	7100
11	143	2.78	**781A3902**	7100
11	143	2.78	**782A3902**	7100
10	163	0.80	780A2705	3860
10	167	1.57	781A2805	7100
10	167	1.57	782A2805	7100
10	167	2.46	**781A4102**	7100
10	167	2.46	**782A4102**	7100
9.2	177	2.35	**781A3705**	7100
9.2	177	2.35	**782A3705**	7100
9.2	178	3.58	**783A3705**	9200
8.8	185	3.51	**783A4102**	9200
8.5	193	3.41	**783A3805**	9200
8.4	195	2.17	**781A3805**	7100
8.4	195	2.17	**782A3805**	7100
8.2	199	3.90	**784A3805**	11300
8.2	199	3.93	**784A4202**	11300
8.1	200	2.11	**781A4202**	7100
8.1	200	2.11	**782A4202**	7100
7.8	208	3.27	**783A4202**	9200
7.6	214	2.00	**781A3905**	7100
7.6	214	2.00	**782A3905**	7100
7.2	229	3.58	**784A3905**	11300
7.1	232	3.07	**783A3905**	9200
7.0	234	1.86	**781A4302**	7100
7.0	234	1.86	**782A4302**	7100
6.9	238	3.51	**784A4302**	11300
6.7	242	3.00	**783A4302**	9200
6.6	249	3.41	**784A4105**	11300
6.5	251	1.71	**781A4105**	7100
6.5	251	1.71	**782A4105**	7100
6.3	259	1.70	**781A4402**	7100
6.3	259	1.70	**782A4402**	7100
6.1	268	3.27	**784A4402**	11300
5.9	275	2.65	**783A4402**	9200
5.9	278	2.74	**783A4105**	9200
5.5	299	3.06	**784A4205**	11300
5.4	301	1.44	**781A4205**	7100
5.4	301	1.44	**782A4205**	7100
5.2	313	1.41	**781A4602**	7100
5.2	313	1.41	**782A4602**	7100
5.2	312	2.08	**783A4602**	9200
5.2	312	2.47	**783A4205**	9200
5.2	312	2.95	**784A4602**	11300
4.7	350	1.26	**781A4305**	7100
4.7	350	1.26	**782A4305**	7100
4.6	358	2.64	**784A4305**	11300
4.6	354	2.65	**784A4702**	11300
4.5	358	1.21	**781A4702**	7100
4.5	358	1.21	**782A4702**	7100
4.5	364	2.11	**783A4305**	9200
4.2	388	1.13	**781A4405**	7100
4.2	388	1.13	**782A4405**	7100
4.1	402	2.08	**784A4802**	11300
4.1	403	2.39	**784A4405**	11300
4.0	408	1.04	**781A4802**	7100
4.0	408	1.04	**782A4802**	7100
4.0	413	1.84	**783A4405**	9200
3.5	469	0.94	**781A4605**	7100
3.5	469	0.94	**782A4605**	7100
3.5	468	1.45	**783A4605**	9200
3.5	469	2.10	**784A4605**	11300
3.1	532	1.84	**784A4705**	11300
3.0	537	0.80	**781A4705**	7100
3.0	537	0.80	**782A4705**	7100
2.7	604	1.45	**784A4805**	11300



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.25KW MOTOR				
232	10	6.10	780A0406	1404
172	13	5.30	780A0506	1566
156	15	3.48	780A0407	1623
151	15	4.96	780A0706	1642
133	17	4.63	780A0806	1720
115	20	3.92	780A0507	1814
104	22	4.00	780A1006	1882
101	23	3.66	780A0707	1902
97	24	3.83	780A1106	1930
90	26	3.42	780A0807	1983
77	30	3.30	780A1206	2100
70	33	2.93	780A1007	2174
68	34	3.02	780A1406	2197
65	36	2.81	780A1107	2234
59	39	2.75	780A1506	2314
53	44	2.56	780A1606	2406
51	45	2.42	780A1207	2440
48	48	2.43	780A1706	2495
45	51	2.25	780A1407	2554
44	53	2.30	780A1806	2576
40	58	2.12	780A1507	2667
37	63	2.06	780A1906	2744
36	64	2.01	780A1607	2771
32	72	1.78	780A1707	2893
31	75	1.73	780A2006	2927
29	80	1.62	780A1807	2999
27	86	1.50	780A2206	3078
25	94	1.37	780A2306	3184
25	93	1.39	780A1907	3166
24	95	3.87	781A2007	7200
24	95	3.87	782A2007	7200
22	104	3.48	781A2406	7100
22	104	3.48	782A2406	7100
21	110	1.17	780A2007	3374
20	113	1.14	780A2406	3408
20	115	3.39	781A2207	7200
20	115	3.39	782A2207	7200
19	121	2.59	781A2506	7100
19	121	2.59	782A2506	7100
19	121	2.99	783A2506	9200
18	130	0.99	780A2506	3582
18	129	1.00	780A2207	3569
17	137	2.05	781A2706	7100
17	137	2.05	782A2706	7100
17	138	2.79	781A2307	7200
17	138	2.79	782A2307	7200
16	148	0.87	780A2706	3753
16	144	0.90	780A2307	3719
16	144	3.59	**783A3606**	9200
15	156	1.61	781A2806	7100
15	156	1.61	782A2806	7100
15	155	2.43	781A2407	7200
15	155	2.43	782A2407	7200
15	157	2.99	784A2806	11300
14	164	2.22	**781A3706**	7100
14	164	2.22	**782A3706**	7100
14	162	3.08	783A2407	9200
14	166	3.29	**783A3706**	9200
13	173	0.74	780A2407	3980
13	181	1.81	781A2507	7200
13	181	1.81	782A2507	7200
13	181	2.00	783A2507	9200
13	180	3.13	**783A3806**	9200
12	199	0.65	780A2507	4184
12	182	2.08	**781A3806**	7100
12	182	2.08	**782A3806**	7100
12	195	3.15	**783A3507**	9200
12	186	3.59	**784A3806**	11300
11	205	1.44	781A2707	7200
11	205	1.44	782A2707	7200
11	200	1.98	**781A3906**	7100
11	200	1.98	**782A3906**	7100
11	215	2.81	**783A3607**	9200

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11	216	2.81	**783A3906**	9200
11	209	3.08	784A2707	11300
11	213	3.29	**784A3906**	11300
10	226	0.80	780A2707	4384
10	232	1.13	781A2807	7200
10	232	1.13	782A2807	7200
10	235	1.76	**781A4106**	7100
10	235	1.76	**782A4106**	7100
10	233	2.00	784A2807	11300
10	232	3.13	**784A4106**	11300
9.2	246	1.69	**781A3707**	7200
9.2	246	1.69	**782A3707**	7200
9.2	247	2.58	**783A3707**	9200
9.1	251	3.15	**784A3707**	11300
8.8	259	2.51	**783A4106**	9200
8.5	269	2.45	**783A3807**	9200
8.4	271	1.56	**781A3807**	7200
8.4	271	1.56	**782A3807**	7200
8.2	278	2.81	**784A4206**	11300
8.1	281	1.51	**781A4206**	7100
8.1	281	1.51	**782A4206**	7100
7.8	292	2.34	**783A4206**	9200
7.6	298	1.44	**781A3907**	7200
7.6	298	1.44	**782A3907**	7200
7.2	319	2.58	**784A3907**	11300
7.1	322	2.21	**783A3907**	9200
6.9	327	1.33	**781A4306**	7100
6.9	327	1.33	**782A4306**	7100
6.8	334	2.51	**784A4306**	11300
6.7	339	2.14	**783A4306**	9200
6.6	346	2.45	**784A4107**	11300
6.5	349	1.23	**781A4107**	7200
6.5	349	1.23	**782A4107**	7200
6.2	363	1.21	**781A4406**	7100
6.2	363	1.21	**782A4406**	7100
6.0	375	2.34	**784A4406**	11300
5.9	385	1.90	**783A4406**	9200
5.9	386	1.97	**783A4107**	9200
5.5	416	2.20	**784A4207**	11300
5.4	418	1.04	**781A4207**	7200
5.4	418	1.04	**782A4207**	7200
5.2	438	1.01	**781A4606**	7100
5.2	438	1.01	**782A4606**	7100
5.2	437	1.49	**783A4606**	9200
5.2	434	1.77	**783A4207**	9200
5.2	437	2.11	**784A4606**	11300
4.7	487	0.90	**781A4307**	7200
4.7	487	0.90	**782A4307**	7200
4.6	495	1.90	**784A4706**	11300
4.5	501	0.86	**781A4706**	7100
4.5	501	0.86	**782A4706**	7100
4.5	506	1.52	**783A4307**	9200
4.2	540	0.82	**781A4407**	7200
4.2	540	0.82	**782A4407**	7200
4.1	560	1.72	**784A4407**	11300
4.0	574	1.33	**783A4407**	9200
4.0	563	1.49	**784A4806**	11300
3.5	651	1.04	**783A4607**	9200
3.5	652	1.51	**784A4607**	11300
3.1	739	1.33	**784A4707**	11300
2.7	839	1.04	**784A4807**	11300
0.37KW MOTOR				
241	14	3.65	780A0408	2080
178	19	2.70	780A0508	2258
157	22	3.49	780A0708	2327
157	22	5.81	780A0412	1619
138	25	3.25	780A0808	2403
116	30	4.30	780A0512	1808
108	32	2.81	780A1008	2554
102	34	3.78	780A0712	1895
100	34	2.67	780A1108	2594
90	38	3.34	780A0812	1983
79	43	2.29	780A1208	2730

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
70	49	2.10	780A1408	2793
70	49	2.61	780A1012	2174
65	53	2.42	780A1112	2234
61	56	1.92	780A1508	2865
55	62	1.80	780A1608	2914
51	67	1.92	780A1212	2440
48	71	1.64	780A1708	2495
45	76	1.52	780A1412	2554
44	78	1.55	780A1808	2576
40	86	1.44	780A1512	2667
37	93	1.39	780A1908	2744
36	95	1.35	780A1612	2771
33	102	3.65	781A1712	6550
33	102	3.65	782A1712	6550
32	107	1.20	780A1712	2893
31	111	1.17	780A2008	2927
31	110	3.55	781A2208	6690
31	110	3.55	782A2208	6690
30	113	3.31	781A1812	6700
30	113	3.31	782A1812	6700
29	118	1.09	780A1812	2999
27	127	1.02	780A2208	3078
26	132	2.91	781A2308	6981
26	132	2.91	782A2308	6981
26	130	3.02	781A1912	6923
26	130	3.02	782A1912	6923
25	137	0.82	780A1912	3166
25	139	0.93	780A2308	3184
24	141	2.63	781A2012	7053
24	141	2.63	782A2012	7053
24	139	3.89	783A2308	9200
23	149	2.44	781A2408	7100
23	149	2.44	782A2408	7100
22	155	3.10	783A2408	9200
20	173	1.81	781A2508	7100
20	173	1.81	782A2508	7100
20	170	2.30	781A2212	7100
20	170	2.30	782A2212	7100
19	174	2.09	783A2508	9200
19	179	3.89	784A2508	11300
18	187	2.83	**783A3508**	9200
17	196	1.44	781A2708	7100
17	196	1.44	782A2708	7100
17	203	1.90	781A2312	7100
17	203	1.90	782A2312	7100
17	199	3.10	784A2708	11300
16	215	2.63	783A2312	9200
16	206	2.51	**783A3608**	9200
15	222	1.13	781A2808	7100
15	222	1.13	782A2808	7100
15	228	1.65	781A2412	7100
15	228	1.65	782A2412	7100
15	224	2.09	784A2808	11300
15	225	3.96	784A2412	11300
14	235	1.55	**781A3708**	7100
14	235	1.55	**782A3708**	7100
14	239	2.09	783A2412	9200
14	237	2.31	**783A3708**	9200
14	240	2.83	**784A3708**	11300
13	266	1.23	781A2512	7100
13	266	1.23	782A2512	7100
13	267	1.36	783A2512	9200
13	260	1.46	**781A3808**	7100
13	260	1.46	**782A3808**	7100
13	257	2.19	**783A3808**	9200
13	265	2.51	**784A3808**	11300
12	286	1.39	**781A3908**	7100
12	286	1.39	**782A3908**	7100
12	287	2.14	**783A3512**	9200
12	277	2.63	784A2512	11300
11	302	0.98	781A2712	7100
11	302	0.98	782A2712	7100
11	317	1.91	**783A3612**	9200

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11	309	1.97	**783A3908**	9200
11	308	2.09	784A2712	11300
11	305	2.31	**784A3908**	11300
10	335	1.23	**781A4108**	7100
10	335	1.23	**782A4108**	7100
10	344	1.36	784A2812	11300
10	332	2.19	**784A4108**	11300
10	328	3.93	785A2712	17000
9.3	362	1.15	**781A3712**	7100
9.3	362	1.15	**782A3712**	7100
9.3	364	1.75	**783A3712**	9200
9.3	364	3.02	785A2812	17000
9.1	370	1.75	**783A4108**	9200
9.1	370	2.14	**784A3712**	11300
8.5	396	1.67	**783A3812**	9200
8.5	398	1.97	**784A4208**	11300
8.5	397	3.59	**785A3708**	17000
8.4	399	1.06	**781A3812**	7100
8.4	399	1.06	**782A3812**	7100
8.4	401	1.06	**781A4208**	7100
8.4	401	1.06	**782A4208**	7100
8.3	408	1.91	**784A3812**	11300
8.1	416	1.64	**783A4208**	9200
8.0	423	3.26	**785A3808**	17000
7.7	439	0.98	**781A3912**	7100
7.7	439	0.98	**782A3912**	7100
7.2	467	0.93	**781A4308**	7100
7.2	467	0.93	**782A4308**	7100
7.2	469	1.75	**784A3912**	11300
7.1	474	1.50	**783A3912**	9200
7.1	476	1.75	**784A4308**	11300
6.9	485	1.50	**783A4308**	9200
6.7	499	2.94	**785A3908**	17000
6.6	510	1.67	**784A4112**	11300
6.5	513	0.84	**781A4112**	7100
6.5	513	0.84	**782A4112**	7100
6.5	519	0.85	**781A4408**	7100
6.5	519	0.85	**782A4408**	7100
6.3	536	1.64	**784A4408**	11300
6.3	531	2.84	**785A4108**	17000
6.1	550	1.33	**783A4408**	9200
5.9	568	1.34	**783A4112**	9200
5.5	612	1.50	**784A4212**	11300
5.4	624	1.04	**783A4608**	9200
5.4	624	1.48	**784A4608**	11300
5.2	639	1.21	**783A4212**	9200
5.1	662	2.49	**785A4208**	17000
4.8	708	1.33	**784A4708**	11300
4.6	732	1.29	**784A4312**	11300
4.5	745	1.03	**783A4312**	9200
4.3	783	2.26	**785A4308**	17000
4.2	804	1.04	**784A4808**	11300
4.1	824	1.17	**784A4412**	11300
4.0	845	0.90	**783A4412**	9200
3.9	854	2.14	**785A4408**	17000
3.5	960	1.03	**784A4612**	11300
3.2	1048	1.90	**785A4608**	17000
3.1	1088	0.90	**784A4712**	11300
2.9	1167	1.80	**785A4708**	17000
2.6	1306	1.36	**785A4808**	17000
0.55KW MOTOR				
235	22	2.81	780A0416	1397
174	29	2.44	780A0516	1559
157	32	2.10	780A0417	1619
153	33	2.29	780A0716	1634
135	38	2.14	780A0816	1711
116	44	1.80	780A0517	1808
106	48	1.85	780A1016	1868
102	50	1.68	780A0717	1895
98	52	1.76	780A1116	1923
90	57	1.55	780A0817	1983
79	64	1.54	780A1216	2080
70	73	1.33	780A1017	2174

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
70	73	1.42	780A1416	2174
65	78	1.28	780A1117	2234
61	84	1.29	780A1516	2286
55	93	1.21	780A1616	2374
51	100	1.10	780A1217	2440
50	101	3.68	781A1716	5614
50	101	3.68	782A1716	5614
48	106	1.10	780A1716	2495
48	107	3.54	781A1417	5673
48	107	3.54	782A1417	5673
45	113	1.02	780A1417	2554
45	112	3.33	781A1816	5738
45	112	3.33	782A1816	5738
44	116	1.04	780A1816	2576
43	118	3.21	781A1517	5810
43	118	3.21	782A1517	5810
40	127	0.97	780A1517	2667
39	128	3.03	781A1916	5912
39	128	3.03	782A1916	5912
38	135	2.86	781A1617	5968
38	135	2.86	782A1617	5968
37	138	0.94	780A1916	2744
36	142	0.91	780A1617	2771
36	140	2.65	781A2016	6014
36	140	2.65	782A2016	6014
33	152	2.45	781A1717	6126
33	152	2.45	782A1717	6126
32	159	0.81	780A1717	2893
30	168	2.22	781A1817	6233
30	167	2.34	781A2216	6229
30	168	2.22	782A1817	6233
30	167	2.34	782A2216	6229
29	176	0.73	780A1817	2999
26	193	2.03	781A1917	6388
26	193	2.03	782A1917	6388
25	201	1.92	781A2316	6428
25	201	1.92	782A2316	6428
25	202	3.50	783A1917	8770
24	209	1.77	781A2017	6472
24	209	1.77	782A2017	6472
24	211	2.56	783A2316	8858
22	226	1.60	781A2416	6552
22	226	1.60	782A2416	6552
21	235	2.04	783A2416	9053
21	239	3.00	783A2017	9060
20	252	1.55	781A2217	6636
20	252	1.55	782A2217	6636
20	261	3.42	784A2217	11300
19	262	1.19	781A2516	6673
19	262	1.19	782A2516	6673
19	264	1.38	783A2516	9200
19	261	2.75	783A2217	9200
19	272	2.56	784A2516	11300
18	284	1.86	**783A3516**	9200
17	303	1.28	781A2317	6766
17	299	0.95	781A2716	6765
17	303	1.28	782A2317	6766
17	299	0.95	782A2716	6765
17	307	2.91	784A2317	11300
17	303	2.04	784A2716	11300
16	319	1.77	783A2317	9200
16	313	1.66	**783A3616**	9200
16	326	3.89	785A2716	17000
15	340	1.11	781A2417	6823
15	340	1.11	782A2417	6823
15	335	2.66	784A2417	11300
15	340	1.38	784A2716	11300
14	357	1.02	**781A3716**	6874
14	357	1.02	**782A3716**	6874
14	355	1.41	783A2417	9200
14	360	1.52	**783A3716**	9200
14	365	1.86	**784A3716**	11300
14	360	3.05	785A2816	17000
13	396	0.83	781A2517	6850

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
13	396	0.83	782A2517	6850
13	397	0.92	783A2517	9200
13	395	0.96	**781A3816**	6890
13	395	0.96	**782A3816**	6890
13	391	1.44	**783A3816**	9200
13	390	3.17	**785A3716**	17000
12	434	0.92	**781A3916**	6890
12	434	0.92	**782A3916**	6890
12	427	1.44	**783A3517**	9200
12	412	1.77	784A2517	11300
12	403	1.66	**784A3816**	11300
12	426	3.87	785A2517	17000
12	418	2.84	**785A3816**	17000
11	471	1.28	**783A3617**	9200
11	469	1.30	**783A3916**	9200
11	457	1.41	784A2717	11300
11	463	1.52	**784A3916**	11300
10	509	0.81	**781A4116**	6540
10	509	0.81	**782A4116**	6540
10	511	0.92	784A2817	11300
10	504	1.44	**784A4116**	11300
10	487	2.65	785A2717	17000
10	495	2.56	**785A3916**	17000
9.5	528	2.46	**785A4116**	17000
9.3	541	1.18	**783A3717**	9200
9.3	541	2.03	785A2817	17000
9.1	551	1.44	**784A3717**	11300
8.9	562	1.16	**783A4116**	9200
8.5	588	1.12	**783A3817**	9200
8.5	591	2.42	**785A3717**	17000
8.3	607	1.28	**784A3817**	11300
8.3	604	1.30	**784A4216**	11300
8.0	630	2.19	**785A3817**	17000
7.9	633	1.08	**783A4216**	9200
7.7	657	2.16	**785A4216**	17000
7.2	698	1.18	**784A3917**	11300
7.1	705	1.01	**783A3917**	9200
6.9	724	1.16	**784A4316**	11300
6.8	736	0.99	**783A4316**	9200
6.7	742	1.98	**785A3917**	17000
6.6	759	1.12	**784A4117**	11300
6.5	773	1.95	**785A4316**	17000
6.3	790	1.91	**785A4117**	17000
6.1	815	1.08	**784A4416**	11300
6.0	835	0.87	**783A4416**	9200
5.9	845	0.90	**783A4117**	9200
5.9	849	1.85	**785A4416**	17000
5.8	867	3.91	**786A4117**	19700
5.5	910	1.01	**784A4217**	11300
5.3	949	0.97	**784A4616**	11300
5.1	985	1.67	**785A4217**	17000
4.8	1035	1.64	**785A4616**	17000
4.8	1045	3.24	**786A4217**	19700
4.6	1088	0.87	**784A4317**	11300
4.6	1075	0.87	**784A4716**	11300
4.5	1128	3.82	**787A4317**	29900
4.3	1165	1.52	**785A4317**	17000
4.3	1153	1.57	**785A4716**	17000
4.1	1226	2.84	**786A4317**	19700
4.0	1242	3.47	**787A4417**	29900
3.9	1270	1.44	**785A4417**	17000
3.9	1292	1.38	**785A4816**	17000
3.8	1329	3.19	**787A4517**	29900
3.7	1343	2.63	**786A4417**	19700
3.4	1484	2.86	**787A4617**	29900
3.2	1558	1.28	**785A4617**	17000
3.0	1643	2.19	**786A4617**	19700
2.9	1734	1.21	**785A4717**	17000
2.9	1708	2.52	**787A4717**	29868
2.8	1802	2.00	**786A4717**	19700
2.7	1855	3.91	**788A4817**	43000
2.6	1942	0.92	**785A4817**	17000
2.6	1922	2.24	**787A4817**	29852
2.4	2065	1.74	**786A4817**	19700



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.75KW MOTOR				
239	29	2.09	780A0418	1389
177	39	1.82	780A0518	1550
158	44	1.55	780A0423	1615
155	45	1.70	780A0718	1626
137	51	1.59	780A0818	1701
117	59	1.33	780A0523	1802
107	65	1.37	780A1018	1862
102	68	1.23	780A0723	1895
98	71	1.29	780A1118	1923
90	77	1.14	780A0823	1983
79	88	1.13	780A1218	2080
72	95	3.72	782A1418	4921
72	95	3.72	781A1418	4921
70	99	0.98	780A1023	2174
70	99	1.04	780A1418	2174
67	104	3.23	782A1123	5010
67	104	3.23	781A1123	5010
65	107	0.94	780A1123	2234
65	106	3.41	782A1518	5037
65	106	3.41	781A1518	5037
61	114	0.95	780A1518	2286
59	118	2.98	782A1223	5139
59	118	2.98	781A1223	5139
57	120	3.06	782A1618	5165
57	120	3.06	781A1618	5165
55	126	0.89	780A1618	2374
51	136	0.81	780A1223	2440
51	137	2.74	782A1718	5302
51	137	2.74	781A1718	5302
48	145	0.81	780A1718	2495
48	145	2.61	782A1423	5344
48	145	2.61	781A1423	5344
46	151	2.48	782A1818	5394
46	151	2.48	781A1818	5394
43	160	2.36	782A1523	5445
43	160	2.36	781A1523	5445
40	173	2.26	782A1918	5518
40	173	2.26	781A1918	5518
40	175	3.90	783A1623	7530
38	183	2.11	782A1623	5555
38	183	2.11	781A1623	5555
38	181	3.79	783A1918	7590
37	188	1.97	782A2018	5586
37	188	1.97	781A2018	5586
33	207	1.81	782A1723	5655
33	207	1.81	781A1723	5655
33	208	3.35	783A1723	7790
32	213	3.29	783A2018	7840
31	225	1.74	782A2218	5718
31	225	1.74	781A2218	5718
31	221	3.15	783A1823	7880
31	225	3.95	784A1823	11200
30	227	1.64	782A1823	5715
30	227	1.64	781A1823	5715
30	233	3.05	783A2218	7969
30	233	3.82	784A2218	11300
26	271	1.43	782A2318	5814
26	271	1.43	781A2318	5814
26	262	1.50	782A1923	5794
26	262	1.50	781A1923	5794
26	267	3.32	784A1923	11700
25	274	2.58	783A1923	8171
25	275	3.24	784A2318	11800
24	284	1.30	782A2023	5828
24	284	1.30	781A2023	5828
24	284	1.91	783A2318	8233
24	285	3.11	784A2023	11900
23	304	1.19	782A2418	5860
23	304	1.19	781A2418	5860
23	300	2.97	784A2418	12050
22	316	1.52	783A2418	8358
21	324	2.21	783A2023	8354
20	342	1.14	782A2223	5860
20	342	1.14	781A2223	5860
20	355	2.03	783A2223	8443
20	354	2.52	784A2223	12449
19	353	0.89	782A2518	5870
19	353	0.89	781A2518	5870
19	355	1.02	783A2518	8464
19	366	1.91	784A2518	12603
18	382	1.39	**783A3518**	8558
17	410	0.94	782A2323	5840
17	410	0.94	781A2323	5840
17	408	1.52	784A2718	12889
17	416	2.14	784A2323	12947
16	421	1.23	**783A3618**	8611
16	433	1.30	783A2323	8581
15	461	0.82	782A2423	5780
15	461	0.82	781A2423	5780
15	457	1.02	784A2718	13214
15	454	1.96	784A2423	13154
14	482	1.04	783A2423	8640
14	484	1.13	**783A3718**	8670
14	491	1.39	**784A3718**	13433
14	481	3.76	785A2423	17000
13	526	1.07	**783A3818**	8700
13	542	1.23	**784A3818**	13682
13	525	2.36	**785A3718**	17000
12	580	1.06	**783A3523**	8680
12	558	1.30	784A2523	13713
12	563	2.11	**785A3818**	17000
12	578	2.85	785A2523	17000
11	639	0.95	**783A3623**	8630
11	631	0.96	**783A3918**	9200
11	621	1.04	784A2723	13900
11	623	1.13	**784A3918**	14000
10	678	1.07	**784A4118**	14000
10	711	1.83	**785A4118**	17000
10	666	1.91	**785A3918**	17000
10	661	1.95	785A2723	17000
9.4	734	1.50	785A2823	17000
9.3	735	0.87	**783A3723**	8510
9.2	747	1.06	**784A3723**	14000
9.0	756	0.86	**783A4118**	9200
8.8	782	3.73	786A2823	19700
8.6	798	0.83	**783A3823**	8400
8.6	802	1.78	**785A3723**	17000
8.4	812	0.96	**784A4218**	14000
8.3	823	0.95	**784A3823**	14000
8.0	851	0.80	**783A4218**	9200
8.0	854	1.61	**785A3823**	17000
7.8	883	1.61	**785A4218**	17000
7.4	920	3.68	**786A3823**	19700
7.3	937	3.62	**786A4218**	19700
7.2	947	0.87	**784A3923**	14000
7.0	973	0.86	**784A4318**	14000
6.8	1007	1.46	**785A3923**	17000
6.7	1029	0.83	**784A4123**	14000
6.6	1039	1.45	**785A4318**	17000
6.6	1041	3.25	**786A3923**	19700
6.4	1072	1.41	**785A4123**	17000
6.3	1089	3.11	**786A4318**	19700
6.3	1083	3.98	**787A4023**	29900
6.2	1095	0.80	**784A4418**	14000
6.1	1111	3.88	**787A4418**	29900
6.0	1142	1.37	**785A4418**	17000
5.8	1176	2.88	**786A4123**	19700
5.8	1184	3.58	**787A4518**	29900
5.8	1185	3.58	**787A4123**	29900
5.7	1199	2.83	**786A4418**	19700
5.2	1313	3.23	**787A4223**	29900
5.1	1336	1.23	**785A4223**	17000
5.1	1329	3.19	**787A4618**	29900
4.9	1391	1.22	**785A4618**	17000
4.8	1418	2.39	**786A4223**	19700
4.6	1473	2.32	**786A4618**	19700
4.5	1530	2.82	**787A4323**	29877
4.5	1524	2.83	**787A4718**	29875
4.4	1551	1.17	**785A4718**	17000
4.3	1580	1.12	**785A4323**	17000
4.3	1607	2.15	**786A4718**	19700
4.1	1663	2.09	**786A4323**	19700
4.1	1685	2.56	**787A4423**	29865
4.0	1723	1.06	**785A4423**	17000
4.0	1713	2.52	**787A4818**	29867
3.9	1737	1.02	**785A4818**	17000
3.8	1821	1.94	**786A4423**	19700
3.8	1803	2.35	**787A4523**	29865
3.7	1844	1.92	**786A4818**	19700
3.6	1910	3.35	**788A4523**	43000
3.4	2013	2.11	**787A4623**	29878
3.3	2050	3.12	**788A4623**	43000
3.2	2113	0.94	**785A4623**	17000
3.1	2229	1.61	**786A4623**	19700
2.9	2352	0.89	**785A4723**	17000
2.9	2317	1.86	**787A4723**	29832
2.8	2444	1.47	**786A4723**	19700
2.8	2400	3.02	**788A4723**	43000
2.6	2606	1.65	**787A4823**	29799
2.6	2572	2.82	**788A4823**	43000
2.4	2801	1.29	**786A4823**	19700
1.1KW MOTOR				
239	43	1.43	780A0424	1389
177	58	1.24	780A0524	1550
158	64	1.05	780A0427	1796
155	66	1.16	780A0724	1626
137	74	1.08	780A0824	1701
117	87	0.91	780A0527	1802
107	95	0.94	780A1024	1862
106	96	3.31	781A0727	4228
106	96	3.31	782A0727	4228
102	100	0.84	780A0727	1895
101	100	3.34	781A1124	4279
101	100	3.34	782A1124	4279
98	104	0.88	780A1124	1923
96	106	3.08	781A0827	4313
96	106	3.08	782A0827	4313
89	114	3.01	781A1224	4382
89	114	3.01	782A1224	4382
85	120	2.73	781A1027	4417
85	120	2.73	782A1027	4417
72	140	2.54	781A1424	4539
72	140	2.54	782A1424	4539
67	153	2.20	781A1127	4596
67	153	2.20	782A1127	4596
65	155	2.32	781A1524	4613
65	155	2.32	782A1524	4613
63	161	3.97	783A1127	6350
60	169	3.80	783A1624	6420
59	174	2.03	781A1227	4668
59	174	2.03	782A1227	4668
57	177	2.09	781A1624	4685
57	177	2.09	782A1624	4685
55	185	3.10	783A1227	6520
51	201	1.87	781A1724	4758
51	201	1.87	782A1724	4758
51	200	3.29	783A1724	6624
48	213	1.78	781A1427	4769
48	213	1.78	782A1427	4769
47	215	3.01	783A1427	6687
47	214	3.11	783A1824	6690
46	221	1.69	781A1824	4792
46	221	1.69	782A1824	4792
43	235	1.61	781A1527	4805
43	235	1.61	782A1527	4805
43	239	3.10	784A1527	9820
42	240	2.81	783A1527	6802
40	254	1.54	781A1924	4828

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
40	254	1.54	782A1924	4828
40	256	2.66	783A1627	6859
39	258	3.43	784A1924	10000
38	268	1.44	781A1627	4832
38	268	1.44	782A1627	4832
38	266	2.58	783A1924	6896
37	276	1.34	781A2024	4836
37	276	1.34	782A2024	4836
37	277	3.01	784A1627	10200
37	275	3.23	784A2024	10178
33	304	1.23	781A1727	4830
33	304	1.23	782A1727	4830
33	305	2.28	783A1727	6996
33	310	2.84	784A1727	10400
32	313	2.25	783A2024	7023
31	330	1.18	781A2224	4823
31	330	1.18	782A2224	4823
31	325	2.15	783A1827	7034
31	330	2.69	784A1827	10580
30	334	1.12	781A1827	4808
30	334	1.12	782A1827	4808
30	342	2.08	783A2224	7075
30	342	2.61	784A2224	10659
26	397	0.97	781A2324	4740
26	397	0.97	782A2324	4740
26	384	1.02	781A1927	4754
26	384	1.02	782A1927	4754
26	391	2.26	784A1927	10964
25	402	1.76	783A1927	7123
25	403	2.21	784A2324	11040
24	417	0.89	781A2027	4700
24	417	0.89	782A2027	4700
24	417	1.30	783A2324	7141
24	419	2.12	784A2027	11112
24	426	3.85	785A2324	15300
23	446	0.81	781A2424	4650
23	446	0.81	782A2424	4650
23	440	2.02	784A2424	11221
22	464	1.03	783A2424	7141
22	467	3.55	785A2424	15588
22	468	3.61	785A2027	15600
21	475	1.51	783A2027	7120
20	520	1.38	783A2227	7093
20	519	1.72	784A2227	11485
19	537	1.30	784A2524	11593
19	541	3.20	785A2227	16100
18	560	0.95	**783A3524**	7200
18	556	2.86	785A2524	16227
17	598	1.03	784A2724	11774
17	610	1.46	784A2327	11805
16	617	0.84	**783A3624**	7220
16	636	0.89	783A2327	6938
16	644	1.97	785A2724	16797
16	645	2.77	785A2327	16787
15	667	1.34	784A2427	11915
14	721	0.95	**784A3724**	12100
14	711	1.55	785A2824	17000
14	706	2.56	785A2427	17000
13	795	0.84	**784A3824**	12200
13	770	1.61	**785A3724**	17000
13	755	3.56	786A2824	19700
12	819	0.89	784A2527	12177
12	825	1.44	**785A3824**	17000
12	847	1.95	785A2527	17000
11	918	3.36	786A2527	19000
11	889	3.81	**786A3824**	19700
10	1042	1.25	**785A4124**	17000
10	977	1.30	**785A3924**	17000
10	970	1.33	785A2727	17000
10	1000	3.12	786A2727	19000
10	1006	3.37	**786A3924**	19700
9.4	1076	1.02	785A2827	17000
9.1	1111	3.81	**787A3727**	29900
8.8	1147	2.55	786A2827	19000
8.8	1134	2.99	**786A4124**	19700
8.8	1144	3.70	**787A4124**	29900
8.6	1176	1.22	**785A3727**	17000
8.2	1234	3.43	**787A3827**	29900
8.1	1233	2.75	**786A3727**	19000
8.0	1253	1.10	**785A3827**	17000
7.9	1265	3.35	**787A4224**	29890
7.8	1295	1.10	**785A4224**	17000
7.4	1350	2.51	**786A3827**	19000
7.3	1374	2.47	**786A4224**	19700
7.0	1430	3.01	**787A3927**	29900
6.8	1477	1.00	**785A3927**	17000
6.8	1472	2.93	**787A4324**	29885
6.6	1525	0.99	**785A4324**	17000
6.6	1527	2.22	**786A3927**	19000
6.4	1573	0.96	**785A4127**	17000
6.3	1597	2.12	**786A4324**	19700
6.3	1588	2.71	**787A4027**	29870
6.1	1630	2.64	**787A4424**	29868
6.0	1675	0.94	**785A4424**	17000
5.8	1726	1.96	**786A4127**	19000
5.8	1738	2.44	**787A4127**	29870
5.8	1737	2.44	**787A4524**	29868
5.7	1759	1.93	**786A4424**	19700
5.6	1787	3.58	**788A4127**	43400
5.4	1849	3.46	**788A4524**	43000
5.2	1925	2.20	**787A4227**	29855
5.1	1959	0.84	**785A4227**	17000
5.1	1949	2.17	**787A4624**	29853
5.1	1963	3.23	**788A4624**	43000
4.9	2041	0.83	**785A4624**	17000
4.9	2057	3.11	**788A4227**	43400
4.8	2080	1.63	**786A4227**	19000
4.6	2161	1.58	**786A4624**	19700
4.5	2244	1.92	**787A4327**	29837
4.5	2236	1.93	**787A4724**	29832
4.5	2243	3.23	**788A4327**	43400
4.3	2357	1.47	**786A4724**	19700
4.3	2321	3.12	**788A4724**	43000
4.1	2439	1.43	**786A4327**	19000
4.1	2471	1.74	**787A4427**	29805
4.0	2513	1.71	**787A4824**	29810
4.0	2486	2.92	**788A4824**	43000
3.9	2576	2.81	**788A4427**	43400
3.8	2672	1.32	**786A4427**	19000
3.8	2645	1.60	**787A4527**	29805
3.7	2705	1.31	**786A4824**	19700
3.6	2772	2.32	**788A4527**	43400
3.4	2953	1.44	**787A4627**	29842
3.4	2974	2.15	**788A4627**	43400
3.1	3270	1.10	**786A4627**	19000
2.9	3398	1.27	**787A4727**	29770
2.9	3481	2.08	**788A4727**	43390
2.8	3585	1.00	**786A4727**	19000
2.7	3731	1.94	**788A4827**	43380
2.6	3823	1.13	**787A4827**	29706
2.4	4108	0.88	**786A4827**	19000

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.5KW MOTOR				
177	79	0.91	780A0528	1550
162	85	3.66	781A0728	3663
162	85	3.66	782A0728	3663
155	90	0.85	780A0728	1626
149	94	3.06	781A0537	3880
149	94	3.06	782A0537	3880
147	94	3.37	781A0828	3734
147	94	3.37	782A0828	3734
137	101	0.80	780A0828	1701
129	107	3.04	781A1028	3823
129	107	3.04	782A1028	3823
106	131	2.43	781A0737	3958
106	131	2.43	782A0737	3958
102	136	2.47	781A1128	3966
102	136	2.47	782A1128	3966
96	145	2.26	781A0837	4025
96	145	2.26	782A0837	4025
90	154	2.23	781A1228	4028
90	154	2.23	782A1228	4028
87	159	3.85	783A0837	5610
85	164	2.00	781A1037	4101
85	164	2.00	782A1037	4101
84	165	3.47	783A1228	5640
77	180	3.46	783A1037	5728
73	190	1.87	781A1428	4103
73	190	1.87	782A1428	4103
72	192	3.26	783A1428	5780
68	205	3.93	784A1137	8460
67	209	1.62	781A1137	4220
67	209	1.62	782A1137	4220
66	210	1.72	781A1528	4129
66	210	1.72	782A1528	4129
65	215	2.98	783A1137	5870
65	213	3.47	784A1528	8520
64	215	2.97	783A1528	5874
60	229	2.81	783A1628	5913
60	232	3.54	784A1237	8704
59	237	1.49	781A1237	4255
59	237	1.49	782A1237	4255
58	240	1.54	781A1628	4137
58	240	1.54	782A1628	4137
56	247	2.32	783A1237	5968
56	248	3.37	784A1628	8820
51	272	1.38	781A1728	4135
51	272	1.38	782A1728	4135
51	271	2.43	783A1728	6024
50	277	3.03	784A1437	9046
50	277	3.17	784A1728	9040
48	291	1.31	781A1437	4287
48	291	1.31	782A1437	4287
48	288	2.26	783A1437	6045
48	290	2.30	783A1828	6050
47	296	3.01	784A1828	9152
46	299	1.25	781A1828	4105
46	299	1.25	782A1828	4105
44	319	2.32	784A1537	9309
43	323	1.18	781A1537	4283
43	323	1.18	782A1537	4283
43	321	2.10	783A1537	6084
40	344	1.14	781A1928	4040
40	344	1.14	782A1928	4040
40	342	1.99	783A1637	6093
40	350	2.53	784A1928	9449
39	360	1.91	783A1928	6103
38	367	1.05	781A1637	4258
38	367	1.05	782A1637	4258
38	370	2.26	784A1637	9602
37	373	0.99	781A2028	3980
37	373	0.99	782A2028	3980
37	373	2.38	784A2028	9586
36	385	3.94	785A1637	13300
34	407	1.71	783A1737	6088
34	414	2.12	784A1737	9740



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
33	416	0.90	781A1737	4200
33	416	0.90	782A1737	4200
33	423	1.66	783A2028	6090
33	419	3.70	785A2028	13500
32	434	1.61	783A1837	6067
32	437	3.65	785A1737	13706
31	446	0.87	781A2228	3800
31	446	0.87	782A2228	3800
31	441	2.02	784A1837	9872
30	458	0.82	781A1837	4133
30	458	0.82	782A1837	4133
30	464	1.53	783A2228	6053
30	463	1.93	784A2228	9926
29	483	3.27	785A2228	14000
29	484	3.33	785A1837	13977
27	523	1.70	784A1937	10123
26	537	1.32	783A1937	5925
25	559	1.59	784A2037	10211
25	546	1.63	784A2328	10173
25	552	3.02	785A1937	14363
24	565	0.96	783A2328	5892
24	577	2.84	785A2328	14533
23	596	1.50	784A2428	10274
22	634	1.13	783A2037	5710
22	632	2.62	785A2428	14756
22	624	2.70	785A2037	14762
20	695	1.04	783A2237	5550
20	694	1.29	784A2237	10383
19	728	0.96	784A2528	10439
19	722	2.39	785A2237	15135
18	753	2.11	785A2528	15234
18	782	3.68	786A2237	19000
17	815	1.10	784A2337	10500
17	820	3.50	786A2528	19700
16	890	1.00	784A2437	10500
16	872	1.46	785A2728	15631
16	861	2.08	785A2337	15630
15	942	1.92	785A2437	15838
15	894	3.23	786A2728	19700
15	910	3.24	786A2337	19000
14	962	1.14	785A2828	15851
14	997	3.01	786A2437	19000
14	988	4.00	787A2537	29900
13	1043	1.19	**785A3728**	16088
13	1022	2.63	786A2828	19700
12	1118	1.06	**785A3828**	16192
12	1131	1.46	785A2537	16117
12	1100	3.08	**786A3728**	19700
12	1107	3.31	787A2637	29900
12	1100	3.85	**787A3828**	29900
11	1294	1.00	785A2737	16400
11	1226	2.52	786A2537	19000
11	1204	2.81	**786A3828**	19700
11	1273	3.38	787A2737	29900
11	1274	3.38	**787A3928**	29900
10	1412	0.92	**785A4128**	16500
10	1323	0.96	**785A3928**	16400
10	1335	2.34	786A2737	19000
10	1362	2.49	**786A3928**	19700
10	1429	3.01	787A2837	29900
10	1416	3.04	**787A4028**	29873
9.3	1484	2.86	**787A3737**	29886
9.0	1531	1.91	786A2837	19000
8.9	1536	2.21	**786A4128**	19700
8.8	1570	0.91	**785A3737**	16500
8.8	1549	2.74	**787A4128**	29873
8.5	1610	3.98	**788A4128**	43000
8.3	1646	2.06	**786A3737**	19000
8.3	1647	2.57	**787A3837**	29873
8.3	1655	3.87	**788A3837**	43400
8.2	1673	0.82	**785A3837**	16500
8.0	1713	2.47	**787A4228**	29865
7.8	1754	0.81	**785A4228**	16600
7.6	1802	1.88	**786A3837**	19000

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
7.4	1854	3.45	**788A4228**	43000
7.3	1861	1.82	**786A4228**	19700
7.3	1868	3.88	**788A3937**	43400
7.2	1910	2.26	**787A3937**	29860
6.8	1994	2.16	**787A4328**	29847
6.8	2018	3.59	**788A4328**	43000
6.7	2039	1.66	**786A3937**	19000
6.6	2077	3.49	**788A4037**	43400
6.5	2121	2.03	**787A4037**	29836
6.3	2163	1.57	**786A4328**	19700
6.2	2207	1.95	**787A4428**	29833
6.0	2304	1.47	**786A4137**	19000
5.9	2320	1.83	**787A4137**	29836
5.9	2324	3.12	**788A4428**	43000
5.8	2353	1.80	**787A4528**	29833
5.8	2360	2.71	**788A4137**	43400
5.7	2381	1.42	**786A4428**	19700
5.5	2503	2.56	**788A4528**	43000
5.4	2570	1.65	**787A4237**	29804
5.2	2639	1.61	**787A4628**	29800
5.1	2717	2.36	**788A4237**	43400
5.1	2684	2.38	**788A4628**	43000
4.9	2777	1.22	**786A4237**	19000
4.7	2926	1.17	**786A4628**	19700
4.6	2996	1.44	**787A4337**	29791
4.6	2962	2.45	**788A4337**	43300
4.5	3028	1.42	**787A4728**	29783
4.3	3192	1.08	**786A4728**	19700
4.3	3142	2.31	**788A4728**	43000
4.2	3256	1.07	**786A4337**	19000
4.1	3299	1.31	**787A4437**	29737
4.0	3402	1.27	**787A4828**	29744
4.0	3402	2.13	**788A4437**	43300
4.0	3366	2.15	**788A4828**	43000
3.9	3531	1.20	**787A4537**	29737
3.8	3567	0.99	**786A4437**	19000
3.7	3663	0.97	**786A4828**	19700
3.7	3660	1.75	**788A4537**	43300
3.5	3942	1.08	**787A4637**	29800
3.5	3927	1.63	**788A4637**	43300
3.0	4536	0.95	**787A4737**	29700
3.0	4598	1.58	**788A4737**	43300
2.8	4928	1.47	**788A4837**	43300
2.7	5103	0.84	**787A4837**	29600
2.2KW MOTOR				
228	89	3.20	781A0536	3280
228	89	3.20	782A0536	3280
194	105	3.76	783A0245	4430
163	125	2.51	781A0736	3405
163	125	2.51	782A0736	3405
151	135	3.76	784A0545	6590
149	94	3.06	781A0545	3880
149	94	3.06	782A0545	3880
148	138	2.31	781A0836	3451
148	138	2.31	782A0836	3451
139	146	3.85	785A0545	8950
138	147	3.49	783A0445	4710
132	155	3.74	783A0836	4760
130	157	2.08	781A1036	3503
130	157	2.08	782A1036	3503
123	165	3.36	783A0545	4790
116	176	3.36	783A1036	4840
110	186	3.00	783A0745	4870
107	190	3.41	784A0745	7160
106	131	2.43	781A0745	3958
106	131	2.43	782A0745	3958
102	199	1.69	781A1136	3563
102	199	1.69	782A1136	3563
102	199	3.65	784A1136	7250
100	203	3.85	785A0745	9780
97	209	2.89	783A1136	4941
96	145	2.26	781A0845	4025
96	145	2.26	782A0845	4025

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
96	213	3.24	784A0845	7340
90	226	1.53	781A1236	3573
90	226	1.53	782A1236	3573
90	226	3.42	784A1236	7450
89	228	3.85	785A0845	10100
86	236	2.60	783A0845	4987
85	164	2.00	781A1045	4101
85	164	2.00	782A1045	4101
85	239	3.00	784A1045	7520
84	241	2.38	783A1236	4999
81	251	3.85	785A1045	10300
76	267	2.33	783A0945	5023
76	270	3.10	784A1436	7722
73	277	1.29	781A1436	3551
73	277	1.29	782A1436	3551
73	280	2.24	783A1436	5035
67	209	1.62	781A1145	4220
67	209	1.62	782A1145	4220
67	304	2.65	784A1145	7885
66	308	1.18	781A1536	3521
66	308	1.18	782A1536	3521
66	311	2.38	784A1536	7927
65	313	2.04	783A1536	5042
64	319	2.01	783A1145	5030
62	329	3.85	785A1145	11000
61	334	1.93	783A1636	5026
59	237	1.49	781A1245	4255
59	237	1.49	782A1245	4255
59	345	2.39	784A1245	8053
58	350	1.06	781A1636	3454
58	350	1.06	782A1636	3454
56	367	1.57	783A1245	5002
56	361	2.31	784A1636	8131
55	374	3.57	785A1245	11400
54	375	3.70	785A1636	11400
51	397	0.94	781A1736	3370
51	397	0.94	782A1736	3370
51	395	1.67	783A1736	4973
50	411	2.05	784A1445	8270
50	403	2.18	784A1736	8271
48	291	1.31	781A1445	4287
48	291	1.31	782A1445	4287
48	427	1.52	783A1445	4921
48	422	1.58	783A1836	4929
48	425	3.43	785A1736	11700
47	437	0.86	781A1836	3276
47	437	0.86	782A1836	3276
47	431	2.07	784A1836	8334
45	453	3.17	785A1445	11800
43	323	1.18	781A1545	4283
43	323	1.18	782A1545	4283
43	476	1.42	783A1545	4828
43	472	1.57	784A1545	8416
43	471	3.12	785A1836	11927
41	497	2.97	785A1545	12100
40	508	1.34	783A1645	4753
40	509	1.74	784A1936	8485
39	524	1.31	783A1936	4715
38	540	2.83	785A1936	12247
37	549	1.52	784A1645	8557
37	543	1.64	784A2036	8550
36	572	2.66	785A1645	12394
34	603	1.15	783A1745	4501
33	617	1.14	783A2036	4456
33	614	1.43	784A1745	8586
33	610	2.54	785A2036	12535
32	643	1.09	783A1845	4375
31	654	1.36	784A1845	8633
31	648	2.47	785A1745	12678
30	675	1.05	783A2236	4265
30	674	1.32	784A2236	8644
29	703	2.25	785A2236	12874

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**

See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
28	717	2.24	785A1845	12849
27	748	3.44	786A1845	16700
27	759	3.53	786A2236	16800
26	795	1.12	784A2336	8655
26	775	1.14	784A1945	8651
25	796	0.89	783A1945	3829
25	829	1.07	784A2045	8635
25	819	2.04	785A1945	13075
24	841	1.95	785A2336	13191
24	849	3.19	786A1945	17200
23	868	1.03	784A2436	8616
23	885	3.09	786A2336	17400
22	921	1.80	785A2436	13300
22	926	1.82	785A2045	13297
21	972	2.88	786A2436	17723
21	956	2.91	786A2045	17600
20	1028	0.87	784A2245	8455
19	1070	1.62	785A2245	13448
19	1079	3.34	787A2636	29900
18	1098	1.45	785A2536	13496
18	1159	2.48	786A2245	18240
17	1194	2.40	786A2536	18389
16	1270	1.00	785A2736	13591
16	1276	1.40	785A2345	13606
16	1302	2.22	786A2736	18663
16	1246	3.46	787A2345	29900
16	1240	3.47	787A2736	29900
15	1397	1.300	785A2445	13634
15	1349	2.19	786A2345	18757
15	1391	3.100	787A2836	29900
15	1377	3.13	787A2445	29900
14	1489	1.81	786A2836	19113
14	1478	2.03	786A2445	19050
14	1464	2.70	787A2545	29876
14	1441	2.94	**787A3736**	29890
13	1519	0.82	**785A3736**	13648
13	1602	2.12	**786A3736**	19393
13	1603	2.64	**787A3836**	29882
13	1599	3.51	788A2645	43400
12	1677	0.98	785A2545	13477
12	1641	2.23	787A2645	29865
12	1632	3.92	**788A3836**	43400
11	1817	1.70	786A2545	19524
11	1754	1.93	**786A3836**	19600
11	1887	2.28	787A2745	29856
11	1856	2.32	**787A3936**	29865
11	1871	3.87	788A2745	43400
11	1842	3.93	**788A3936**	43400
10	1980	1.58	786A2745	19658
10	1984	1.71	**786A3936**	19793
10	2118	2.03	787A2845	29848
10	2063	2.09	**787A4036**	29826
10	2009	3.51	788A2845	43400
10	2047	3.54	**788A4036**	43400
9.2	2200	1.93	**787A3745**	29863
9.2	2197	2.91	**788A3845**	43400
9.0	2237	1.52	**786A4136**	19938
8.9	2270	1.29	786A2845	19908
8.9	2257	1.88	**787A4136**	29826
8.7	2327	2.75	**788A4136**	43400
8.3	2442	1.74	**787A3845**	29826
8.3	2440	2.62	**788A3845**	43400
8.2	2441	1.39	**786A3745**	20014
8.1	2495	1.70	**787A4236**	29820
7.5	2672	1.27	**786A3845**	20059
7.5	2581	2.39	**788A4236**	43400
7.3	2755	2.63	**788A3945**	43400
7.1	2831	1.52	**787A3945**	29790
6.9	2904	1.48	**787A4336**	29780
6.9	2918	2.48	**788A4336**	43400
6.7	3022	1.12	**786A3945**	19995
6.6	3062	2.37	**788A4045**	43400
6.4	3144	1.37	**787A4045**	29776
6.2	3215	1.34	**787A4436**	29771
6.0	3361	2.16	**788A4436**	43300
5.9	3415	0.99	**786A4145**	18688
5.9	3426	1.24	**787A4536**	29771
5.8	3439	1.23	**787A4145**	29776
5.8	3480	1.84	**788A4145**	43400
5.6	3619	1.77	**788A4536**	43300
5.3	3810	1.11	**787A4245**	29714
5.2	3844	1.10	**787A4636**	29706
5.2	3881	1.65	**788A4636**	43300
5.2	4074	2.48	**789A4636**	56000
5.0	4006	1.60	**788A4245**	43300
4.9	4117	0.82	**786A4245**	16008
4.6	4367	1.66	**788A4345**	43300
4.5	4442	0.97	**787A4345**	29711
4.5	4410	0.98	**787A4736**	29697
4.5	4640	2.29	**789A4736**	56000
4.4	4543	1.60	**788A4736**	43300
4.2	5040	2.01	**789A4445**	56000
4.1	4890	0.88	**787A4445**	29617
4.1	4867	1.49	**788A4836**	43300
4.0	4955	0.87	**787A4836**	29630
4.0	5016	1.45	**788A4445**	43300
3.8	5234	0.81	**787A4545**	29617
3.7	5397	1.19	**788A4545**	43300
3.7	5741	1.85	**789A4545**	56000
3.5	5790	1.11	**788A4645**	43300
3.4	6197	1.63	**789A4645**	56000
3.0	6779	1.07	**788A4745**	43300
3.0	7059	1.50	**789A4745**	56000
2.8	7265	1.00	**788A4845**	43200
3.0KW MOTOR				
230	120	3.88	784A0538	5730
228	122	2.25	781A0538	2895
228	122	2.35	782A0538	2895
210	133	3.88	783A0438	4070
198	140	2.81	783A0253	4113
187	148	3.65	783A0538	4140
167	166	3.35	783A0738	4200
163	171	1.84	781A0738	3039
163	171	1.84	782A0738	3039
163	170	3.35	784A0738	6210
154	180	2.81	784A0553	6299
148	188	1.70	781A0838	3058
148	188	1.70	782A0838	3058
146	190	3.20	784A0838	6360
142	195	2.88	785A0553	8684
141	197	2.61	783A0453	4265
132	211	2.74	783A0838	4289
130	214	1.53	781A1038	3072
130	214	1.53	782A1038	3072
130	214	3.02	784A1038	6517
126	221	2.51	783A0553	4292
116	240	2.46	783A1038	4307
112	248	2.25	783A0753	4310
110	254	2.55	784A0753	6748
102	271	1.24	781A1138	3051
102	271	1.24	782A1138	3051
102	272	2.68	784A1138	6815
102	271	2.88	785A0753	9411
98	285	2.42	784A0853	6879
97	285	2.12	783A1138	4306
94	294	3.94	785A1138	9560
91	305	2.88	785A0853	9683
90	308	1.12	781A1238	3012
90	308	1.12	782A1238	3012
90	308	2.51	784A1238	6957
88	315	1.95	783A0853	4275
87	319	2.25	784A1053	7002
84	329	1.75	783A1238	4268
83	336	2.88	785A1053	9850
83	334	3.65	785A1238	9840
78	357	1.75	783A1053	4217
76	368	2.27	784A1438	7135
73	378	0.94	781A1438	2904
73	378	0.94	782A1438	2904
73	382	1.64	783A1438	4184
69	406	1.99	784A1153	7228
68	407	3.24	785A1438	10300
66	420	0.86	781A1538	2827
66	420	0.86	782A1538	2827
66	424	1.75	784A1538	7250
65	427	1.50	783A1538	4091
65	426	1.50	783A1153	4070
63	440	2.88	785A1153	10409
62	445	3.03	785A1538	10400
61	456	1.41	783A1638	4013
61	460	1.79	784A1253	7309
58	477	0.78	781A1638	2702
58	477	0.80	782A1638	2702
57	490	1.17	783A1253	3899
56	493	1.70	784A1638	7345
56	500	2.68	785A1253	10717
54	512	2.71	785A1638	10715
51	539	1.22	783A1738	3771
51	549	1.53	784A1453	7382
50	550	1.60	784A1738	7393
49	570	1.14	783A1453	3636
48	576	1.16	783A1838	3649
48	580	2.51	785A1738	10926
47	587	1.52	784A1838	7399
46	605	2.38	785A1453	10986
44	636	1.06	783A1553	3393
44	631	1.17	784A1553	7395
43	642	2.29	785A1838	11076
42	664	2.23	785A1553	11194
41	678	1.01	783A1653	3221
41	673	3.68	786A1838	14500
40	695	1.28	784A1938	7384
39	715	0.96	783A1938	3130
39	708	3.50	786A1553	14700
38	734	1.14	784A1653	7363
38	736	2.08	785A1938	11272
37	741	1.20	784A2038	7367
37	759	3.39	786A1938	14900
36	763	1.99	785A1653	11360
35	806	0.86	783A1753	2686
34	819	1.07	784A1753	7268
34	824	3.17	786A1653	15200
33	841	0.83	783A2038	2590
33	833	1.86	785A2038	11432
32	859	0.81	783A1853	2441
32	874	1.02	784A1853	7217
32	866	1.85	785A1753	11504
32	858	3.06	786A2038	15300
30	919	0.97	784A2238	7180
30	912	2.87	786A1753	15500
29	959	1.65	785A2238	11589
29	958	1.68	785A1853	11559
28	1000	2.58	786A1853	15688
27	1035	0.86	784A1953	6970
27	1035	2.59	786A2238	15773
26	1085	0.82	784A2338	6920
25	1107	0.80	784A2053	6835
25	1093	1.53	785A1953	11602
25	1133	2.39	786A1953	16057
24	1146	1.43	785A2338	11658
24	1175	3.67	787A2053	29900
23	1207	2.27	786A2338	16198
22	1256	1.32	785A2438	11637
22	1236	1.37	785A2053	11623
22	1277	2.18	786A2053	16315
22	1291	3.28	787A2153	29900
22	1236	3.48	787A2438	29900
21	1326	2.11	786A2438	16407
21	1311	2.74	787A2538	29900
20	1426	2.97	787A2253	29875
19	1429	1.21	785A2253	11520



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
19	1471	2.45	787A2638	29877
19	1456	3.85	788A2638	43400
18	1497	1.06	785A2538	11510
18	1548	1.86	786A2253	16687
17	1628	1.76	786A2538	16777
17	1664	2.59	787A2353	29869
16	1704	1.05	785A2353	11292
16	1776	1.63	786A2738	16907
16	1691	2.55	787A2738	29865
16	1720	4.00	788A2738	43400
15	1865	0.97	785A2453	11114
15	1802	1.64	786A2353	16941
15	1897	2.27	787A2838	29869
15	1839	2.34	787A2453	29869
15	1827	3.85	788A2838	43400
15	1878	3.86	788A2453	43400
14	2030	1.32	786A2838	17086
14	1973	1.52	786A2453	17050
14	1955	2.02	787A2553	29850
14	1966	2.16	**787A3738**	29869
14	2022	3.05	788A2553	43400
14	1989	3.20	**788A3738**	43400
13	2184	1.55	**786A3738**	17206
13	2191	1.67	787A2653	29826
13	2186	1.94	**787A3838**	29863
13	2169	2.59	788A2653	43400
12	2210	2.90	**788A3838**	43400
11	2426	1.27	786A2553	17068
11	2392	1.42	**786A3838**	17200
11	2531	1.70	**787A3938**	29826
11	2520	1.71	787A2753	29806
11	2537	2.86	788A2753	43400
11	2495	2.91	**788A3938**	43400
10	2644	1.18	786A2753	17010
10	2706	1.25	**786A3938**	17101
10	2829	1.52	787A2853	29790
10	2813	1.53	**787A4038**	29773
10	2726	2.59	788A2853	43400
10	2772	2.61	**788A4038**	43400
9.2	2980	2.15	**788A3853**	43400
9.1	3031	0.96	786A2853	16878
8.9	3078	1.38	**787A4138**	29773
8.7	3152	2.03	**788A4138**	43400
8.4	3259	1.04	**786A3753**	16712
8.3	3310	1.93	**788A3853**	43400
8.1	3403	1.25	**787A4238**	29769
7.7	3568	0.95	**786A3853**	16451
7.6	3630	1.76	**788A4238**	43400
7.3	3737	1.94	**788A3953**	43400
6.9	3960	1.09	**787A4338**	29704
6.9	3951	1.83	**788A4338**	43400
6.8	4035	0.84	**786A3953**	15910
6.6	4154	1.74	**788A4053**	43400
6.3	4518	2.24	**789A4438**	56000
6.2	4384	0.98	**787A4438**	29700
6.0	4551	1.59	**788A4438**	43400
5.9	4673	0.91	**787A4538**	29700
5.8	4720	1.36	**788A4153**	43400
5.6	4901	1.31	**788A4538**	43400
5.6	5146	2.06	**789A4538**	56000
5.2	5243	0.81	**787A4638**	29600
5.2	5258	1.22	**788A4638**	43400
5.2	5555	1.82	**789A4638**	56000
5.1	5434	1.18	**788A4253**	43400
4.6	5924	1.22	**788A4353**	43400
4.5	6328	1.68	**789A4738**	56000
4.4	6152	1.18	**788A4738**	43400
4.3	6729	1.50	**789A4453**	56000
4.2	6850	2.41	**790A4453**	62200
4.1	6590	1.10	**788A4838**	43400
4.0	6804	1.07	**788A4453**	43400
3.9	7399	2.22	**790A4553**	62200
3.7	7321	0.87	**788A4553**	43400
3.7	7665	1.39	**789A4553**	56000
3.5	7855	0.81	**788A4653**	43400

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
3.5	8275	1.22	**789A4653**	56000
3.4	8515	1.94	**790A4653**	62200
3.0	9426	1.13	**789A4753**	56000
3.0	9197	1.79	**790A4753**	62200
4.0KW MOTOR				
296	124	3.17	783A0246	3580
231	160	2.92	784A0546	5487
228	162	1.76	781A0546	2694
228	162	1.76	782A0546	2694
212	174	3.24	785A0546	7570
211	176	2.92	783A0446	3702
198	187	2.11	783A0255	3718
188	197	2.75	783A0546	3727
168	220	2.52	783A0746	3736
164	227	2.52	784A0746	5868
163	228	1.38	781A0746	2635
163	228	1.38	782A0746	2635
154	241	2.11	784A0555	5935
153	241	3.24	785A0746	8200
148	251	1.27	781A0846	2613
148	251	1.27	782A0846	2613
146	253	2.40	784A0846	5979
142	261	2.16	785A0555	8352
141	263	1.96	783A0455	3709
136	271	3.24	785A0846	8420
132	281	2.06	783A0846	3701
130	285	1.14	781A1046	2569
130	285	1.14	782A1046	2569
130	285	2.28	784A1046	6088
126	294	1.88	783A0555	3670
124	298	3.24	785A1046	8590
116	318	1.85	783A1046	3641
112	331	1.68	783A0755	3610
110	338	1.91	784A0755	6233
103	362	2.02	784A1146	6272
102	362	0.93	781A1146	2424
102	362	0.93	782A1146	2424
102	362	2.16	785A0755	8951
98	379	1.59	783A1146	3512
98	380	1.82	784A0855	6303
95	390	2.97	785A1146	9069
91	410	1.89	784A1246	6341
91	407	2.16	785A0855	9162
90	411	0.84	781A1246	2313
90	411	0.84	782A1246	2313
88	420	1.46	783A0855	3386
87	426	1.68	784A1055	6356
85	437	1.31	783A1246	3353
83	448	2.16	785A1055	9287
83	444	2.75	785A1246	9282
78	477	1.31	783A1055	3209
76	489	1.71	784A1446	6400
73	508	1.24	783A1446	3121
69	542	1.49	784A1155	6407
69	541	2.44	785A1446	9616
66	564	1.31	784A1546	6404
65	567	1.13	783A1546	2902
65	568	1.13	783A1155	2870
63	587	2.16	785A1155	9672
62	591	2.28	785A1546	9660
61	606	1.06	783A1646	2746
61	614	1.34	784A1255	6379
61	611	3.55	786A1155	12700
59	632	3.59	786A1546	12800
57	653	0.88	783A1255	2520
57	655	1.28	784A1646	6362
56	667	2.01	785A1255	9864
54	680	2.04	785A1646	9859
54	684	3.30	786A1255	13000
52	717	0.92	783A1746	2270
51	732	1.15	784A1455	6273
51	731	1.20	784A1746	6296
50	737	3.24	786A1646	13200

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
49	760	0.86	783A1455	2030
48	765	0.87	783A1846	2049
48	781	1.14	784A1846	6230
48	771	1.89	785A1746	9959
46	807	1.78	785A1455	9969
45	814	3.02	786A1746	13500
44	842	0.88	784A1555	6120
44	841	2.88	786A1455	13500
43	853	1.72	785A1846	10013
42	886	1.67	785A1555	10062
42	894	2.77	786A1846	13665
40	923	0.96	784A1946	6007
39	944	2.62	786A1555	13806
38	978	0.86	784A1655	5870
38	985	0.90	784A2046	5887
38	978	1.56	785A1946	10054
37	1008	2.55	786A1946	13954
36	1018	1.49	785A1655	10066
34	1093	0.81	784A1755	5620
34	1106	1.40	785A2046	10054
34	1098	2.38	786A1655	14156
34	1101	3.85	787A1755	29900
33	1140	2.31	786A2046	14230
32	1155	1.38	785A1755	10036
32	1150	3.69	787A2146	29900
30	1217	2.15	786A1755	14345
30	1220	3.47	787A1855	29900
29	1274	1.24	785A2246	9981
29	1277	1.26	785A1855	9947
29	1269	3.34	787A2246	29900
28	1333	1.93	786A1855	14424
27	1376	1.95	786A2246	14490
26	1413	3.05	787A1955	29877
25	1458	1.14	785A1955	9761
25	1511	1.79	786A1955	14629
25	1488	2.89	787A2346	29900
24	1523	1.08	785A2346	9741
24	1567	2.75	787A2055	29875
23	1605	1.71	786A2346	14696
23	1643	2.62	787A2446	29877
22	1669	0.99	785A2446	9557
22	1648	1.02	785A2055	9530
22	1702	1.63	786A2055	14709
22	1721	2.46	787A2155	29875
21	1762	1.59	786A2446	14761
21	1742	2.07	787A2546	29883
21	1793	3.44	788A2546	43400
21	1727	3.71	788A2155	43400
20	1901	2.23	787A2255	29841
19	1906	0.91	785A2255	9110
19	1955	1.84	787A2646	29848
19	1935	2.90	788A2646	43400
19	1994	3.21	788A2255	43400
18	2064	1.39	786A2255	14745
17	2164	1.33	786A2546	14762
17	2218	1.94	787A2355	29832
17	2175	3.33	788A2355	43400
16	2359	1.22	786A2746	14712
16	2247	1.92	787A2746	29822
16	2252	3.22	788A2746	43400
15	2403	1.23	786A2355	14671
15	2521	1.71	787A2846	29832
15	2452	1.76	787A2455	29832
15	2428	2.90	788A2846	43400
15	2491	2.91	788A2455	43400
14	2697	1.00	786A2846	14553
14	2631	1.14	786A2455	14550
14	2607	1.51	787A2555	29816
14	2612	1.62	**787A3746**	29842
14	2682	2.30	788A2555	43400
14	2642	2.41	**788A3746**	43300
13	2902	1.17	**786A3746**	14473
13	2922	1.25	787A2655	29778
13	2904	1.46	**787A3846**	29839

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
13	2877	1.95	788A2655	43400
12	2936	2.18	**788A3846**	43300
11	3235	0.95	786A2555	14000
11	3179	1.07	**786A3846**	14200
11	3360	1.28	787A2755	29743
11	3362	1.28	**787A3946**	29778
11	3366	2.15	788A2755	43400
11	3315	2.19	**788A3946**	43300
10	3525	0.88	786A2755	13700
10	3596	0.94	**786A3946**	13736
10	3772	1.14	787A2855	29717
10	3738	1.15	**787A4046**	29706
10	3615	1.95	788A2855	43400
10	3683	1.97	**788A4046**	43300
9.3	3953	1.62	788A3855	43300
9.0	4053	0.84	**786A4146**	13080
8.9	4090	1.04	**787A4146**	29706
8.9	4269	2.49	**789A4146**	56000
8.7	4187	1.53	**788A4146**	43300
8.4	4391	1.46	**788A3855**	43300
8.1	4521	0.94	**787A4246**	29706
8.1	4740	2.13	**789A4246**	56000
7.6	4823	1.33	**788A4246**	43300
7.4	4957	1.46	**788A3955**	43300
7.1	5400	1.97	**789A4346**	56000
6.9	5262	0.82	**787A4346**	29609
6.9	5250	1.38	**788A4346**	43300
6.6	5510	1.32	**788A4055**	43300
6.4	6003	1.69	**789A4446**	56000
6.0	6046	1.20	**788A4446**	43200
5.9	6261	1.02	**788A4155**	43300
5.6	6512	0.98	**788A4546**	43200
5.6	6837	1.55	**789A4546**	56000
5.2	6982	0.92	**788A4646**	43200
5.2	7381	1.37	**789A4646**	56000
5.1	7208	0.89	**788A4255**	43200
4.7	7857	0.92	**788A4355**	43200
4.5	8407	1.26	**789A4746**	56000
4.4	8174	0.89	**788A4746**	43200
4.3	8973	1.13	**789A4455**	56000
4.2	9134	1.81	**790A4455**	62200
4.1	8756	0.83	**788A4846**	43100
4.0	9025	0.80	**788A4455**	43100
3.9	9865	1.67	**790A4555**	62200
3.7	10220	1.04	**789A4555**	56000
3.5	11033	0.92	**789A4655**	56000
3.4	11354	1.46	**790A4655**	62200
3.1	12263	1.34	**790A4755**	62200
3.0	12567	0.84	**789A4755**	56000
5.5KW MOTOR				
300	169	2.33	783A0254	3186
233	218	2.15	784A0554	5124
214	236	2.38	785A0554	7240
213	240	2.15	783A0454	3150
197	258	1.53	783A0257	3126
190	268	2.02	783A0554	3108
169	300	1.85	783A0754	3041
166	308	1.85	784A0754	5357
155	328	2.38	785A0754	7741
153	333	1.53	784A0557	5390
148	345	1.77	784A0854	5408
141	361	1.56	785A0557	7854
140	363	1.42	783A0457	2874
138	369	2.38	785A0854	7905
137	371	3.15	786A0557	10000
133	382	1.52	783A0854	2818
132	387	1.67	784A1054	5445
125	407	1.36	783A0557	2737
125	406	2.38	785A1054	8025
118	433	1.36	783A1054	2642
112	457	1.22	783A0757	2560
109	468	1.39	784A0757	5461

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
104	492	1.48	784A1154	5458
102	501	1.56	785A0757	8260
99	516	1.17	783A1154	2320
97	525	1.31	784A0857	5440
97	527	3.15	786A0757	10900
96	531	2.18	785A1154	8332
92	555	3.56	786A1154	11000
91	558	1.39	784A1254	5418
91	563	1.56	785A0857	8381
88	581	1.06	783A0857	2051
87	588	1.22	784A1057	5387
87	584	3.15	786A0857	11100
86	595	0.97	783A1254	1981
84	604	2.02	785A1254	8445
82	619	1.56	785A1057	8444
82	622	3.33	786A1254	11300
78	653	2.98	786A1057	11331
77	659	0.95	783A1057	1698
77	666	1.26	784A1454	5299
74	691	0.91	783A1454	1526
69	737	1.79	785A1454	8591
68	749	1.08	784A1157	5176
67	767	0.97	784A1554	5134
67	759	2.91	786A1454	11666
66	772	0.83	783A1554	1118
65	785	0.82	783A1157	1070
63	811	1.56	785A1157	8565
63	805	1.68	785A1554	8550
61	844	2.57	786A1157	11837
60	849	0.97	784A1257	4984
59	861	2.64	786A1554	11911
57	892	0.94	784A1654	4888
56	922	1.45	785A1257	8585
55	926	1.50	785A1654	8576
54	946	2.39	786A1257	12032
51	1012	0.83	784A1457	4610
51	995	0.88	784A1754	4649
51	1003	2.38	786A1654	12166
48	1063	0.84	784A1854	4476
48	1049	1.39	785A1754	8508
46	1116	1.29	785A1457	8443
46	1109	2.22	786A1754	12350
44	1161	1.27	785A1854	8417
44	1163	2.08	786A1457	12315
42	1224	1.21	785A1557	8364
42	1217	2.04	786A1854	12413
40	1288	3.35	787A1954	29900
39	1305	1.90	786A1557	12465
38	1331	1.15	785A1954	8226
37	1372	1.87	786A1954	12536
36	1407	1.08	785A1657	8126
36	1428	3.02	787A2054	29872
34	1506	1.03	785A2054	7987
34	1518	1.72	786A1657	12590
34	1522	2.79	787A1757	29870
33	1552	1.69	786A2054	12625
33	1565	2.71	787A2154	29868
32	1596	1.00	785A1757	7834
31	1660	3.85	788A1857	43300
30	1682	1.56	786A1757	12612
30	1686	2.51	787A1857	29872
29	1766	0.91	785A1857	7530
29	1734	0.91	785A2254	7570
29	1727	2.45	787A2254	29872
28	1842	1.40	786A1857	12528
28	1805	3.55	788A2254	43400
27	1872	1.43	786A2254	12566
27	1872	3.87	788A1957	43300
26	1953	2.21	787A1957	29839
26	1964	3.69	788A2354	43400
25	2015	0.83	785A1957	7000
25	2026	2.13	787A2354	29862
24	2089	1.30	786A1957	12486
24	2087	3.47	788A2057	43300

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
23	2184	1.25	786A2354	12443
23	2236	1.93	787A2454	29844
23	2166	1.99	787A2057	29837
22	2353	1.18	786A2057	12301
22	2362	2.71	788A2157	43300
22	2265	3.20	788A2454	43400
21	2398	1.17	786A2454	12292
21	2371	1.52	787A2554	29859
21	2379	1.78	787A2157	29837
21	2423	2.55	788A2554	43400
19	2661	1.35	787A2654	29805
19	2628	1.61	787A2257	29789
19	2614	2.15	788A2654	43400
19	2728	2.35	788A2257	43300
18	2853	1.01	786A2257	11833
17	2944	0.97	786A2554	11740
17	3066	1.41	787A2357	29775
17	3058	1.41	787A2754	29758
17	3043	2.38	788A2754	43400
17	2975	2.44	788A2357	43300
16	3211	0.90	786A2754	11419
15	3321	0.89	786A2357	11266
15	3430	1.26	787A2854	29775
15	3389	1.27	787A2457	29775
15	3408	2.13	788A2457	43300
15	3281	2.15	788A2854	43400
14	3637	0.82	786A2457	10800
14	3603	1.10	787A2557	29766
14	3668	1.68	788A2557	43300
14	3571	1.78	**788A3754**	43400
13	3950	0.86	**786A3754**	10373
13	4039	0.91	787A2657	29704
13	3935	1.43	788A2657	43300
13	3968	1.61	**788A3854**	43400
11	4645	0.93	787A2757	29650
11	4604	1.57	788A2757	43300
11	4480	1.62	**788A3954**	43400
11	4578	2.32	**789A3954**	56000
10	5214	0.83	787A2857	29607
10	4945	1.43	788A2857	43300
10	4978	1.46	**788A4054**	43400
10	5099	1.98	**789A4054**	56000
9.3	5407	1.18	**788A3857**	43200
9.0	5809	1.83	**789A4154**	56000
8.9	5659	1.13	**788A4154**	43400
8.4	6006	1.07	**788A3857**	43200
8.1	6450	1.57	**789A4254**	56000
8.0	6566	2.50	**790A4254**	62200
7.7	6518	0.98	**788A4254**	43400
7.4	6781	1.07	**788A3957**	43200
7.4	7092	2.31	**790A4354**	62200
7.1	7095	1.02	**788A4354**	43200
7.1	7348	1.44	**789A4354**	56000
6.7	7537	0.96	**788A4057**	43200
6.4	8168	1.24	**789A4454**	56000
6.3	8315	1.98	**790A4454**	62200
6.1	8171	0.89	**788A4454**	43100
5.8	8981	1.82	**790A4554**	62200
5.6	9304	1.14	**789A4554**	56000
5.2	10044	1.01	**789A4654**	56000
5.1	10336	1.60	**790A4654**	62200
4.7	11164	1.47	**790A4754**	62200
4.6	11441	0.93	**789A4754**	56000
4.2	12402	0.82	**789A4457**	56000
4.2	12625	1.31	**790A4457**	62200
3.9	13636	1.21	**790A4557**	62200
3.3	15693	1.05	**790A4657**	62200
3.1	16950	0.97	**790A4757**	62200



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
7.5KW MOTOR				
300	230	1.71	783A0256	2661
233	297	1.57	784A0556	4640
214	322	1.75	785A0556	6800
213	327	1.57	783A0456	2415
208	333	3.51	786A0556	8720
190	366	1.48	783A0556	2283
169	409	1.36	783A0756	2115
166	421	1.36	784A0756	4675
155	448	1.75	785A0756	7130
148	470	1.30	784A0856	4647
147	473	3.40	786A0756	9420
143	484	1.17	785A0565	7190
139	499	2.34	786A0565	9501
138	503	1.75	785A0856	7220
133	521	1.11	783A0856	1642
132	529	1.23	784A1056	4588
132	523	3.23	786A0856	9620
125	554	1.75	785A1056	7272
119	585	3.04	786A1056	9820
118	591	1.00	783A1056	1310
104	671	1.09	784A1156	4372
103	672	1.17	785A0765	7340
99	704	0.86	783A1156	732
98	708	2.34	786A0765	10170
96	725	1.60	785A1156	7351
92	755	1.17	785A0865	7340
92	757	2.61	786A1156	10237
91	761	1.02	784A1256	4186
89	784	2.34	786A0865	10297
84	831	1.17	785A1065	7320
84	824	1.48	785A1256	7330
82	848	2.44	786A1256	10437
80	877	2.22	786A1065	10439
77	908	0.92	784A1456	3830
69	1005	1.31	785A1456	7225
67	1035	2.13	786A1456	10618
64	1089	1.17	785A1165	7090
63	1098	1.23	785A1556	7070
62	1134	1.91	786A1165	10687
59	1174	1.93	786A1556	10727
56	1238	1.08	785A1265	6880
55	1263	1.10	785A1656	6864
55	1270	1.78	786A1265	10742
51	1368	1.75	786A1656	10788
51	1364	3.11	787A1756	29888
48	1431	1.02	785A1756	6574
47	1479	3.94	788A1465	43300
46	1499	0.96	785A1465	6410
46	1512	1.63	786A1756	10817
46	1514	2.80	787A1856	29876
45	1561	1.55	786A1465	10735
44	1584	0.93	785A1856	6290
42	1644	0.90	785A1565	6100
42	1660	1.49	786A1856	10745
42	1643	3.77	788A1565	43300
41	1694	3.81	788A1956	43300
40	1756	2.45	787A1956	29863
39	1753	1.41	786A1565	10678
38	1815	0.84	785A1956	5790
37	1889	0.80	785A1665	5540
37	1871	1.37	786A1956	10645
37	1859	3.48	788A1665	43300
37	1879	3.56	788A2056	43300
36	1947	2.21	787A2056	29833
34	2039	1.28	786A1665	10503
34	2043	2.07	787A1765	29832
34	2031	3.15	788A1765	43300
33	2116	1.24	786A2056	10485
33	2134	1.99	787A2156	29827
33	2133	3.00	788A2156	43300
31	2258	1.16	786A1765	10302
31	2264	1.87	787A1865	29836
31	2252	2.84	788A1865	43300
29	2355	1.80	787A2256	29836
28	2474	1.04	786A1865	10000
28	2461	2.60	788A2256	43300
27	2554	1.05	786A2256	10000
27	2539	2.85	788A1965	43300
26	2622	1.64	787A1965	29789
26	2678	2.71	788A2356	43300
25	2805	0.97	786A1965	9630
25	2762	1.56	787A2356	29812
24	2908	1.48	787A2065	29787
24	2832	2.56	788A2065	43300
23	2978	0.92	786A2356	9440
23	3049	1.41	787A2456	29800
22	3160	0.88	786A2065	9090
22	3195	1.33	787A2165	29787
22	3204	2.00	788A2165	43300
22	3089	2.35	788A2456	43300
21	3271	0.86	786A2456	9000
21	3233	1.11	787A2556	29827
21	3305	1.87	788A2556	43300
20	3528	1.20	787A2265	29720
19	3629	0.99	787A2656	29748
19	3565	1.57	788A2656	43300
19	3701	1.73	788A2265	43300
19	3829	2.02	789A2365	49100
17	4170	1.03	787A2756	29672
17	4117	1.05	787A2365	29700
17	4150	1.75	788A2756	43300
17	4036	1.80	788A2365	43300
16	4361	2.02	789A2465	50200
16	4473	2.26	**789A3656**	56000
15	4678	0.92	787A2856	29700
15	4550	0.95	787A2465	29700
15	4623	1.57	788A2465	43300
15	4474	1.57	788A2856	43300
14	4838	0.82	787A2565	29700
14	4976	1.24	788A2565	43300
14	4870	1.31	**788A3756**	43200
14	5095	2.08	**789A3756**	56000
13	5338	1.05	788A2665	43300
13	5411	1.18	**788A3856**	43200
13	5480	1.85	**789A3856**	56000
11	6246	1.16	788A2765	43300
11	6109	1.18	**788A3956**	43200
11	6242	1.70	**789A3956**	56000
10	6709	1.05	788A2865	43300
10	6788	1.07	**788A4056**	43200
10	6954	1.46	**789A4056**	56000
10	6910	2.37	**790A4056**	62200
9.6	7463	2.19	**790A4156**	62200
9.0	7921	1.34	**789A4156**	56000
8.9	7717	0.83	**788A4156**	43200
8.1	8796	1.15	**789A4256**	56000
8.0	8954	1.83	**790A4256**	62200
7.4	9671	1.69	**790A4356**	62200
7.1	10020	1.06	**789A4356**	56000
6.4	11138	0.91	**789A4456**	56000
6.3	11338	1.45	**790A4456**	62200
5.8	12246	1.34	**790A4556**	62200
5.6	12688	0.84	**789A4556**	56000
5.1	14094	1.17	**790A4656**	62200
4.7	15223	1.08	**790A4756**	62200
4.2	16949	0.97	**790A4465**	62200
3.9	18306	0.90	**790A4565**	62200
11.0KW MOTOR				
216	470	1.20	785A0566	6030
210	486	2.41	786A0566	8130
156	652	1.20	785A0766	6061
148	689	2.33	786A0766	8582
148	690	3.72	787A0467	29900
139	733	1.20	785A0866	6020
139	732	1.60	786A0567	8628
139	737	3.59	787A0567	29900
133	762	2.22	786A0866	8689
129	794	3.76	787A0966	29900
126	807	1.20	785A1066	5955
124	827	3.41	787A0667	29900
120	852	2.09	786A1066	8784
115	888	3.53	787A1066	29900
110	930	3.21	787A0767	29900
100	1023	3.31	787A1166	29900
98	1038	1.60	786A0767	8894
96	1056	1.10	785A1166	5633
96	1065	3.02	787A0867	29900
93	1103	1.79	786A1166	8902
89	1151	1.60	786A0867	8893
89	1144	3.10	787A1266	29900
85	1200	1.02	785A1266	5377
85	1198	2.83	787A0967	29900
84	1219	3.76	788A0967	43200
83	1235	1.68	786A1266	8927
83	1228	2.94	787A1366	29900
81	1269	3.87	788A1366	43200
80	1286	1.52	786A1067	8878
78	1314	3.59	788A1067	43200
77	1337	2.65	787A1067	29900
73	1406	2.71	787A1466	29900
71	1436	3.59	788A1466	43200
70	1464	0.90	785A1466	4833
67	1508	1.46	786A1466	8784
67	1529	3.35	788A1167	43200
66	1542	2.49	787A1167	29900
64	1599	0.84	785A1566	4480
64	1587	2.56	787A1566	29900
64	1594	3.43	788A1566	43200
62	1663	1.30	786A1167	8675
62	1653	3.20	788A1267	43200
60	1710	1.33	786A1566	8654
59	1722	2.33	787A1267	29900
56	1812	2.36	787A1666	29900
56	1804	3.17	788A1666	43200
55	1863	1.21	786A1267	8485
55	1855	2.20	787A1367	29900
53	1919	2.90	788A1367	43200
52	1969	2.96	788A1766	43200
51	1993	1.20	786A1666	8376
51	1988	2.13	787A1766	29867
48	2117	2.00	787A1467	29900
47	2169	2.69	788A1467	43200
47	2185	2.76	788A1866	43200
46	2202	1.12	786A1766	8135
46	2205	1.92	787A1866	29834
45	2290	1.06	786A1467	7970
43	2393	1.80	787A1567	29900
42	2419	1.03	786A1866	7824
42	2410	2.57	788A1567	43200
41	2476	2.61	788A1966	43200
40	2571	0.96	786A1567	7550
40	2558	1.68	787A1966	29800
37	2725	0.94	786A1966	7335
37	2727	1.58	787A1667	29900
37	2727	2.38	788A1667	43200
37	2746	2.44	788A2066	43200
36	2836	1.52	787A2066	29765
34	2990	0.87	786A1667	6850
34	2997	1.41	787A1767	29764
34	2980	2.15	788A1767	43200
33	3082	0.85	786A2066	6740

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
33	3108	1.36	787A2166	29755
33	3118	2.05	788A2166	43200
32	3304	2.41	**789A3066**	38900
31	3320	1.28	787A1867	29772
31	3303	1.94	788A1867	43200
30	3431	1.24	787A2266	29772
28	3597	1.78	788A2266	43200
28	3731	2.02	789A2366	41400
28	3763	2.41	**789A3166**	39500
27	3724	1.95	788A1967	43200
26	3846	1.12	787A1967	29700
26	3915	1.85	788A2366	43200
26	4033	2.13	**789A3266**	41500
25	4024	1.07	787A2366	29725
25	4249	2.02	789A2466	42200
24	4265	1.01	787A2067	29700
24	4158	1.75	788A2067	43200
24	4314	2.46	789A2167	45300
23	4442	0.97	787A2466	29722
23	4595	2.13	**789A3366**	42100
22	4686	0.90	787A2167	29700
22	4700	1.36	788A2167	43200
22	4515	1.61	788A2466	43200
21	4831	1.28	788A2566	43200
20	5174	0.82	787A2267	29600
20	5235	1.80	**789A3466**	45200
19	5211	1.08	788A2666	43200
19	5429	1.18	788A2267	43200
19	4878	1.88	789A2267	46100
18	5615	1.37	789A2367	49100
18	5962	1.78	**789A3566**	46000
18	5821	1.96	790A2367	56300
17	6066	1.20	788A2766	43200
17	5920	1.22	788A2367	43200
17	6288	1.96	790A2467	57300
16	6540	1.08	788A2866	43200
16	6396	1.37	789A2467	50200
16	6561	1.54	**789A3666**	48700
16	6769	2.41	**790A3666**	54000
15	6780	1.07	788A2467	43200
14	7299	0.85	788A2567	43200
14	7473	1.42	**789A3766**	50600
14	7311	2.22	**790A3766**	56100
13	8037	1.26	**789A3866**	53000
13	8360	1.95	**790A3866**	59200
12	9029	1.80	**790A3966**	61400
11	9155	1.15	**789A3966**	55100
10	10199	0.99	**789A4066**	56000
10	10134	1.62	**790A4066**	62200
9.6	10945	1.49	**790A4166**	62200
9.0	11617	0.91	**789A4166**	56000
8.0	13133	1.25	**790A4266**	62200
7.4	14185	1.15	**790A4366**	62200
6.3	16630	0.99	**790A4466**	62200
5.8	17961	0.91	**790A4566**	62200
5.1	20672	0.80	**790A4666**	62200

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
15.0KW MOTOR				
222	623	3.64	787A0468	29900
210	662	1.77	786A0568	7457
209	666	3.51	787A0568	29900
191	729	3.04	787A0274	29900
190	733	3.49	788A0274	43500
186	747	3.33	787A0668	29900
166	840	3.14	787A0768	29900
156	890	0.88	785A0768	4840
151	922	3.49	788A0474	43500
148	940	1.71	786A0768	7626
148	942	2.73	787A0474	29888
144	964	2.95	787A0868	29889
139	1000	0.88	785A0868	4650
139	1006	2.63	787A0574	29888
136	1025	3.49	788A0574	43500
133	1040	1.62	786A0868	7626
129	1083	2.76	787A0968	29889
127	1094	3.69	788A0968	43200
126	1100	0.88	785A1068	4450
125	1115	3.39	788A0674	43500
124	1128	2.50	787A0674	29888
120	1163	1.53	786A1068	7601
118	1183	3.52	788A1068	43200
115	1211	2.59	787A1068	29889
110	1268	2.36	787A0774	29888
110	1270	3.18	788A0774	43500
101	1377	3.29	788A1168	43200
100	1395	2.43	787A1168	29876
99	1402	3.04	788A0874	43500
96	1440	0.81	785A1168	3670
96	1452	2.22	787A0874	29885
94	1486	3.14	788A1268	43200
93	1504	1.32	786A1168	7376
89	1560	2.28	787A1268	29885
85	1633	2.07	787A0974	29870
84	1654	2.77	788A0974	43500
83	1685	1.23	786A1268	7201
83	1675	2.15	787A1368	29870
81	1725	2.85	788A1368	43200
78	1762	2.65	788A1074	43500
77	1823	1.95	787A1074	29880
73	1917	1.99	787A1468	29869
71	1952	2.64	788A1468	43200
67	2057	1.07	786A1468	6688
67	2075	2.47	788A1174	43500
66	2103	1.83	787A1174	29860
64	2165	1.88	787A1568	29860
64	2167	2.52	788A1568	43200
62	2243	2.36	788A1274	43400
60	2332	0.97	786A1568	6285
59	2349	1.71	787A1274	29860
56	2471	1.73	787A1668	29840
56	2452	2.34	788A1668	43200
55	2529	1.62	787A1374	29836
53	2603	2.14	788A1374	43400
52	2675	2.17	788A1768	43200
51	2717	0.88	786A1668	5620
51	2710	1.56	787A1768	29842
48	2887	1.47	787A1474	29827
47	2943	1.98	788A1474	43400
47	2969	2.03	788A1868	43200
46	3003	0.82	786A1768	5070
46	3007	1.41	787A1868	29785
43	3264	1.32	787A1574	29827
42	3270	1.89	788A1574	43400
41	3364	1.92	788A1968	43200
40	3489	1.24	787A1968	29727
37	3719	1.16	787A1674	29805
37	3699	1.75	788A1674	43400
37	3732	1.79	788A2068	43200
36	3867	1.11	787A2068	29687
34	4087	1.04	787A1774	29687

Nom. Output Rev/Min	Output Torque Nm	Max Service Factor	Unit Selection	Overhung Load N
34	4042	1.58	788A1774	43200
33	4239	1.00	787A2168	29672
33	4237	1.51	788A2168	43200
32	4489	1.77	**789A3074**	38900
32	4434	1.92	789A2168	38000
31	4528	0.94	787A1874	29700
31	4481	1.43	788A1874	43200
30	4678	0.91	787A2268	29700
28	4889	1.31	788A2268	43200
28	5105	1.49	789A2368	41400
28	5114	1.77	**789A3174**	39500
28	5051	1.92	789A2268	38500
27	5052	1.43	788A1974	43200
27	5292	2.12	790A2368	47400
26	5244	0.82	787A1974	29600
26	5320	1.36	788A2368	43200
26	5481	1.56	**789A3274**	41500
25	5815	1.49	789A2468	42200
25	5375	2.12	790A2468	48100
24	5635	1.29	788A2074	43200
24	5882	1.80	789A2074	40500
23	6244	1.56	**789A3374**	42100
22	6376	1.00	788A2174	43200
22	6136	1.18	788A2468	43200
22	6652	1.30	789A2174	45300
22	6461	2.18	790A2174	48900
21	6565	0.94	788A2568	43200
21	6979	2.18	790A2274	49600
20	7114	1.32	**789A3474**	45200
20	7105	2.28	**790A3474**	48200
19	7365	0.87	788A2274	43200
19	7657	1.01	789A2374	49100
19	7576	1.30	789A2274	46100
19	7674	2.11	**790A3574**	50200
18	8103	1.31	**789A3574**	46000
18	7938	1.43	790A2374	56300
17	8244	0.88	788A2768	43100
17	8032	0.90	788A2374	43200
17	8594	1.43	790A2474	57300
16	8722	1.01	789A2474	50200
16	8916	1.14	**789A3674**	48700
16	9199	1.77	**790A3674**	54000
14	10155	1.05	**789A3774**	50600
14	9935	1.63	**790A3774**	56100
13	10922	0.93	**789A3874**	53000
13	11361	1.44	**790A3874**	59200
12	12442	0.85	**789A3974**	55100
12	12270	1.33	**790A3974**	61400
10	13772	1.19	**790A4074**	62200
9.6	14874	1.10	**790A4174**	62200
8.0	17847	0.92	**790A4274**	62200
7.4	19276	0.85	**790A4374**	62200



Motorised Selection

Other combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
18.5KW MOTOR				
287	597	3.28	787A0276	29785
222	769	2.95	787A0476	29900
209	822	2.85	787A0576	29891
205	839	3.81	788A0576	43500
194	885	2.51	787A0275	29900
190	904	2.83	788A0275	43500
188	913	3.66	788A0676	43500
186	922	2.70	787A0676	29874
166	1036	2.55	787A0776	29840
166	1036	3.43	788A0776	43500
151	1138	2.83	788A0475	43500
150	1144	2.25	787A0475	29877
149	1146	3.29	788A0876	43500
144	1190	2.39	787A0876	29879
141	1222	2.17	787A0575	29877
136	1265	2.83	788A0575	43500
129	1336	2.24	787A0976	29879
127	1349	2.99	788A0976	43500
126	1370	2.06	787A0675	29877
125	1375	2.75	788A0675	43500
118	1459	2.86	788A1076	43500
115	1494	2.10	787A1076	29879
112	1540	1.94	787A0775	29877
110	1567	2.58	788A0775	43500
101	1698	2.67	788A1176	43500
100	1720	1.97	787A1176	29855
99	1729	2.47	788A0875	43500
97	1764	1.82	787A0875	29872
94	1833	2.55	788A1276	43400
89	1924	1.85	787A1276	29872
87	1984	1.71	787A0975	29844
84	2040	2.24	788A0975	43500
83	2066	1.75	787A1376	29844
81	2127	2.31	788A1376	43400
78	2214	1.60	787A1075	29862
78	2198	2.15	788A1075	43500
73	2364	1.61	787A1476	29842
71	2407	2.14	788A1476	43400
67	2554	1.50	787A1175	29825
67	2559	2.00	788A1175	43500
64	2670	1.52	787A1576	29825
64	2672	2.05	788A1576	43400
62	2767	1.91	788A1275	43400
60	2853	1.41	787A1275	29825
56	3072	1.33	787A1375	29781
56	3047	1.40	787A1676	29787
56	3025	1.89	788A1676	43400
53	3211	1.73	788A1375	43400
52	3300	1.76	788A1776	43300
51	3343	1.27	787A1776	29821
49	3506	1.21	787A1475	29763
47	3630	1.61	788A1475	43400
47	3662	1.65	788A1876	43300
46	3709	1.14	787A1876	29742
43	3964	1.09	787A1575	29763
42	4033	1.53	788A1575	43400
42	4202	2.41	789A1976	32100
41	4150	1.56	788A1976	43300
40	4303	1.00	787A1976	29663
38	4518	0.95	787A1675	29723
37	4563	1.42	788A1675	43300
37	4603	1.45	788A2076	43300
37	4787	2.22	789A2076	33300
36	4770	0.90	787A2076	29619
35	4964	0.85	787A1775	29619
34	4986	1.28	788A1775	43300
33	5228	0.81	787A2176	29600
33	5226	1.22	788A2176	43200
33	5413	1.57	789A2176	38000
32	5481	1.45	**789A3076**	38900
31	5527	1.16	788A1875	43300
29	6166	1.57	789A2276	38500
28	6030	1.06	788A2276	43200
28	6232	1.22	789A2376	41400
28	6233	1.45	**789A3176**	39500
27	6232	1.16	788A1975	43200
27	6460	1.74	790A2376	47400
26	6561	1.10	788A2376	43100
26	6691	1.28	**789A3276**	41500
26	6898	2.33	790A2075	44400
25	7098	1.22	789A2476	42200
25	7144	1.49	789A2075	40500
25	6978	1.74	790A2476	48100
25	7003	2.31	**790A3276**	43800
24	6949	1.04	788A2075	43200
23	7622	1.28	**789A3376**	42100
23	7847	1.80	790A2175	48900
23	7565	2.13	**790A3376**	45600
22	7864	0.81	788A2175	43100
22	7568	0.96	788A2476	43100
22	8079	1.07	789A2175	45300
21	8477	1.80	790A2275	49600
20	8685	1.08	**789A3476**	45200
20	8674	1.87	**790A3476**	48200
19	9300	0.83	789A2375	49100
19	9201	1.07	789A2275	46100
19	9369	1.73	**790A3576**	50200
18	9891	1.07	**789A3576**	46000
18	9641	1.18	790A2375	56300
17	10593	0.83	789A2475	50200
17	10414	1.18	790A2475	57300
16	11884	0.93	**789A3676**	48700
16	11229	1.45	**790A3676**	54000
15	12128	1.34	**790A3776**	56100
14	12397	0.86	**789A3776**	50600
13	13868	1.18	**790A3876**	59200
12	14979	1.09	**790A3976**	61400
11	16812	0.97	**790A4076**	62200
9.7	18518	0.90	**790A4176**	62200
22.0KW MOTOR				
287	710	2.76	787A0278	29670
287	712	3.59	788A0278	43500
228	893	3.38	788A0478	43500
222	915	2.48	787A0478	29900
209	977	2.39	787A0578	29882
205	995	3.21	788A0578	43500
193	1058	2.10	787A0284	29900
190	1076	2.38	788A0284	43500
188	1082	3.09	788A0678	43500
186	1096	2.27	787A0678	29848
166	1232	2.14	787A0778	29780
166	1228	2.90	788A0778	43500
151	1353	2.38	788A0484	43500
149	1367	1.88	787A0484	29867
149	1359	2.77	788A0878	43500
144	1415	2.01	787A0878	29870
140	1460	1.81	787A0584	29867
136	1504	2.38	788A0584	43500
129	1589	1.88	787A0978	29870
127	1599	2.53	788A0978	43500
125	1638	1.72	787A0684	29867
125	1636	2.31	788A0684	43500
118	1729	2.41	788A1078	43500
115	1777	1.77	787A1078	29870
111	1841	1.62	787A0784	29867
110	1863	2.17	788A0784	43500
101	2013	2.25	788A1178	43500
100	2046	1.66	787A1178	29835
99	2056	2.08	788A0884	43500
97	2109	1.53	787A0884	29859
94	2172	2.15	788A1278	43400
89	2288	1.55	787A1278	29859
86	2372	1.43	787A0984	29818
84	2426	1.89	788A0984	43500
83	2457	1.47	787A1378	29818
81	2521	1.95	788A1378	43400
78	2614	1.80	788A1084	43500
77	2647	1.34	787A1084	29845
73	2812	1.35	787A1478	29815
71	2853	1.80	788A1478	43400
67	3053	1.26	787A1184	29790
67	3043	1.69	788A1184	43500
64	3175	1.28	787A1578	29790
64	3167	1.73	788A1578	43400
62	3290	1.61	788A1284	43400
60	3410	1.18	787A1284	29790
56	3672	1.11	787A1384	29726
56	3624	1.18	787A1678	29735
56	3585	1.60	788A1678	43400
53	3818	1.46	788A1384	43400
52	3911	1.49	788A1778	43300
52	4059	2.49	789A1778	29100
51	3976	1.07	787A1778	29800
49	4191	1.01	787A1484	29700
47	4317	1.35	788A1484	43400
47	4340	1.39	788A1878	43300
46	4411	0.96	787A1878	29700
45	4622	2.21	789A1878	30700
43	4739	0.91	787A1584	29700
42	4796	1.29	788A1584	43400
42	4997	2.03	789A1978	32100
41	4918	1.31	788A1978	43200
40	5117	0.84	787A1978	29600
37	5426	1.19	788A1684	43300
37	5455	1.23	788A2078	43200
37	5693	1.87	789A2078	33300
34	5929	1.08	788A1784	43300
34	6253	2.18	790A2178	40900
33	6193	1.03	788A2178	43200
33	6437	1.32	789A2178	38000
33	6426	2.47	**790A3078**	39100
32	6517	1.22	**789A3078**	38900
31	6573	0.97	788A1884	43300
31	6755	2.18	790A2278	41300
30	6940	2.31	**790A3178**	40500
29	7332	1.32	789A2278	38500
28	7146	0.90	788A2278	43200
28	7411	1.03	789A2378	41400
28	7424	1.22	**789A3178**	39500
27	7411	0.98	788A1984	43200
27	7682	1.46	790A2378	47400
26	7776	0.93	788A2378	43100
26	7957	1.08	**789A3278**	41500
25	8441	1.03	789A2478	42200
25	8539	1.24	789A2084	40500
25	8298	1.46	790A2478	48100
25	8328	1.94	**790A3278**	43800
25	8245	1.95	790A2084	44400
24	8264	0.88	788A2084	43100
23	9064	1.08	**789A3378**	42100
23	8996	1.79	**790A3378**	45600
22	8969	0.81	788A2478	43100
22	9656	0.90	789A2184	45300
22	9379	1.50	790A2184	48900
21	10132	1.50	790A2284	49600
20	10328	0.91	**789A3478**	45200
20	10315	1.57	**790A3478**	48200
19	10998	0.90	789A2284	46100
19	11141	1.45	**790A3578**	50200
18	11723	0.90	**789A3578**	46000
18	11523	0.99	790A2384	56300
17	12447	0.99	790A2484	57300
16	13353	1.12	**790A3678**	54000
15	14423	1.13	**790A3778**	56100
13	16492	0.99	**790A3878**	59200
12	17813	0.91	**790A3978**	61400
11	19992	0.82	**790A4078**	62200

Motorised Selection

Double reduction units are shown in normal typeface **Bold typeface indicates triple reduction units**
See page 272 for fourth digit of code and page 307 for motor details.

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
30.0KW MOTOR				
289	961	2.04	787A0288	29408
287	968	2.64	788A0288	43500
228	1214	2.49	788A0488	43500
224	1239	1.83	787A0488	29900
210	1323	1.77	787A0588	29863
205	1352	2.37	788A0588	43500
194	1436	1.55	787A0291	29900
190	1459	1.75	788A0291	43500
188	1470	2.27	788A0688	43500
187	1485	1.68	787A0688	29790
167	1669	1.58	787A0788	29643
166	1669	2.13	788A0788	43500
151	1836	1.75	788A0491	43500
150	1855	1.39	787A0491	29844
149	1847	2.04	788A0888	43500
145	1916	1.49	787A0888	29848
141	1981	1.34	787A0591	29844
136	2041	1.75	788A0591	43500
130	2152	1.39	787A0988	29848
127	2173	1.86	788A0988	43500
126	2222	1.27	787A0691	29844
125	2219	1.70	788A0691	43500
118	2350	1.77	788A1088	43500
116	2407	1.30	787A1088	29848
112	2497	1.20	787A0791	29844
110	2528	1.60	788A0791	43500
101	2735	1.66	788A1188	43500
100	2771	1.22	787A1188	29788
99	2790	1.53	788A0891	43500
97	2861	1.13	787A0891	29829
94	2952	1.58	788A1288	43400
90	3098	1.15	787A1288	29829
87	3218	1.05	787A0991	29759
84	3327	1.08	787A1388	29759
84	3291	1.39	788A0991	43500
81	3426	1.43	788A1388	43400
78	3591	0.99	787A1091	29805
78	3547	1.33	788A1091	43500
73	3808	1.00	787A1488	29753
72	3974	2.26	789A1488	26100
71	3877	1.33	788A1488	43300
67	4143	0.93	787A1191	29710
67	4128	1.24	788A1191	43500
66	4355	2.22	789A1588	26600
65	4301	0.95	787A1588	29710
64	4304	1.27	788A1588	43300
62	4464	1.18	788A1291	43400
60	4627	0.87	787A1291	29710
58	4961	1.92	789A1688	28300
57	4909	0.87	787A1688	29615
56	4982	0.82	787A1391	29600
56	4872	1.18	788A1688	43300
53	5180	1.07	788A1391	43400
52	5315	1.09	788A1788	43200
52	5516	1.83	789A1788	29100
47	5857	1.00	788A1491	43400
47	5898	1.02	788A1888	43200
46	6282	1.63	789A1888	30700
42	6506	0.95	788A1591	43400
42	6791	1.49	789A1988	32100
41	6684	0.97	788A1988	43200
41	6917	2.24	790A1988	35200
39	9964	0.97	789A2288	38300
38	7470	2.14	790A2088	36300
37	7361	0.88	788A1691	43300
37	7414	0.90	788A2088	43100
37	7736	1.37	789A2088	33300
34	8498	1.61	790A2188	40900
33	8748	0.97	789A2188	38000
33	8733	1.82	**790A3088**	39100
31	9180	1.61	790A2288	41300
30	9432	1.70	**790A3188**	40500
27	10440	1.08	790A2388	47400
26	11187	1.44	790A2091	44400
25	11585	0.92	789A2091	40500
25	11277	1.08	790A2488	48100
25	11318	1.43	**790A3288**	43800
23	12725	1.11	790A2191	48900
23	12225	1.32	**790A3388**	45600
21	13746	1.11	790A2291	49600
20	14018	1.16	**790A3488**	48200
19	15141	1.07	**790A3588**	50200
16	18148	0.90	**790A3688**	54000
15	19600	0.83	**790A3788**	56100
37.0KW MOTOR				
290	1182	1.66	787A0294	29179
287	1190	2.15	788A0294	43500
228	1492	2.02	788A0494	43500
225	1523	1.49	787A0494	29900
211	1627	1.44	787A0594	29846
205	1662	1.92	788A0594	43500
188	1825	1.36	787A0694	29739
188	1807	1.85	788A0694	43500
167	2051	1.29	787A0794	29524
166	2052	1.73	788A0794	43500
149	2270	1.66	788A0894	43500
146	2355	1.21	787A0894	29829
130	2646	1.13	787A0994	29829
127	2671	1.51	788A0994	43500
118	2889	1.44	788A1094	43500
116	2958	1.06	787A1094	29829
101	3406	1.00	787A1194	29747
101	3362	1.35	788A1194	43500
95	3715	2.22	789A1294	23700
94	3629	1.29	788A1294	43400
90	3808	0.93	787A1294	29803
84	4090	0.88	787A1394	29707
82	4288	2.11	789A1394	24600
81	4212	1.17	788A1394	43400
74	4681	0.81	787A1494	29700
72	4885	1.84	789A1494	26100
71	4766	1.09	788A1494	43400
66	5353	1.81	789A1594	26600
64	5291	1.03	788A1594	43400
58	6098	1.56	789A1694	28300
56	5988	0.96	788A1694	43300
52	6533	0.89	788A1794	43200
52	6761	1.49	789A1794	29100
51	6905	2.20	790A1794	28100
47	7250	0.83	788A1894	43200
47	7456	2.13	790A1894	28300
46	7721	1.32	789A1894	30700
42	8347	1.21	789A1994	32100
42	8502	1.82	790A1994	35200
38	9182	1.74	790A2094	36300
37	9509	1.12	789A2094	33300
34	10445	1.31	790A2194	40900
33	10734	1.48	**790A3094**	39100
31	11283	1.31	790A2294	41300
30	11594	1.38	**790A3194**	40500
27	12833	0.88	790A2394	47400
26	13797	1.17	790A2092	44400
25	13862	0.88	790A2494	48100
25	13912	1.16	**790A3294**	43800
24	15027	1.07	**790A3394**	45600
23	15694	0.90	790A2192	48900
21	16954	0.90	790A2292	49600
21	17321	0.94	**790A3494**	48200
19	18611	0.87	**790A3594**	50200
45.0KW MOTOR				
290	1437	1.36	787A0295	28917
287	1448	1.77	788A0295	43500
228	1815	1.66	788A0495	43500
225	1852	1.23	787A0495	29900
211	1979	1.18	787A0595	29826
205	2022	1.58	788A0595	43500
188	2220	1.12	787A0695	29680
188	2198	1.52	788A0695	43500
167	2495	1.06	787A0795	29387
166	2495	1.43	788A0795	43500
149	2761	1.37	788A0895	43500
148	2895	2.50	789A0895	20300
146	2865	0.99	787A0895	29808
131	3290	2.37	789A0995	21000
130	3218	0.93	787A0995	29808
127	3249	1.24	788A0995	43500
118	3513	1.19	788A1095	43500
116	3598	0.87	787A1095	29808
115	3746	2.08	789A1095	22200
108	3966	2.09	789A1195	22400
101	4142	0.82	787A1195	29700
101	4089	1.11	788A1195	43500
95	4518	1.83	789A1295	23700
94	4414	1.06	788A1295	43400
82	5215	1.74	789A1395	24600
81	5122	0.96	788A1395	43400
72	5941	1.51	789A1495	26100
71	5796	0.89	788A1495	43400
66	6510	1.49	789A1595	26600
65	6632	2.20	790A1595	22400
64	6435	0.85	788A1595	43400
60	7163	2.20	790A1695	19600
58	7416	1.28	789A1695	28300
52	8237	1.23	789A1795	29100
51	8398	1.81	790A1795	28100
47	9068	1.75	790A1895	28300
46	9391	1.09	789A1895	30700
42	10151	1.00	789A1995	32100
42	10340	1.50	790A1995	35200
38	11168	1.43	790A2095	36300
37	11566	0.92	789A2095	33300
34	12704	1.07	790A2195	40900
33	13055	1.22	**790A3095**	39100
31	13723	1.07	790A2295	41300
30	14100	1.14	**790A3195**	40500
26	16780	0.96	790A2093	44400
25	16920	0.96	**790A3295**	43800
24	18276	0.88	**790A3395**	45600



Motorised Selection

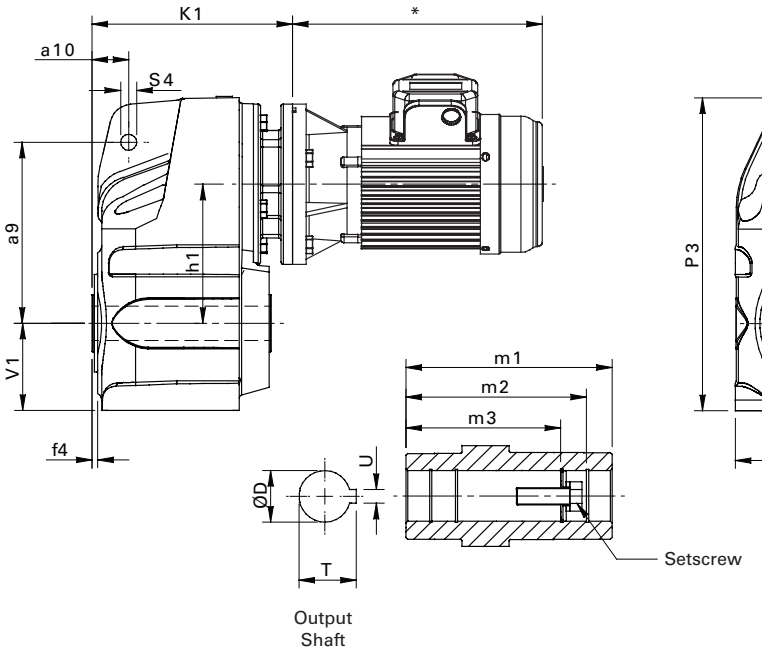
Other motor and ratio combinations than those shown in the Selection tables are available.
For advice consult your local Authorised Distributor.

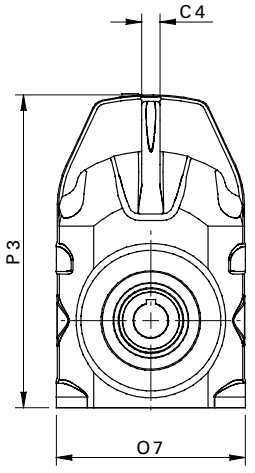
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
55.0KW MOTOR				
327	1608	2.36	789A0196	17900
320	1643	2.50	790A0196	21800
296	1774	2.50	790A0296	22200
287	1831	2.36	789A0296	18100
268	1963	2.37	789A0396	18400
235	2236	2.37	789A0496	18600
206	2550	2.36	789A0596	18900
187	2804	2.50	790A0696	23900
180	2910	2.35	789A0696	18900
169	3105	2.30	789A0796	19300
161	3262	2.50	790A0796	24200
148	3538	2.04	789A0896	20300
131	4021	1.94	789A0996	21000
128	4099	2.50	790A0996	24600
119	4429	2.50	790A1096	24500
115	4578	1.71	789A1096	22200
108	4848	1.71	789A1196	22400
107	4926	2.43	790A1196	21400
99	5320	2.43	790A1296	19000
95	5522	1.50	789A1296	23700
83	6307	2.20	790A1396	17900
82	6374	1.42	789A1396	24600
77	6811	2.20	790A1496	15100
72	7261	1.23	789A1496	26100
66	7957	1.22	789A1596	26600
65	8106	1.80	790A1596	22400
61	10264	1.48	790A1796	28100
60	8755	1.80	790A1696	19600
58	9064	1.05	789A1696	28300
52	10079	1.00	789A1796	29100
47	11083	1.43	790A1896	28300
46	11477	0.89	789A1896	30700
42	12407	0.82	789A1996	32100
42	12638	1.22	790A1996	35200
38	13649	1.17	790A2096	36300
34	15527	0.88	790A2196	40900
31	16773	0.88	790A2296	41300

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
75.0KW MOTOR				
320	2236	1.84	790A0198	21800
297	2415	1.84	790A0298	22200
259	2767	1.84	790A0398	22700
240	2990	1.84	790A0498	23100
203	3531	1.84	790A0598	23600
188	3815	1.84	790A0698	23900
161	4439	1.84	790A0798	24200
149	4791	1.84	790A0898	24500
128	5578	1.84	790A0998	24600
119	6028	1.84	790A1098	24500
107	6704	1.79	790A1198	21400
99	7240	1.79	790A1298	19000
83	8582	1.62	790A1398	17900
77	9268	1.61	790A1498	15100
65	11031	1.33	790A1598	22400
60	11915	1.32	790A1698	19600
51	13968	1.09	790A1798	28100
47	15083	1.05	790A1898	28300
42	17199	0.90	790A1998	35200
39	18575	0.86	790A2098	36300

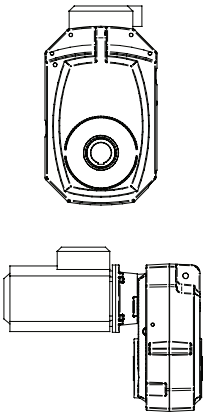
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
90.0KW MOTOR				
321	2682	1.53	790A0199	21800
297	2896	1.53	790A0299	22200
259	3319	1.53	790A0399	22700
240	3585	1.53	790A0499	23100
203	4234	1.53	790A0599	23600
188	4576	1.53	790A0699	23900
161	5323	1.53	790A0799	24200
150	5745	1.53	790A0899	24500
128	6690	1.53	790A0999	24600
119	7228	1.53	790A1099	24500
107	8039	1.49	790A1199	21400
99	8682	1.49	790A1299	19000
84	10292	1.35	790A1399	17900
77	11114	1.35	790A1499	15100
65	13228	1.11	790A1599	22400
60	14288	1.10	790A1699	19600
51	16750	0.91	790A1799	28100
48	18088	0.88	790A1899	28300

Motorised Dimensions





789 & 790 Units



Please note: The apperance of unit 789 & 790 units is different to the other units.

See above diagrams.

For motor dimensions see page 307

Size	a9	a10	C4	f4	h1	O7	P3	S4	V1	Hollow Output Bore					
										D	m1	m2	m3	T	U
780	140	25	15	5	96	150	224	15	59	25	117.5	105	89	28.5	8
781	158	32	16	5	121	171	273	15	76	30	156.5	122	105	33.5	8
782	170	32	16	5	121	171	273	15	76	35	156.5	132	122	38.5	10
783	198	41	16	5	144	206	318	15	80	40	179	174	142	43.5	12
784	218	41	16	6	165	231	365	15	101	40	205	174	156	43.5	12
785	278	50	20	7	200	282	442	24	127	50	233.5	198	183	54	14
786	346	62	26	3	243	346	536	24	156	60	270	230	210	64.6	18
787	395	70	30	5	274	400	612	27	175	70	330	270	-	75	20
788	485	88	36	5.5	332	470	748	27	216	80	370	313	-	85.5	22
789	485	89	40	3	385	498	784	26	237	90	350	-	-	95.4	25
790	550	99	50	4	414	550	877	33	236	100	410	-	-	106.4	28

K1 DIMENSION

Motor Frame Size	780		781 & 782		783		784		785		786		787		788		789		790	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
63	154	169	175	188	189	219	200	230	-	250	-	-	-	-	-	-	-	-	-	-
71	158	173	179	192	195	223	206	234	-	256	-	-	-	-	-	-	-	-	-	-
80	171	186	192	205	213	236	224	247	259	274	340	325	354	380	-	441	-	-	-	-
90	181	196	202	215	223	246	234	257	269	284	340	335	354	380	-	441	-	-	-	-
100	189	204	210	223	250	254	261	265	281	311	346	347	360	386	390	447	-	446	-	-
112	189	204	210	223	250	254	261	265	281	311	346	347	360	386	390	447	-	446	-	-
132	-	-	-	-	250	-	261	-	303	311	346	369	360	-	390	447	-	446	-	524
160	-	-	-	-	-	-	-	-	311	-	376	-	395	-	425	482	-	476	-	496
180	-	-	-	-	-	-	-	-	-	-	-	-	395	-	425	482	491	476	516	496
200	-	-	-	-	-	-	-	-	-	-	-	-	395	-	425	482	491	-	516	524
225	-	-	-	-	-	-	-	-	-	-	-	-	422	-	452	509	521	-	546	526
250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	521	-	546	-
280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	546	-



NON-MOTORISED UNITS SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Motor Power

Determine either the required torque (Nm) or the absorbed power (kW) required by the machine. The required Torque can be calculated using the following formula:

$$T = \frac{P \times 9550}{n_2}$$

T = required output torque (Nm)
P = absorbed power (kW)
n_2 = machine speed (rev/min)

(c) Design Power

Multiply either the required torque (Nm) or the power (kW) by the service factor determined in (**a**).

(d) Ratio Required

Divide the input shaft speed by the required output shaft speed to determine the gear ratio.

(e) Unit Selection

In the selection pages: 256 to 262 refer to column 1 for the nominal gear ratio closest to the value determined in step (**d**).

The Fenner gear ratio code is given in column 2. These are the fifth & sixth digits used in the eight digit ordering code and are included for easy reference when the unit size has been selected.

Check in column 3 for the nearest input shaft speed, then read across the table at this speed until a unit is found with either an output torque or input power that equals or exceeds the design power value determined in step (**c**) above. Column 4 gives the approximate output shaft speed for the selected speed and ratio combination.

(f) Overhung Loads

If an indirect drive is fitted to either the input shaft or output shaft see page 268 for more information.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

DOUBLE REDUCTION RATINGS SIZES 780-783

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	780 Output Torque (Nm)	780 Input Power (kW)	780 Overhung Load Fra (kN)	781 Output Torque (Nm)	781 Input Power (kW)	781 Overhung Load Fra (kN)	782 Output Torque (Nm)	782 Input Power (kW)	782 Overhung Load Fra (kN)	783 Output Torque (Nm)	783 Input Power (kW)	783 Overhung Load Fra (kN)
5.0	02	2900	580	-	-	-	-	-	-	-	-	-	355	23.10	0.42
		1450	290	-	-	-	-	-	-	-	-	-	394	12.80	0.73
		960	192	-	-	-	-	-	-	-	-	-	395	8.44	1.00
		725	145	-	-	-	-	-	-	-	-	-	395	6.28	1.25
6.3	04	2900	460	52	2.80	1.07	-	-	-	-	-	-	428	19.70	0.55
		1450	230	61	1.62	1.38	-	-	-	-	-	-	516	11.80	0.95
		960	152	68	1.19	1.60	-	-	-	-	-	-	516	7.84	1.31
		725	115	72	0.95	1.78	-	-	-	-	-	-	516	5.92	1.64
7.1	05	2900	408	61	2.41	1.19	251	12.60	0.99	251	12.60	0.99	453	18.6	0.60
		1450	204	71	1.40	1.54	286	7.16	1.44	286	7.16	1.44	542	11.10	1.04
		960	135	79	1.03	1.79	286	4.74	1.80	286	4.74	1.80	556	7.54	1.44
		725	102	84	0.82	1.98	287	3.58	2.11	287	3.58	2.11	557	5.69	1.78
9.0	07	2900	322	65	2.25	1.25	283	10.10	1.19	283	10.10	1.19	477	17.50	0.66
		1450	161	76	1.32	1.61	314	5.60	1.73	314	5.60	1.73	557	10.20	1.13
		960	107	84	0.96	1.87	319	3.76	2.17	319	3.76	2.17	558	6.74	1.57
		725	81	89	0.77	2.08	319	2.84	2.53	319	2.84	2.53	558	5.09	1.96
10	08	2900	290	68	2.09	1.31	287	9.31	1.26	287	9.31	1.26	527	15.20	0.80
		1450	145	81	1.23	1.68	319	5.16	1.83	319	5.16	1.83	580	8.34	1.37
		960	96	88	0.89	1.96	327	3.50	2.28	327	3.50	2.28	614	5.84	1.89
		725	73	94	0.71	2.17	327	2.64	2.67	327	2.64	2.67	615	4.42	2.37
12	10	2900	242	75	1.81	1.43	292	8.34	1.35	292	8.34	1.35	537	13.70	0.88
		1450	121	89	1.06	1.84	326	4.65	1.96	326	4.65	1.96	591	7.49	1.51
		960	80	97	0.77	2.14	329	3.10	2.45	329	3.10	2.45	625	5.24	2.10
		725	60	104	0.62	2.37	329	2.34	2.87	329	2.34	2.87	630	3.99	2.62
14	11	2900	207	76	1.72	1.47	304	6.83	1.53	304	6.83	1.53	550	11.70	1.01
		1450	104	92	1.01	1.89	337	3.78	2.23	337	3.78	2.23	605	6.44	1.74
		960	69	100	0.73	2.21	337	2.50	2.80	337	2.50	2.80	641	4.51	2.40
		725	52	108	0.60	2.44	337	1.89	3.27	337	1.89	3.27	648	3.44	2.99
16	12	2900	181	85	1.50	1.60	309	6.12	1.64	309	6.12	1.64	561	10.4	1.12
		1450	91	99	0.87	2.06	345	3.41	2.39	345	3.41	2.39	575	5.31	1.94
		960	60	110	0.64	2.41	354	2.31	2.99	354	2.31	2.99	575	3.52	2.69
		725	45	120	0.53	2.67	354	1.74	3.49	354	1.74	3.49	576	2.66	3.38
20	14	2900	145	89	1.38	1.68	319	5.15	1.84	319	5.15	1.84	572	9.12	1.27
		1450	73	103	0.80	2.16	357	2.87	2.67	357	2.87	2.67	629	5.00	2.19
		960	48	116	0.59	2.51	380	2.02	3.34	380	2.02	3.34	650	3.42	3.04
		725	36	127	0.49	2.80	386	1.55	3.88	386	1.55	3.88	650	2.58	3.81
22	15	2900	132	93	1.27	1.76	326	4.74	1.94	326	4.74	1.94	582	8.29	1.39
		1450	66	108	0.73	2.27	362	2.63	2.82	362	2.63	2.82	639	4.55	2.40
		960	44	123	0.55	2.64	380	1.83	3.54	380	1.83	3.54	677	3.19	3.31
		725	33	129	0.44	2.93	380	1.38	4.13	380	1.38	4.13	684	2.43	4.18
25	16	2900	116	96	1.18	1.83	332	4.25	2.08	332	4.25	2.08	587	7.85	1.46
		1450	58	112	0.68	2.36	370	2.36	3.02	370	2.36	3.02	645	4.30	2.52
		960	38	129	0.52	2.74	386	1.63	3.78	386	1.63	3.78	683	3.02	3.51
		725	29	129	0.39	3.04	386	1.23	4.43	386	1.23	4.43	701	2.34	4.39
28	17	2900	104	99	1.10	1.89	338	3.82	2.22	338	3.82	2.22	601	6.78	1.66
		1450	52	117	0.65	2.44	375	2.11	3.23	375	2.11	3.23	660	3.72	2.86
		960	34	129	0.47	2.86	375	1.40	4.07	375	1.40	4.07	696	2.59	3.98
		725	26	129	0.36	3.17	375	1.06	4.70	375	1.06	4.70	696	1.96	4.91
32	18	2900	91	102	1.03	1.97	343	3.52	2.35	343	3.52	2.35	605	6.40	1.75
		1450	45	121	0.61	2.53	374	1.91	3.41	374	1.91	3.41	667	3.52	3.04
		960	30	129	0.43	2.96	374	1.27	4.27	374	1.27	4.27	699	2.44	4.18
		725	23	129	0.32	3.26	375	0.96	5.02	375	0.96	5.02	699	1.84	5.23
36	19	2900	81	107	0.92	2.08	351	3.13	2.53	351	3.13	2.53	623	5.32	2.08
		1450	40	129	0.56	2.69	391	1.74	3.68	391	1.74	3.68	687	2.92	3.58
		960	27	129	0.37	3.12	393	1.16	4.60	393	1.16	4.60	709	2.00	4.91
		725	20	51	0.28	3.50	393	0.87	5.42	393	0.87	5.42	709	1.51	6.28
40	20	2900	73	112	0.81	2.23	355	2.91	2.65	355	2.91	2.65	638	4.62	2.37
		1450	36	129	0.46	2.89	371	1.52	3.88	371	1.52	3.88	703	2.54	4.08
		960	24	129	0.31	3.37	371	1.01	4.80	371	1.01	4.80	716	1.71	5.60
		725	18	129	0.23	3.73	371	0.76	5.73	371	0.76	5.73	716	1.29	7.19
50	22	2900	58	117	0.72	2.36	366	2.50	2.94	366	2.50	2.94	646	4.28	2.55
		1450	29	129	0.40	3.04	391	1.34	4.27	391	1.34	4.27	712	2.35	4.39
		960	19	129	0.26	3.57	392	0.89	5.42	392	0.89	5.42	720	1.57	6.03
		725	15	129	0.2	3.91	392	0.67	6.33	392	0.67	6.33	720	1.19	7.56
56	23	2900	52	122	0.68	2.46	371	2.12	3.23	371	2.12	3.23	522	2.83	2.99
		1450	26	129	0.36	3.17	387	1.10	4.70	387	1.10	4.70	543	1.47	5.23
		960	17	129	0.24	3.73	387	0.73	5.91	387	0.73	5.91	566	1.01	7.19
		725	13	129	0.18	4.14	387	0.55	6.83	387	0.55	6.83	582	0.79	9.00
63	24	2900	46	129	0.59	2.62	339	1.72	3.45	339	1.72	3.45	462	2.25	3.25
		1450	23	129	0.30	3.37	363	0.92	5.02	363	0.92	5.02	480	1.17	5.60
		960	15	129	0.20	3.86	378	0.63	6.33	378	0.63	6.33	501	0.80	7.98
		725	12	129	0.15	3.86	389	0.49	7.10	389	0.49	7.10	512	0.62	9.20
71	25	2900	41	113	0.46	2.77	293	1.28	3.72	293	1.28	3.72	364	1.58	3.58
		1450	20	113	0.22	3.57	314	0.69	5.42	314	0.69	5.42	364	0.79	6.28
		960	14	113	0.15	3.86	328	0.47	6.83	328	0.47	6.83	364	0.52	8.46
		725	10	113	0.11	3.86	337	0.37	7.10	337	0.37	7.10	364	0.40	9.20
90	27	2900	32	105	0.37	2.89	264	1.02	4.00	264	1.02	4.00	-	-	-
		1450	16	112	0.20	3.73	283	0.54	5.91	283	0.54	5.91	-	-	-
		960	11	112	0.13	3.86	295	0.38	7.10	295	0.38	7.10	-	-	-
		725	8	112	0.10	3.86	303	0.29	7.10	303	0.29	7.10	-	-	-
100	28	2900	29	-	-	-	235	0.80	4.27	235	0.80	4.27	-	-	-
		1450	15	-	-	-	252	0.43	6.33	252	0.43	6.33	-	-	-
		960	10	-	-	-	263	0.30	7.10	263	0.30	7.10	-	-	-
		725	7	-	-	-	270	0.23	7.10	270	0.23	7.10	-	-	-



DOUBLE REDUCTION RATINGS SIZES 784-786

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	784 Output Torque (Nm)	784 Input Power (kW)	784 Overhung Load Fra (kN)	785 Output Torque (Nm)	785 Input Power (kW)	785 Overhung Load Fra (kN)	786 Output Torque (Nm)	786 Input Power (kW)	786 Overhung Load Fra (kN)
7.1	05	2900	408	380	19.20	1.85	560	26.10	2.05	908	41.30	2.12
		1450	204	468	11.80	2.63	564	13.10	2.89	914	20.70	3.02
		960	135	509	8.44	3.22	565	8.65	3.54	917	13.70	3.74
		725	102	509	6.38	3.71	566	6.53	4.05	918	10.30	4.31
9.0	07	2900	322	465	16.70	2.20	771	25.90	2.41	1290	41.30	2.54
		1450	161	573	10.20	3.11	783	13.10	3.39	1300	20.70	3.62
		960	107	649	7.66	3.83	784	8.65	4.15	1300	13.70	4.46
		725	81	665	5.92	4.42	785	6.53	4.76	1300	10.30	5.16
10	08	2900	290	495	15.80	2.33	822	24.50	2.55	1440	41.30	2.68
		1450	145	610	9.72	3.30	880	13.10	3.59	1450	20.70	3.81
		960	96	691	7.27	4.06	881	8.65	4.39	1450	13.70	4.72
		725	73	717	5.69	4.68	882	6.53	5.06	1450	10.30	5.43
12	10	2900	242	526	15.00	2.47	866	23.50	2.67	1550	39.80	2.83
		1450	121	649	9.20	3.49	968	13.10	3.75	1610	20.70	4.04
		960	80	718	6.74	4.29	969	8.65	4.62	1610	13.70	4.99
		725	60	719	5.09	4.96	970	6.53	5.29	1610	10.30	5.75
14	11	2900	207	593	13.30	2.78	986	20.40	3.05	1750	34.90	3.23
		1450	104	730	8.15	3.94	1210	12.50	4.30	2080	20.70	4.61
		960	69	808	5.96	4.85	1270	8.65	5.25	2090	13.70	5.70
		725	52	808	4.50	5.60	1270	6.53	6.06	2090	10.30	6.60
16	12	2900	181	629	12.40	2.96	1050	19.10	3.25	1850	32.70	3.42
		1450	91	775	7.63	4.19	1290	11.70	4.56	2270	20.10	4.89
		960	60	825	5.37	5.16	1440	8.65	5.61	2340	13.70	6.02
		725	45	825	4.06	5.96	1440	6.53	6.41	2340	10.30	7.01
20	14	2900	145	681	11.30	3.23	1140	17.20	3.58	2020	29.20	3.80
		1450	73	838	6.92	4.59	1410	10.50	5.02	2490	17.90	5.43
		960	48	842	4.60	5.66	1520	7.54	6.19	2810	13.40	6.68
		725	36	842	3.47	6.49	1520	5.69	7.11	2870	10.30	7.73
22	15	2900	132	723	10.40	3.47	1190	16.20	3.74	2120	27.20	4.04
		1450	66	741	5.31	4.92	1470	9.98	5.25	2610	16.70	5.75
		960	44	741	3.52	6.03	1590	7.14	6.48	2950	12.50	7.10
		725	33	741	2.66	6.96	1590	5.39	7.44	3170	10.10	8.26
25	16	2900	116	770	9.52	3.75	1260	14.90	4.02	2260	24.90	4.37
		1450	58	837	5.16	5.30	1550	9.18	5.66	2780	15.30	6.26
		960	38	837	3.42	6.58	1720	6.73	6.91	3150	11.40	7.73
		725	29	837	2.58	7.56	1720	5.08	7.96	3320	9.11	8.91
28	17	2900	104	798	8.83	3.96	1320	13.80	4.27	2320	23.10	4.61
		1450	52	880	4.86	5.60	1620	8.47	6.00	2690	13.40	6.60
		960	34	880	3.22	6.96	1830	6.35	7.32	2700	8.85	8.12
		725	26	880	2.43	8.00	1860	4.86	8.43	2700	6.68	9.51
32	18	2900	91	828	8.59	4.08	1380	13.10	4.48	2370	21.50	4.83
		1450	45	891	4.61	5.77	1690	8.03	6.33	2580	11.70	6.92
		960	30	892	3.06	7.18	1750	5.48	7.68	2580	7.74	8.57
		725	23	892	2.31	8.16	1750	4.14	9.00	2580	5.85	9.98
36	19	2900	81	882	7.72	4.44	1450	12.00	4.79	2450	19.70	5.12
		1450	40	887	3.88	6.32	1790	7.40	6.73	2770	11.10	7.29
		960	27	887	2.57	7.84	1800	4.93	8.26	2770	7.34	9.10
		725	20	887	1.94	8.94	1800	3.72	9.45	2770	5.54	10.53
40	20	2900	73	889	7.30	4.62	1520	11.10	5.10	2510	17.80	5.47
		1450	36	890	3.65	6.58	1780	6.51	7.21	2910	10.30	7.85
		960	24	890	2.41	8.00	1780	4.31	8.80	2910	6.84	9.74
		725	18	890	1.82	9.43	1780	3.25	10.28	2910	5.16	11.19
50	22	2900	58	890	5.89	5.12	1570	9.92	5.47	2560	15.00	6.02
		1450	29	892	2.95	7.30	1790	5.66	7.68	3160	9.26	8.57
		960	19	893	1.95	8.94	1790	3.74	9.45	3160	6.13	10.84
		725	15	893	1.47	10.33	1790	2.83	10.98	3160	4.63	12.44
56	23	2900	52	891	5.01	5.60	1620	8.62	5.94	2620	13.20	6.53
		1450	26	892	2.50	8.00	1840	4.88	8.43	3300	8.31	9.30
		960	17	893	1.66	9.70	1840	3.23	10.28	3380	5.63	11.56
		725	13	893	1.25	11.30	1840	2.44	11.84	3380	4.25	13.54
63	24	2900	46	858	4.41	5.83	1640	7.97	6.26	2670	12.30	6.84
		1450	23	892	2.29	8.34	1840	4.48	8.80	3370	7.73	9.74
		960	15	893	1.52	10.33	1840	2.96	10.98	3390	5.14	11.97
		725	12	893	1.15	11.30	1840	2.24	12.35	3390	3.88	14.22
71	25	2900	41	673	2.83	6.49	1490	6.05	6.82	2740	10.20	7.62
		1450	20	699	1.47	9.18	1590	3.23	9.70	3390	6.34	10.84
		960	14	729	1.01	11.30	1650	2.21	11.84	3390	4.20	13.54
		725	10	750	0.79	11.30	1650	1.67	13.63	3390	3.17	15.93
90	27	2900	32	595	2.25	6.86	1220	4.30	7.32	2760	9.47	7.98
		1450	16	619	1.17	9.70	1270	2.23	10.28	3300	5.65	11.56
		960	11	645	0.80	11.30	1290	1.51	12.94	3300	3.74	14.22
		725	8	659	0.62	11.30	1290	1.14	14.44	3300	2.82	17.05
100	28	2900	29	468	1.58	7.30	1070	3.41	7.68	2700	8.06	8.57
		1450	15	469	0.79	10.33	1100	1.75	10.98	2690	4.03	12.44
		960	10	469	0.52	11.30	1100	1.16	13.63	2920	2.89	15.00
		725	7	469	0.40	11.30	1100	0.87	15.42	2940	2.19	18.45

DOUBLE REDUCTION RATINGS SIZES 787-790

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	787 Output Torque (Nm)	787 Input Power (kW)	787 Overhung Load Fra (kN)	788 Output Torque (Nm)	788 Input Power (kW)	788 Overhung Load Fra (kN)	789 Output Torque (Nm)	789 Input Power (kW)	789 Overhung Load Fra (kN)	790 Output Torque (Nm)	790 Input Power (kW)	790 Overhung Load Fra (kN)
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	01	1450	322	-	-	-	-	-	-	3798	125.50	17.90	4115	133.10	21.80
		960	213	-	-	-	-	-	-	3798	81.65	21.30	4115	86.55	25.80
		725	161	-	-	-	-	-	-	3798	61.45	23.90	4115	65.15	28.80
		2900	580	-	-	-	-	-	-						
5.0	02	1450	290	1960	60.30	32.00	2560	78.20	43.00	4326	125.50	18.10	4445	133.10	22.20
		960	192	2220	45.20	32.00	2560	51.80	43.00	4326	81.65	21.80	4445	86.55	26.30
		725	145	2420	37.10	32.00	2560	39.10	43.00	4326	61.45	24.50	4445	65.15	29.40
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6	03	1450	259	-	-	-	-	-	-	4642	125.50	18.40	5097	133.10	22.70
		960	171	-	-	-	-	-	-	4642	81.65	22.10	5097	86.55	27.00
		725	129	-	-	-	-	-	-	4642	61.45	24.90	5097	65.15	30.30
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3	04	1450	230	2270	54.20	32.00	3020	73.60	43.00	5288	125.50	18.60	5505	133.10	23.10
		960	152	2570	40.50	32.00	3220	51.80	43.00	5288	81.65	22.40	5505	86.55	27.50
		725	115	2800	33.20	32.00	3220	39.10	43.00	5288	61.45	25.30	5505	65.15	30.80
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
7.1	05	1450	204	2340	52.30	32.00	3200	70.00	43.00	6037	125.50	18.90	6500	133.10	23.60
		960	135	2650	39.10	32.00	3580	51.80	43.00	6037	81.65	22.90	6500	86.55	28.30
		725	102	2890	32.10	32.00	3580	39.10	43.00	6037	61.45	25.90	6500	65.15	31.80
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
8.0	06	1450	181	2490	49.50	32.00	3340	67.20	43.00	6852	125.50	18.90	7021	133.10	23.90
		960	120	2820	37.00	32.00	3780	50.30	43.00	6852	81.65	23.10	7021	86.55	28.70
		725	91	3070	30.40	32.00	3900	39.10	43.00	6852	61.45	26.30	7021	65.15	32.30
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
9.0	07	1450	161	2640	46.80	32.00	3560	63.10	43.00	7141	122.20	19.30	8166	133.10	24.20
		960	107	2990	35.00	32.00	4040	47.20	43.00	7192	80.04	23.60	8166	86.55	29.30
		725	81	3250	28.80	32.00	4390	38.80	43.00	7192	60.25	26.80	8166	65.15	33.10
		2900	-	-	-	-	-	-	-	-	-	-	-	-	-
10	08	1450	145	2850	44.00	32.00	3770	60.40	43.00	7224	108.50	20.30	8820	133.10	24.50
		960	96	3220	32.90	32.00	4270	45.20	43.00	8193	80.03	23.60	8820	86.55	29.70
		725	73	3510	27.00	32.00	4550	37.10	43.00	8193	60.23	27.00	8820	65.15	33.60
		2900	264	-	-	-	-	-	-	6328	167.30	16.50	-	-	-
11	09	1450	132	2990	41.10	32.00	4040	55.00	43.00	7791	103.00	21.00	10268	133.10	24.60
		960	87	3380	30.80	32.00	4580	41.10	43.00	8370	71.94	25.00	10268	86.55	30.10
		725	66	3680	25.30	32.00	4980	33.80	43.00	8370	54.15	28.50	10268	65.15	34.20
		2900	242	-	-	-	-	-	-	6340	147.20	17.50	-	-	-
12	10	1450	121	3140	38.60	32.00	4170	52.50	43.00	7806	90.61	22.20	11090	133.10	24.50
		960	80	3550	28.90	32.00	4720	39.30	43.00	8881	67.04	25.80	11090	86.55	30.40
		725	60	3850	23.60	32.00	5140	32.30	43.00	9434	54.17	28.70	11090	65.15	34.60
		2900	207	-	-	-	-	-	-	6733	147.60	17.60	-	-	-
14	11	1450	104	3390	36.20	32.00	4530	49.00	43.00	8289	90.86	22.40	11993	129.40	21.40
		960	69	3840	27.10	32.00	5130	36.70	43.00	8744	62.34	26.90	11993	84.14	30.90
		725	52	4180	22.20	32.00	5580	30.10	43.00	8744	46.92	30.60	11993	63.33	35.20
		2900	181	-	-	-	-	-	-	6708	129.10	18.60	10138	202.50	15.90
16	12	1450	91	3550	33.90	32.00	4670	46.80	43.00	8258	79.47	23.70	12954	129.40	19.00
		960	60	4020	25.40	32.00	5290	35.00	43.00	9396	58.80	27.60	12954	84.16	31.10
		725	45	4310	20.50	32.00	5750	28.80	43.00	9960	46.92	30.80	12954	63.34	35.60
		2900	161	-	-	-	-	-	-	7357	122.68	19.30	10577	178.30	17.00
18	13	1450	81	3610	32.00	32.00	4910	42.40	43.00	9058	75.52	24.60	13884	116.99	17.90
		960	53	4090	24.00	32.00	5560	31.70	43.00	10120	54.87	28.80	15151	83.03	26.10
		725	40	4310	19.10	32.00	6050	26.10	43.00	10120	41.30	32.80	15254	62.92	35.90
		2900	145	-	-	-	-	-	-	7282	106.59	20.50	11409	178.10	14.90
20	14	1450	73	3760	29.20	32.00	5150	39.30	43.00	8965	65.61	26.10	14966	116.78	15.10
		960	48	4240	21.80	32.00	5830	29.40	43.00	10200	48.55	30.30	15852	80.44	26.10
		725	36	4240	16.50	32.00	6340	24.10	43.00	10617	38.04	34.10	15957	60.95	36.70
		2900	132	3300	45.60	32.00	4440	61.20	43.00	7854	104.91	20.90	11145	146.10	20.60
22	15	1450	66	4070	28.00	32.00	5470	37.60	43.00	9669	64.58	26.60	14520	95.85	22.40
		960	44	4310	19.60	32.00	6190	28.10	43.00	10120	43.96	31.90	16005	68.24	31.30
		725	33	4310	14.80	32.00	6740	23.10	43.00	10120	33.09	36.30	16100	51.67	39.50
		2900	116	3480	42.10	32.00	4650	56.60	43.00	7732	90.66	22.20	12019	145.90	18.50
25	16	1450	58	4280	25.80	32.00	5730	34.80	43.00	9519	55.81	28.30	15757	95.64	19.60
		960	38	4310	17.20	32.00	6480	26.00	43.00	10617	40.48	33.10	15946	62.95	36.10
		725	29	4310	13.00	32.00	7050	21.40	43.00	10617	30.47	37.70	16039	47.65	41.20
		2900	104	3220	35.50	32.00	4730	52.80	43.00	8433	88.93	22.60	11582	119.90	25.30
28	17	1450	52	4060	22.30	32.00	5820	32.40	43.00	10120	53.36	29.10	15188	78.64	28.10
		960	34	4240	15.40	32.00	6400	23.50	43.00	10120	34.70	35.50	16086	54.17	38.60
		725	26	4240	11.60	32.00	6400	17.80	43.00	10120	26.12	40.30	16172	40.99	44.10
		2900	91	3250	32.30	32.00	4910	49.30	43.00	8302	76.88	24.10	12488	119.80	23.20
32	18	1450	45	4110	20.30	32.00	6040	30.30	43.00	10221	47.32	30.70	15874	76.11	28.30
		960	30	4240	13.90	32.00	6400	21.20	43.00	10617	31.97	36.90	16024	49.97	40.30
		725	23	4240	10.50	32.00	6400	15.00	43.00	10617	24.06	41.80	16108	37.81	45.90
		2900	81	3960	33.80	32.00	5240	46.60	43.00	9043	77.46	24.30	11943	100.40	28.40
36	19	1450	40	4310	18.40	32.00	6460	28.60	43.00	10120	43.35	32.10	15465	64.03	35.20
		960	27	4310	12.20	32.00	7250	21.30	43.00	10120	28.19	39.00	16150	44.17	42.50
		725	20	4310	9.18	32.00	7250	16.00	43.00	10120	21.22	44.10	16229	33.41	48.40



DOUBLE REDUCTION RATINGS SIZES 784-786

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	787 Output Torque (Nm)	787 Input Power (kW)	787 Overhung Load Fra (kN)	788 Output Torque (Nm)	788 Input Power (kW)	788 Overhung Load Fra (kN)	789 Output Torque (Nm)	789 Input Power (kW)	789 Overhung Load Fra (kN)	790 Output Torque (Nm)	790 Input Power (kW)	790 Overhung Load Fra (kN)
40	20	2900	73	4100	31.60	32.00	5440	43.50	43.00	8893	66.87	25.90	12874	100.3	27.90
		1450	36	4310	16.60	32.00	6690	26.70	43.00	10617	39.91	33.30	15951	62.10	36.30
		960	24	4310	11.00	32.00	7250	19.10	43.00	10617	25.96	40.50	16087	40.73	44.40
		725	18	4310	8.27	32.00	7250	14.50	43.00	10617	19.54	45.80	16163	30.8	50.30
45	21	2900	64	3460	24.30	32.00	5570	39.30	43.00	8153	54.57	28.40	10498	71.86	32.80
		1450	32	4310	15.10	32.00	6400	22.50	43.00	8545	28.60	37.80	13655	46.74	40.90
		960	21	4310	10.00	32.00	6400	14.90	43.00	8710	18.96	45.10	14114	31.42	48.90
		725	16	4310	7.57	32.00	6400	11.20	43.00	8780	14.38	50.50	14233	23.85	55.10
50	22	2900	58	3500	22.30	32.00	5850	35.80	43.00	9287	54.58	28.50	11310	71.67	33.20
		1450	29	4240	13.50	32.00	6400	19.50	43.00	9733	28.60	38.40	14749	46.73	41.30
		960	19	4240	8.92	32.00	6400	12.90	43.00	9921	18.96	45.90	15244	31.41	49.60
		725	15	4240	6.73	32.00	6400	9.77	43.00	10000	14.38	51.60	15373	23.84	55.90
56	23	2900	52	4310	23.50	32.00	6160	34.60	43.00	7406	42.78	31.20	10598	58.74	35.90
		1450	26	4310	11.70	32.00	7250	20.30	43.00	7617	22.00	41.40	11213	31.08	47.50
		960	17	4310	7.77	32.00	7250	13.40	43.00	7720	14.50	49.10	11370	20.49	56.50
		725	13	4310	5.87	32.00	7250	10.10	43.00	7779	11.00	54.80	11458	15.54	62.20
63	24	2900	46	4310	21.30	32.00	6460	31.50	43.00	8435	42.77	31.60	11471	59.86	36.30
		1450	23	4310	10.60	32.00	7250	17.60	43.00	8677	22.00	42.20	12112	31.08	48.20
		960	15	4310	7.03	32.00	7250	11.70	43.00	8794	14.50	50.20	12281	20.49	57.40
		725	12	4310	5.31	32.00	7250	8.82	43.00	8860	11.00	56.00	12376	15.54	62.20
71	25	2900	41	3610	16.80	32.00	6160	27.90	43.00	-	-	-	-	-	-
		1450	20	3950	9.16	32.00	6170	14.00	43.00	-	-	-	-	-	-
		960	14	3950	6.06	32.00	6170	9.25	43.00	-	-	-	-	-	-
		725	10	3950	4.58	32.00	6170	6.98	43.00	-	-	-	-	-	-
80	26	2900	36	3610	14.90	32.00	5600	23.70	43.00	-	-	-	-	-	-
		1450	18	3660	7.56	32.00	5610	11.80	43.00	-	-	-	-	-	-
		960	12	3660	5.01	32.00	5610	7.84	43.00	-	-	-	-	-	-
		725	9	3660	3.78	32.00	5610	5.92	43.00	-	-	-	-	-	-
90	27	2900	32	4310	15.50	32.00	7080	25.60	43.00	-	-	-	-	-	-
		1450	16	4310	7.75	32.00	7250	13.10	43.00	-	-	-	-	-	-
		960	11	4310	5.13	32.00	7250	8.66	43.00	-	-	-	-	-	-
		725	8	4310	3.87	32.00	7250	6.54	43.00	-	-	-	-	-	-
100	28	2900	29	4310	13.80	32.00	7040	23.70	43.00	-	-	-	-	-	-
		1450	15	4310	6.91	32.00	7040	11.80	43.00	-	-	-	-	-	-
		960	10	4310	4.57	32.00	7050	7.84	43.00	-	-	-	-	-	-
		725	7	4310	3.45	32.00	7050	5.92	43.00	-	-	-	-	-	-

TRIPLE REDUCTION RATINGS SIZES 780-783

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	780			781			782			783		
				Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)	Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)	Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)	Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)
80	35	2900	36	-	-	-	-	-	-	-	-	-	448	1.82	3.81
		1450	18	-	-	-	-	-	-	-	-	-	530	1.07	6.55
		960	12	-	-	-	-	-	-	-	-	-	617	0.82	9.00
		725	9	-	-	-	-	-	-	-	-	-	685	0.69	9.20
90	36	2900	32	128	0.45	2.93	-	-	-	-	-	-	433	1.59	4.08
		1450	16	129	0.23	3.81	-	-	-	-	-	-	519	0.95	7.19
		960	11	135	0.16	3.86	-	-	-	-	-	-	605	0.73	9.20
		725	8	141	0.12	3.86	-	-	-	-	-	-	673	0.62	9.20
100	37	2900	29	129	0.41	3.04	303	0.98	4.43	303	0.98	4.43	447	1.43	4.51
		1450	15	129	0.20	3.86	366	0.59	6.57	366	0.59	6.57	547	0.87	7.98
		960	10	137	0.14	3.86	417	0.44	7.10	417	0.44	7.10	638	0.67	9.20
		725	7	144	0.11	3.86	424	0.34	7.10	424	0.34	7.10	710	0.57	9.20
112	38	2900	26	129	0.37	3.17	309	0.90	4.70	309	0.90	4.70	457	1.35	4.91
		1450	13	130	0.19	3.86	380	0.55	6.83	380	0.55	6.83	566	0.83	8.46
		960	9	139	0.13	3.86	423	0.41	7.10	423	0.41	7.10	660	0.64	9.20
		725	6	146	0.10	3.86	425	0.31	7.10	425	0.31	7.10	735	0.54	9.20
125	39	2900	23	129	0.32	3.32	319	0.85	4.91	319	0.85	4.91	480	1.18	5.60
		1450	12	133	0.16	3.86	398	0.53	7.10	398	0.53	7.10	609	0.74	9.20
		960	8	143	0.12	3.86	429	0.38	7.10	429	0.38	7.10	712	0.58	9.20
		725	6	147	0.09	3.86	429	0.28	7.10	429	0.28	7.10	771	0.47	9.20
160	41	2900	18	129	0.27	3.57	332	0.75	5.42	332	0.75	5.42	502	1.03	6.55
		1450	9	138	0.14	3.86	413	0.47	7.10	413	0.47	7.10	650	0.66	9.20
		960	6	147	0.10	3.86	431	0.32	7.10	431	0.32	7.10	761	0.51	9.20
		725	5	147	0.08	3.86	431	0.24	7.10	431	0.24	7.10	771	0.39	9.20
180	42	2900	16	129	0.23	3.81	348	0.66	5.91	348	0.66	5.91	526	0.96	7.19
		1450	8	141	0.12	3.86	425	0.40	7.10	425	0.40	7.10	682	0.62	9.20
		960	5	147	0.09	3.86	433	0.27	7.10	433	0.27	7.10	771	0.46	9.20
		725	4	147	0.07	3.86	433	0.20	7.10	433	0.20	7.10	771	0.35	9.20
200	43	2900	15	129	0.21	3.86	376	0.61	6.57	376	0.61	6.57	561	0.88	7.98
		1450	7	144	0.11	3.86	436	0.35	7.10	436	0.35	7.10	728	0.57	9.20
		960	5	147	0.08	3.86	441	0.24	7.10	441	0.24	7.10	771	0.40	9.20
		725	4	147	0.06	3.86	441	0.18	7.10	441	0.18	7.10	771	0.30	9.20
225	44	2900	13	132	0.17	3.86	390	0.57	6.83	390	0.57	6.83	591	0.81	9.00
		1450	6	147	0.10	3.86	441	0.32	7.10	441	0.32	7.10	731	0.50	9.20
		960	4	147	0.06	3.86	441	0.21	7.10	441	0.21	7.10	762	0.35	9.20
		725	3	147	0.05	3.86	441	0.16	7.10	441	0.16	7.10	771	0.27	9.20
280	46	2900	10	132	0.16	3.86	408	0.49	7.10	408	0.49	7.10	621	0.75	9.20
		1450	5	147	0.08	3.86	442	0.27	7.10	442	0.27	7.10	651	0.39	9.20
		960	3	147	0.06	3.86	442	0.18	7.10	442	0.18	7.10	679	0.27	9.20
		725	3	147	0.04	3.86	442	0.13	7.10	442	0.13	7.10	699	0.21	9.20
315	47	2900	9	138	0.14	3.86	418	0.44	7.10	418	0.44	7.10	-	-	-
		1450	5	147	0.07	3.86	432	0.23	7.10	432	0.23	7.10	-	-	-
		960	3	147	0.05	3.86	432	0.15	7.10	432	0.15	7.10	-	-	-
		725	2	147	0.04	3.86	432	0.11	7.10	432	0.11	7.10	-	-	-
360	50	2900	8	-	-	-	401	0.37	7.10	401	0.37	7.10	-	-	-
		1450	4	-	-	-	425	0.20	7.10	425	0.20	7.10	-	-	-
		960	3	-	-	-	425	0.13	7.10	425	0.13	7.10	-	-	-
		725	2	-	-	-	425	0.10	7.10	425	0.10	7.10	-	-	-

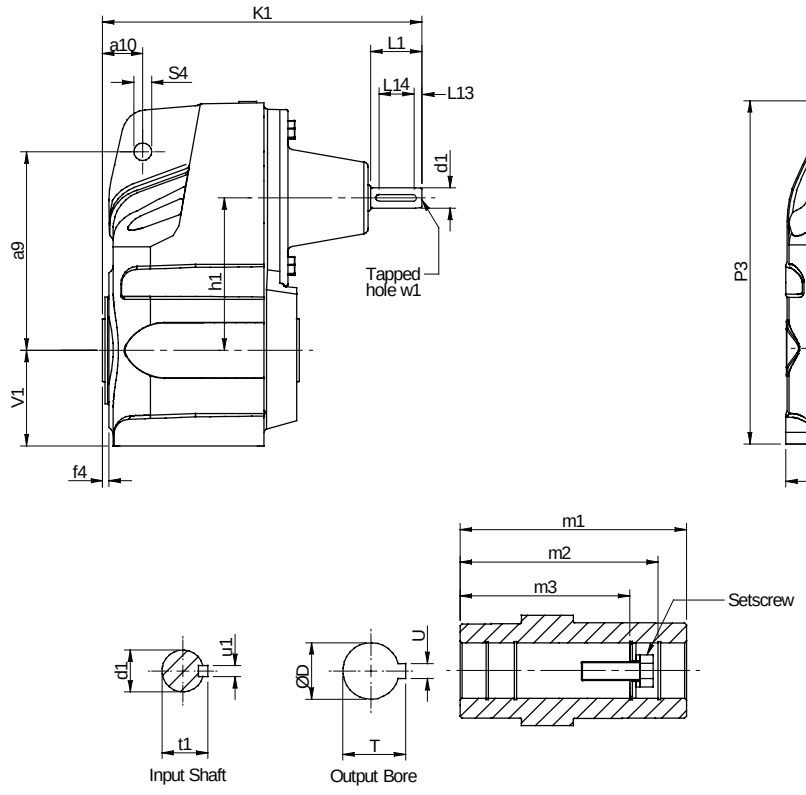


TRIPLE REDUCTION RATINGS SIZES 784-786

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	784			785			786		
				Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)	Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)	Output Torque (Nm)	Input Power (kW)	Overhung Load Fra (kN)
100	37	2900	29	578	1.82	4.62	1060	3.11	8.10	3100	8.70	8.91
		1450	15	682	1.07	8.36	1240	1.82	11.38	3390	4.72	12.95
		960	10	795	0.82	11.30	1430	1.38	14.44	3390	3.12	15.93
		725	7	883	0.69	11.30	1580	1.16	16.63	3390	2.36	18.45
112	38	2900	26	557	1.59	5.09	1010	2.80	8.26	3000	7.69	9.30
		1450	13	668	0.95	9.53	1190	1.63	11.84	3390	4.31	13.54
		960	9	779	0.73	11.30	1380	1.25	14.44	3390	2.85	17.05
		725	6	866	0.62	11.30	1530	1.05	16.63	3390	2.15	19.70
125	39	2900	23	576	1.43	5.68	1060	2.47	9.00	3120	7.05	9.98
		1450	12	704	0.87	10.27	1270	1.47	12.94	3390	3.81	14.22
		960	8	822	0.67	11.30	1470	1.13	15.42	3390	2.52	18.45
		725	6	915	0.57	11.30	1640	0.95	17.00	3390	1.90	19.00
160	41	2900	18	589	1.35	6.16	1080	2.35	9.45	3220	6.45	10.53
		1450	9	729	0.83	11.15	1300	1.41	13.63	3390	3.38	15.00
		960	6	851	0.64	11.30	1510	1.09	16.63	3390	2.23	18.45
		725	5	932	0.53	11.30	1680	0.91	17.00	3440	1.71	19.70
180	42	2900	16	618	1.18	7.08	1140	2.00	10.61	3380	5.59	11.97
		1450	8	784	0.74	11.30	1420	1.24	15.42	3390	2.79	17.05
		960	5	917	0.58	11.30	1650	0.96	17.00	3390	1.85	19.00
		725	4	959	0.45	11.30	1840	0.80	17.00	3540	1.45	19.70
200	43	2900	15	647	1.03	8.36	1190	1.77	11.38	3390	4.81	12.95
		1450	7	837	0.66	11.30	1510	1.12	16.63	3390	2.40	18.45
		960	5	944	0.50	11.30	1770	0.87	17.00	3480	1.62	19.70
		725	4	988	0.39	11.30	1970	0.73	17.00	3600	1.27	19.70
225	44	2900	13	677	0.96	9.53	1220	1.66	11.84	3390	4.38	13.54
		1450	6	878	0.62	11.30	1570	1.06	17.00	3390	2.18	19.70
		960	4	962	0.45	11.30	1830	0.82	17.00	3530	1.50	19.70
		725	3	1010	0.35	11.30	2040	0.69	17.00	3600	1.15	19.70
280	46	2900	10	722	0.88	11.30	1310	1.46	12.94	3390	3.57	15.00
		1450	5	923	0.56	11.30	1700	0.94	17.00	3420	1.79	19.70
		960	3	985	0.39	11.30	1990	0.73	17.00	3600	1.25	19.70
		725	3	1010	0.31	11.30	2120	0.59	17.00	3600	0.94	19.70
315	47	2900	9	761	0.81	11.30	1400	1.39	13.63	3390	3.27	15.93
		1450	5	941	0.50	11.30	1810	0.90	17.00	3460	1.66	19.70
		960	3	981	0.35	11.30	2100	0.69	17.00	3600	1.14	19.70
		725	2	1010	0.27	11.30	2120	0.53	17.00	3600	0.86	19.70
360	50	2900	8	800	0.75	11.30	1460	1.30	14.44	3390	2.85	17.05
		1450	4	839	0.39	11.30	1780	0.79	17.00	3540	1.48	19.70
		960	3	875	0.27	11.30	1780	0.52	17.00	3600	1.00	19.70
		725	2	900	0.21	11.30	1780	0.40	17.00	3600	0.75	19.70

TRIPLE REDUCTION RATINGS SIZES 787-790

Nominal Ratio	Fenner Ratio Code	Input Speed rev/min	Nominal Output Speed rev/min	787 Output Torque (Nm)	787 Input Power (kW)	787 Overhung Load Fra (kN)	788 Output Torque (Nm)	788 Input Power (kW)	788 Overhung Load Fra (kN)	789 Output Torque (Nm)	789 Input Power (kW)	789 Overhung Load Fra (kN)	790 Output Torque (Nm)	790 Input Power (kW)	790 Overhung Load Fra (kN)
		2900	64	-	-	-	-	-	-	6470	42.49	30.70	-	-	-
45	30	1450	32	-	-	-	-	-	-	7965	26.15	38.90	15873	52.86	39.10
		960	21	-	-	-	-	-	-	9063	19.35	45.00	16216	35.12	47.30
		725	16	-	-	-	-	-	-	9869	15.86	49.60	16286	26.55	53.60
		2900	58	-	-	-	-	-	-	7369	42.49	31.10	-	-	-
50	31	1450	29	-	-	-	-	-	-	9073	26.16	39.50	16031	49.43	40.50
		960	19	-	-	-	-	-	-	10323	19.35	45.80	16153	32.39	49.20
		725	15	-	-	-	-	-	-	10617	14.98	51.20	16222	24.49	55.70
		2900	52	-	-	-	-	-	-	6965	37.47	32.70	14174	72.85	33.30
56	32	1450	26	-	-	-	-	-	-	8575	23.06	41.50	16169	41.55	43.80
		960	17	-	-	-	-	-	-	9756	17.07	48.00	16281	27.21	53.00
		725	13	-	-	-	-	-	-	10120	13.32	53.50	16343	20.56	60.00
		2900	46	-	-	-	-	-	-	7933	37.46	33.20	15310	72.85	32.10
63	33	1450	23	-	-	-	-	-	-	9767	23.06	42.10	16108	38.22	45.60
		960	15	-	-	-	-	-	-	10617	16.30	49.40	16216	25.09	55.10
		725	12	-	-	-	-	-	-	10617	12.27	55.70	16277	18.96	62.20
		2900	41	-	-	-	-	-	-	7641	31.67	35.60	15403	63.92	35.60
71	34	1450	20	-	-	-	-	-	-	9408	19.50	45.20	16227	33.67	48.20
		960	14	-	-	-	-	-	-	10120	13.64	53.00	16328	22.03	58.20
		725	10	-	-	-	-	-	-	10120	10.27	56.00	16385	16.54	62.20
		2900	36	-	-	-	-	-	-	8704	31.67	36.20	15958	61.31	36.60
80	35	1450	18	-	-	-	-	-	-	10617	19.32	46.00	16164	31.05	50.20
		960	12	-	-	-	-	-	-	10617	12.56	55.10	16263	20.32	60.40
		725	9	-	-	-	-	-	-	10617	9.46	56.00	16317	15.34	62.20
		2900	32	-	-	-	-	-	-	8354	27.63	38.30	16102	51.61	39.50
90	36	1450	16	-	-	-	-	-	-	10120	16.73	48.70	16290	26.11	54.00
		960	11	-	-	-	-	-	-	10120	10.88	56.00	16380	17.07	62.20
		725	8	-	-	-	-	-	-	10120	8.19	56.00	16430	12.89	62.20
		2900	29	4130	13.34	32.00	6370	19.62	43.00	9516	27.63	38.80	16043	47.61	41.20
100	37	1450	15	4130	6.67	32.00	6370	9.81	43.00	10617	15.41	50.60	16226	24.08	56.10
		960	10	4130	4.42	32.00	6370	6.49	43.00	10617	10.02	56.00	16313	15.74	62.20
		725	7	4130	3.34	32.00	6370	4.91	43.00	10617	7.54	56.00	16361	11.88	62.20
		2900	26	4130	12.00	32.00	6400	17.74	43.00	8801	23.76	41.40	16166	41.96	43.60
112	38	1450	13	4130	6.00	32.00	6400	8.87	43.00	10120	13.66	53.00	16337	21.20	59.20
		960	9	4130	3.97	32.00	6400	5.87	43.00	10120	8.88	56.00	16417	13.85	62.20
		725	6	4130	3.00	32.00	6400	4.44	43.00	10120	6.69	56.00	16463	10.46	62.20
		2900	23	4220	10.16	32.00	7250	17.80	43.00	10024	23.76	41.80	16105	38.70	45.40
125	39	1450	12	4220	5.08	32.00	7250	8.90	43.00	10617	12.58	55.10	16271	19.55	61.40
		960	8	4220	3.36	32.00	7250	5.89	43.00	10617	8.18	56.00	16349	12.77	62.20
		725	6	4220	2.54	32.00	7250	4.45	43.00	10617	6.16	56.00	16393	9.64	62.20
		2900	21	4220	9.14	32.00	7250	16.02	43.00	9664	20.56	44.40	16219	34.72	47.50
		1450	10	4220	4.57	32.00	7250	8.01	43.00	10120	10.76	56.00	16375	17.53	62.20
140	40	960	7	4220	3.03	32.00	7250	5.30	43.00	10120	7.00	56.00	16449	11.45	62.20
		725	5	4220	2.29	32.00	7250	4.01	43.00	10120	5.27	56.00	16490	8.64	62.20
		2900	18	4310	8.52	32.00	6400	12.44	43.00	10617	19.83	45.50	16156	32.03	49.50
160	41	1450	9	4310	4.26	32.00	6400	6.22	43.00	10617	9.91	56.00	16308	16.16	62.20
		960	6	4310	2.82	32.00	6400	4.12	43.00	10617	6.45	56.00	16379	10.56	62.20
		725	5	4310	2.13	32.00	6400	3.11	43.00	10617	4.85	56.00	16409	7.97	62.20
		2900	16	4310	7.70	32.00	6400	10.80	43.00	10120	17.02	48.40	16283	26.90	53.30
180	42	1450	8	4310	3.85	32.00	6400	5.40	43.00	10120	8.51	56.00	16421	13.56	62.20
		960	5	4310	2.55	32.00	6400	3.58	43.00	10120	5.53	56.00	16486	8.86	62.20
		725	4	4310	1.93	32.00	6400	2.70	43.00	10120	4.17	56.00	16523	6.68	62.20
		2900	15	4230	6.48	32.00	7250	11.24	43.00	10617	15.68	50.30	16219	24.81	55.40
200	43	1450	7	4230	3.24	32.00	7250	5.62	43.00	10617	7.84	56.00	16353	12.51	62.20
		960	5	4230	2.15	32.00	7250	3.72	43.00	10617	5.10	56.00	16416	8.17	62.20
		725	4	4230	1.62	32.00	7250	2.81	43.00	10617	3.84	56.00	16451	6.16	62.20
		2900	13	4230	5.86	32.00	7250	9.76	43.00	10120	13.44	53.30	16334	21.31	59.00
225	44	1450	6	4230	2.93	32.00	7250	4.88	43.00	10120	6.72	56.00	16459	10.74	62.20
		960	4	4230	1.94	32.00	7250	3.23	43.00	10120	4.37	56.00	16517	7.01	62.20
		725	3	4230	1.47	32.00	7250	2.44	43.00	10120	3.29	56.00	16549	5.28	62.20
		2900	12	4310	5.62	32.00	6400	8.00	43.00	10617	12.38	55.50	16289	19.65	61.30
		1450	6	4310	2.81	32.00	6400	4.00	43.00	10617	6.19	56.00	16389	9.90	62.20
250	45	960	4	4310	1.86	32.00	6400	2.65	43.00	10617	4.03	56.00	16445	6.46	62.20
		725	3	4310	1.41	32.00	6400	2.00	43.00	10617	3.03	56.00	16447	4.87	62.20
		2900	10	4310	5.00	32.00	6400	7.46	43.00	10120	10.93	56.00	16379	17.19	62.20
280	46	1450	5	4310	2.50	32.00	6400	3.73	43.00	10120	5.47	56.00	16489	8.65	62.20
		960	3	4310	1.66	32.00	6400	2.47	43.00	10120	3.55	56.00	16542	5.65	62.20
		725	3	4310	1.25	32.00	6400	1.87	43.00	10120	2.68	56.00	16560	4.25	62.20
		2900	9	4230	4.28	32.00	7250	7.22	43.00	10617	10.07	56.00	16311	15.85	62.20
315	47	1450	5	4230	2.14	32.00	7250	3.61	43.00	10617	5.03	56.00	16419	7.98	62.20
		960	3	4230	1.42	32.00	7250	2.39	43.00	10617	3.27	56.00	16470	5.20	62.20
		725	2	4230	1.07	32.00	7250	1.81	43.00	10617	2.46	56.00	16498	3.92	62.20
		2900	8	4230	3.80	32.00	7250	6.74	43.00	-	-	-	-	-	-
360	50	1450	4	4230	1.90	32.00	7250	3.37	43.00	-	-	-	-	-	-
		960	3	4230	1.26	32.00	7250	2.23	43.00	-	-	-	-	-	-
		725	2	4230	0.95	32.00	7250	1.69	43.00	-	-	-	-	-	-



Unit Size	Reduction	a9	a10	C4	f4	h1	K1	O7	P3	S4	V1
780	Double Triple	140	25	15	5	96	231 246	150	224	15	59
781	Double Triple	158	32	16	5	121	252 265	171	273	15	76
782	Double Triple	170	32	16	5	121	252 265	171	273	15	76
783	Double Triple	198	41	16	5	144	288 296	206	318	15	80
784	Double Triple	218	41	16	6	165	299 307	231	365	15	101
785	Double Triple	278	50	20	7	200	337 349	282	442	24	127
786	Double Triple	346	62	26	3	243	418 403	346	536	24	156
787	Double Triple	395	70	30	5	274	491 493	400	612	27	175
788	Double Triple	485	88	36	5.5	332	576 578	470	748	27	216

Unit Size	Reduction	Input Shaft						
		d1 (k6)	L1	L13	L14	t1	u1	w1
780	Double	16	40	4	32	18	5	M5x12
	Triple	16	40	4	32	18	5	M5x12
781	Double	16	40	4	32	18	5	M5x12
	Triple	16	40	4	32	18	5	M5x12
782	Double	16	40	4	32	18	5	M5x12
	Triple	16	40	4	32	18	5	M5x12
783	Double	19	40	4	32	21.5	6	M6x16
	Triple	16	40	4	32	18	5	M5x12
784	Double	19	40	4	32	21.5	6	M6x16
	Triple	16	40	4	32	18	5	M5x12
785	Double	24	50	5	40	27	8	M8x19
	Triple	19	40	4	32	21.5	6	M6x16
786	Double	28	60	5	50	31	8	M10x22
	Triple	24	50	5	40	27	8	M8x19
787	Double	38	80	5	70	41	10	M12x28
	Triple	28	60	5	50	31	8	M10x22
788	Double	42	110	10	70	45	12	M16x36
	Triple	38	80	5	70	41	10	M12x28

Unit Size	Hollow Output Bore					
	D	m1	m2	m3	T	U
780	25	117.5	105	89	29	8
781	30	156.5	122	105	33.5	8
782	35	156.5	132	122	38.5	10
783	40	179	174	142	43.5	12
784	40	205	174	156	43.5	12
785	50	233.5	198	183	54	14
786	60	270	230	210	64.6	18
787	70	330	270	-	75	20
788	80	370	313	-	85.5	22

Exact Ratios

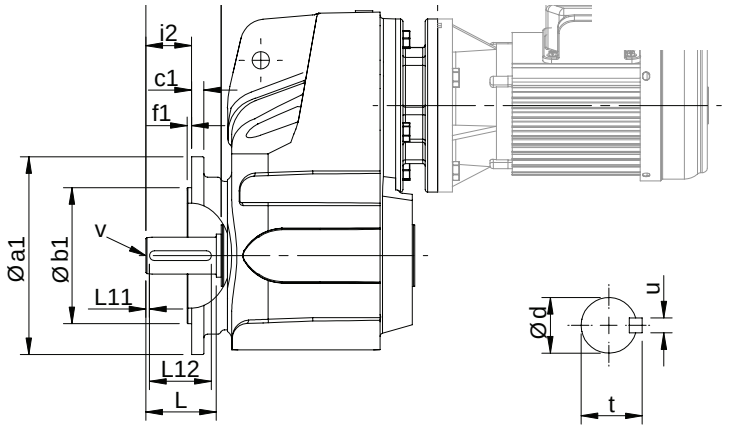
DOUBLE REDUCTION

Ratio Code	780	781	782	783	784	785	786	787	788	789	790
01	-	-	-	-	-	-	-	-	-	4.530	4.630
02	-	-	-	4.841	-	-	-	5.085	5.107	5.160	5.000
03	-	-	-	-	-	-	-	-	-	5.530	5.730
04	5.903	-	-	6.806	-	-	-	6.567	6.433	6.300	6.190
05	7.974	6.262	6.262	7.628	6.224	6.772	6.959	7.000	7.133	7.200	7.310
06	-	-	-	-	-	-	-	7.846	7.758	8.200	7.900
07	9.069	8.784	8.784	8.563	8.750	9.380	9.865	8.807	8.810	8.750	9.190
08	10.27	9.680	9.680	10.87	9.807	10.54	10.96	10.13	9.772	9.970	9.920
09	-	-	-	-	-	-	-	11.35	11.48	11.33	11.55
10	13.14	10.99	10.99	12.33	11.009	11.59	12.19	12.68	12.39	12.90	12.48
11	14.16	13.96	13.96	14.70	13.98	15.13	15.76	14.66	14.46	13.66	13.88
12	17.88	15.86	15.86	16.93	15.85	17.21	17.70	16.37	15.61	15.56	14.99
13	-	-	-	-	-	-	-	17.58	18.07	17. 96	17.77
14	20.27	19.46	19.46	19.69	18.90	20.89	21.70	20.04	20.46	20.46	19.19
15	23.16	21.59	21.59	22.03	21.76	22.98	24.45	22.70	22.76	22.42	22.84
16	25.77	24.52	24.52	23.48	25.31	26.41	28.46	25.88	25.77	25.54	24.67
17	28.41	27.86	27.86	27.83	28.32	29.95	31.57	28.41	28.04	28.40	28.92
18	31.26	30.68	30.68	29.71	30.18	33.03	34.55	31.56	31.16	32.34	31.23
19	36.63	35.30	35.30	36.87	35.77	37.83	39.09	36.69	35.32	34.96	35.61
20	43.94	38.37	38.37	43.47	38.19	42.77	44.13	40.76	39.25	39.83	38.46
21	-	-	-	-	-	-	-	44.58	44.43	45.04	43.75
22	51.22	46.07	46.07	47.60	47.40	49.59	53.49	49.22	51.19	51.30	47.26
23	56.91	55.28	55.28	58.34	55.89	59.14	62.38	57.58	55.97	51.85	53.75
24	68.54	62.29	62.29	65.02	61.20	64.77	68.52	63.56	64.49	59.06	58.06
25	78.56	72.41	72.41	72.92	75.00	77.72	83.97	67.71	69.24	-	-
26	-	-	-	-	-	-	-	76.14	74.39	-	-
27	89.28	82.18	82.18	-	83.59	89.42	91.70	87.44	87.21	-	-
28	-	93.43	93.43	-	93.75	99.36	105.60	98.32	93.70	-	-

TRIPLE REDUCTION

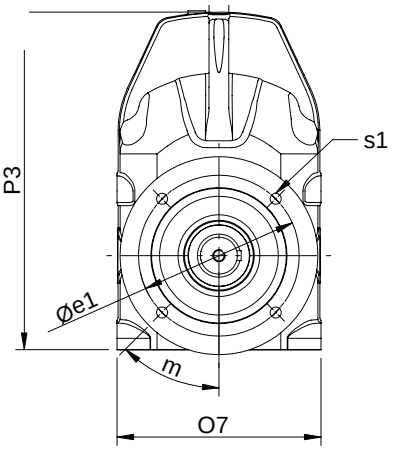
Ratio Code	780	781	782	783	784	785	786	787	788	789	790
30	-	-	-	-	-	-	-	-	-	45.60	44.96
31	-	-	-	-	-	-	-	-	-	51.94	48.56
32	-	-	-	-	-	-	-	-	-	55.67	58.27
33	-	-	-	-	-	-	-	-	-	63.42	62.94
34	-	-	-	-	-	-	-	-	-	72.26	72.17
35	-	-	-	78.80	-	-	-	-	-	82.30	77.95
36	92.02	-	-	86.80	-	-	-	-	-	90.56	93.43
37	101.50	99.52	99.52	99.86	101.40	108.60	114.20	102.50	102.80	103.15	100.91
38	111.60	109.70	109.70	108.60	111.60	115.70	124.90	113.90	114.20	110.94	115.39
39	130.80	120.70	120.70	130.30	128.40	137.10	141.30	132.30	129.50	126.37	124.63
40	-	-	-	-	-	-	-	147.00	143.90	140.77	139.88
41	156.90	141.50	141.50	156.40	139.60	146.40	159.50	160.80	162.90	160.35	151.08
42	182.90	169.70	169.70	176.20	167.60	181.70	193.40	177.50	187.70	178.07	181.27
43	203.30	197.80	197.80	204.90	201.10	214.20	225.50	207.70	205.20	202.84	195.79
44	244.80	219.80	219.80	232.50	226.60	234.60	247.70	229.30	236.40	225.49	229.54
45	-	-	-	-	-	-	-	244.20	253.90	256.85	247.92
46	280.60	264.70	264.70	264.30	263.40	287.50	303.60	274.60	272.70	277.27	285.33
47	318.80	303.40	303.40	-	298.90	320.40	331.50	315.40	319.80	315.83	308.18
48	-	344.80	344.80	-	339.80	359.40	381.80	354.70	343.60	-	-

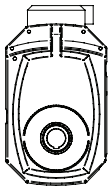


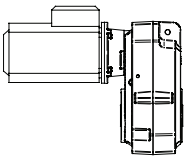


789 & 790

Output Shaft





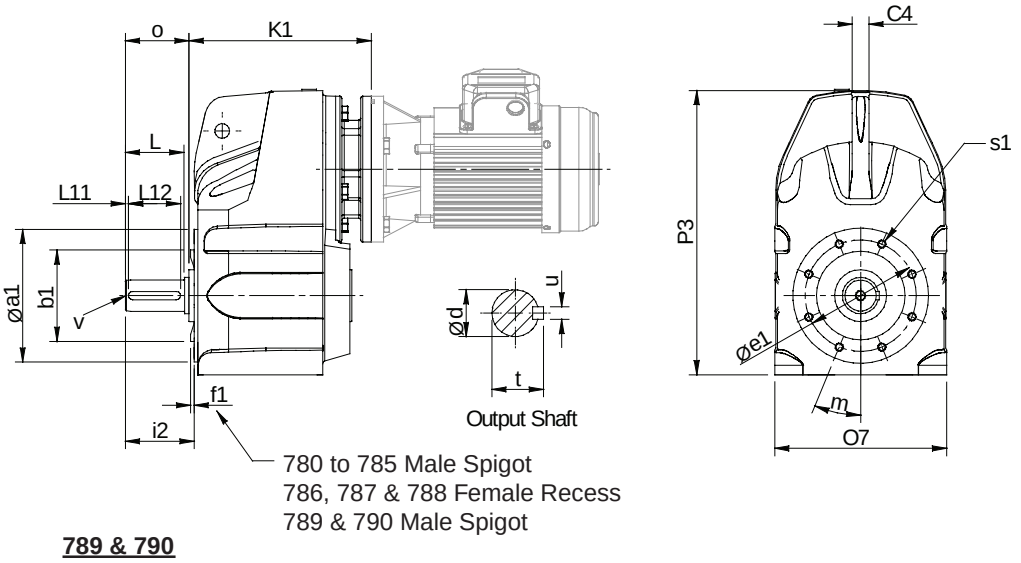


Please Note: The appearance of the 789 & 790 units is different to the other units. See pictures above.

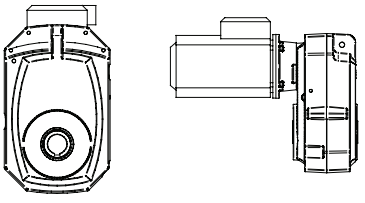
Refer to page 307 for motor dimensions

Unit Size	a1	b1	c1	C4	e1	f1	K1	m	o	O7	P3	s1	Output Shaft							
													d	i2	L	L11	L12	t	u	v
780	160	110 j6	10	15	130	3.5		45	-	150	224	4 x 9	-	-	-	-	-	-	-	-
781	160	110 j6	10	16	130	3.5		45	50	171	273	4 x 9	25	26	47	3	40	28	8	M10x22
782	160	110 j6	10	16	130	3.5	See	45	60	171	273	4 x 9	30	36	56	3	50	33	8	M12x28
783	250	180 j6	16	16	215	4	Motorised	45	70	206	318	4 x 14	35	44	66	3	60	38	10	M16x36
784	250	180 j6	16	16	215	4	or	45	81	231	365	4 x 14	40	40	76	3	70	43	12	M16x36
785	300	230 j6	18	20	265	4	Reducer	45	101	282	442	4 x 14	50	61	95	3	80	53.5	14	M16x36
786	350	250 h6	18	26	300	5	Dimension	45	120	346	536	4 x 18	60	73	114	3	100	64	18	M20x42
787	450	350 h6	20	30	400	5	Pages	22.5	141	400	612	8 x 18	70	90	135	3	110	74.5	20	M20x42
788	450	350 h6	22	36	400	5	254-263	22.5	172	470	748	8 x 18	90	112	172	5	140	95	25	M20x42
789	552	450 h6	20	40	500	5		22.5	137	498	784	8 x 18	90	170	141	14	141	95	25	M24x50
790	650	550 h6	25	50	600	5		22.5	151	550	877	8 x 22	110	210	160	25	160	116	28	M24x50

B14 Face Dimensions

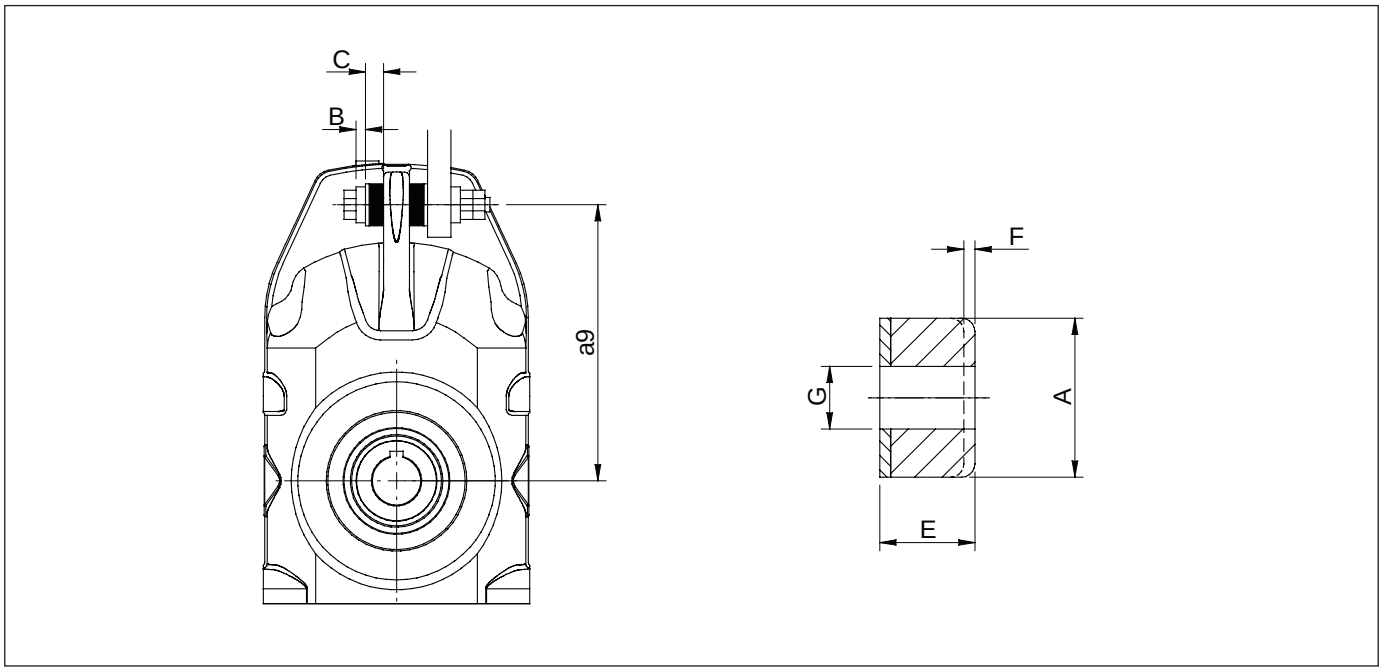


789 & 790



Please Note: The appearance of the 789 & 790 units is different to the other units. See pictures above.

Unit Size	a1	b1	C4	e1	f1 male	f2 female	K1	m	o	O7	P3	s1	Output Shaft d	i2	L	L11	L12	t	u	v
780	117	85 j6	15	107	3	-		67.5	-	150	224	4xM8x12	-	-	-	-	-	-	-	-
781	122	85 j6	16	107	3	-		22.5	50	171	273	4xM8x12	25	55	47	3	40	28	8	M10x22
782	122	85 j6	16	107	3	-	See	22.5	60	171	273	4xM8x12	30	65	56	3	50	33	8	M12x28
783	145	105 j6	16	125	3	-	Motorised	30	70	206	318	6xM10x17	35	75	66	3	60	38	10	M16x36
784	181	130 j6	16	150	4	-	or	0	81	231	365	8xM10x20	40	87	76	3	70	43	12	M16x36
785	181	130 j6	20	150	4	-	Reducer	0	101	282	442	8xM10x20	50	108	95	3	80	53.5	14	M16x36
786	227	150 H7	26	195	-	-5	Dimension	22.5	120	346	536	8xM10x20	60	123	114	3	100	64	18	M20x42
787	280	180 H7	30	230	-	-6	Pages	0	141	400	612	6xM16x27	70	146	135	3	110	74.5	20	M20x42
788	310	210 H7	36	280	-	-7	254-263	0	172	470	748	10xM20x35	90	177.5	172	5	140	95	25	M20x42
789	320	230 j7	40	265	5	-		0	208	498	784	8xM20x35	90	498	141	14	141	95	25	M24x50
790	350	250 j7	50	300	5	-		22.5	253	550	877	8xM20x35	110	550	160	25	160	116	28	M24x50



UNIT SIZE	A	B (Min thickness)	C	a9	E	F	G
780	40	2	18.50	140	20	1.50	13
781	40	2	18	158	20	2	13
782	40	2	18	170	20	2	13
783	40	2	18	198	20	2	13
784	40	2	18	218	20	2	13
785	62	10	30	278	33	3	23
786	62	10	29	346	33	4	23
787	82	12	40	395	44	4	26
788	82	12	38	485	44	5	26
789	82	12	38	485	44	6	26
790	102	12	48	550	54	6	33

ACCESSORY PRODUCT CODES

Unit Size	**780**	**781**	**782**	**783**	**784**	**785**	**786**	**787**	**788**
Torque Bush	881A9600	881A9600	881A9600	881A9600	881A9600	883A9600	883A9600	884A9600	884A9600
Single Output Shaft	-	890A9700	891A9700	892A9700	893A9700	894A9700	883A9700	884A9700	885A9700
Double Output Shaft	-	890A9800	891A9800	892A9800	893A9800	894A9800	883A9800	884A9800	897A9800
Output Flange	871A9900	871A9900	871A9900	892A9300	893A9300	894A9300	875A9900	876A9900	877A9900

For accessory codes of 789 and 790 units, please consult your local Authorised distributor.

ALLOWABLE OVERHUNG LOADS

Units are fitted with input and output bearings of ample proportions to cater for the radial and thrust loads imposed by the gear loads, leaving sufficient capacity for taking overhung loads. The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Permissible overhung loads vary according to the direction of rotation. The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and the load applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to your Distributor for further details.

In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life. All units will accept a 100% momentary overload on stated capacities.

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to either shaft, one of the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

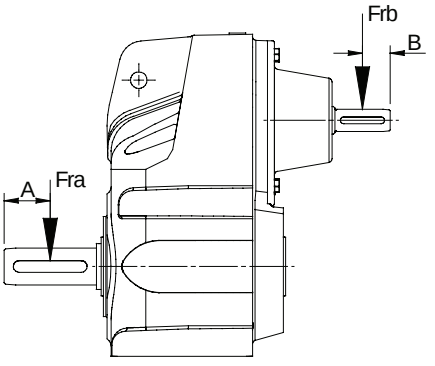
T = Absorbed torque at shaft in Nm.
kW = Absorbed power (kW).
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n = Rev/min of shaft.
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

1. Increase the diameter of the sprocket, gear or pulley within reasonable limits.
2. Mount the sprocket, gear or pulley on a separate shaft, supported on it's own bearings and couple to gearbox output shaft by means of a Fenner shaft coupling.

Axial Thrust Capacities (N)

No check or calculation is required for axial loads (**Fa**) towards or away from the unit up to 50% of the permissible overhung load. If the axial thrust exceeds these values or if there ia a combination of axial thrust loads and overhung loads please refer to your local Authorised Distributor.



DISTANCE MIDWAY ALONG SHAFT EXTENSION

UNIT SIZE	No. Of Reductions	Dimension A (mm)	Dimension B (mm)
780	2-3	-	20
781	2-3	23.5	20
782	2-4	28	20
783	2-3	33	20
	4	32	20
784	2-4	38	20
785	2	47.5	25
	3-4	47.5	20
786	2	55	30
	3	55	25
	4	55	20
787	2	68	40
	3	65	30
	4	65	20
788	2	85	35
	3	85	40
	4	85	25
789	2-3	70	-
790	2-3	80	-

ALLOWABLE INPUT SHAFT OVERHUNG LOADS Frb (KN) @1450 REV/MIN.

UNIT SIZE	2 Stage	3 Stage	4 Stage
780	1.5	1.5	1.5
781	1.5	1.5	1.5
782	1.5	1.5	1.5
783	1.25	1.5	1.5
784	1.05	1.5	1.5
785	2.1	1.25	1.5
786	3.1	2.1	1.5
787	3.5	3.1	1.5
788	4.5	3.5	1.8
789	N/A	N/A	N/A
790	N/A	N/A	N/A

For larger units please consult your local authorised distributor.



SHAFT MOUNTING

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs. Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft and secure unit onto the shaft using chosen method. Fit side fitting key. DO NOT USE TAPER OR TOP FITTING KEY.

FLANGE MOUNTING

The Fenner Series F Mk II is designed primarily as a shaft monted gearbox. However, it can be supplied with a single or double output shaft and a mounting flange if required.

LUBRICATION

Sizes 780 to 784 are pre-filled for mounting position B3 with a quantity of EP mineral oil (Shell Omala 320). However, if the unit is supplied without lubricant then the oil quantity is obtained from the table at the bottom of page 271.

Other mounting positions must be specified on order. Sizes 785 to 790 are supplied without oil. Before running they should be filled with an appropriate amount of the correct lubricant shown in the table, dependent on the mounting position, see chart. WARNING: Do not over fill as excess lubricant may cause overheating and leakage.

For Lubrication quantity, recommended grades and viscosity tables see table opposite.

OIL CHANGES

Sizes 780 to 783 are lubricated for life except when the units are required to work in an explosive atmosphere (94/9/EC Atex 100a Group II category 2 zones 1 & 21 & category 3 zones 2 & 22) See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Initial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below whichever is the soonest.

BREATHERS/MOUNTING POSITIONS

All sizes of Series F are supplied for operation without a breather. On sizes 785 and above the unit should be filled to the recommended level for operating position being used and the blanking plug replaced in the filling position indicated below.

MOTOR CONNECTIONS TO MAINS

Connection of the electric motor to the mains supply should be made by a qualified person.

The current rating of the motor will be identified on the motor plate and correct sizing of the cables to electrical regulations is essential.

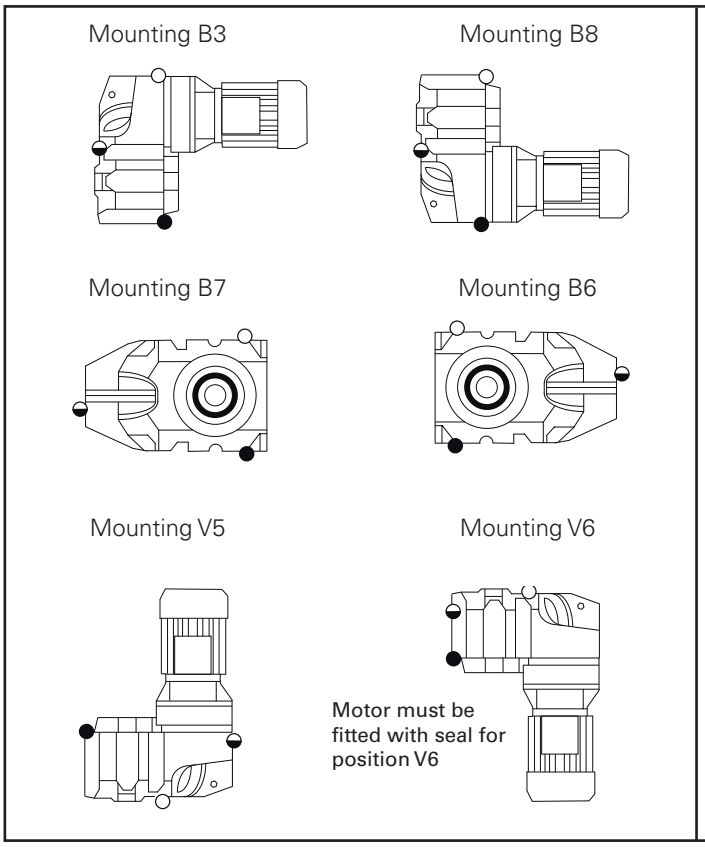
STARTING UP

Prior to starting up the following procedure should be followed

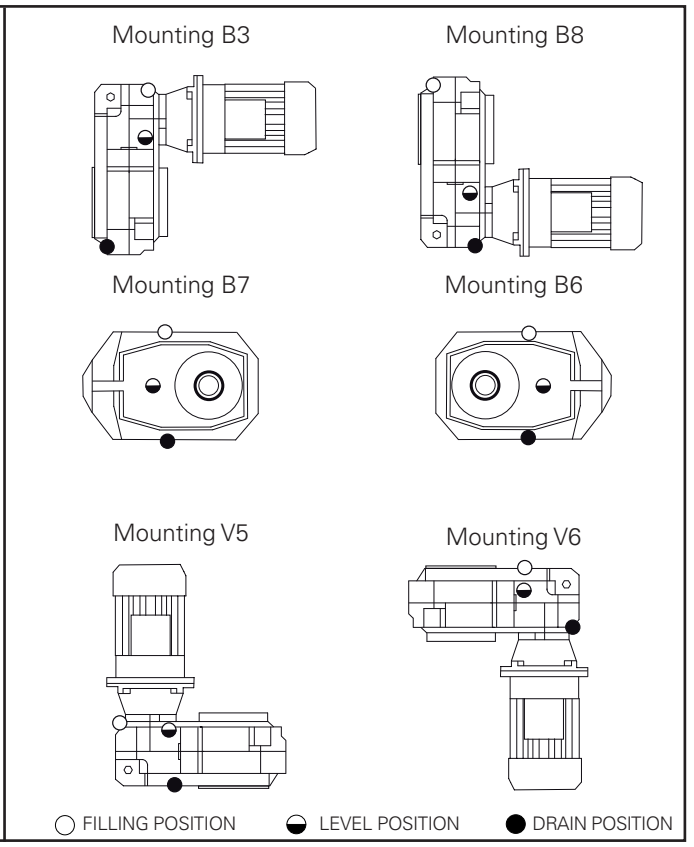
1. Check Oil level (784 and above) top up if necessary
2. Ensure all safety devices are in place (i.e. guards fitted)
3. Remove any safety devices fitted to prevent machine rotation

Starting up should be performed or supervised by suitably qualified personnel.

MOUNTING POSITIONS - SIZES 780-788



MOUNTING POSITIONS - SIZES 789-790



LUBRICATION VISCOSITY

ISO Viscosity	Ambient Temperature			
	-5°C to 20°C	-30°C to 20°C	0°C to 35°C	20°C to 50°C
EP Mineral Oil	220	-	320	460
Synthetic Oil 1	-	220	220	320
Synthetic Oil 2	-	220	320	460

Synthetic Oil 1 = Polyalphaolefin based.
Synthetic Oil 2 = Polyglycol based

RECOMMENDED OIL GRADES

Supplier	Mineral Oils Containing EP Additives	Synthetic Lubricants Polyalphaolefin based	Synthetic Lubricants Polyglycol based
BP	Energol GR-XP/XF	Enersyn EPX	Enersyn SG-XP
Castrol	Alpha SP or Max	Alphasyn EP or T	Alphasyn PG
Esso	Spartan EP	Spartan Synthetic EP	Glycolube
Fuchs	Renogear V	Renogear SG	Renolin PG
Mobil	Mobilgear 600	Mobilgear SHC	Glygoyle
Shell	Omala or Omala F	Omala HD	Tivella or Tivella S
Texaco	Meropa or Meropa WM	Pinnacle EP or WM	Synlube CLP
Total	Carter EP or VP/CS	Carter EP/HT	Carter SY
Rocol	Sapphire Hi Torque	-	-

OIL RENEWAL PERIODS

Unit Operating Temp °C	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
75 or less	17000 or 3 Yrs	26000 or 3 Yrs
80	12000 or 3 Yrs	26000 or 3 Yrs
85	8500 or 3 Yrs	21000 or 3 Yrs
90	6000 or 2 Yrs	15000 or 3 Yrs
95	4200 or 17 Mths	10500 or 3 Yrs
100	3000 or 12 Mths	7500 or 2.5 Yrs
105	2100 or 8 Mths	6200 or 2 Yrs
110	1500 or 6 Mths	2100 or 18 Mths

LUBRICANT QUANTITY (LITRES)

Mounting Position	780		781		782		783		784		785	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
B3	0.8	0.8	1.3	1.2	1.3	1.3	2.1	2.1	3.5	3.5	6.3	6.3
B8	0.4	0.4	0.8	0.8	0.8	0.8	1.4	1.4	2.3	2.3	3.5	3.5
B7	0.4	0.4	1.1	1.1	1.1	1.1	1.4	1.4	2.3	2.3	3.4	3.4
B6	0.5	0.5	0.8	0.8	0.8	0.8	1.8	1.8	3.0	3.0	5.0	5.0
V5	1.1	1.1	1.2	1.2	1.2	1.2	2.8	2.8	4.5	4.5	8.0	8.0
V6	1.3	1.3	2.0	2.0	2.0	2.0	3.2	3.2	5.2	5.2	9.0	9.0

Mounting Position	786		787		788		789		790	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
B3	10.7	10.4	19	19	34	34	28	27	47	45
B8	7.1	7.3	13	15	22	24	17	16	27	25
B7	8.8	9.2	17	17	28	28	22	21	36	34
B6	4.7	5.3	15	16	27	27	24	23	40	38
V5	9.7	9.7	24	24	43	43	34	33	56	53
V6	17.2	17.4	25	25	43	43	30	29	50	48

Oil quantities are aproximate, fill gearbox until oil escapes from level plug hole. Do not over fill as excess lubricant may cause overheating and leakage.



Ordering Instructions

All Fenner Series F geared motors are identified by a product code number; this can consist of an eight or nine digit number depending on the type of motor fitted or the style of unit.

The basic 8 digit code giving the unit type, size, ratio and motor power should be taken from the selection tables. A break down of the coding system for the basic unit and the other options is given below.

If a different motor is required a ninth digit is usually added to the end of the normal 8 digit code, see the table below.

These codes should be included on all enquiries, correspondence and orders.

FIRST THREE DIGITS:

Unit Size – For series F codes are 780 to 790

FOURTH DIGIT:

Mounting Code

A Motorised with Standard Hollow Bore

D Input Reducer Assembly with Standard Hollow Bore

G Standard Hollow Bore unmotorised (ready to fit motor)

FIFTH AND SIXTH DIGIT:

Gear Ratio Code. (For exact ratio and codes see page 264).

SEVENTH/EIGHTH DIGITS:

Input drive code

1. Motorised units - use complete code from selection tables with if applicable, additional ninth digit for motor type.

2. Input Reducer assembly - use **00**.

3. Unmotorised units ready an IEC motor to be fitted - use the three digit code as shown in the table below.

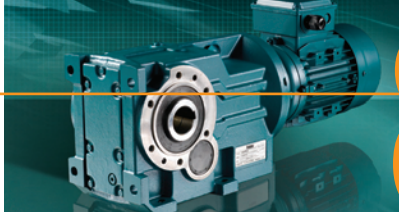
Code	Frame	Flange
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100/112	B14
10D	100/112	B5
13D	132	B5
16D	160	B5
18D	180	B5
20D	200	B5
22D	225	B5
25D	250	B5

NINTH DIGIT:

Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table below of the motor variant required.

Code	Additional Feature
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
L	Clutch/Brake Unit
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer to Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit



Fenner®
SERIES K
BEVEL HELICAL

The Fenner® Series K incorporates all the core design features in a highly efficient yet flexible bevel helical drive.

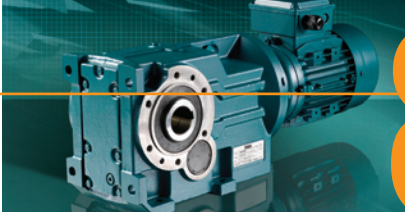


- Drives up to 90kW
- Highly efficient right angled drive
- Ratios from 8:1 to 7250:1 available from stock
- Dimensionally interchangeable with the market leaders
- Accepts standard IEC motors without modification
- ATEX certification available

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available; any special motor features required (brake, thermistors, flameproof etc.)
- **If non-motorised:** type of prime mover; rotational speed of prime mover; power rating of prime mover; is an input shaft coupling required? if so, prime mover shaft dia.
- **Shaft mounting or foot mounted?** if shaft mounted, machine shaft diameter/length; if foot mounted, is an output shaft coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine** constant or variable over what range?
- **Power absorbed by driven machine** (or required output torque)
- **Hours/day duty & start/stop frequency**

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SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive.

If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Motor Power

Refer to the selection tables on pages 276 to 283 and choose a motor power equal to or in excess of that required, if the motor power is not known then from the formula below determine the power requirements of the driven machine and select a motor power in excess of the calculated machine absorbed power.

$$P_A = \frac{T \times n}{9550}$$

P_A = Machine absorbed power (kW)

T = Machine absorbed torque (Nm)

n = Machine speed (Rev/Min)

(c) Unit Selection

Refer to the selection tables on page 276 to 283 and choose a motor power equal to or in excess of that calculated in step (**b**). Then read down the column headed " Nominal Output" until a speed equal to or near to the required speed is found. On this line read across to the service factor column and check that the service factor exceeds the value from step (**a**). If the service factor is either lower or much higher than that required check the speeds at each side of the required speed to see if a more suitable service factor can be found.

(d) Overhung Loads

If the unit is to be fitted with an output shaft and an indirect drive attached to the shaft, calculate the overhung load value using the formula on page 297 and compare this value with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

(e) Shaft mounted

If the unit is to be shaft mounted determine the relevant machine shaft size from the dimension tables on page 284. Torque arm dimensions can be found on page 298.

SELECTION EXAMPLE

A series K shaft mounted gearbox is required to drive a variable density mixer, which absorbs 450 Nm at 37 rpm and operates for up to 10 hours per day. The mixer stops and starts on average 4 times a day. Specify the shaft diameter required to fit the unit selected, a torque arm bracket is also required please specify the relevant product code.

(a) Service Factor

From table 1 a variable density mixer is classed as a moderately loaded machine and when running for up to 10 hours per day requires a service factor of 1.25.

The machine stops and starts only 4 times a day therefore an additional stop/start factor is not required.

(b) Motor Power

To determine the required motor power use the absorbed torque and the machine shaft speed in the formula given.Then use the next largest standard motor power above this.

Therefore the absorbed Power PA =

$$\frac{450 \times 37}{9550} = 1.743 \text{ kW}$$

(c) Unit Selection

The nearest standard motor power above 1.743 kW is 2.2 kW therefore we go to the 2.2kW geared motor selections on page 278.

Reading down the column headed nominal output it is found that there are 2 units listed at 37 rpm, at the first one of these read across to maximum service factor column, it can be seen that the unit size 893A1436 has a service factor of 1.51.

This exceeds the 1.25 Service factor required and therefore is suitable for the application.

(d) Overhung Loads

The gearbox is to be shaft mounted therefore there are no overhung loads present.

(e) Shaft Mounted

The unit is to be shaft mounted, referring to page 284 we see that the hub bore size is 40 mm.

From page 298 the torque arm bracket to suit the size 893 unit selected has a product code of 893A9600.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR Fs

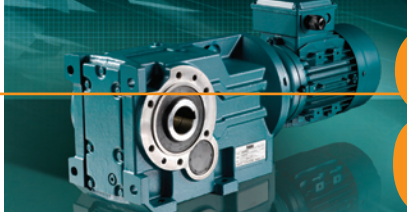
	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

For ATEX certified gear units please consult your local Authorised Distributor.

Motorised Selection

Bold print denotes quintuple reduction gearbox. Higher ratios available— consult your Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.18KW MOTOR				
165	10	13.65	890A0102	4269
122	13	11.39	890A0302	4688
107	15	10.50	890A0402	4882
95	17	9.71	890A0502	5076
74	22	8.19	890A0702	5481
69	24	7.77	890A0802	5606
54	30	6.56	890A1002	5913
48	34	5.98	890A1102	5916
42	39	5.46	890A1202	5917
38	43	5.03	890A1302	5917
34	48	4.63	890A1402	5952
31	53	4.21	890A1502	5957
27	62	3.60	890A1602	5963
22	74	3.00	890A1802	6000
19	87	2.58	890A1902	6000
17	96	2.33	890A2002	6000
14	116	1.60	890A2202	6000
13	127	3.30	891A2302	6000
12	132	1.20	890A2302	6000
11	151	1.03	890A2402	6000
11	147	1.52	**890A3002**	6000
11	144	3.06	891A2402	6000
10	156	2.83	**891A3002**	6000
9.4	167	1.34	**890A3102**	6000
9.3	171	2.57	**891A3102**	6000
8.3	190	1.18	**890A3202**	6000
8.0	196	2.25	**891A3202**	6000
6.9	231	1.90	**891A3302**	6000
6.5	243	0.92	**890A3302**	6000
6.0	262	0.86	**890A3402**	6000
5.3	299	1.48	**891A3402**	6000
4.8	327	1.35	**891A3502**	6000
4.2	375	1.18	**891A3602**	6000
3.9	412	1.07	**891A3702**	6000
3.4	473	0.93	**891A3802**	6000
3.1	521	0.85	**891A3902**	6000
3.1	5.22	1.58	**893A3902**	8000
3.0	530	1.24	**892A3902**	7496
2.9	551	3.03	**894A3902**	15000
2.8	5.76	1.43	**893A4002**	8000
2.7	584	1.13	**892A4002**	7496
2.7	607	2.75	**894A4002**	15000
2.4	671	0.98	**892A4102**	7496
2.4	662	1.25	**893A4102**	8000
2.3	698	2.39	**894A4102**	15000
2.2	730	0.90	**892A4202**	7496
2.2	719	1.15	**893A4202**	8000
2.1	758	2.20	**894A4202**	15000
1.9	835	0.99	**893A4302**	8000
1.9	870	1.92	**894A4302**	15000
1.7	931	0.89	**893A4402**	8000
1.6	984	1.70	**894A4402**	15000
1.5	1088	1.53	**894A4502**	15000
1.3	1249	1.34	**894A4602**	15000
1.1	1488	1.12	**894A4802**	15000
1.1	1413	1.18	**894A4702**	15000
0.25KW MOTOR				
168	13	10.04	890A0106	4223
124	18	8.38	890A0306	4640
109	21	7.72	890A0406	4827
97	23	7.14	890A0506	5013
76	30	6.02	890A0706	5401
70	33	5.72	890A0806	5519
56	41	4.83	890A1006	5812
49	47	4.40	890A1106	5818
43	53	4.02	890A1206	5820
39	59	3.70	890A1306	5822
35	65	3.41	890A1406	5896
32	72	3.10	890A1506	5907
27	84	2.65	890A1606	5921
23	101	2.21	890A1806	6000
20	116	3.70	891A1906	6000
19	118	1.90	890A1906	6000
17	131	1.70	890A2006	6000
17	130	3.30	891A2006	6000
15	152	2.69	891A2206	6000
14	158	1.17	890A2206	6000
13	180	0.88	890A2306	6000
13	172	2.43	891A2306	6000
12	195	2.25	891A2406	6000
11	200	1.12	**890A3006**	6000
10	228	0.98	**890A3106**	6000
10	212	2.08	**891A3006**	6000
9.5	233	1.89	**891A3106**	6000
8.5	258	0.87	**890A3206**	6000
8.2	266	1.65	**891A3206**	6000
7.0	315	1.40	**891A3306**	6000
5.4	406	1.09	**891A3406**	6000
4.9	444	0.99	**891A3506**	6000
4.3	509	0.87	**891A3606**	6000
3.1	720	0.91	**892A3906**	7496
3.1	710	1.16	**893A3906**	8000
3.0	749	2.23	**894A3906**	15000
2.9	783	1.06	**893A4006**	8000
2.8	794	0.83	**892A4006**	7496
2.7	825	2.02	**894A4006**	15000
2.5	900	0.92	**893A4106**	8000
2.4	949	1.76	**894A4106**	15000
2.3	978	0.84	**893A4206**	8000
2.2	1031	1.62	**894A4206**	15000
1.9	1183	1.41	**894A4306**	15000
1.7	1338	1.25	**894A4406**	15000
1.5	1479	1.13	**894A4506**	15000
1.3	1698	0.98	**894A4606**	15000
1.2	1921	0.87	**894A4706**	15000
1.1	2023	0.83	**894A4806**	15000
0.37KW MOTOR				
168	20	6.78	890A0108	4171
124	27	5.66	890A0308	4556
109	31	5.22	890A0408	4732
97	35	4.83	890A0508	4906
76	45	4.07	890A0708	5263
70	48	3.86	890A0808	5372
56	61	3.26	890A1008	5640
49	69	2.97	890A1108	5650
43	79	2.71	890A1208	5655
39	88	2.50	890A1308	5658
35	97	2.30	890A1408	5801
32	107	2.09	890A1508	5821
31	110	3.99	891A1508	6000
28	119	3.68	891A1608	6000
27	125	1.79	890A1608	5849
24	143	3.08	891A1808	6000
23	150	1.49	890A1808	6000
20	171	2.51	891A1908	6000
19	175	1.28	890A1908	6000
17	194	1.16	890A2008	6000
17	193	2.24	891A2008	6000
15	225	1.82	891A2208	6000
13	255	1.64	891A2308	6000
13	263	3.13	893A1912	8000
12	289	1.52	891A2408	6000
12	294	2.24	892A2012	8000
12	290	2.85	893A2012	8000
10	313	1.41	**891A3008**	6000
10	353	2.34	893A2212	8000
9.5	345	1.28	**891A3108**	6000
9.4	360	1.83	892A2212	8000
8.6	393	2.10	893A2312	8000
8.4	401	1.64	892A2312	8000
8.2	394	1.12	**891A3208**	6000
7.7	439	1.35	893A2412	8000
7.5	448	1.35	892A2412	8000
7.0	466	0.95	**891A3308**	6000
3.0	1108	1.51	**894A3908**	15000
2.7	1222	1.37	**894A4008**	15000
2.4	1404	1.19	**894A4108**	15000
2.2	1526	1.09	**894A4208**	15000
2.0	1672	1.62	**895A3912**	15674
1.9	1751	0.95	**894A4308**	15000
1.8	1829	1.48	**895A4012**	15674
1.7	1980	0.84	**894A4408**	15000
1.7	1944	1.39	**895A4112**	15674
1.6	2039	1.85	**896A4112**	34000
1.4	2317	1.17	**895A4212**	15674
1.4	2370	1.59	**896A4212**	34000
1.3	2630	1.44	**896A4312**	34000
1.2	2743	0.99	**895A4312**	15674
1.2	2853	1.48	**896A4412**	34000
1.1	2927	0.93	**895A4412**	15674
1.0	3203	0.85	**895A4512**	15674
0.98	3400	1.24	**896A4512**	34000
0.90	3710	1.02	**896A4612**	34000
0.83	4025	1.05	**896A4712**	34000
0.77	4295	0.98	**896A4812**	34000
0.55KW MOTOR				
171	29	4.63	890A0116	4078
126	40	3.86	890A0316	4432
111	45	3.56	890A0416	4590
98	51	3.29	890A0516	4745
77	66	2.78	890A0716	5057
71	71	2.64	890A0816	5150
56	90	2.23	890A1016	5381
51	98	3.95	891A1116	6000
50	102	2.03	890A1116	5398
45	112	3.60	891A1216	6000
43	116	1.85	890A1216	5407
40	127	3.37	891A1316	6000
39	129	1.71	890A1316	5412
36	140	3.04	891A1416	6000
35	143	1.57	890A1416	5658
32	157	1.43	890A1516	5692
31	161	2.72	891A1516	6000
29	175	2.51	891A1616	6000
27	184	1.22	890A1616	5740
24	209	2.10	891A1816	6000
23	220	1.02	890A1816	6000
23	216	3.83	893A1816	8000
20	256	0.88	890A1916	6000
20	251	1.71	891A1916	6000
20	253	3.26	893A1916	8000
19	258	2.55	892A1916	8000
18	283	1.53	891A2016	6000
18	278	2.97	893A2016	8000
16	282	2.33	892A2016	8000
15	330	1.24	891A2216	6000
15	345	1.91	892A2216	8000
15	341	2.42	893A2216	8000
13	374	1.12	891A2316	6000
13	386	1.71	892A2316	8000
13	377	2.19	893A2316	8000
13	401	3.99	894A2316	15000
12	424	1.04	891A2416	6000
12	432	1.41	892A2416	8000
12	423	1.41	893A2416	8000
12	406	1.62	**892A3016**	7496
12	401	2.06	**893A3016**	8000
12	420	3.98	**894A3016**	15000
11	460	0.96	**891A3016**	6000
11	442	3.12	894A2416	15000
11	467	3.57	**894A3116**	15000
10	505	0.87	**891A3116**	6000
10	492	1 .34	**892A3116**	7496
10	485	1.70	**893A3116**	8000
10	515	3.24	**894A3216**	15000
9.2	535	1.54	**893A3216**	8000
9.0	542	1.21	**892A3216**	7496
7.0	704	1.17	**893A3316**	8000



Motorised Selection

Bold print denotes quintuple reduction gearbox. Higher ratios available—consult your Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
6.8	713	0.92	**892A3316**	7496
6.7	737	2.27	**894A3316**	15000
6.1	816	2.05	**894A3416**	15000
5.5	895	0.92	**893A3416**	8000
5.4	927	1.80	**894A3516**	15000
4.8	1017	0.81	**893A3516**	8000
4.7	1063	1.57	**894A3616**	15000
3.8	1305	1.28	**894A3716**	15000
3.4	1447	1.15	**894A3816**	15000
3.1	1605	1.69	**895A3916**	15674
3.0	1625	1.03	**894A3916**	15000
2.8	1791	0.93	**894A4016**	15000
2.8	1756	1.54	**895A4016**	15674
2.6	1867	1.45	**895A4116**	15674
2.5	1959	1.93	**896A4116**	34000
2.4	2058	0.81	**894A4116**	15000
2.2	2226	1.22	**895A4216**	15674
2.2	2278	1.66	**896A4216**	34000
2.0	2526	1.49	**896A4316**	34000
1.9	2637	1.03	**895A4316**	15674
1.8	2815	0.96	**895A4416**	15674
1.8	2742	1.54	**896A4416**	34000
1.6	3079	0.88	**895A4516**	15674
1.5	3269	1.29	**896A4516**	34000
1.4	3567	1.06	**896A4616**	34000
1.3	3871	1.09	**896A4716**	34000
1.2	4132	1.02	**896A4816**	34000
0.96	5121	0.82	**896A4916**	34000
0.75KW MOTOR				
170	40	3.38	890A0118	3975
126	54	2.82	890A0318	4293
111	62	2.60	890A0418	4433
98	71	2.41	890A0518	4566
79	87	3.93	891A0718	6000
76	90	2.03	890A0718	4828
71	98	1.93	890A0818	4903
69	99	3.59	891A0818	6000
57	122	3.11	891A1018	6000
56	123	1.63	890A1018	5093
51	135	2.89	891A1118	5945
49	140	1.48	890A1118	5119
45	153	2.63	891A1218	5944
43	158	1.35	890A1218	5132
43	160	3.77	892A1218	7830
39	177	1.25	890A1318	5138
39	174	2.46	891A1318	5939
38	180	3.54	892A1318	8000
36	192	2.22	891A1418	6000
36	192	3.29	892A1418	8000
35	195	1.15	890A1418	5500
32	215	1.04	890A1518	5550
31	221	1.99	891A1518	6000
31	223	3.71	893A1518	8000
30	227	2.89	892A1518	8000
29	240	1.83	891A1618	6000
29	238	3.47	893A1618	8000
28	243	2.71	892A1618	8000
27	252	0.89	890A1618	5620
24	287	1.54	891A1818	6000
23	301	2.19	892A1818	8000
23	295	2.80	893A1818	8000
20	344	1.25	891A1918	6000
20	347	2.38	893A1918	8000
19	354	1.86	892A1918	7667
18	387	1.12	891A2018	6000
18	380	2.17	893A2018	8000
16	386	1.70	892A2018	7637
15	452	0.91	891A2218	6000
15	473	1.39	892A2218	7760
15	467	1.77	893A2218	8000
14	476	3.36	894A2218	15000
13	512	0.82	891A2318	6000
13	528	1.25	892A2318	7541

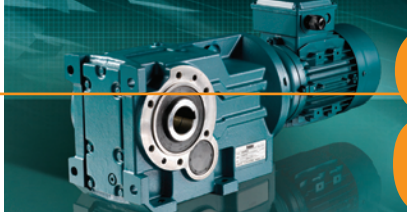
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
13	516	1.60	893A2318	8000
12	591	1.03	892A2418	8000
12	579	1.03	893A2418	8000
12	555	1.19	**892A3018**	7496
12	549	1.51	**893A3018**	8000
12	548	2.91	894A2318	15000
12	574	2.91	**894A3018**	15000
11	606	2.28	894A2418	15000
11	640	2.61	**894A3118**	15000
10	673	0.98	**892A3118**	7496
10	665	1.24	**893A3118**	8000
10	705	2.37	**894A3218**	15000
9.2	732	1.13	**893A3218**	8000
9.0	742	0.89	**892A3218**	7496
6.9	964	0.86	**893A3318**	8000
6.7	1009	1.66	**894A3318**	15000
6.1	1117	1.49	**894A3418**	15000
5.4	1269	1.32	**894A3518**	15000
4.7	1455	1.15	**894A3618**	15000
3.8	1786	0.94	**894A3718**	15000
3.4	1980	0.84	**894A3818**	15000
3.1	2197	1.23	**895A3918**	15674
2.8	2403	1.13	**895A4018**	15674
2.6	2555	1.06	**895A4118**	15674
2.5	2681	1.41	**896A4118**	34000
2.2	3047	0.89	**895A4218**	15674
2.2	3118	1.21	**896A4218**	34000
1.9	3457	1.09	**896A4318**	34000
1.8	3752	1.12	**896A4418**	34000
1.8	3784	1.90	**897A4023**	43100
1.7	3907	3.10	**898A4023**	61368
1.6	4161	1.73	**897A4123**	43100
1.6	4296	2.81	**898A4123**	61368
1.5	4473	0.94	**896A4518**	34000
1.4	4779	1.50	**897A4223**	43100
1.4	4934	2.45	**898A4223**	61368
1.3	5303	1.36	**897A4323**	43100
1.2	5739	1.25	**897A4423**	43100
1.2	5559	2.18	**898A4323**	61368
1.1	5937	2.09	**898A4423**	61293
1.0	6627	1.08	**897A4523**	43100
0.97	6946	1.74	**898A4523**	61368
0.94	7172	1.00	**897A4623**	43100
0.91	7417	1.68	**898A4623**	61293
0.81	8357	1.49	**898A4723**	61293
0.79	8568	0.84	**897A4723**	43100
0.75	8979	1.35	**898A4823**	61368
0.61	11101	1.12	**898A4923**	61293
0.54	12510	0.99	**898A5023**	61293
0.51	13217	0.94	**898A5123**	61293
1.1KW MOTOR				
169	59	2.30	890A0124	3795
125	80	1.92	890A0324	4051
125	81	3.62	891A0324	5740
113	89	3.41	891A0424	5890
110	92	1.77	890A0424	4157
100	101	3.14	891A0524	6000
97	104	1.64	890A0524	4253
79	128	2.67	891A0724	5867
76	133	1.38	890A0724	4427
71	144	1.31	890A0824	4472
69	146	2.44	891A0824	5881
56	181	1.11	890A1024	4590
56	179	2.11	891A1024	5850
51	199	1.96	891A1124	5846
50	203	2.86	892A1124	7070
49	206	1.01	890A1124	4630
45	226	1.79	891A1224	5833
44	232	3.55	893A1224	7864
43	233	0.92	890A1224	4650
43	236	2.56	892A1224	7262
39	260	0.85	890A1324	4660
39	256	1.67	891A1324	6000

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
39	260	3.17	893A1324	7844
38	265	2.40	892A1324	7370
37	277	2.98	893A1424	7830
36	283	1.51	891A1424	6000
36	283	2.24	892A1424	7345
31	326	1.35	891A1524	6000
31	328	2.52	893A1524	7987
30	335	1.96	892A1524	7295
29	353	1.25	891A1624	6000
29	350	2.36	893A1624	7973
28	357	1.84	892A1624	7266
24	422	1.04	891A1824	6000
23	443	1.49	892A1824	7346
23	435	1.90	893A1824	8000
22	449	3.56	894A1824	15000
20	507	0.85	891A1924	6000
20	511	1.62	893A1924	8000
19	521	1.26	892A1924	7085
19	535	2.99	894A1924	15000
18	569	1.16	892A2024	7004
18	560	1.48	893A2024	8000
17	585	2.73	894A2024	15000
15	687	1.20	893A2224	8000
14	696	0.95	892A2224	7340
14	701	2.28	894A2224	14720
14	700	3.83	895A2224	21500
13	778	0.85	892A2324	6740
13	760	1.09	893A2324	8000
13	763	3.51	895A2324	21500
12	818	0.81	**892A3024**	7496
12	808	1.02	893A3024	8000
12	832	1.97	894A3024	15000
12	808	1.98	894A2324	15000
11	892	1.55	894A2424	15000
11	923	1.77	**894A3124**	15000
11	876	3.06	895A2424	21500
10	978	0.84	**893A3124**	8000
10	1019	1.61	**894A3224**	15000
6.7	1465	1.12	**894A3324**	15000
6.0	1611	1.02	**894A3424**	15000
5.3	1846	0.89	**894A3524**	15000
3.1	3234	0.84	**895A3924**	15674
2.7	3611	1.99	**897A4024**	43100
2.7	3733	3.24	**898A4024**	61368
2.5	3946	0.96	**896A4124**	34000
2.5	3972	1.81	**897A4124**	43100
2.4	4105	2.95	**898A4124**	61368
2.2	4589	0.82	**896A4224**	34000
2.2	4563	1.57	**897A4224**	43100
2.1	4715	2.56	**898A4224**	61368
2.0	5061	1.42	**897A4324**	43100
1.9	5311	2.28	**898A4324**	61368
1.8	5477	1.31	**897A4424**	43100
1.7	5672	2.19	**898A4424**	61368
1.6	6328	1.14	**897A4524**	43100
1.5	6638	1.82	**898A4524**	61368
1.4	6848	1.05	**897A4624**	43100
1.4	7090	1.75	**898A4624**	61368
1.3	7985	1.56	**898A4724**	61368
1.2	8187	0.88	**897A4724**	43100
1.2	8586	1.41	**898A4824**	61368
1.1	8860	0.81	**897A4824**	43100
0.93	10620	1.17	**898A4924**	61368
0.82	11964	1.04	**898A5024**	61368
0.78	12650	0.98	**898A5124**	61368
0.69	14252	0.87	**898A5224**	61368

Motorised Selection

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Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.5KW MOTOR				
176	78	3.28	891A0128	5080
171	80	1.70	890A0128	3590
126	109	1.42	890A0328	3774
126	109	2.68	891A0328	5514
114	121	2.52	891A0428	5639
111	124	1.31	890A0428	3841
100	137	2.32	891A0528	5745
98	141	1.21	890A0528	3895
79	174	1.97	891A0728	5715
77	180	1.02	890A0728	3970
72	191	2.63	892A0437	6140
71	195	0.97	890A0828	3980
70	198	1.80	891A0828	5746
70	198	1.80	891A0828	5746
64	214	2.43	892A0537	6270
57	243	1.56	891A1028	5740
51	269	1.45	891A1128	5735
51	270	3.05	893A1128	7546
50	276	2.12	892A1128	6512
45	306	1.32	891A1228	5712
44	314	2.62	893A1228	7709
43	320	1.89	892A1228	6613
40	346	1.23	891A1328	6000
39	352	2.34	893A1328	7667
38	359	1.78	892A1328	6650
37	375	2.20	893A1428	7637
36	383	1.12	891A1428	6000
36	383	1.65	892A1428	6596
31	441	1.00	891A1528	6000
31	444	1.86	893A1528	7973
30	453	1.45	892A1528	6490
30	465	3.44	894A1528	15000
29	479	0.92	891A1628	6000
29	474	1.74	893A1628	7943
28	484	1.36	892A1628	6427
26	525	3.04	894A1628	15000
23	600	1.10	892A1828	6600
23	589	1.40	893A1828	8000
23	608	2.63	894A1828	14503
20	692	1.19	893A1928	8000
19	705	0.93	892A1928	6420
19	725	2.21	894A1928	14434
19	704	3.81	895A1928	21500
18	770	0.86	892A2028	6280
18	758	1.09	893A2028	8000
18	773	3.47	895A2028	21500
17	793	2.02	894A2028	14393
15	931	0.89	893A2228	8000
14	949	1.68	894A2228	14400
14	948	2.83	895A2228	20713
13	1029	0.80	893A2328	8000
13	1094	1.46	894A2328	15000
13	1033	2.59	895A2328	20672
13	1033	3.66	896A2328	34000
12	1145	1.46	**894A3028**	15000
12	1186	2.26	895A2428	20437
12	1157	3.26	896A2428	34000
11	1207	1.14	894A2428	15000
11	1275	1.31	**894A3128**	15000
11	1240	3.39	896A2528	34000
10	1405	1.19	**894A3228**	15000
10	1389	3.03	896A2628	34000
9.4	1456	1.10	894A2237	12564
9.4	1453	1.84	895A2237	20010
8.6	1586	1.69	895A2337	18640
8.6	1568	2.38	896A2337	34000
8.2	1682	0.95	894A2337	12812
7.7	1777	2.13	896A2437	34000
7.5	1821	1.47	895A2437	17978
7.2	1905	2.21	896A2537	34000
7.0	1930	1.40	**895A3037**	15674
6.7	2011	0.83	**894A3328**	15000
6.4	2111	1.28	**895A3137**	15674
6.4	2134	1.97	896A2637	34000
6.4	2144	3.35	897A2637	43400
5.7	2383	1.14	**895A3237**	15674
5.7	2355	1.60	**896A3237**	34000
4.5	2968	0.91	**895A3337**	15674
4.1	3311	1.14	**896A3337**	34000
3.6	3711	1.02	**896A3437**	34000
3.3	4116	0.92	**896A3537**	34000
2.9	4619	0.82	**896A3637**	34000
2.8	4889	1.47	**897A4028**	43100
2.7	5054	2.39	**898A4028**	61368
2.5	5378	1.34	**897A4128**	43100
2.4	5559	2.18	**898A4128**	61368
2.2	6179	1.16	**897A4228**	43100
2.1	6385	1.89	**898A4228**	61368
2.0	6853	1.05	**897A4328**	43100
1.9	7191	1.68	**898A4328**	61368
1.8	7416	0.97	**897A4428**	43100
1.7	7681	1.62	**898A4428**	61368
1.6	8568	0.84	**897A4528**	43100
1.6	8546	1.42	**898A4137**	61368
1.5	8989	1.35	**898A4528**	61368
1.4	9600	1.29	**898A4628**	61368
1.3	10812	1.15	**898A4728**	61368
1.2	11625	1.04	**898A4828**	61368
1.1	11810	1.05	**898A4437**	61293
0.98	13817	0.88	**898A4537**	61368
0.94	14380	0.86	**898A4928**	61368
0.91	14755	0.84	**898A4637**	61293
2.2KW MOTOR				
176	114	2.23	891A0136	4800
176	115	3.42	892A0136	4800
171	118	1.16	890A0136	3230
126	160	0.97	890A0336	3290
126	161	1.83	891A0336	5120
125	162	2.77	892A0336	5126
114	177	1.72	891A0436	5200
114	178	3.74	893A0436	7760
111	183	0.89	890A0436	3290
111	181	2.56	892A0436	5223
101	200	3.47	893A0536	7970
100	201	1.58	891A0536	5300
99	204	2.38	892A0536	5310
98	207	0.82	890A0536	3270
80	254	2.94	893A0736	8000
79	255	1.34	891A0736	5450
78	259	2.00	892A0736	5460
70	291	1.23	891A0836	5510
70	288	2.69	893A0836	8000
69	293	1.83	892A0836	5512
59	344	2.37	893A1036	8000
58	350	1.61	892A1036	5541
57	357	1.06	891A1036	5550
54	376	3.95	894A1036	13300
51	395	0.99	891A1136	5540
51	395	2.09	893A1136	7123
50	403	1.45	892A1136	5535
49	414	3.69	894A1136	13500
45	449	0.90	891A1236	5500
44	459	1.80	893A1236	7437
43	468	1.30	892A1236	5477
43	475	3.32	894A1236	13900
39	525	1.22	892A1336	5390
39	515	1.60	893A1336	7357
37	549	1.51	893A1436	7299
37	538	2.97	894A1336	14300
36	560	1.13	892A1436	5286
34	593	2.69	894A1436	14600
31	663	0.99	892A1536	5081
31	649	1.27	893A1536	7948
30	679	2.35	894A1536	13982
29	708	0.93	892A1636	4959
29	693	1.19	893A1636	7890
28	729	3.67	895A1636	18855
26	768	2.08	894A1636	13900
24	861	0.96	893A1836	8000
23	888	1.80	894A1836	13634
23	883	3.03	895A1836	19587
20	1011	0.82	893A1936	8000
20	1029	2.60	895A1936	19997
19	1059	1.51	894A1936	13444
18	1129	2.37	895A2036	19929
18	1100	3.44	896A2036	34000
17	1159	1.38	894A2036	13331
17	1196	3.52	896A2136	34000
15	1385	1.93	895A2236	19337
15	1319	3.19	896A2236	34000
14	1388	1.15	894A2236	13840
13	1598	1.00	894A2336	15000
13	1511	1.77	895A2336	19224
13	1511	2.50	896A2336	34000
12	1680	0.99	**894A3036**	15000
12	1733	1.55	895A2436	18579
12	1692	2.23	896A2436	34000
11	1871	0.89	**894A3136**	15000
11	1830	1.48	**895A3036**	15674
11	1812	2.32	896A2536	34000
11	1900	3.78	897A2536	43405
10	2062	0.81	**894A3236**	15000
10	2000	1.36	**895A3136**	15674
10	2031	2.07	896A2636	34000
10	2039	3.52	897A2636	43405
8.9	2234	1.69	**896A3236**	34000
8.7	2256	1.20	**895A3236**	15674
8.5	2375	3.03	897A2345	43400
7.9	2549	2.82	897A2445	43400
7.0	2812	0.96	**895A3336**	15674
7.0	2854	2.52	897A2545	43400
6.6	3062	2.35	897A2645	43400
6.5	3082	3.99	898A2645	61700
6.3	3141	1.20	**896A3336**	34000
5.6	3520	1.07	**896A3436**	34000
5.1	3902	0.97	**896A3536**	34000
4.5	4380	0.86	**896A3636**	34000
2.8	7146	1.01	**897A4036**	43100
2.7	7387	1.64	**898A4036**	61368
2.5	7860	0.91	**897A4136**	43100
2.4	8124	1.49	**898A4136**	61368
2.1	9332	1.30	**898A4236**	61368
1.9	10510	1.15	**898A4336**	61368
1.7	11226	1.11	**898A4436**	61293
1.5	13137	0.92	**898A4536**	61368
1.4	14031	0.89	**898A4636**	61293
3.0KW MOTOR				
179	153	3.64	893A0138	8000
176	157	2.51	892A0138	4480
127	217	2.95	893A0338	8000
125	220	2.03	892A0338	4676
114	243	2.75	893A0438	7333
111	247	1.88	892A0438	4718
111	247	2.87	894A0153	10700
101	273	2.55	893A0538	7490
99	278	1.74	892A0538	4743
80	347	2.16	893A0738	7483
78	353	1.47	892A0738	4740
70	394	1.97	893A0838	7452
69	400	1.34	892A0838	4693
65	425	2.87	894A0553	12100
59	469	1.74	893A1038	7384
58	477	1.18	892A1038	4571
54	513	2.90	894A1038	12530
51	539	1.53	893A1138	6640
50	550	1.06	892A1138	4420
50	555	2.63	894A0753	12700
49	565	2.70	894A1138	12663
44	627	1.32	893A1238	7127
44	632	2.40	894A0853	12900
43	638	0.95	892A1238	4180



Motorised Selection

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Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
43	648	2.44	894A1238	12938
39	716	0.89	892A1338	3950
39	703	1.18	893A1338	7003
39	711	3.77	895A1338	15200
37	749	1.10	893A1438	6913
37	734	2.18	894A1338	13207
36	764	0.83	892A1438	3790
35	779	3.44	895A1438	15200
34	809	1.98	894A1438	13387
31	885	0.93	893A1538	7920
31	881	3.04	895A1538	15200
30	926	1.73	894A1538	12819
29	945	0.87	893A1638	7830
28	968	1.65	894A1253	12753
28	995	2.69	895A1638	17609
26	1048	1.53	894A1638	12543
26	1063	2.52	895A1353	19200
24	1157	3.64	896A1838	34000
23	1211	1.32	894A1838	12641
23	1209	1.32	894A1453	12363
23	1204	2.22	895A1838	18084
21	1316	2.04	895A1553	20000
20	1403	1.91	895A1938	18280
20	1359	2.78	896A1938	34000
19	1445	1.11	894A1938	12313
19	1485	1.80	895A1653	18110
18	1540	1.74	895A2038	18134
18	1500	2.52	896A2038	34000
17	1580	1.01	894A2038	12117
17	1630	2.58	896A2138	34000
15	1889	1.42	895A2238	17765
15	1799	2.34	896A2238	34000
14	1893	0.85	894A2238	13200
14	1925	3.73	897A2238	43400
13	2060	1.30	895A2338	17568
13	2060	1.83	896A2338	34000
13	2151	3.34	897A2338	43400
12	2364	1.13	895A2438	16455
12	2307	1.64	896A2438	34000
12	2315	3.11	897A2438	43400
11	2495	1.09	**895A3038**	15674
11	2471	1.70	896A2538	34000
11	2591	2.77	897A2538	43400
10	2727	0.99	**895A3138**	15674
10	2769	1.52	896A2638	34000
10	2781	2.58	897A2638	43400
8.9	3046	1.24	**896A3238**	34000
8.7	3076	0.88	**895A3238**	15674
8.5	3221	2.23	897A2353	43400
7.9	3458	2.08	897A2453	43400
7.1	3871	1.86	897A2553	43324
7.0	3929	3.13	898A2553	61700
6.6	4153	1.73	897A2653	43250
6.5	4181	2.94	898A2653	61700
6.3	4283	0.88	**896A3338**	34000
5.7	4731	1.52	**897A3253**	43100
5.5	4886	2.48	**898A3253**	61368
4.1	6553	1.10	**897A3353**	43100
4.0	6768	1.79	**898A3453**	61368
3.7	7360	0.98	**897A3453**	43100
3.6	7623	1.59	**898A3353**	61368
3.3	8093	0.89	**897A3553**	43100
3.2	8562	1.41	**898A3553**	61368
3.0	8977	0.80	**897A3653**	43100
2.9	9414	1.28	**898A3653**	61368
2.7	10073	1.20	**898A4038**	61368
2.5	10913	1.11	**898A3753**	61368
2.4	11079	1.09	**898A4138**	61368
2.2	12404	0.97	**898A3853**	61368
2.1	12725	0.95	**898A4238**	61368
1.9	14333	0.84	**898A4338**	61368
1.8	15308	0.81	**898A4438**	61368

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
4.0KW MOTOR				
180	203	2.75	893A0146	8000
177	207	1.90	892A0146	4080
167	218	3.24	894A0146	9380
128	287	2.23	893A0346	8000
126	292	1.53	892A0346	4113
121	303	3.24	894A0346	10100
114	322	2.07	893A0446	6800
112	328	1.42	892A0446	4086
107	342	3.24	894A0446	10300
101	362	1.92	893A0546	6890
100	368	1.32	892A0546	4034
98	376	3.24	894A0546	10500
81	456	2.16	894A0355	10868
80	459	1.63	893A0746	6838
79	468	1.11	892A0746	3840
75	491	2.75	894A0746	11000
72	513	2.16	894A0455	11080
70	521	1.49	893A0846	6767
69	530	1.01	892A0846	3670
66	560	2.50	894A0846	11200
59	621	1.31	893A1046	6614
58	632	0.89	892A1046	3360
57	648	3.76	895A1046	14500
54	680	2.19	894A1046	11569
51	714	1.16	893A1146	6036
50	730	3.46	895A1146	14900
49	748	2.04	894A1146	11617
44	830	0.99	893A1246	6740
43	858	1.84	894A1246	11737
43	850	3.12	895A1246	15200
40	931	0.89	893A1346	6560
39	941	2.85	895A1346	14811
37	991	0.83	893A1446	6430
37	972	1.65	894A1346	11841
35	1031	2.60	895A1446	14811
34	1072	1.49	894A1446	11872
32	1148	3.29	896A1546	34000
31	1167	2.30	895A1546	14811
30	1227	1.30	894A1546	11365
29	1273	2.97	896A1646	34000
28	1317	2.00	895A1646	16051
27	1383	3.04	896A1746	34000
26	1387	1.15	894A1646	11073
24	1532	2.75	896A1846	34000
23	1604	1.00	894A1846	11400
23	1595	1.68	895A1846	16205
20	1857	1.44	895A1946	16134
20	1799	2.10	896A1946	34000
20	1839	3.91	897A1946	43400
19	1913	0.84	894A1946	10900
18	2039	1.30	895A2046	15890
18	1986	1.90	896A2046	34000
17	2159	1.95	896A2146	34000
17	2121	3.39	897A2046	43400
16	2218	3.24	897A2146	43400
15	2501	1.07	895A2246	15800
15	2383	1.77	896A2246	34000
14	2549	2.82	897A2246	43388
13	2728	0.98	895A2346	15500
13	2728	1.39	896A2346	34000
13	2849	2.52	897A2346	43388
12	3130	0.86	895A2446	13800
12	3055	1.24	896A2446	34000
12	3065	2.35	897A2446	43388
12	3095	3.91	898A2446	61700
11	3304	0.82	**895A3046**	15674
11	3272	1.29	896A2546	34000
11	3431	2.10	897A2546	43301
11	3476	3.54	898A2546	61700

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
10	3667	1.15	896A2646	34000
10	3683	1.95	897A2646	43301
10	3710	3.32	898A2646	61700
9.0	4033	0.94	**896A3246**	34000
8.6	4182	1.72	**897A3246**	43100
8.3	4325	2.80	**898A3246**	61368
6.2	5793	1.24	**897A3346**	43100
6.0	5992	2.00	**898A3446**	61368
5.5	6507	1.10	**897A3446**	43100
5.3	6746	1.79	**898A3346**	61368
5.0	7156	1.00	**897A3546**	43100
4.8	7578	1.60	**898A3546**	61368
4.5	7933	0.91	**897A3646**	43100
4.3	8333	1.45	**898A3646**	61368
3.7	9664	1.25	**898A3746**	61368
3.3	10986	1.10	**898A3846**	61368
2.9	12372	0.98	**898A3946**	61368
2.7	13338	0.91	**898A4046**	61368
2.5	14669	0.82	**898A4146**	61368
5.5KW MOTOR				
180	280	1.99	893A0154	8000
177	286	1.37	892A0154	3480
167	299	2.37	894A0154	8915
128	396	1.62	893A0354	8000
125	403	1.11	892A0354	3270
121	416	2.37	894A0354	9444
114	445	1.50	893A0454	6000
112	452	1.03	892A0454	3140
107	469	2.37	894A0454	9575
101	499	1.39	893A0554	5990
100	508	0.95	892A0554	2970
98	515	2.37	894A0554	9705
81	627	1.57	894A0357	9920
80	633	1.18	893A0754	5870
78	646	3.56	895A0754	12711
77	646	0.80	892A0754	2490
75	673	2.00	894A0754	9965
72	705	1.57	894A0457	10000
70	719	1.08	893A0854	5740
70	723	3.25	895A0854	12911
66	775	1.57	894A0557	10000
66	767	1.82	894A0854	10027
59	858	0.95	893A1054	5460
57	889	2.74	895A1054	14131
54	932	1.60	894A1054	10127
51	986	0.84	893A1154	5130
50	1000	2.53	895A1154	14477
49	1025	1.49	894A1154	10049
43	1176	1.34	894A1254	9935
43	1164	2.28	895A1254	14722
39	1290	2.08	895A1354	14227
37	1332	1.20	894A1354	9792
35	1413	1.90	895A1454	14227
34	1469	1.09	894A1454	9600
32	1574	2.40	896A1554	34000
31	1599	1.68	895A1554	14227
30	1681	0.95	894A1554	9185
29	1744	2.17	896A1654	34000
28	1805	1.48	895A1654	13715
27	1895	2.22	896A1754	34000
26	1901	0.84	894A1654	8717
26	1914	3.76	897A1754	43400
24	2100	2.00	896A1854	34000
24	2129	3.38	897A1854	43400
23	2185	1.23	895A1854	13387
20	2545	1.05	895A1954	12914
20	2465	1.53	896A1954	34000
20	2520	2.85	897A1954	43400
18	2795	0.96	895A2054	12524
18	2722	1.39	896A2054	34000
18	2865	2.51	897A1757	43400
17	2958	1.42	896A2154	34000
17	2906	2.47	897A2054	43400

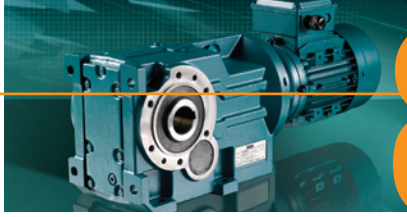
Motorised Selection

Bold print denotes quintuple reduction gearbox. Higher ratios available—consult your Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
16	3039	2.37	897A2154	43400
16	3124	3.94	898A2154	61700
15	3265	1.29	896A2254	34000
14	3492	2.06	897A2254	43372
14	3475	3.54	898A2254	61700
13	3738	1.01	896A2354	34000
13	3903	1.84	897A2354	43372
13	3965	3.05	898A2354	61700
12	4186	0.90	896A2454	34000
12	4200	1.71	897A2454	43372
12	4241	2.85	898A2454	61700
11	4483	0.94	896A2554	34000
11	4701	1.53	897A2554	43215
11	4763	2.58	898A2554	61700
10	5046	1.42	897A2654	43215
10	5083	2.42	898A2654	61700
8.6	5770	1.25	**897A3254**	43100
8.3	5927	2.04	**898A3254**	61368
8.0	6307	1.14	897A2457	43400
7.0	7061	1.02	897A2557	43088
7.0	7166	1.72	898A2557	61658
6.2	7993	0.90	**897A3354**	43100
6.0	8210	1.47	**898A3454**	61368
5.5	8979	0.80	**897A3454**	43100
5.3	9244	1.31	**898A3354**	61368
4.8	10384	1.16	**898A3554**	61368
4.3	11418	1.06	**898A3654**	61368
3.7	13242	0.91	**898A3754**	61368
3.3	15054	0.80	**898A3854**	61368
7.5KW MOTOR				
178	386	3.49	895A0156	10798
168	407	1.74	894A0156	8295
125	549	3.49	895A0356	11458
121	565	1.74	894A0356	8570
118	581	2.32	895A0165	11650
113	611	3.32	895A0456	11738
108	637	1.74	894A0456	8610
101	676	3.15	895A0556	11938
98	700	1.74	894A0556	8645
83	827	2.32	895A0365	12500
78	878	2.62	895A0756	12477
75	915	1.47	894A0756	8595
75	918	2.32	895A0465	12700
70	982	2.39	895A0856	12677
68	1043	1.34	894A0856	8465
67	1026	2.28	895A0565	12950
64	1071	3.76	896A0665	34000
57	1208	2.02	895A1056	13640
54	1267	1.18	894A1056	8204
54	1285	2.89	896A0765	34000
52	1325	1.89	895A0765	13300
50	1394	1.10	894A1156	7957
50	1360	1.86	895A1156	13913
48	1435	2.63	896A0865	34000
46	1488	1.75	895A0865	13450
44	1547	2.72	896A0965	34000
43	1598	0.99	894A1256	7532
43	1582	1.67	895A1256	14086
40	1725	2.44	896A1065	34000
39	1753	1.53	895A1356	13450
38	1810	0.88	894A1356	7060
35	1920	1.40	895A1456	13450
35	1996	1.89	896A1165	34000
34	1996	0.80	894A1456	6570
32	2138	1.77	896A1556	34000
32	2164	3.32	897A1556	35600
31	2173	1.23	895A1556	13450
30	2268	1.67	896A1265	34000
29	2370	1.59	896A1656	34000
29	2392	1.76	896A1365	34000
29	2404	2.99	897A1656	35600
28	2453	1.09	895A1656	10600
27	2575	1.63	896A1756	34000

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
26	2601	2.76	897A1756	43400
25	2721	1.55	896A1465	34000
24	2854	1.47	896A1856	34000
24	2893	2.48	897A1856	43400
23	2970	0.90	895A1856	9630
21	3221	1.17	896A1565	34000
20	3350	1.13	896A1956	34000
20	3424	2.10	897A1956	43400
19	3579	1.06	896A1665	34000
19	3543	3.41	898A1956	61700
18	3699	1.02	896A2056	34000
18	3869	1.09	896A1765	34000
17	4020	1.05	896A2156	34000
17	3949	1.82	897A2056	43400
17	3942	3.07	898A2056	61700
16	4295	0.98	896A1865	34000
16	4130	1.74	897A2156	43400
16	4246	2.90	898A2156	61700
15	4437	0.95	896A2256	34000
14	4746	1.51	897A2256	43350
14	4722	2.60	898A2256	61700
13	5305	1.36	897A2356	43350
13	5388	2.25	898A2356	61700
12	5707	1.26	897A2456	43350
12	5763	2.10	898A2456	61700
11	6388	1.13	897A2556	43100
11	6473	1.90	898A2556	61700
10	6858	1.05	897A2656	43100
10	6908	1.78	898A2656	61700
8.7	7787	0.92	**897A3256**	43100
8.4	8054	1.50	**898A3256**	61368
8.0	8642	1.40	898A2465	61670
7.0	9772	1.26	898A2565	61625
6.5	10400	1.18	898A2665	61700
6.1	11157	1.08	**898A3456**	61368
5.4	12563	0.96	**898A3356**	61368
4.8	14112	0.86	**898A3556**	61368
11.0KW MOTOR				
178	564	2.39	895A0166	10612
168	599	1.18	894A0166	7210
131	768	3.89	896A0366	34000
125	803	2.39	895A0366	11197
121	832	1.18	894A0366	7040
120	842	3.45	896A0167	34000
119	849	1.59	895A0167	11000
117	860	3.64	896A0466	34000
113	893	2.27	895A0466	11440
109	938	1.18	894A0466	6920
109	925	3.89	896A0566	34000
101	988	2.15	895A0566	11640
100	1013	3.45	896A0267	34000
98	1031	1.18	894A0566	6790
97	1036	3.64	896A0666	34000
87	1158	2.80	896A0367	34000
84	1207	1.59	895A0367	11600
81	1250	2.78	896A0766	34000
78	1284	1.79	895A0766	12068
78	1299	2.58	896A0467	34000
75	1347	1.00	894A0766	6170
75	1339	1.59	895A0467	11700
72	1393	2.55	896A0866	34000
72	1394	2.80	896A0567	34000
70	1436	1.64	895A0866	12268
68	1535	0.91	894A0866	5730
68	1497	1.56	895A0567	11800
67	1501	2.76	896A0966	34000
65	1563	2.58	896A0667	34000
60	1677	2.51	896A1066	34000
57	1765	1.38	895A1066	12781
54	1875	1.98	896A0767	34000
52	1934	1.30	895A0767	11800
52	1928	1.95	896A1166	34000
50	1987	1.27	895A1166	12927

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
48	2094	1.80	896A0867	34000
47	2171	1.20	895A0867	11800
46	2211	1.71	896A1266	34000
45	2258	1.86	896A0967	34000
44	2312	3.11	897A1266	35604
43	2313	1.15	895A1266	12972
43	2327	1.81	896A1366	34000
43	2341	3.07	897A0967	35600
41	2456	2.93	897A1366	35604
40	2517	1.67	896A1067	34000
40	2529	2.84	897A1067	35600
39	2563	1.05	895A1366	12088
38	2666	1.01	895A1067	11500
38	2646	1.59	896A1466	34000
36	2775	2.59	897A1466	35604
35	2807	0.95	895A1466	12088
35	2912	1.30	896A1167	34000
34	2995	0.89	895A1167	11200
33	3073	2.34	897A1167	35600
32	3126	1.21	896A1566	34000
32	3163	2.27	897A1566	35584
31	3176	0.84	895A1566	12088
31	3262	3.71	898A1566	61800
30	3309	1.14	896A1267	34000
29	3465	1.09	896A1666	34000
29	3490	1.21	896A1367	34000
29	3515	2.05	897A1666	35575
29	3481	2.07	897A1267	35553
28	3693	1.95	897A1367	35553
28	3657	3.36	898A1367	61700
27	3765	1.12	896A1766	34000
27	3802	1.89	897A1766	43400
27	3676	3.29	898A1666	61800
26	3910	3.15	898A1766	61832
25	3971	1.06	896A1467	34000
25	4141	2.97	898A1467	61700
24	4172	1.01	896A1866	34000
24	4229	1.70	897A1866	43400
24	4185	1.72	897A1467	35553
23	4407	2.79	898A1866	61832
21	4700	0.80	896A1567	34000
21	4768	1.51	897A1567	43400
21	4904	2.47	898A1567	61700
20	5005	1.44	897A1966	43400
19	5280	1.36	897A1667	43400
19	5178	2.34	898A1966	61186
18	5772	1.25	897A2066	43400
18	5701	1.26	897A1767	43400
18	5517	2.19	898A1667	61672
17	6037	1.19	897A2166	43400
17	5877	2.09	898A1767	61664
17	5761	2.10	898A2066	61186
16	6345	1.13	897A1867	43361
16	6206	1.98	898A2166	61700
15	6937	1.04	897A2266	43311
15	6630	1.86	898A1867	61664
14	6903	1.78	898A2266	61700
13	7753	0.93	897A2366	43311
13	7565	0.95	897A1967	43351
13	7875	1.54	898A2366	61700
13	7788	1.55	898A1967	61700
12	8665	0.83	897A2067	43266
12	8342	0.86	897A2466	43311
12	8654	1.40	898A2067	61700
12	8424	1.44	898A2466	61700
11	9461	1.30	898A2566	61700
11	9347	1.32	898A2167	61700
10	10353	1.19	898A2267	61700
10	10097	1.22	898A2666	61700
8.5	11822	1.02	898A2367	61651
8.4	11854	1.02	**898A3266**	61368
8.0	12610	0.96	898A2467	61648
7.0	14258	0.86	898A2567	61566
6.5	15174	0.81	898A2667	61700



Motorised Selection

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Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
15.0KW MOTOR				
181	757	3.39	896A0168	34000
179	767	1.76	895A0168	10400
150	914	3.39	896A0268	34000
132	1044	2.86	896A0368	34000
126	1091	1.76	895A0368	10900
121	1142	2.55	896A0174	34000
117	1169	2.68	896A0468	34000
114	1213	1.67	895A0468	11100
109	1257	2.86	896A0568	34000
102	1343	1.59	895A0568	11300
100	1374	2.55	896A0274	34000
97	1408	2.68	896A0668	34000
88	1571	2.06	896A0374	34000
81	1700	2.05	896A0768	34000
79	1745	1.32	895A0768	11600
78	1763	1.90	896A0474	34000
73	1893	1.88	896A0868	34000
73	1892	2.06	896A0574	34000
73	1901	3.77	897A0868	35600
70	1951	1.20	895A0868	11800
70	1974	3.49	897A0574	35600
67	2040	2.03	896A0968	34000
65	2121	1.90	896A0674	34000
65	2115	3.40	897A0968	35600
64	2147	3.35	897A0674	35600
60	2280	1.85	896A1068	34000
60	2281	3.15	897A1068	35600
57	2399	1.02	895A1068	11800
54	2544	1.46	896A0774	34000
52	2621	1.44	896A1168	34000
52	2648	2.71	897A0774	35600
51	2701	0.94	895A1168	11800
50	2777	2.59	897A1168	35600
48	2840	1.33	896A0874	34000
48	2853	2.52	897A0874	35600
46	3005	1.26	896A1268	34000
45	3063	1.37	896A0974	34000
44	3143	0.84	895A1268	11700
44	3142	2.29	897A1268	35588
44	3118	3.88	898A1268	61700
43	3162	1.33	896A1368	34000
43	3176	2.26	897A0974	35536
42	3301	3.73	898A1368	61469
41	3337	2.15	897A1368	35588
40	3415	1.23	896A1074	34000
40	3432	2.09	897A1074	35536
38	3596	1.17	896A1468	34000
37	3771	1.91	897A1468	35583
37	3744	3.28	898A1468	61469
35	3951	0.96	896A1174	34000
33	4169	1.72	897A1174	35536
33	4129	2.93	898A1174	61700
32	4248	0.89	896A1568	34000
32	4299	1.67	897A1568	35566
31	4489	0.84	896A1274	34000
31	4433	2.73	898A1568	61400
30	4677	2.59	898A1274	61700
29	4708	0.80	896A1668	34000
29	4734	0.89	896A1374	34000
29	4776	1.51	897A1668	35548
29	4722	1.52	897A1274	35500
28	5011	1.43	897A1374	35500
28	4996	2.42	898A1668	61400
28	4961	2.48	898A1374	61672
27	5116	0.82	896A1768	34000
27	5167	1.39	897A1768	43400
26	5314	2.31	898A1768	61304
25	5618	2.19	898A1474	61672
24	5747	1.25	897A1868	43400
24	5677	1.27	897A1474	35500
23	5989	2.05	898A1868	61304
21	6468	1.11	897A1574	43400
21	6652	1.82	898A1574	61664
20	6802	1.06	897A1968	43400
19	7163	1.00	897A1674	43400
19	7037	1.72	898A1968	60600
18	7845	0.92	897A2068	43400
18	7734	0.93	897A1774	43400
18	7830	1.55	898A2068	60600
18	7484	1.62	898A1674	61640
17	8204	0.88	897A2168	43400
17	7973	1.54	898A1774	61623
16	8607	0.84	897A1874	43338
16	8434	1.46	898A2168	61700
15	9380	1.31	898A2268	61700
15	8994	1.37	898A1874	61623
13	10702	1.13	898A2368	61700
13	10566	1.15	898A1974	61700
12	11740	1.03	898A2074	61700
12	11447	1.06	898A2468	61700
11	12857	0.96	898A2568	61700
11	12680	0.97	898A2174	61700
10	14045	0.88	898A2274	61700
10	13721	0.90	898A2668	61700
18.5KW MOTOR				
184	925	2.78	896A0176	34000
152	1115	2.78	896A0276	34000
133	1274	2.35	896A0376	34000
121	1402	2.08	896A0175	34000
119	1427	2.19	896A0476	34000
118	1441	2.84	897A0175	35600
115	1484	3.41	898A0175	61700
110	1534	2.35	896A0576	34000
101	1686	2.08	896A0275	34000
98	1719	2.19	896A0676	34000
98	1730	2.84	897A0275	35600
95	1783	3.41	898A0275	61700
88	1928	1.68	896A0375	34000
84	2014	2.84	897A0375	35600
83	2059	3.41	898A0375	61700
82	2075	1.68	896A0776	34000
79	2163	1.55	896A0475	34000
79	2151	3.27	897A0776	35600
78	2194	2.84	897A0475	35600
75	2264	3.41	898A0475	61700
73	2311	1.54	896A0876	34000
73	2321	1.68	896A0575	34000
73	2320	3.09	897A0876	35588
70	2422	2.84	897A0575	35530
69	2475	3.41	898A0575	61700
68	2491	1.67	896A0976	34000
66	2582	2.78	897A0976	35588
65	2603	1.55	896A0675	34000
65	2635	2.73	897A0675	35530
62	2722	3.41	898A0675	61700
61	2783	1.51	896A1076	34000
61	2785	2.58	897A1076	35588
54	3122	1.19	896A0775	34000
54	3167	3.41	898A0775	61700
53	3199	1.18	896A1176	34000
53	3249	2.21	897A0775	35530
50	3390	2.12	897A1176	35588
49	3485	1.08	896A0875	34000
49	3501	2.05	897A0875	35530
48	3519	3.41	898A0875	61700
46	3669	1.03	896A1276	34000
45	3759	1.12	896A0975	34000
45	3806	3.18	898A1276	61507
44	3860	1.09	896A1376	34000
44	3897	1.84	897A0975	35481
44	3836	1.87	897A1276	35574
44	3823	3.22	898A0975	61700
42	4074	1.76	897A1376	35574
42	4029	3.05	898A1376	61201
40	4190	1.00	896A1075	34000
40	4211	1.71	897A1075	35481
40	4235	2.90	898A1075	61700
39	4390	0.96	896A1476	34000
37	4603	1.56	897A1476	35563
37	4571	2.69	898A1476	61201
34	5066	2.39	898A1175	61673
33	5115	1.41	897A1175	35481
32	5248	1.37	897A1576	35551
31	5411	2.24	898A1576	61050
30	5739	2.11	898A1275	61673
29	5831	1.23	897A1676	35524
29	5795	1.24	897A1275	35453
28	6148	1.17	897A1375	35453
28	6099	1.98	898A1676	61050
28	6088	2.02	898A1375	61648
27	6307	1.14	897A1776	43400
26	6487	1.90	898A1776	60842
25	6893	1.78	898A1475	61648
24	7016	1.02	897A1876	43400
24	6966	1.03	897A1475	35453
23	7311	1.68	898A1876	60842
21	7937	0.91	897A1575	43400
21	8163	1.48	898A1575	61633
20	8304	0.87	897A1976	43400
20	8591	1.41	898A1976	60086
19	8789	0.82	897A1675	43400
18	9558	1.27	898A2076	60086
18	9183	1.32	898A1675	61612
17	9783	1.26	898A1775	61588
16	10296	1.19	898A2176	61700
15	11451	1.07	898A2276	61700
15	11036	1.11	898A1875	61588
13	13065	0.93	898A2376	61700
13	12965	0.93	898A1975	61700
12	14405	0.84	898A2075	61700
12	13974	0.87	898A2476	61700
22.0KW MOTOR				
184	1100	2.34	896A0178	34000
179	1134	3.60	897A0178	35600
152	1326	2.34	896A0278	34000
148	1365	3.60	897A0278	35600
133	1516	1.97	896A0378	34000
127	1590	3.60	897A0378	35600
121	1667	1.75	896A0184	34000
119	1698	1.84	896A0478	34000
118	1714	2.39	897A0184	35508
117	1727	3.60	897A0478	35600
115	1765	2.87	898A0184	61700
110	1825	1.97	896A0578	34000
106	1909	3.60	897A0578	35600
101	2005	1.75	896A0284	34000
98	2045	1.84	896A0678	34000
98	2057	2.39	897A0284	35508
97	2077	3.46	897A0678	35586
95	2120	2.87	898A0284	61700
88	2293	1.41	896A0384	34000
84	2396	2.39	897A0384	35508
83	2448	2.87	898A0384	61700
82	2467	1.41	896A0778	34000
79	2573	1.30	896A0484	34000
79	2559	2.75	897A0778	35586
78	2609	2.39	897A0484	35508
75	2692	2.87	898A0484	61700
73	2749	1.29	896A0878	34000
73	2760	1.41	896A0584	34000
73	2759	2.59	897A0878	35576
70	2881	2.39	897A0584	35460
69	2944	2.87	898A0584	61700
68	2962	1.40	896A0978	34000
66	3071	2.34	897A0978	35576
65	3095	1.30	896A0684	34000
62	3237	2.87	898A0684	61690
61	3310	1.27	896A1078	34000

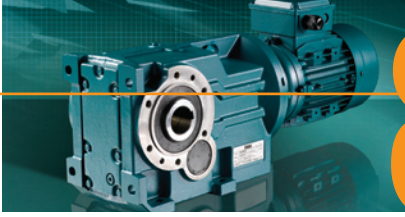
Motorised Selection

Bold print denotes quintuple reduction gearbox. Higher ratios available—consult your Authorised Distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
61	3312	2.17	897A1078	35576
61	3340	3.68	898A1078	61700
54	3713	1.00	896A0784	34000
54	3767	2.87	898A0784	61680
53	3805	0.99	896A1178	34000
53	3864	2.29	897A0784	35460
51	3996	3.03	898A1178	61700
50	4031	1.78	897A1178	35576
49	4145	0.91	896A0884	34000
49	4164	1.73	897A0884	35460
48	4185	2.87	898A0884	61671
46	4363	0.87	896A1278	34000
45	4470	0.94	896A0984	34000
45	4527	2.67	898A1278	61315
44	4590	0.92	896A1378	34000
44	4635	1.55	897A0984	35426
44	4562	1.58	897A1278	35560
44	4546	2.71	898A0984	61671
42	4845	1.48	897A1378	35560
42	4792	2.57	898A1378	60932
40	4983	0.84	896A1084	34000
40	5007	1.55	897A1084	35426
40	5036	2.44	898A1084	61671
37	5473	1.31	897A1478	35535
37	5436	2.26	898A1478	60932
34	6025	2.01	898A1184	61647
33	6083	1.18	897A1184	35426
32	6241	1.15	897A1578	35535
31	6435	1.88	898A1578	60700
30	6825	1.77	898A1284	61647
29	6934	1.04	897A1678	35500
29	6891	1.04	897A1284	35406
28	7312	0.98	897A1384	35406
28	7253	1.67	898A1678	60700
28	7240	1.70	898A1384	61625
27	7501	0.96	897A1778	43400
26	7714	1.59	898A1778	60380
25	8198	1.50	898A1484	61625
24	8343	0.86	897A1878	43400
23	8694	1.41	898A1878	60380
21	9707	1.25	898A1584	61602
20	10217	1.18	898A1978	59573
18	11367	1.06	898A2078	59573
18	10921	1.11	898A1684	61584
17	11634	1.06	898A1784	61552
16	12243	1.00	898A2178	61700
15	13618	0.90	898A2278	61700
30.0KW MOTOR				
184	1500	1.71	896A0188	34000
179	1547	2.64	897A0188	35556
173	1596	3.17	898A0188	61700
152	1809	1.71	896A0288	34000
148	1861	2.64	897A0288	35556
144	1918	3.17	898A0288	61700
133	2067	1.45	896A0388	34000
127	2168	2.64	897A0388	35556
125	2214	3.17	898A0388	61700
122	2262	1.29	896A0191	34000
119	2315	1.35	896A0488	34000
119	2326	1.76	897A0191	35300
117	2355	2.62	897A0488	35556
115	2394	2.11	898A0191	61700
114	2435	3.17	898A0488	61700
110	2489	1.45	896A0588	34000
106	2603	2.64	897A0588	35556
104	2662	3.17	898A0588	61700
101	2721	1.29	896A0291	34000
99	2791	1.76	897A0291	35300
98	2789	1.35	896A0688	34000
97	2833	2.54	897A0688	35556
96	2877	2.11	898A0291	61700
94	2927	3.17	898A0688	61700
89	3111	1.04	896A0391	34000
85	3250	1.76	897A0391	35300

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
83	3322	2.11	898A0391	61700
82	3365	1.03	896A0788	34000
81	3407	3.17	898A0788	61700
79	3491	0.96	896A0491	34000
79	3489	2.02	897A0788	35556
78	3540	1.76	897A0491	35300
76	3653	2.11	898A0491	61700
74	3745	1.04	896A0591	34000
73	3749	0.95	896A0888	34000
73	3763	1.90	897A0888	35550
73	3787	3.12	898A0888	61700
71	3908	1.76	897A0591	35300
69	3994	2.11	898A0591	61700
68	4039	1.03	896A0988	34000
67	4112	2.99	898A0988	61700
66	4199	0.96	896A0691	34000
66	4188	1.72	897A0988	35550
65	4251	1.69	897A0691	35300
63	4391	2.11	898A0691	61668
61	4513	0.93	896A1088	34000
61	4517	1.59	897A1088	35550
61	4555	2.70	898A1088	61311
54	5110	2.11	898A0791	61636
53	5243	1.37	897A0791	35300
51	5449	2.22	898A1188	61311
50	5497	1.31	897A1188	35550
49	5649	1.27	897A0891	35300
49	5678	2.11	898A0891	61605
45	6173	1.96	898A1288	60875
45	6168	1.99	898A0991	61605
44	6288	1.14	897A0991	35300
44	6221	1.16	897A1288	35528
42	6607	1.09	897A1388	35528
42	6534	1.88	898A1388	60318
41	6794	1.06	897A1091	35300
40	6833	1.80	898A1091	61605
37	7465	0.96	897A1488	35500
37	7413	1.66	898A1488	60318
34	8253	0.87	897A1191	35300
34	8174	1.48	898A1191	61587
32	8510	0.84	897A1588	35500
32	8776	1.38	898A1588	59900
30	9260	1.31	898A1291	61587
28	9891	1.22	898A1688	59900
28	9822	1.25	898A1391	61570
26	10519	1.17	898A1788	59324
25	11122	1.11	898A1491	61570
23	11856	1.04	898A1888	59324
21	13170	0.92	898A1591	61532
20	13932	0.87	898A1988	58400
19	14816	0.82	898A1691	61520

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
37.0KW MOTOR				
184	1843	1.39	896A0194	34000
179	1902	2.15	897A0194	35534
173	1962	2.58	898A0194	61245
152	2223	1.39	896A0294	34000
148	2288	2.15	897A0294	35534
144	2357	2.58	898A0294	61326
133	2541	1.18	896A0394	34000
127	2665	2.15	897A0394	35534
125	2722	2.58	898A0394	61175
119	2846	1.10	896A0494	34000
117	2895	2.13	897A0494	35534
115	2953	1.71	898A0192	61700
114	2993	2.58	898A0494	61186
110	3059	1.18	896A0594	34000
106	3200	2.15	897A0594	35534
104	3272	2.58	898A0594	61350
98	3428	1.10	896A0694	34000
97	3482	2.06	897A0694	35530
96	3548	1.71	898A0292	61700
94	3598	2.58	898A0694	61373
83	4097	1.71	898A0392	61700
82	4136	0.84	896A0794	34000
81	4187	2.58	898A0794	61198
79	4289	1.64	897A0794	35530
76	4505	1.71	898A0492	61700
73	4625	1.55	897A0894	35526
73	4655	2.53	898A0894	61151
69	4926	1.71	898A0592	61700
68	4965	0.84	896A0994	34000
67	5055	2.43	898A0994	61315
66	5148	1.40	897A0994	35526
63	5416	1.71	898A0692	61649
61	5552	1.29	897A1094	35526
61	5599	2.20	898A1094	60972
54	6303	1.71	898A0792	61598
51	6698	1.81	898A1194	60972
50	6757	1.06	897A1194	35526
49	7003	1.71	898A0892	61547
45	7588	1.59	898A1294	60490
45	7607	1.62	898A0992	61547
44	7646	0.94	897A1294	35500
42	8121	0.84	897A1394	35500
42	8032	1.53	898A1394	59781
40	8427	1.46	898A1092	61547
37	9111	1.35	898A1494	59871
34	10081	1.20	898A1192	61535
32	10787	1.12	898A1594	59200
30	11420	1.06	898A1292	61535
28	12157	1.00	898A1694	59200
28	12114	1.02	898A1392	61522
26	12930	0.95	898A1794	58400
25	13717	0.90	898A1492	61522
23	14572	0.84	898A1894	58400



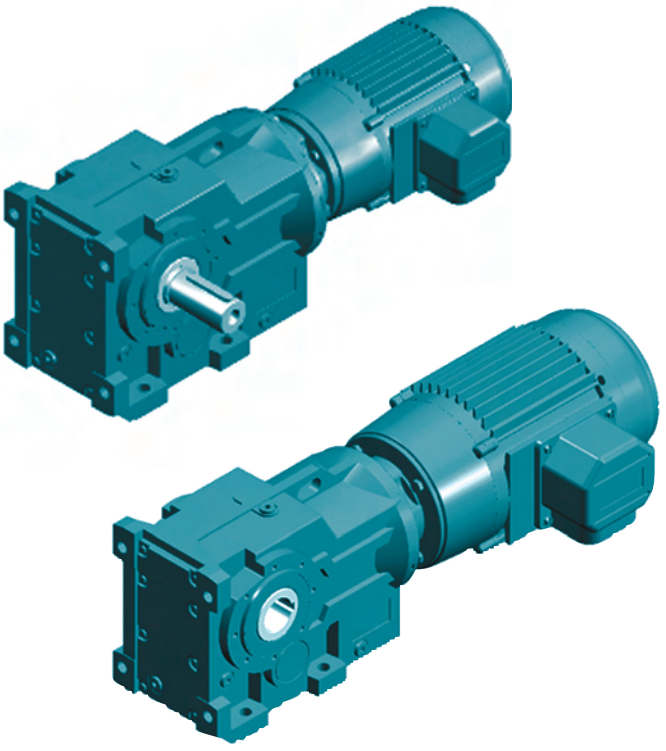
Motorised Selection

Bold print denotes quintuple reduction gearbox. Higher ratios available—consult your Authorised Distributor

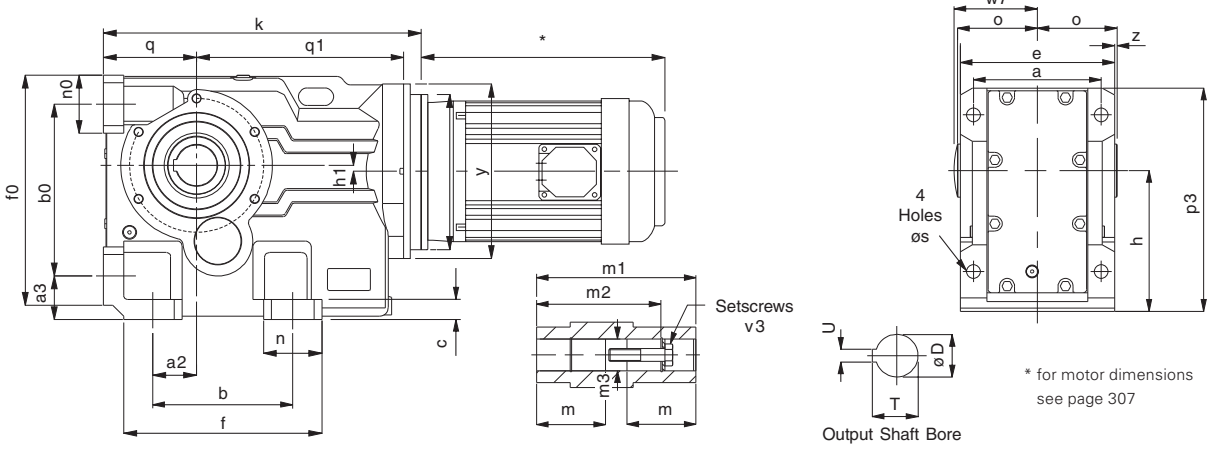
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
45.0KW MOTOR				
184	2242	1.15	896A0195	34000
179	2313	1.77	897A0195	35500
173	2386	2.12	898A0195	60725
152	2704	1.15	896A0295	34000
148	2783	1.77	897A0295	35500
144	2867	2.12	898A0295	60900
133	3090	0.97	896A0395	34000
128	3241	1.77	897A0395	35500
125	3310	2.12	898A0395	60575
119	3461	0.90	896A0495	34000
117	3521	1.75	897A0495	35500
115	3591	1.41	898A0193	61700
114	3640	2.12	898A0495	60600
110	3720	0.97	896A0595	34000
106	3891	1.77	897A0595	35500
104	3980	2.12	898A0595	60950
99	4169	0.90	896A0695	34000
98	4235	1.70	897A0695	35500
96	4315	1.41	898A0293	61700
94	4376	2.12	898A0695	61000
83	4983	1.41	898A0393	61700
81	5093	2.12	898A0795	60625
79	5216	1.35	897A0795	35500
76	5480	1.41	898A0493	61700
74	5625	1.27	897A0895	35500
73	5661	2.08	898A0895	60625
69	5991	1.41	898A0593	61700
67	6148	2.00	898A0995	60875
66	6261	1.15	897A0995	35500
63	6587	1.41	898A0693	61627
61	6752	1.06	897A1095	35500
61	6809	1.81	898A1095	60583
54	7666	1.41	898A0793	61554
51	8147	1.49	898A1195	60583
50	8218	0.87	897A1195	35500
49	8518	1.41	898A0893	61482
45	9228	1.31	898A1295	60050
45	9252	1.33	898A0993	61482
42	9768	1.26	898A1395	59167
40	10249	1.20	898A1093	61482
37	11081	1.11	898A1495	59167
34	12261	0.99	898A1193	61475
32	13119	0.92	898A1595	58400
30	13890	0.87	898A1293	61475
28	14786	0.82	898A1695	58400
28	14733	0.83	898A1393	61468

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
55.0KW MOTOR				
173	2916	1.73	898A0196	60075
144	3504	1.73	898A0296	60366
125	4046	1.73	898A0396	59825
115	4390	1.15	898A0197	61700
114	4449	1.73	898A0496	59866
104	4864	1.73	898A0596	60450
96	5274	1.15	898A0297	61700
94	5349	1.73	898A0696	60533
83	6090	1.15	898A0397	61700
81	6225	1.73	898A0796	59908
76	6697	1.15	898A0497	61700
73	6919	1.71	898A0896	59741
69	7322	1.15	898A0597	61700
67	7514	1.64	898A0996	60325
63	8051	1.15	898A0697	61600
61	8323	1.48	898A1096	60098
54	9370	1.15	898A0797	61500
51	9957	1.22	898A1196	60098
49	10411	1.15	898A0897	61400
45	11279	1.07	898A1296	59500
45	11308	1.09	898A0997	61400
42	11939	1.03	898A1396	58400
40	12527	0.98	898A1097	61400
37	13544	0.91	898A1496	58400
34	14986	0.81	898A1197	61400

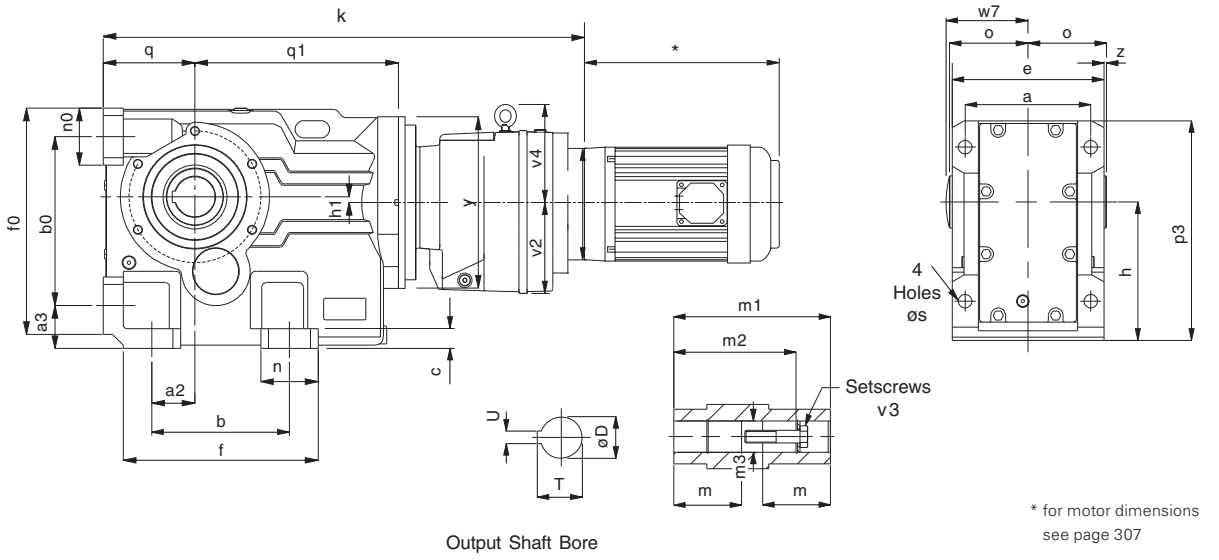
Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
75.0KW MOTOR				
174	3950	1.28	898A0198	58775
145	4746	1.28	898A0298	59300
126	5480	1.28	898A0398	58325
115	6027	1.28	898A0498	58400
104	6589	1.28	898A0598	59450
95	7245	1.28	898A0698	59600
82	8431	1.28	898A0798	58475
74	9372	1.26	898A0898	58175
68	10178	1.21	898A0998	59225
61	11273	1.09	898A1098	59127
51	13487	0.90	898A1198	59127
90.0KW MOTOR				
174	4740	1.07	898A0199	57800
145	5696	1.07	898A0299	58500
126	6576	1.07	898A0399	57200
115	7232	1.07	898A0499	57300
104	7907	1.07	898A0599	58700
95	8694	1.07	898A0699	58900
82	10118	1.07	898A0799	57400
74	11246	1.05	898A0899	5700
68	12213	1.01	898A0999	58400
61	13528	0.91	898A1099	58400



TRIPLE REDUCTION

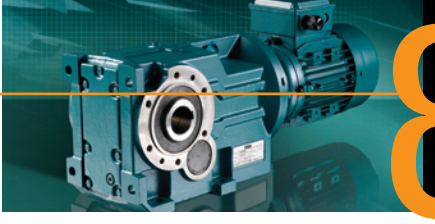


QUINTUPLE REDUCTION



SIZE	a	a2	a3	b	b0	c	e	f	f0	h	h1	k	n	n0	o
890	100	28	32	110	115	11	120	143	152	100	16	For k dimensions see facing page	38	38	60
891	120	35	37	130	130	16	145	168	171	112	13		38	40	75
892	130	30	45	130	150	15	157	170	192	132	5		40	40	83
893	140	30	45	120	160	20	170	176	208	140	13		55	48	90
894	165	40	55	150	200	27	200	210	263	180	25		60	55	105
895	180	55	70	180	233	30	230	256	309	212	15		76	76	120
896	240	75	75	240	295	35	290	340	395	265	10		100	100	150
897	270	95	95	280	360	40	340	390	455	315	41		110	115	175
898	330	115	110	350	420	45	400	470	540	375	65		120	120	205

SIZE	p3	q	q1	s	v2	v4	w7	y	z	D	m	m1	m2	m3	T	U	v3
890	167	63	159	11	76	-	63	140	0.0	30	52.5	120	105	30.3	33.5	8	M10X50L
891	187	71	179	11	76	-	78	140	2.5	35	66.0	150	132	35.3	38.5	10	M12X55L
892	217	80	219	14	91	-	87	180	4.5	40	73.0	166	142	40.3	43.5	12	M16X70L
893	233	90	229	14	91	-	94	180	5.0	40	80.0	180	156	40.3	43.5	12	M16X70L
894	288	112	265	18	91	-	109	212	5.0	50	92.5	210	183	50.5	54.0	14	M16X70L
895	341	132	330	23	115	-	124	250	5.0	60	105.0	240	210	60.5	64.5	18	M20X80L
896	420	160	355	27	115	-	154	300	5.0	70	132.5	300	270	70.5	75.0	20	M20X80L
897	513	200	423	34	140	155	180	360	5.0	80	155.0	350	313	80.5	85.5	22	M20X80L
898	590	225	476	39	140	155	210	400	5.0	100	180.0	410	373	100.5	106.5	28	M24X110L



TRIPLE REDUCTION DIMENSIONS

Motor Frame Size	Dimension k								
	890	**891**	**892**	**893**	**894**	**895**	**896**	**897**	**898**
63	256	284	311	331					
71	260	288	317	337					
80	273	301	335	355	414	506	570		
90	283	311	345	365	424	509	573		
100	246	300	372	392	435	515	579	670	796
112	231	300	372	392	435	515	579	670	796
132			372	391	458	515	579	670	796
160					466	545	614	705	789
180							614	705	789
200							614	705	789
225							641	732	816
250									988
280									988

QUINTUPLE REDUCTION DIMENSIONS

Motor Frame Size	Dimension k								
	890	**891**	**892**	**893**	**894**	**895**	**896**	**897**	**898**
63	442	470	535	555	614	728	789		
71	446	474	539	559	618	731	795		
80A	459	487	552	572	631	749	813	952	1078
90S	469	497	562	582	641	759	823	962	1088
100L	458	486	551	571	630	786	850	973	1099
112M	458	486	551	571	630	786	850	973	1099
132SA						785	849	996	1122
160M								1004	1130

SELECTION OF NON-MOTORISED REDUCER UNITS

(a) Service Factor

From Table 1 select the Mechanical Service Factor (**Fm**) applicable to the drive.

If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Power Required

Determine either the absorbed torque (Nm) or the input power (kW) required by the machine.

The absorbed Torque can be calculated using the following formula:

$$T = \frac{P \times 9550}{n_2}$$

T = required output torque (Nm)

P = absorbed power (kW)

n_2 = machine speed (Rev/Min)

(c) Design Power

Multiply either the absorbed torque (Nm) or the power (kW) by the service factor determined in (**a**)

(d) Ratio Required

Divide the input shaft speed by the required output shaft speed to determine the gear ratio.

(e) Unit Selection

In the selection pages: 287 to 293 refer to the gear ratio closest to the value determined in step (**d**).

Check in column 1 for the nearest input shaft speed, then read across the table at this speed until a unit is found with either an output torque or input power that equals or exceeds the design power value determined in step (**c**) above. Column 3 gives the approximate output shaft speed for the selected speed and ratio combination.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

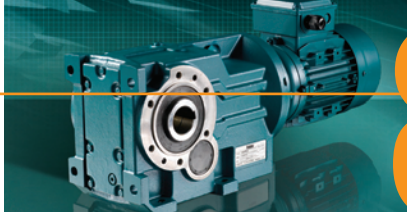
Types of Driven Machine	Operational hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR (Fs)

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

For ATEX certified gear units please consult your local Authorised Distributor.

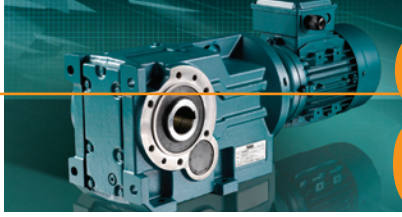


TRIPLE REDUCTION RATINGS SIZES 890 - 895

Ratio Code	Nominal Ratio	Input Speed rpm	Output speed rpm	890 Input Power kW	890 Output Torque Nm	890 Over-hung Load Fra (kN)	891 Input Power kW	891 Output Torque Nm	891 Over-hung Load Fra (kN)	892 Input Power kW	892 Output Torque Nm	892 Over-hung Load Fra (kN)	893 Input Power kW	893 Output Torque Nm	893 Over-hung Load Fra (kN)	894 Input Power kW	894 Output Torque Nm	894 Over-hung Load Fra (kN)	895 Input Power kW	895 Output Torque Nm	895 Over-hung Load Fra (kN)
01	8	2900	348	4.49	118	2.88	8.48	215	3.23	12.70	323	2.33	18.30	459	3.55	26.10	705	4.10	41.30	1050	6.00
		1450	174	2.60	137	3.46	5.02	256	3.67	7.66	394	2.65	11.10	559	3.92	13.10	709	6.00	20.70	1060	6.00
		960	115	1.87	150	4.04	3.61	279	4.33	5.50	429	3.20	7.95	608	4.71	8.65	711	7.40	13.70	1060	6.00
		725	87	1.50	159	4.49	2.88	296	4.84	4.37	451	3.66	6.31	640	5.27	6.53	712	8.50	10.30	1060	6.00
03	11	2900	258	3.78	135	3.02	7.16	255	3.33	10.60	381	2.35	15.40	545	3.56	25.80	968	4.12	41.30	1500	6.00
		1450	129	2.17	155	3.71	4.10	294	3.93	6.19	448	2.84	9.01	641	4.20	13.10	985	6.02	20.70	1500	6.00
		960	85	1.57	170	4.34	2.95	320	4.65	4.42	484	3.45	6.43	693	5.05	8.65	987	7.42	13.70	1510	6.00
		725	64	1.25	179	4.83	2.35	338	5.13	3.52	511	3.94	5.12	731	5.73	6.53	988	8.53	10.30	1510	6.00
04	12	2900	227	3.47	141	3.15	6.73	265	3.44	9.93	401	2.37	14.50	574	3.57	24.20	1020	4.13	41.30	1660	6.00
		1450	113	2.00	163	3.97	3.86	305	4.20	5.74	466	3.04	8.38	669	4.47	13.10	1110	6.04	20.70	1670	6.00
		960	75	1.44	177	4.65	2.77	331	4.97	4.09	503	3.69	5.98	721	5.40	8.65	1110	7.44	13.70	1680	6.00
		725	57	1.14	187	5.17	2.20	349	5.42	3.26	531	4.23	4.76	761	6.20	6.53	1110	8.55	10.30	1680	6.00
05	14	2900	200	3.21	147	3.29	6.19	277	3.54	9.29	421	2.38	13.60	605	3.57	23.10	1070	4.15	41.10	1840	6.00
		1450	100	1.85	171	4.22	3.55	319	4.46	5.32	485	3.23	7.77	696	4.75	13.10	1220	6.06	20.70	1860	6.00
		960	66	1.33	185	4.95	2.54	346	5.28	3.78	522	3.94	5.54	750	5.74	8.65	1220	7.46	13.70	1860	6.40
		725	50	1.06	195	5.50	2.02	364	5.71	3.01	551	4.51	4.41	791	6.66	6.53	1220	8.58	10.30	1870	6.80
07	18	2900	156	2.71	159	3.42	5.27	299	3.64	7.88	454	2.40	11.60	655	3.58	19.60	1190	4.16	34.70	2010	6.00
		1450	78	1.56	184	4.47	3.02	344	4.72	4.48	519	3.42	6.58	748	5.02	11.10	1350	6.08	19.70	2300	6.00
		960	52	1.12	200	5.25	2.16	372	5.60	3.20	561	4.18	4.70	809	6.08	7.93	1460	7.48	13.70	2410	6.80
		725	39	0.89	210	5.84	1.67	382	6.00	2.55	592	4.79	3.63	827	7.12	6.32	1540	8.60	10.30	2410	8.50
08	20	2900	145	2.57	163	3.61	4.83	312	3.84	7.21	471	2.57	10.60	681	3.82	17.90	1240	4.43	31.60	2060	6.00
		1450	73	1.48	189	4.72	2.76	358	4.99	4.09	537	3.65	6.02	777	5.44	10.10	1400	6.46	17.90	2350	6.40
		960	48	1.06	204	5.55	1.98	387	5.80	2.92	581	4.46	4.24	826	6.56	7.25	1520	7.99	13.10	2590	7.40
		725	36	0.85	217	6.00	1.54	400	6.00	2.33	613	5.18	3.20	827	7.56	5.77	1600	9.30	10.30	2700	9.20
10	25	2900	115	2.19	175	3.80	4.19	332	4.04	6.35	495	2.73	9.36	718	4.05	15.70	1320	4.70	26.70	2140	6.00
		1450	57	1.25	201	4.97	2.39	380	5.26	3.60	563	3.89	5.31	817	5.85	8.85	1490	6.83	15.20	2440	6.80
		960	38	0.90	218	5.84	1.71	411	6.00	2.57	609	4.74	3.55	827	7.04	6.33	1610	8.50	11.10	2700	8.10
		725	29	0.70	225	6.00	1.37	438	6.00	2.05	644	5.56	2.68	827	8.00	4.96	1670	10.00	8.39	2700	9.90
11	28	2900	101	2.01	182	3.98	3.89	342	4.24	5.73	514	2.90	8.46	747	4.29	14.70	1350	4.96	24.30	2190	6.00
		1450	51	1.14	208	5.22	2.22	391	5.52	3.24	584	4.12	4.67	826	6.27	8.26	1530	7.21	14.00	2530	6.80
		960	34	0.82	225	6.00	1.59	423	6.00	2.32	632	5.02	3.09	827	7.52	5.91	1650	9.00	9.87	2700	8.70
		725	25	0.62	225	6.00	1.22	430	6.00	1.82	659	5.95	2.33	827	8.00	4.51	1670	10.70	7.45	2700	10.70
12	32	2900	89	1.82	189	4.17	3.55	354	4.44	5.09	532	3.06	7.54	774	4.52	13.20	1390	5.23	21.50	2250	6.00
		1450	44	1.04	215	5.47	2.02	404	5.79	2.90	607	4.35	4.02	826	6.68	7.44	1580	7.58	12.60	2640	7.60
		960	29	0.71	225	6.00	1.44	435	6.00	2.08	658	5.30	2.66	827	8.00	5.20	1670	9.51	8.48	2700	9.30
		725	22	0.54	225	6.00	1.09	435	6.00	1.57	659	6.33	2.01	827	8.00	3.92	1670	11.40	6.40	2700	11.40
13	36	2900	80	1.69	194	3.42	3.31	375	3.42	4.79	559	3.13	7.02	805	4.68	12.10	1450	5.49	19.80	2300	6.30
		1450	40	0.96	221	5.74	1.89	428	6.00	2.72	638	4.42	3.59	827	7.15	6.90	1660	7.96	11.60	2700	8.00
		960	26	0.64	225	6.00	1.29	441	6.00	1.86	659	5.68	2.38	827	8.00	4.59	1670	10.40	7.66	2700	10.60
		725	20	0.49	225	6.00	0.97	441	6.00	1.40	659	6.76	1.80	827	8.00	3.47	1670	12.10	5.78	2700	12.50
14	40	2900	72	1.56	198	3.80	3.00	375	3.99	4.46	555	3.37	6.63	811	5.12	11.10	1470	5.88	18.30	2340	6.40
		1450	36	0.88	225	6.00	1.71	428	6.00	2.53	634	4.83	3.37	827	7.36	6.29	1670	8.69	10.60	2700	8.60
		960	24	0.58	225	6.00	1.17	441	6.00	1.74	659	6.06	2.23	827	8.00	4.16	1670	11.40	6.99	2700	12.00
		725	18	0.44	225	6.00	0.88	441	6.00	1.32	659	7.02	1.68	827	8.00	3.14	1670	12.80	5.28	2700	13.60
15	45	2900	66	1.45	203	4.19	2.70	388	4.56	3.91	578	3.61	5.70	826	5.55	10.00	1520	6.27	16.60	2390	6.60
		1450	33	0.80	225	6.00	1.53	441	6.00	2.22	658	5.24	2.85	827	7.58	5.49	1670	9.43	9.35	2700	9.20
		960	22	0.53	225	6.00	1.01	441	6.00	1.47	659	6.43	1.88	827	8.00	3.64	1670	12.30	6.18	2700	13.30
		725	16	0.40	225	6.00	0.77	441	6.00	1.11	659	7.50	1.42	827	8.00	2.74	1670	13.50	4.67	2700	14.80
16	50	2900	56	1.29	211	4.57	2.53	395	5.12	3.72	586	3.85	5.34	826	5.99	9.10	1560	6.66	15.10	2450	6.70
		1450	28	0.69	225	6.00	1.41	441	6.00	2.08	658	5.64	2.67	827	7.79	4.86	1670	10.20	8.29	2700	9.90
		960	19	0.45	225	6.00	0.93	441	6.00	1.38	659	6.81	1.76	827	8.00	3.22	1670	13.20	5.48	2700	14.60
		725	14	0.34	225	6.00	0.70	441	6.00	1.04	659	7.50	1.33	827	8.00	2.43	1670	14.20	4.14	2700	15.70
18	63	2900	47	1.12	219	4.95	2.20	412	5.69	3.15	615	4.09	4.31	826	6.42	8.13	1620	7.05	13.20	2590	6.80
		1450	23	0.57	225	6.00	1.18	441	6.00	1.68	659	6.05	2.15	827	8.00	4.20	1670	10.90	6.84	2700	10.60
		960	15	0.38	225	6.00	0.78	441	6.00	1.11	659	7.16	1.42	827	8.00	2.78	1670	13.90	4.53	2700	15.70
		725	12	0.29	225	6.00	0.59	441	6.00	0.84	659	7.50	1.07	827	8.00	2.10	1670	15.00	3.42	2700	15.70
19	71	2900	40	0.98	225	5.64	1.91	429	6.00	2.77	638	4.37	3.66	827	6.95	7.06	1670	7.91	11.80	2700	7.70
		1450	20	0.49	225	6.00	0.96	431	6.00	1.43	659	6.55	1.83	827	8.00	3.52	1670	11.90	5.87	2700	11.70
		960	13	0.32	225	6.00	0.64	431	6.00	0.94	659	7.50	1.21	827	8.00	2.33	1670	14.60	3.89	2700	15.70
		725	10	0.25	225	6.00	0.48	431	6.00	0.71	659	7.50	0.91	827	8.00	1.76	1670	15.00	2.93	2700	15.70
20	80	2900	36	0.89	225	6.00	1.72	433	6.00	2.58	650	4.66	3.34	827	7.48	6.45	1670	8.78	10.70	2700	8.70
		1450	18	0.44	225	6.00	0.86	433	6.00	1.31	659	7.04	1.67	827	8.00	3.22	1670	12.80	5.35	2700	12.80
		960	12	0.29	225	6.00	0.57	434	6.00	0.86	659	7.50	1.10	827	8.00	2.13	1670	15.00	3.54	2700	15.70
		725	9	0.22	225	6.00	0.43	434	6.00	0.65	659	7.50	0.83	827	8.00	1.61	1670	15.00	2.67	2700	15.70
22	100	2900	30	0.61	185	6.00	1.36	400	6.00	2.14	658	4.94	2.73	827	8.00	5.38	1670	9.64	8.74	2700	9.20
		1450	15	0.30	186	6.00	0.70	410	6.00	1.07	659	7.50	1.36	827	8.00	2.69	1670	13.50	4.37	2700	15.70
		960	10	0.20	186	6.00	0.48	425	6.00	0.71	659	7.50	0.90	827	8.00	1.78	1670	15.00	2.89	2700	15.70
		725	7	0.15	186	6.00	0.37	435	6.00	0.53	659	7.50	0.68	827	8.00	1.34	1670	15.00	2.18	2700	15.70
23	112	2900	26	0.46	159	6.00	1.23	409	6.00	1.92	659	5.22	2.45	827	8.00	4.56	1620	10.50	8.01	2700	10.50
		1450	13	0.23	159	6.00	0.63	419	6.00	0.96	659	7.50	1.23	827	8.00	2.28	1630	14.10	4.00	2700	15.70
		960	9	0.15	159	6.00	0.43	434	6.00	0.63	659	7.50	0.81	827	8.00	1.51	1630	15.00	2.65	2700	15.70
		725	7	0.11	159	6.00	0.33	441	6.00	0.48	659	7.50	0.61	827	8.00	1.14	1630	15.00	2.00	2700	15.70
24	125	2900	23	0.40	157	6.00	1.17	441	6.00	1.58	607	6.41	1.58	595	8.00	3.49	1380	11.00	6.98	2700	10.80
		1450	12	0.20	157	6.00	0.58	441	6.00	0.79	608	7.50	0.79	596	8.00	1.75	1380	15.00	3.49	2700	15.70
		960	8	0.13	157	6.00	0.39	441	6.00	0.52	608	7.50	0.52	596	8.00	1.16	1380	15.00	2.31	2700	15.70
		725	6	0.10	157	6.00	0.29	441	6.00	0.40	608	7.50	0.40	596	8.00	0.87	1380	15.00	1.74	2700	15.70

TRIPLE REDUCTION RATINGS SIZES 896 - 898

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Output speed Rev/Min	896 Input Power kW	896 Output Torque Nm	896 Overhung Load Fra (kN)	897 Input Power kW	897 Output Torque Nm	897 Overhung Load Fra (kN)	898 Input Power kW	898 Output Torque Nm	898 Overhung Load Fra (kN)
1	8	2900	361	82.80	2090	22.90	156.00	4070	22.90	195.00	5240	56.50
		1450	180	50.70	2570	25.20	78.20	4090	25.20	97.40	5260	56.50
		960	119	37.80	2910	27.70	51.80	4100	34.00	64.50	5260	56.50
		725	90	30.00	3050	30.00	39.10	4100	34.00	48.70	5260	56.60
2	10	2900	300	82.80	2510	22.90	156.00	4890	22.90	195.00	6300	56.50
		1450	150	50.70	3100	25.20	78.20	4920	25.20	97.40	6320	56.50
		960	99	37.80	3500	27.70	51.80	4920	34.00	64.50	6320	56.50
		725	75	29.90	3670	30.00	39.10	4930	34.00	48.70	6330	56.60
3	11	2900	262	69.80	2430	23.50	132.00	4820	25.70	195.00	7290	56.50
		1450	131	42.80	2990	26.50	78.20	5730	29.60	97.40	7300	56.50
		960	87	30.60	3240	29.00	51.80	5730	35.80	64.50	7300	56.50
		725	66	24.00	3370	31.00	39.10	5740	36.30	48.70	7310	57.80
4	12	2900	234	65.50	2560	24.10	126.00	5010	28.50	195.00	8010	56.50
		1450	117	40.00	3130	27.70	77.50	6170	34.00	97.40	8020	56.50
		960	77	28.20	3350	30.30	51.80	6240	37.60	64.50	8020	56.50
		725	58	22.30	3510	32.00	39.10	6240	38.60	48.70	8030	59.00
5	14	2900	218	69.80	2920	24.60	132.00	5790	31.20	195.00	8760	56.50
		1450	109	42.80	3600	29.00	78.20	6880	35.80	97.40	8770	56.50
		960	72	28.80	3670	31.70	51.80	6890	40.10	64.50	8780	57.70
		725	54	21.70	3670	34.00	39.10	6890	43.10	48.70	8780	60.10
6	16	2900	194	65.50	3070	24.60	126.00	6020	31.20	195.00	9630	56.50
		1450	97	38.90	3670	29.50	75.10	7190	36.40	97.40	9640	56.50
		960	64	25.70	3670	32.50	49.70	7190	41.50	64.50	9640	57.80
		725	49	19.40	3670	34.00	37.50	7190	43.10	48.70	9650	61.30
7	18	2900	162	52.80	2980	25.20	101.00	5920	34.00	163.00	9410	56.50
		1450	81	30.60	3480	30.30	59.70	7040	37.60	97.40	11300	56.50
		960	54	21.30	3670	33.10	40.30	7190	42.50	64.50	11300	58.90
		725	40	16.10	3670	34.00	30.40	7190	43.10	48.70	11300	61.30
8	20	2900	145	49.30	3110	26.50	96.10	6100	34.90	153.00	9800	56.50
		1450	72	28.10	3560	31.20	56.30	7160	39.00	92.20	11800	57.70
		960	48	19.10	3670	34.00	37.40	7190	43.10	62.40	12100	61.30
		725	36	14.40	3670	34.00	28.20	7190	43.10	47.10	12100	61.30
9	22	2900	134	52.80	3590	27.00	101.00	7110	35.40	163.00	11300	56.60
		1450	67	26.90	3670	32.50	50.80	7190	41.50	88.50	12300	59.80
		960	44	17.80	3670	34.00	33.60	7190	43.10	58.60	12300	61.30
		725	34	13.40	3670	34.00	25.40	7190	43.10	44.20	12300	61.30
10	25	2900	120	48.30	3670	27.80	94.30	7190	35.80	153.00	11800	56.50
		1450	60	24.10	3670	32.20	47.10	7190	40.40	79.90	12300	58.90
		960	40	15.90	3670	34.00	31.10	7190	43.10	52.90	12300	61.30
		725	30	12.00	3670	34.00	23.50	7190	43.10	39.90	12300	61.30
11	28	2900	104	39.40	3460	29.00	76.10	7050	36.70	124.00	11400	56.50
		1450	52	20.80	3670	34.00	38.70	7190	43.10	65.70	12100	61.30
		960	35	13.80	3670	34.00	25.60	7190	43.10	43.50	12100	61.30
		725	26	10.40	3670	34.00	19.30	7190	43.10	32.80	12100	61.30
12	32	2900	92	35.60	3550	30.30	68.60	7190	37.60	112.00	11700	56.50
		1450	46	18.30	3670	34.00	34.20	7190	43.10	58.00	12100	61.30
		960	30	12.10	3670	34.00	22.60	7190	43.10	38.40	12100	61.30
		725	23	9.10	3670	34.00	17.10	7190	43.10	29.00	12100	61.30
13	36	2900	87	34.80	3670	31.80	64.70	7190	39.50	111.00	12300	59.30
		1450	43	17.30	3670	34.00	32.20	7190	43.10	55.70	12300	61.30
		960	29	11.50	3670	34.00	21.30	7190	43.10	36.80	12300	61.30
		725	22	8.70	3670	34.00	16.10	7190	43.10	27.80	12300	61.30
14	40	2900	73	30.50	3670	32.40	57.10	7190	40.40	98.40	12300	59.80
		1450	36	15.20	3670	34.00	28.50	7190	43.10	49.10	12300	61.30
		960	24	10.10	3670	34.00	18.80	7190	43.10	32.50	12300	61.30
		725	18	7.60	3670	34.00	14.20	7190	43.10	24.50	12300	61.30
15	45	2900	64	25.90	3670	32.90	50.10	7190	41.30	81.80	12100	60.30
		1450	32	12.90	3670	34.00	25.00	7190	43.10	40.80	12100	61.30
		960	21	8.50	3670	34.00	16.50	7190	43.10	27.00	12100	61.30
		725	16	6.50	3670	34.00	12.50	7190	43.10	20.40	12100	61.30
16	50	2900	58	23.30	3670	33.50	45.10	7190	42.20	72.50	12100	60.80
		1450	29	11.60	3670	34.00	22.50	7190	43.10	36.20	12100	61.30
		960	19	7.70	3670	34.00	14.90	7190	43.10	24.00	12100	61.30
		725	15	5.80	3670	34.00	11.20	7190	43.10	18.10	12100	61.30
17	56	2900	52	21.60	3670	34.00	41.70	7190	43.10	69.30	12300	61.30
		1450	26	10.70	3670	34.00	20.80	7190	43.10	34.60	12300	61.30
		960	17	7.10	3670	34.00	13.80	7190	43.10	22.90	12300	61.30
		725	13	5.40	3670	34.00	10.40	7190	43.10	17.30	12300	61.30

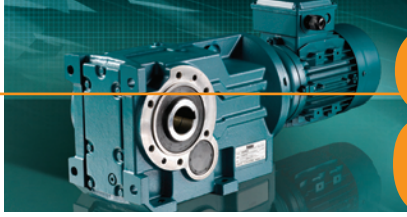


TRIPLE REDUCTION RATINGS SIZES 896 - 898

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Output speed Rev/Min	896 Input Power kW	896 Output Torque Nm	896 Overhung Load Fra (kN)	897 Input Power kW	897 Output Torque Nm	897 Overhung Load Fra (kN)	898 Input Power kW	898 Output Torque Nm	898 Overhung Load Fra (kN)
18	63	2900	46	19.40	3670	34.00	37.60	7190	43.10	61.40	12300	61.30
		1450	23	9.70	3670	34.00	18.70	7190	43.10	30.70	12300	61.30
		960	15	6.40	3670	34.00	12.40	7190	43.10	20.30	12300	61.30
		725	12	4.80	3670	34.00	9.40	7190	43.10	15.30	12300	61.30
19	71	2900	41	16.50	3670	34.00	31.60	7190	43.10	51.50	12100	61.30
		1450	20	8.30	3670	34.00	15.80	7190	43.10	25.70	12100	61.30
		960	14	5.50	3670	34.00	10.40	7190	43.10	17.00	12100	61.30
		725	10	4.10	3670	34.00	7.90	7190	43.10	12.90	12100	61.30
20	80	2900	36	15.00	3670	34.00	27.50	7190	43.10	46.30	12100	61.30
		1450	18	7.50	3670	34.00	13.70	7190	43.10	23.10	12100	61.30
		960	12	4.90	3670	34.00	9.10	7190	43.10	15.30	12100	61.30
		725	9	3.70	3670	34.00	6.90	7190	43.10	11.60	12100	61.30
21	90	2900	32	13.80	3670	34.00	26.30	7190	43.10	43.60	12300	61.30
		1450	16	6.90	3670	34.00	13.10	7190	43.10	21.80	12300	61.30
		960	11	4.50	3670	34.00	8.70	7190	43.10	14.40	12300	61.30
		725	8	3.40	3670	34.00	6.60	7190	43.10	10.90	12300	61.30
22	100	2900	29	12.50	3670	34.00	22.90	7190	43.10	39.20	12300	61.30
		1450	15	6.20	3670	34.00	11.40	7190	43.10	19.60	12300	61.30
		960	10	4.10	3670	34.00	7.60	7190	43.10	13.00	12300	61.30
		725	7	3.10	3670	34.00	5.70	7190	43.10	9.80	12300	61.30
23	112	2900	26	10.90	3670	34.00	20.40	7190	43.10	33.70	12100	61.30
		1450	13	5.40	3670	34.00	10.20	7190	43.10	16.90	12100	61.30
		960	9	3.60	3670	34.00	6.70	7190	43.10	11.20	12100	61.30
		725	6	2.70	3670	34.00	5.10	7190	43.10	8.40	12100	61.30
24	125	2900	23	9.70	3670	34.00	19.00	7190	43.10	31.70	12100	61.30
		1450	12	4.90	3670	34.00	9.50	7190	43.10	15.80	12100	61.30
		960	8	3.20	3670	34.00	6.30	7190	43.10	10.50	12100	61.30
		725	6	2.40	3670	34.00	4.70	7190	43.10	7.90	12100	61.30
25	140	2900	21	9.10	3670	34.00	17.00	7190	43.10	28.60	12300	61.30
		1450	10	4.50	3670	34.00	8.50	7190	43.10	14.30	12300	61.30
		960	7	3.00	3670	34.00	5.60	7190	43.10	9.40	12300	61.30
		725	5	2.30	3670	34.00	4.20	7190	43.10	7.10	12300	61.30
26	160	2900	18	8.10	3670	34.00	15.80	7190	43.10	26.80	12300	61.30
		1450	9	4.00	3670	34.00	7.90	7190	43.10	13.40	12300	61.30
		960	6	2.70	3670	34.00	5.20	7190	43.10	8.90	12300	61.30
		725	5	2.00	3670	34.00	3.90	7190	43.10	6.70	12300	61.30

QUINTUPLE REDUCTION RATINGS SIZES 890 - 895

Ratio Code	Nominal Ratio	Input Speed rpm	Output speed rpm	890 Input Power kW	890 Output Torque Nm	890 Over-hung Load Fra (kN)	891 Input Power kW	891 Output Torque Nm	891 Over-hung Load Fra (kN)	892 Input Power kW	892 Output Torque Nm	892 Over-hung Load Fra (kN)	893 Input Power kW	893 Output Torque Nm	893 Over-hung Load Fra (kN)	894 Input Power kW	894 Output Torque Nm	894 Over-hung Load Fra (kN)	895 Input Power kW	895 Output Torque Nm	895 Over-hung Load Fra (kN)
30	125	2900	22.69	0.56	225	6.00	1.05	440	6.00	1.78	660	7.50	2.27	825	8.00	4.25	1600	15.00	6.55	2710	15.70
		1450	11.35	0.28	225	6.00	0.52	440	6.00	0.89	660	7.50	1.13	825	8.00	2.13	1600	15.00	3.28	2710	15.70
		960	7.51	0.19	225	6.00	0.35	440	6.00	0.59	660	7.50	0.75	825	8.00	1.41	1600	15.00	2.17	2710	15.70
		725	5.63	0.14	225	6.00	0.26	440	6.00	0.44	660	7.50	0.56	825	8.00	1.06	1600	15.00	1.63	2710	15.70
31	140	2900	19.95	0.49	225	6.00	0.95	440	6.00	1.48	660	7.50	1.88	825	8.00	3.83	1600	15.00	5.99	2710	15.70
		1450	9.98	0.25	225	6.00	0.48	440	6.00	0.74	660	7.50	0.94	825	8.00	1.92	1600	15.00	2.99	2710	15.70
		960	6.60	0.16	225	6.00	0.31	440	6.00	0.49	660	7.50	0.62	825	8.00	1.27	1600	15.00	1.98	2710	15.70
		725	4.95	0.12	225	6.00	0.24	440	6.00	0.37	660	7.50	0.47	825	8.00	0.95	1600	15.00	1.49	2710	15.70
32	160	2900	17.61	0.44	225	6.00	0.83	440	6.00	1.34	660	7.50	1.71	825	8.00	3.48	1600	15.00	5.29	2710	15.70
		1450	8.81	0.22	225	6.00	0.41	440	6.00	0.67	660	7.50	0.85	825	8.00	1.74	1600	15.00	2.65	2710	15.70
		960	5.83	0.14	225	6.00	0.27	440	6.00	0.44	660	7.50	0.57	825	8.00	1.15	1600	15.00	1.75	2710	15.70
		725	4.37	0.11	225	6.00	0.21	440	6.00	0.33	660	7.50	0.42	825	8.00	0.86	1600	15.00	1.31	2710	15.70
33	200	2900	13.77	0.34	225	6.00	0.70	440	6.00	1.02	660	7.50	1.29	825	8.00	2.42	1600	15.00	3.80	2420	15.70
		1450	6.89	0.17	225	6.00	0.35	440	6.00	0.51	660	7.50	0.65	825	8.00	1.21	1600	15.00	1.90	2420	15.70
		960	4.56	0.11	225	6.00	0.23	440	6.00	0.34	660	7.50	0.43	825	8.00	0.80	1600	15.00	1.26	2420	15.70
		725	3.42	0.08	225	6.00	0.17	440	6.00	0.25	660	7.50	0.32	825	8.00	0.60	1600	15.00	0.94	2420	15.70
34	250	2900	12.78	0.32	225	6.00	0.55	440	6.00	0.80	660	7.50	1.02	825	8.00	2.19	1600	15.00	3.80	2710	15.70
		1450	6.39	0.16	225	6.00	0.27	440	6.00	0.40	660	7.50	0.51	825	8.00	1.10	1600	15.00	1.90	2710	15.70
		960	4.23	0.10	225	6.00	0.18	440	6.00	0.26	660	7.50	0.34	825	8.00	0.73	1600	15.00	1.26	2710	15.70
		725	3.17	0.08	225	6.00	0.14	440	6.00	0.20	660	7.50	0.25	825	8.00	0.54	1600	15.00	0.94	2710	15.70
35	280	2900	10.12	0.25	225	6.00	0.49	440	6.00	0.70	660	7.50	0.90	825	8.00	1.93	1600	15.00	3.23	2710	15.70
		1450	5.06	0.13	225	6.00	0.25	440	6.00	0.35	660	7.50	0.45	825	8.00	0.96	1600	15.00	1.62	2710	15.70
		960	3.35	0.08	225	6.00	0.16	440	6.00	0.23	660	7.50	0.30	825	8.00	0.64	1600	15.00	1.07	2710	15.70
		725	2.51	0.06	225	6.00	0.12	440	6.00	0.17	660	7.50	0.22	825	8.00	0.48	1600	15.00	0.80	2710	15.70
36	320	2900	8.93	0.22	225	6.00	0.44	440	6.00	0.67	660	7.50	0.85	825	8.00	1.68	1600	15.00	2.92	2710	15.70
		1450	4.46	0.11	225	6.00	0.22	440	6.00	0.33	660	7.50	0.42	825	8.00	0.84	1600	15.00	1.46	2710	15.70
		960	2.96	0.07	225	6.00	0.14	440	6.00	0.22	660	7.50	0.28	825	8.00	0.56	1600	15.00	0.97	2710	15.70
		725	2.22	0.06	225	6.00	0.11	440	6.00	0.17	660	7.50	0.21	825	8.00	0.42	1600	15.00	0.72	2710	15.70
37	360	2900	7.81	0.19	225	6.00	0.40	440	6.00	0.60	660	7.50	0.77	825	8.00	1.37	1600	15.00	2.57	2710	15.70
		1450	3.91	0.10	225	6.00	0.20	440	6.00	0.30	660	7.50	0.38	825	8.00	0.68	1600	15.00	1.29	2710	15.70
		960	2.59	0.06	225	6.00	0.13	440	6.00	0.20	660	7.50	0.25	825	8.00	0.45	1600	15.00	0.85	2710	15.70
		725	1.94	0.05	225	6.00	0.10	440	6.00	0.15	660	7.50	0.19	825	8.00	0.34	1600	15.00	0.64	2710	15.70
38	400	2900	7.02	0.17	225	6.00	0.35	440	6.00	0.53	660	7.50	0.67	825	8.00	1.27	1650	15.00	2.16	2710	15.70
		1450	3.51	0.09	225	6.00	0.17	440	6.00	0.26	660	7.50	0.34	825	8.00	0.64	1650	15.00	1.08	2710	15.70
		960	2.32	0.06	225	6.00	0.11	440	6.00	0.18	660	7.50	0.22	825	8.00	0.42	1650	15.00	0.71	2710	15.70
		725	1.74	0.04	225	6.00	0.09	440	6.00	0.13	660	7.50	0.17	825	8.00	0.32	1650	15.00	0.54	2710	15.70
39	450	2900	6.37	0.16	225	6.00	0.31	440	6.00	0.47	660	7.50	0.59	825	8.00	1.13	1650	15.00	1.87	2710	15.70
		1450	3.19	0.08	225	6.00	0.16	440	6.00	0.23	660	7.50	0.30	825	8.00	0.57	1650	15.00	0.94	2710	15.70
		960	2.11	0.05	225	6.00	0.10	440	6.00	0.15	660	7.50	0.20	825	8.00	0.37	1650	15.00	0.62	2710	15.70
		725	1.58	0.04	225	6.00	0.08	440	6.00	0.12	660	7.50	0.15	825	8.00	0.28	1650	15.00	0.47	2710	15.70
40	500	2900	5.62	0.14	225	6.00	0.28	440	6.00	0.42	660	7.50	0.54	825	8.00	1.03	1650	15.00	1.71	2710	15.70
		1450	2.81	0.07	225	6.00	0.14	440	6.00	0.21	660	7.50	0.27	825	8.00	0.51	1650	15.00	0.86	2710	15.70
		960	1.86	0.05	225	6.00	0.09	440	6.00	0.14	660	7.50	0.18	825	8.00	0.34	1650	15.00	0.57	2710	15.70
		725	1.40	0.04	225	6.00	0.07	440	6.00	0.11	660	7.50	0.13	825	8.00	0.26	1650	15.00	0.43	2710	15.70
41	560	2900	5.11	0.13	225	6.00	0.24	440	6.00	0.37	660	7.50	0.47	825	8.00	0.89	1650	15.00	1.61	2710	15.70
		1450	2.55	0.06	225	6.00	0.12	440	6.00	0.18	660	7.50	0.23	825	8.00	0.45	1650	15.00	0.81	2710	15.70
		960	1.69	0.04	225	6.00	0.08	440	6.00	0.12	660	7.50	0.16	825	8.00	0.30	1650	15.00	0.53	2710	15.70
		725	1.27	0.03	225	6.00	0.06	440	6.00	0.09	660	7.50	0.12	825	8.00	0.22	1650	15.00	0.40	2710	15.70
42	630	2900	4.47	0.11	225	6.00	0.22	440	6.00	0.34	660	7.50	0.43	825	8.00	0.82	1650	15.00	1.35	2710	15.70
		1450	2.23	0.06	225	6.00	0.11	440	6.00	0.17	660	7.50	0.22	825	8.00	0.41	1650	15.00	0.68	2710	15.70
		960	1.48	0.04	225	6.00	0.07	440	6.00	0.11	660	7.50	0.14	825	8.00	0.27	1650	15.00	0.45	2710	15.70
		725	1.11	0.03	225	6.00	0.05	440	6.00	0.08	660	7.50	0.11	825	8.00	0.20	1650	15.00	0.34	2710	15.70
43	700	2900	4.12	0.10	225	6.00	0.20	440	6.00	0.29	660	7.50	0.37	825	8.00	0.72	1650	15.00	1.14	2710	15.70
		1450	2.06	0.05	225	6.00	0.10	440	6.00	0.15	660	7.50	0.19	825	8.00	0.36	1650	15.00	0.57	2710	15.70
		960	1.36	0.03	225	6.00	0.07	440	6.00	0.10	660	7.50	0.12	825	8.00	0.24	1650	15.00	0.38	2710	15.70
		725	1.02	0.03	225	6.00	0.05	440	6.00	0.07	660	7.50	0.09	825	8.00	0.18	1650	15.00	0.28	2710	15.70
44	800	2900	3.63	0.09	225	6.00	0.17	440	6.00	0.26	660	7.50	0.33	825	8.00	0.63	1650	15.00	1.07	2710	15.70
		1450	1.82	0.05	225	6.00	0.09	440	6.00	0.13	660	7.50	0.17	825	8.00	0.32	1650	15.00	0.53	2710	15.70
		960	1.20	0.03	225	6.00	0.06	440	6.00	0.09	660	7.50	0.11	825	8.00	0.21	1650	15.00	0.35	2710	15.70
		725	0.90	0.02	225	6.00	0.04	440	6.00	0.07	660	7.50	0.08	825	8.00	0.16	1650	15.00	0.27	2710	15.70
45	900	2900	3.18	0.08	225	6.00	0.16	440	6.00	0.23	660	7.50	0.30	825	8.00	0.57	1650	15.00	0.98	2710	15.70
		1450	1.59	0.04	225	6.00	0.08	440	6.00	0.12	660	7.50	0.15	825	8.00	0.29	1650	15.00	0.49	2710	15.70
		960	1.05	0.03	225	6.00	0.05	440	6.00	0.08	660	7.50	0.10	825	8.00	0.19	1650	15.00	0.32	2710	15.70
		725	0.79	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.07	825	8.00	0.14	1650	15.00	0.24	2710	15.70
46	1000	2900	2.86	0.07	225	6.00	0.14	440	6.00	0.20	660	7.50	0.26	825	8.00	0.50	1650	15.00	0.86	2710	15.70
		1450	1.43	0.04	225	6.00	0.07	440	6.00	0.10	660	7.50	0.13	825	8.00	0.25	1650	15.00	0.43	2710	15.70
		960	0.95	0.02	225	6.00	0.05	440	6.00	0.07	660	7.50	0.09	825	8.00	0.16	1650	15.00	0.28	2710	15.70
		725	0.71	0.02	225	6.00	0.04	440	6.00	0.05	660	7.50	0.06	825	8.00	0.12	1650	15.00	0.21	2710	15.70
47	1100	2900	2.59	0.06	225	6.00	0.13	440	6.00	0.18	660	7.50	0.23	825	8.00	0.44	1650	15.00	0.79	2710	15.70
		1450	1.30	0.03	225	6.00	0.06	440	6.00	0.09	660	7.50	0.11	825	8.00	0.22	1650	15.00	0.39	2710	15.70
		960	0.86	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.08	825	8.00	0.15	1650	15.00	0.26	2710	15.70
		725	0.64	0.02	225	6.00	0.03	440	6.00	0.05	660	7.50	0.06	825	8.00	0.11	1650	15.00	0.20	2710	15.70

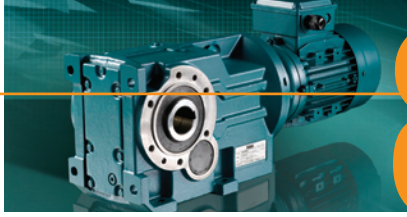


QUINTUPLE REDUCTION RATINGS SIZES 890 - 895

Ratio Code	Nominal Ratio	Input Speed rpm	Output speed rpm	890 Input Power kW	890 Output Torque Nm	890 Over-hung Load Fra (kN)	891 Input Power kW	891 Output Torque Nm	891 Over-hung Load Fra (kN)	892 Input Power kW	892 Output Torque Nm	892 Over-hung Load Fra (kN)	893 Input Power kW	893 Output Torque Nm	893 Over-hung Load Fra (kN)	894 Input Power kW	894 Output Torque Nm	894 Over-hung Load Fra (kN)	895 Input Power kW	895 Output Torque Nm	895 Over-hung Load Fra (kN)
		2900	2.45	0.06	225	6.00	0.11	440	6.00	0.17	660	7.50	0.22	825	8.00	0.42	1650	15.00	0.69	2710	15.70
48	1200	1450	1.23	0.03	225	6.00	0.06	440	6.00	0.09	660	7.50	0.11	825	8.00	0.21	1650	15.00	0.35	2710	15.70
		960	0.81	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.07	825	8.00	0.14	1650	15.00	0.23	2710	15.70
		725	0.61	0.02	225	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.10	1650	15.00	0.17	2710	15.70
		2900	2.04	0.05	225	6.00	0.10	440	6.00	0.14	660	7.50	0.18	825	8.00	0.35	1650	15.00	0.59	2710	15.70
49	1400	1450	1.02	0.03	225	6.00	0.05	440	6.00	0.07	660	7.50	0.09	825	8.00	0.17	1650	15.00	0.29	2710	15.70
		960	0.68	0.02	225	6.00	0.03	440	6.00	0.05	660	7.50	0.06	825	8.00	0.11	1650	15.00	0.20	2710	15.70
		725	0.51	0.01	225	6.00	0.02	440	6.00	0.04	660	7.50	0.05	825	8.00	0.09	1650	15.00	0.15	2710	15.70
		2900	1.83	0.05	225	6.00	0.09	440	6.00	0.13	660	7.50	0.17	825	8.00	0.31	1650	15.00	0.52	2710	15.70
50	1600	1450	0.92	0.02	225	6.00	0.04	440	6.00	0.07	660	7.50	0.09	825	8.00	0.15	1650	15.00	0.26	2710	15.70
		960	0.61	0.02	225	6.00	0.03	440	6.00	0.04	660	7.50	0.06	825	8.00	0.10	1650	15.00	0.17	2710	15.70
		725	0.46	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.08	1650	15.00	0.13	2710	15.70
		2900	1.61	0.04	225	6.00	0.08	440	6.00	0.12	660	7.50	0.15	825	8.00	0.27	1650	15.00	0.48	2710	15.70
51	1800	1450	0.81	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.08	825	8.00	0.14	1650	15.00	0.24	2710	15.70
		960	0.53	0.01	225	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.09	1650	15.00	0.16	2710	15.70
		725	0.40	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.07	1650	15.00	0.12	2710	15.70
		2900	1.45	0.04	225	6.00	0.07	440	6.00	0.11	660	7.50	0.14	825	8.00	0.26	1650	15.00	0.43	2710	15.70
52	2000	1450	0.73	0.02	225	6.00	0.04	440	6.00	0.05	660	7.50	0.07	825	8.00	0.13	1650	15.00	0.22	2710	15.70
		960	0.48	0.01	225	6.00	0.02	440	6.00	0.04	660	7.50	0.05	825	8.00	0.09	1650	15.00	0.14	2710	15.70
		725	0.36	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.03	825	8.00	0.07	1650	15.00	0.11	2710	15.70
		2900	1.29	0.03	225	6.00	0.06	440	6.00	0.10	660	7.50	0.12	825	8.00	0.23	1650	15.00	0.39	2710	15.70
53	2200	1450	0.64	0.02	225	6.00	0.03	440	6.00	0.05	660	7.50	0.06	825	8.00	0.12	1650	15.00	0.20	2710	15.70
		960	0.43	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.08	1650	15.00	0.13	2710	15.70
		725	0.32	0.01	225	6.00	0.02	440	6.00	0.02	660	7.50	0.03	825	8.00	0.06	1650	15.00	0.10	2710	15.70
		2900	1.12	0.03	225	6.00	0.06	440	6.00	0.08	660	7.50	0.10	825	8.00	0.20	1650	15.00	0.32	2710	15.70
54	2500	1450	0.56	0.01	225	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.10	1650	15.00	0.16	2710	15.70
		960	0.37	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.07	1650	15.00	0.11	2710	15.70
		725	0.28	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.03	825	8.00	0.05	1650	15.00	0.08	2710	15.70
		2900	1.07	0.03	225	6.00	0.05	440	6.00	0.07	660	7.50	0.09	825	8.00	0.18	1650	15.00	0.31	2710	15.70
55	2800	1450	0.54	0.01	225	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.09	1650	15.00	0.15	2710	15.70
		960	0.36	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.03	825	8.00	0.06	1650	15.00	0.10	2710	15.70
		725	0.27	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.05	1650	15.00	0.08	2710	15.70
		2900	0.94	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.08	825	8.00	0.15	1650	15.00	0.28	2710	15.70
56	3200	1450	0.47	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.08	1650	15.00	0.14	2710	15.70
		960	0.31	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.03	825	8.00	0.05	1650	15.00	0.09	2710	15.70
		725	0.23	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.04	1650	15.00	0.07	2710	15.70
		2900	0.83	0.02	225	6.00	0.04	440	6.00	0.06	660	7.50	0.07	825	8.00	0.14	1650	15.00	0.22	2710	15.70
57	3600	1450	0.41	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.04	825	8.00	0.07	1650	15.00	0.11	2710	15.70
		960	0.27	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.05	1650	15.00	0.07	2710	15.70
		725	0.21	0.01	225	6.00	0.01	440	6.00	0.01	660	7.50	0.02	825	8.00	0.03	1650	15.00	0.06	2710	15.70
		2900	0.72	0.02	225	6.00	0.04	440	6.00	0.05	660	7.50	0.07	825	8.00	0.13	1650	15.00	0.20	2710	15.70
58	4000	1450	0.36	0.01	225	6.00	0.02	440	6.00	0.03	660	7.50	0.03	825	8.00	0.06	1650	15.00	0.10	2710	15.70
		960	0.24	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.04	1650	15.00	0.07	2710	15.70
		725	0.18	0.00	225	6.00	0.01	440	6.00	0.01	660	7.50	0.02	825	8.00	0.03	1650	15.00	0.05	2710	15.70
		2900	0.64	0.02	225	6.00	0.03	440	6.00	0.05	660	7.50	0.06	825	8.00	0.11	1650	15.00	0.18	2710	15.70
59	4500	1450	0.32	0.01	225	6.00	0.02	440	6.00	0.02	660	7.50	0.03	825	8.00	0.06	1650	15.00	0.09	2710	15.70
		960	0.21	0.01	225	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.04	1650	15.00	0.06	2710	15.70
		725	0.16	0.00	225	6.00	0.01	440	6.00	0.01	660	7.50	0.01	825	8.00	0.03	1650	15.00	0.05	2710	15.70
		2900	0.60	0.01	187	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.10	1650	15.00	0.17	2710	15.70
60	5000	1450	0.30	0.01	187	6.00	0.02	440	6.00	0.02	660	7.50	0.03	825	8.00	0.05	1650	15.00	0.08	2710	15.70
		960	0.20	0.00	187	6.00	0.01	440	6.00	0.01	660	7.50	0.02	825	8.00	0.03	1650	15.00	0.06	2710	15.70
		725	0.15	0.00	187	6.00	0.01	440	6.00	0.01	660	7.50	0.01	825	8.00	0.03	1650	15.00	0.04	2710	15.70
		2900	0.53	0.01	187	6.00	0.03	440	6.00	0.04	660	7.50	0.05	825	8.00	0.10	1650	15.00	0.16	2710	15.70
61	5600	1450	0.26	0.01	187	6.00	0.01	440	6.00	0.02	660	7.50	0.03	825	8.00	0.05	1650	15.00	0.08	2710	15.70
		960	0.18	0.00	187	6.00	0.01	440	6.00	0.01	660	7.50	0.02	825	8.00	0.03	1650	15.00	0.05	2710	15.70
		725	0.13	0.00	187	6.00	0.01	440	6.00	0.01	660	7.50	0.01	825	8.00	0.02	1650	15.00	0.04	2710	15.70
		2900	0.46	0.01	160	6.00	0.02	440	6.00	0.04	660	7.50	0.05	825	8.00	0.09	1650	15.00	0.15	2710	15.70
62	6300	1450	0.23	0.00	160	6.00	0.01	440	6.00	0.02	660	7.50	0.02	825	8.00	0.04	1650	15.00	0.08	2710	15.70
		960	0.15	0.00	160	6.00	0.01	440	6.00	0.01	660	7.50	0.02	825	8.00	0.03	1650	15.00	0.05	2710	15.70
		725	0.12	0.00	160	6.00	0.01	440	6.00	0.01	660	7.50	0.01	825	8.00	0.02	1650	15.00	0.04	2710	15.70
		2900	0.41	0.01	158	6.00	0.02	440	6.00	0.03	605	7.50	0.03	605	8.00	0.06	1360	15.00	0.13	2710	15.70
63	7100	1450	0.20	0.00	158	6.00	0.01	440	6.00	0.02	605	7.50	0.02	605	8.00	0.03	1360	15.00	0.07	2710	15.70
		960	0.13	0.00	158	6.00	0.01	440	6.00	0.01	605	7.50	0.01	605	8.00	0.02	1360	15.00	0.04	2710	15.70
		725	0.10	0.00	158	6.00	0.01	440	6.00	0.01	605	7.50	0.01	605	8.00	0.02	1360	15.00	0.03	2710	15.70

QUINTUPLE REDUCTION RATINGS SIZES 896 - 898

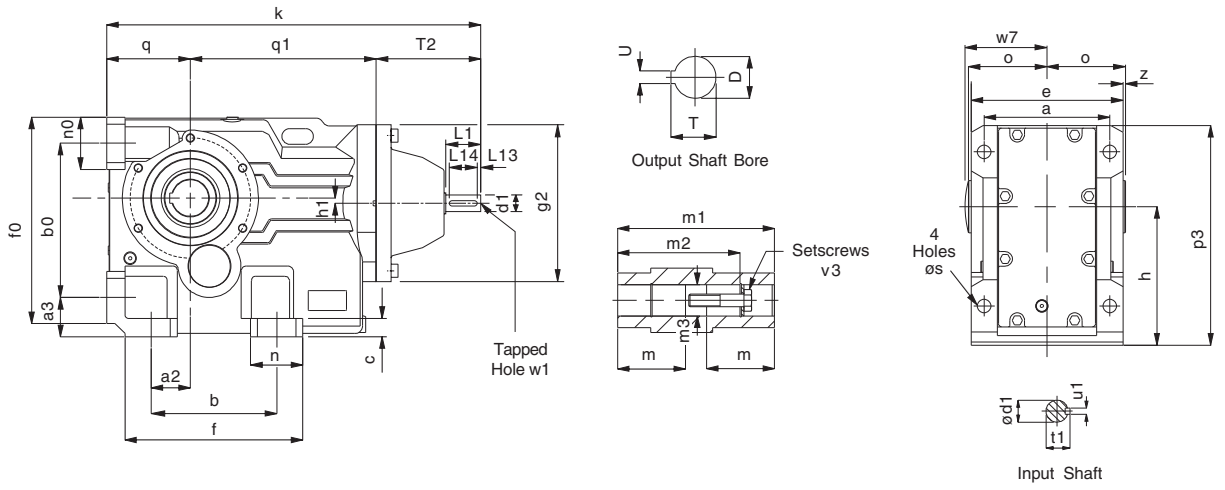
Ratio Code	Nominal Ratio	Input Speed rpm	Output speed rpm	896 Input Power kW	896 Output Torque Nm	896 Overhung Load fra (kN)	897 Input Power kW	897 Output Torque Nm	897 Overhung Load fra (kN)	898 Input Power kW	898 Output Torque Nm	898 Overhung Load fra (kN)
32	160	2900	18.020	8.16	4110	34.00	13.89	7250	43.10	22.47	12100	61.30
		1450	9.010	4.08	4110.00	34.00	6.94	7250	43.10	11.23	12100	61.30
		960	5.970	2.70	4110.00	34.00	4.60	7250	43.10	7.44	12100	61.30
		725	4.470	2.03	4110.00	34.00	3.45	7250	43.10	5.58	12100	61.30
33	200	2900	12.820	6.07	4300.00	34.00	10.03	7250	43.10	14.39	12100	61.30
		1450	6.410	3.04	4300.00	34.00	5.01	7250	43.10	7.19	12100	61.30
		960	4.240	2.01	4300.00	34.00	3.32	7250	43.10	4.76	12100	61.30
		725	3.180	1.51	4300.00	34.00	2.49	7250	43.10	3.57	12100	61.30
34	250	2900	11.440	5.18	4110.00	34.00	8.93	7250	43.10	16.22	12100	61.30
		1450	5.720	2.59	4110.00	34.00	4.46	7250	43.10	8.11	12100	61.30
		960	3.790	1.71	4110.00	34.00	2.96	7250	43.10	5.37	12100	61.30
		725	2.840	1.29	4110.00	34.00	2.22	7250	43.10	4.03	12100	61.30
35	280	2900	10.290	4.88	4300.00	34.00	8.12	7250	43.10	12.81	12100	61.30
		1450	5.150	2.44	4300.00	34.00	4.06	7250	43.10	6.40	12100	61.30
		960	3.410	1.61	4300.00	34.00	2.69	7250	43.10	4.24	12100	61.30
		725	2.560	1.21	4300.00	34.00	2.02	7250	43.10	3.18	12100	61.30
36	320	2900	9.720	4.61	4300.00	34.00	7.31	7250	43.10	11.65	12100	61.30
		1450	4.860	2.30	4300.00	34.00	3.65	7250	43.10	5.83	12100	61.30
		960	3.220	1.53	4300.00	34.00	2.42	7250	43.10	3.86	12100	61.30
		725	2.410	1.14	4300.00	34.00	1.81	7250	43.10	2.89	12100	61.30
37	360	2900	8.750	3.97	4110.00	34.00	6.22	7250	43.10	10.05	12100	61.30
		1450	4.380	1.98	4110.00	34.00	3.11	7250	43.10	5.03	12100	61.30
		960	2.900	1.31	4110.00	34.00	2.06	7250	43.10	3.33	12100	61.30
		725	2.170	0.98	4110.00	34.00	1.54	7250	43.10	2.50	12100	61.30
38	400	2900	7.220	3.27	4110.00	34.00	5.59	7250	43.10	8.84	12100	61.30
		1450	3.610	1.64	4110.00	34.00	2.80	7250	43.10	4.42	12100	61.30
		960	2.390	1.08	4110.00	34.00	1.85	7250	43.10	2.93	12100	61.30
		725	1.790	0.81	4110.00	34.00	1.39	7250	43.10	2.20	12100	61.30
39	450	2900	6.370	3.02	4300.00	34.00	4.92	7250	43.10	7.84	12100	61.30
		1450	3.180	1.51	4300.00	34.00	2.46	7250	43.10	3.92	12100	61.30
		960	2.110	1.00	4300.00	34.00	1.63	7250	43.10	2.60	12100	61.30
		725	1.580	0.75	4300.00	34.00	1.22	7250	43.10	1.95	12100	61.30
40	500	2900	5.930	2.81	4300.00	34.00	4.50	7250	43.10	7.28	12100	61.30
		1450	2.970	1.41	4300.00	34.00	2.25	7250	43.10	3.64	12100	61.30
		960	1.960	0.93	4300.00	34.00	1.49	7250	43.10	2.41	12100	61.30
		725	1.470	0.70	4300.00	34.00	1.12	7250	43.10	1.81	12100	61.30
41	560	2900	5.150	2.33	4110.00	34.00	4.09	7250	43.10	6.62	12100	61.30
		1450	2.580	1.17	4110.00	34.00	2.05	7250	43.10	3.31	12100	61.30
		960	1.710	0.77	4110.00	34.00	1.35	7250	43.10	2.19	12100	61.30
		725	1.280	0.58	4110.00	34.00	1.02	7250	43.10	1.64	12100	61.30
42	630	2900	4.430	2.01	4110.00	34.00	3.56	7250	43.10	5.76	12100	61.30
		1450	2.220	1.00	4110.00	34.00	1.78	7250	43.10	2.88	12100	61.30
		960	1.470	0.66	4110.00	34.00	1.18	7250	43.10	1.91	12100	61.30
		725	1.100	0.50	4110.00	34.00	0.88	7250	43.10	1.43	12100	61.30
43	700	2900	3.990	1.81	4110.00	34.00	3.21	7250	43.10	5.11	12100	61.30
		1450	1.990	0.90	4110.00	34.00	1.60	7250	43.10	2.56	12100	61.30
		960	1.320	0.60	4110.00	34.00	1.06	7250	43.10	1.69	12100	61.30
		725	0.990	0.45	4110.00	34.00	0.80	7250	43.10	1.27	12100	61.30
44	800	2900	3.680	1.74	4300.00	34.00	2.96	7250	43.10	4.86	12300	61.30
		1450	1.840	0.87	4300.00	34.00	1.48	7250	43.10	2.43	12300	61.30
		960	1.220	0.58	4300.00	34.00	0.98	7250	43.10	1.61	12300	61.30
		725	0.913	0.43	4300.00	34.00	0.73	7250	43.10	1.21	12300	61.30
45	900	2900	3.080	1.46	4300.00	34.00	2.56	7250	43.10	4.09	12100	61.30
		1450	1.540	0.73	4300.00	34.00	1.28	7250	43.10	2.04	12100	61.30
		960	1.020	0.48	4300.00	34.00	0.85	7250	43.10	1.35	12100	61.30
		725	0.766	0.36	4300.00	34.00	0.64	7250	43.10	1.01	12100	61.30
46	1000	2900	2.820	1.28	4110.00	34.00	2.37	7250	43.10	3.89	12300	61.30
		1450	1.410	0.64	4110.00	34.00	1.18	7250	43.10	1.94	12300	61.30
		960	0.934	0.42	4110.00	34.00	0.78	7250	43.10	1.29	12300	61.30
		725	0.701	0.32	4110.00	34.00	0.59	7250	43.10	0.96	12300	61.30
47	1100	2900	2.600	1.23	4300.00	34.00	1.98	7250	43.10	3.45	12300	61.30
		1450	1.300	0.62	4300.00	34.00	0.99	7250	43.10	1.72	12300	61.30
		960	0.861	0.41	4300.00	34.00	0.66	7250	43.10	1.14	12300	61.30
		725	0.646	0.31	4300.00	34.00	0.49	7250	43.10	0.86	12300	61.30
48	1200	2900	2.440	1.16	4300.00	34.00	1.83	7250	43.10	3.16	12100	61.30
		1450	1.220	0.58	4300.00	34.00	0.91	7250	43.10	1.58	12100	61.30
		960	0.807	0.38	4300.00	34.00	0.60	7250	43.10	1.04	12100	61.30
		725	0.605	0.29	4300.00	34.00	0.45	7250	43.10	0.78	12100	61.30



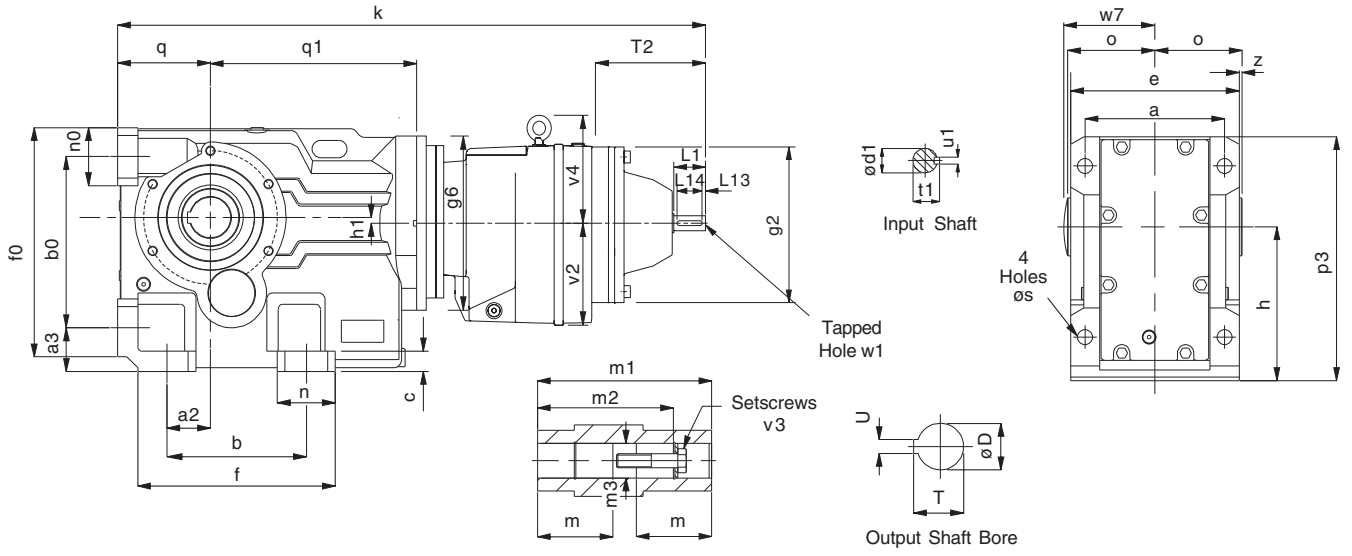
QUINTUPLE REDUCTION RATINGS SIZES 896 - 898

Ratio Code	Nominal Ratio	Input Speed Rev/Min	Output speed Rev/Min	896 Input Power kW	896 Output Torque Nm	896 Overhung Load fra (kN)	897 Input Power kW	897 Output Torque Nm	897 Overhung Load fra (kN)	898 Input Power kW	898 Output Torque Nm	898 Overhung Load fra (kN)
49	1400	2900	1.960	0.93	4300.00	34.00	1.58	7250	43.10	2.59	12300	61.30
		1450	0.980	0.47	4300.00	34.00	0.79	7250	43.10	1.29	12300	61.30
		960	0.650	0.31	4300.00	34.00	0.52	7250	43.10	0.86	12300	61.30
		725	0.488	0.23	4300.00	34.00	0.39	7250	43.10	0.64	12300	61.30
50	1600	2900	1.770	0.84	4300.00	34.00	1.42	7250	43.10	2.30	12300	61.30
		1450	0.884	0.42	4300.00	34.00	0.71	7250	43.10	1.15	12300	61.30
		960	0.585	0.28	4300.00	34.00	0.47	7250	43.10	0.76	12300	61.30
		725	0.439	0.21	4300.00	34.00	0.35	7250	43.10	0.57	12300	61.30
51	1800	2900	1.670	0.79	4300.00	34.00	1.32	7250	43.10	2.17	12300	61.30
		1450	0.833	0.39	4300.00	34.00	0.66	7250	43.10	1.09	12300	61.30
		960	0.551	0.26	4300.00	34.00	0.44	7250	43.10	0.72	12300	61.30
		725	0.413	0.20	4300.00	34.00	0.33	7250	43.10	0.54	12300	61.30
52	2000	2900	1.500	0.71	4300.00	34.00	1.19	7250	43.10	1.93	12300	61.30
		1450	0.750	0.36	4300.00	34.00	0.59	7250	43.10	0.96	12300	61.30
		960	0.496	0.24	4300.00	34.00	0.39	7250	43.10	0.64	12300	61.30
		725	0.372	0.18	4300.00	34.00	0.30	7250	43.10	0.48	12300	61.30
53	2200	2900	1.370	0.65	4300.00	34.00	1.09	7250	43.10	1.76	12300	61.30
		1450	0.684	0.32	4300.00	34.00	0.54	7250	43.10	0.88	12300	61.30
		960	0.453	0.21	4300.00	34.00	0.36	7250	43.10	0.58	12300	61.30
		725	0.340	0.16	4300.00	34.00	0.27	7250	43.10	0.44	12300	61.30
54	2500	2900	1.120	0.53	4300.00	34.00	0.90	7250	43.10	1.47	12300	61.30
		1450	0.559	0.26	4300.00	34.00	0.45	7250	43.10	0.73	12300	61.30
		960	0.370	0.18	4300.00	34.00	0.30	7250	43.10	0.49	12300	61.30
		725	0.277	0.13	4300.00	34.00	0.22	7250	43.10	0.36	12300	61.30
55	2800	2900	1.060	0.50	4300.00	34.00	0.83	7250	43.10	1.36	12300	61.30
		1450	0.531	0.25	4300.00	34.00	0.42	7250	43.10	0.68	12300	61.30
		960	0.351	0.17	4300.00	34.00	0.28	7250	43.10	0.45	12300	61.30
		725	0.263	0.12	4300.00	34.00	0.21	7250	43.10	0.34	12300	61.30
56	3200	2900	0.969	0.46	4300.00	34.00	0.76	7250	43.10	1.24	12300	61.30
		1450	0.485	0.23	4300.00	34.00	0.38	7250	43.10	0.62	12300	61.30
		960	0.321	0.15	4300.00	34.00	0.25	7250	43.10	0.41	12300	61.30
		725	0.241	0.11	4300.00	34.00	0.19	7250	43.10	0.31	12300	61.30
57	3600	2900	0.791	0.37	4300.00	34.00	0.63	7250	43.10	1.04	12300	61.30
		1450	0.395	0.19	4300.00	34.00	0.32	7250	43.10	0.52	12300	61.30
		960	0.262	0.12	4300.00	34.00	0.21	7250	43.10	0.34	12300	61.30
		725	0.196	0.09	4300.00	34.00	0.16	7250	43.10	0.26	12300	61.30
58	4000	2900	0.716	0.34	4300.00	34.00	0.55	7250	43.10	0.93	12300	61.30
		1450	0.358	0.17	4300.00	34.00	0.28	7250	43.10	0.47	12300	61.30
		960	0.237	0.11	4300.00	34.00	0.18	7250	43.10	0.31	12300	61.30
		725	0.178	0.08	4300.00	34.00	0.14	7250	43.10	0.23	12300	61.30
59	4500	2900	0.643	0.30	4300.00	34.00	0.48	7250	43.10	0.81	12300	61.30
		1450	0.321	0.15	4300.00	34.00	0.24	7250	43.10	0.40	12300	61.30
		960	0.213	0.10	4300.00	34.00	0.16	7250	43.10	0.27	12300	61.30
		725	0.160	0.08	4300.00	34.00	0.12	7250	43.10	0.20	12300	61.30
60	5000	2900	0.573	0.27	4300.00	34.00	0.43	7250	43.10	0.76	12100	61.30
		1450	0.287	0.14	4300.00	34.00	0.22	7250	43.10	0.38	12100	61.30
		960	0.190	0.09	4300.00	34.00	0.14	7250	43.10	0.25	12100	61.30
		725	0.142	0.07	4300.00	34.00	0.11	7250	43.10	0.19	12100	61.30
61	5600	2900	0.501	0.23	4110.00	34.00	0.40	7250	43.10	0.66	12100	61.30
		1450	0.250	0.11	4110.00	34.00	0.20	7250	43.10	0.33	12100	61.30
		960	0.166	0.08	4110.00	34.00	0.13	7250	43.10	0.22	12100	61.30
		725	0.124	0.06	4110.00	34.00	0.10	7250	43.10	0.16	12100	61.30
62	6300	2900	0.467	0.22	4300.00	34.00	0.35	7250	43.10	0.59	12300	61.30
		1450	0.234	0.11	4300.00	34.00	0.18	7250	43.10	0.30	12300	61.30
		960	0.155	0.07	4300.00	34.00	0.12	7250	43.10	0.20	12300	61.30
		725	0.116	0.06	4300.00	34.00	0.09	7250	43.10	0.15	12300	61.30
63	7100	2900	0.415	0.20	4300.00	34.00	0.32	7250	43.10	0.56	12300	61.30
		1450	0.208	0.10	4300.00	34.00	0.16	7250	43.10	0.28	12300	61.30
		960	0.138	0.07	4300.00	34.00	0.11	7250	43.10	0.18	12300	61.30
		725	0.103	0.05	4300.00	34.00	0.08	7250	43.10	0.14	12300	61.30

TRIPLE REDUCTION

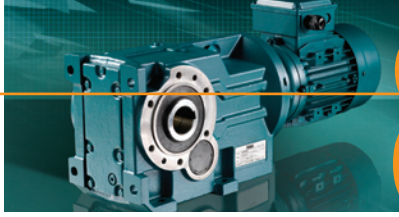


QUINTUPLE REDUCTION



SIZE	a	a2	a3	b	b0	c	e	f	f0	g2*	h	h1	k*	n	n0	o	p3	q	q1	T2*	s	w7	z
890	100	28	32	110	115	11	120	143	152	140	100	16	333	38	38	60	167	63	159	111	11	63	0.0
891	120	35	37	130	130	16	145	168	171	140	112	13	361	38	40	75	187	71	179	111	11	78	2.5
892	130	30	45	130	150	15	157	170	192	180	132	5	410	40	40	83	217	80	219	111	14	87	4.5
893	140	30	45	120	160	20	170	176	208	180	140	13	430	55	48	90	233	90	229	111	14	94	5.0
894	165	40	55	150	200	27	200	210	263	212	180	25	492	60	55	105	288	112	265	115	18	109	5.0
895	180	55	70	180	233	30	230	256	309	250	212	15	622	76	76	120	341	132	330	160	23	124	5.0
896	240	75	75	240	295	35	290	340	395	300	265	10	710	100	100	150	420	160	355	195	27	154	5.0
897	270	95	95	280	360	40	340	390	455	360	315	41	856	110	115	175	513	200	423	233	34	180	5.0
898	330	115	110	350	420	45	400	470	540	400	375	65	987	120	120	205	590	225	476	286	39	210	5.0

*Dimensions relate to triple reduction, see quintuple reduction table on facing page for quintuple reduction dimensions



TRIPLE REDUCTION - INPUT SHAFT

UNIT SIZE	Input Shaft - Triple Reduction						
	d1	L1	L13	L14	t1	u1	w1
890	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
891	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
892	19 k6	40	4	32	21.5	6	M6x1.0, 16 deep
893	19 k6	40	4	32	21.5	6	M6x1.0, 16 deep
894	24 k6	50	5	40	27.0	8	M8x1.25, 19 deep
895	28 k6	60	5	50	31.0	8	M10x1.5, 22 deep
896	38 k6	80	5	70	41.0	10	M12x1.75, 28 deep
897	42 k6	110	10	70	45.0	12	M16x2.0, 36 deep
898	55 k6	110	10	90	59.0	16	M20x2.5, 42 deep

all parallel keys are to DIN 6885

QUINTUPLE REDUCTION - INPUT SHAFT

UNIT SIZE	Input Shaft - Quintuple Reduction						
	d1	L1	L13	L14	t1	u1	w1
890	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
891	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
892	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
893	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
894	16 k6	40	4	32	18.0	5	M5x0.8, 12 deep
895	19 k6	40	4	32	21.5	6	M6x1.0, 16 deep
896	19 k6	40	4	32	21.5	6	M6x1.0, 16 deep
897	24 k6	50	5	40	27.0	8	M8x1.25, 19 deep
898	24 k6	50	5	40	27.0	8	M8x1.25, 19 deep

all parallel keys are to DIN 6885

TRIPLE & QUINTUPLE REDUCTION - HOLLOW OUTPUT BORE

UNIT SIZE	Hollow Output Bore - Triple & Quintuple Reductions							
	D	m	m1	m2	m3	T	U	v3
890	30	52.5	120	105	30.3	33.5	8	M10x50L
891	35	66.0	150	132	35.3	38.5	10	M12x55L
892	40	73.0	166	142	40.3	43.5	12	M16x70L
893	40	80.0	180	156	40.3	43.5	12	M16x70L
894	50	92.5	210	183	50.5	54.0	14	M16x70L
895	60	105.0	240	210	60.5	64.5	18	M20x80L
896	70	132.5	300	270	70.5	75.0	20	M20x80L
897	80	155.0	350	313	80.5	85.5	22	M20x80L
898	100	180.0	410	373	100.5	106.5	28	M24x110L

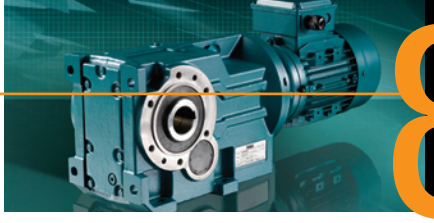
QUINTUPLE REDUCTION

UNIT SIZE	Other Dimensions Specific to Quintuple Reductions					
	g2	g6	v2	v4	T2	k
890	140	140	76	-	111	630
891	140	140	76	-	111	658
892	140	180	91	-	111	723
893	140	180	91	-	111	743
894	140	180	91	-	111	802
895	180	250	115	-	111	929
896	180	300	115	-	111	993
897	212	360	140	155	115	1145
898	212	400	140	155	115	1272

EXACT GEAR RATIOS - NOMINAL OUTPUT SPEEDS BASED ON 1425RPM

Ratio Code	Nominal Ratio	Normal Output Speed	Gear Unit Size								
			890	**891**	**892**	**893**	**894**	**895**	**896**	**897**	**898**
01	8	173	8.328	8.054	8.112	7.961	8.595	8.128	8.035	8.263	8.513
02	10	143	-	-	-	-	-	-	9.681	9.946	10.256
03	11	125	11.250	11.296	11.405	11.192	11.906	11.522	11.061	11.542	11.799
04	12	112	12.796	12.448	12.783	12.545	13.374	12.800	12.398	12.553	12.96
05	14	101	14.497	14.135	14.349	14.081	14.705	14.238	13.328	13.893	14.214
06	16	94	-	-	-	-	-	-	14.938	15.11	15.613
07	18	78	18.540	17.953	18.222	17.882	19.208	18.410	17.933	18.571	18.203
08	20	70	19.980	20.396	20.657	20.272	21.838	20.668	20.035	20.05	20.166
09	22	65	-	-	-	-	-	-	21.608	22.354	21.93
10	25	57	25.225	25.031	24.636	24.177	26.518	25.345	24.140	24.134	24.294
11	28	50	28.597	27.762	28.367	27.838	29.170	28.560	27.777	29.239	28.995
12	32	44	32.679	31.539	32.993	32.378	33.519	33.244	31.672	33.099	32.831
13	36	40	36.352	35.834	36.913	36.225	38.009	36.877	33.469	35.195	34.931
14	40	36	40.078	39.461	39.343	38.610	41.923	40.357	38.162	39.841	39.553
15	45	31	44.107	45.390	46.627	45.758	48.011	45.657	44.892	45.366	46.81
16	50	28	51.676	49.347	49.784	48.855	54.284	51.537	49.875	50.412	52.764
17	56	26	-	-	-	-	-	-	54.091	54.607	56.394
18	63	23	61.997	59.241	61.777	60.625	62.936	62.475	60.095	60.681	63.567
19	71	20	72.268	71.089	72.848	71.489	75.066	72.857	70.450	71.889	74.616
20	80	18	80.298	80.100	79.767	78.279	82.205	80.031	77.775	82.832	83.103
21	90	16	-	-	-	-	-	-	84.887	86.533	89.893
22	100	15	96.696	93.116	97.757	95.934	98.646	98.077	93.713	99.705	100.119
23	112	13	110.833	105.688	108.958	106.926	113.496	107.100	106.992	112.026	113.789
24	125	12	125.960	120.150	122.196	119.917	126.107	123.327	120.310	120.359	121.064
25	140	11	-	-	-	-	-	-	128.917	134.846	137.087
26	160	10	-	-	-	-	-	-	144.964	144.876	145.852
30	**125**	**12**	128	134	118	116	120	132	-	-	-
31	**140**	**11**	145	148	143	140	133	145	-	-	-
32	**160**	**10**	165	170	157	154	147	164	161	167	172
33	**200**	**6.6**	211	200	208	204	211	203	226	226	269
34	**250**	**5.8**	227	258	264	259	233	228	254	260	238
35	**280**	**5.0**	287	284	300	294	265	268	282	285	302
36	**320**	**4.5**	325	322	316	310	305	297	298	317	332
37	**360**	**4.0**	371	355	351	344	374	337	331	373	385
38	**400**	**3.5**	413	407	399	391	415	401	402	414	437
39	**450**	**3.1**	455	448	453	445	466	462	455	471	493
40	**500**	**2.8**	516	508	499	489	513	506	489	515	531
41	**560**	**2.5**	568	581	574	563	590	538	563	566	584
42	**630**	**2.2**	649	646	624	612	641	641	655	651	671
43	**700**	**2.0**	704	712	725	712	737	760	727	723	757
44	**800**	**1.8**	798	808	812	797	836	811	789	783	809
45	**900**	**1.6**	912	891	899	882	924	888	940	904	946
46	**1000**	**1.4**	1015	1000	1045	1026	1062	1007	1028	980	1012
47	**1100**	**1.2**	1119	1102	1169	1147	1204	1102	1115	1171	1140
48	**1200**	**1.2**	1183	1267	1231	1208	1267	1246	1190	1268	1226
49	**1400**	**1.0**	1423	1427	1477	1449	1521	1470	1477	1470	1519
50	**1600**	**0.87**	1583	1606	1577	1548	1720	1659	1641	1634	1712
51	**1800**	**0.79**	1800	1784	1777	1744	1938	1817	1741	1754	1811
52	**2000**	**0.71**	2000	2250	1957	1920	1994	2011	1935	1949	2042
53	**2200**	**0.65**	2250	2265	2205	2164	2246	2202	2118	2134	2236
54	**2500**	**0.55**	2579	2463	2563	2515	2611	2699	2596	2561	2683
55	**2800**	**0.51**	2699	2799	2847	2794	2934	2821	2733	2779	2887
56	**3200**	**0.45**	3094	3360	3310	3248	3411	3147	2992	3044	3162
57	**3600**	**0.38**	3516	3548	3757	3686	3871	3853	3667	3652	3794
58	**4000**	**0.35**	4007	3998	4056	3981	4093	4237	4048	4208	4226
59	**4500**	**0.31**	4554	4543	4604	4518	4646	4722	4512	4842	4862
60	**5000**	**0.28**	4826	4647	5131	5036	5281	5157	5060	5380	5110
61	**5600**	**0.26**	5485	5281	5234	5136	5345	5296	5793	5845	5879
62	**6300**	**0.23**	6286	5994	5833	5725	6076	5783	6207	6548	6657
63	**7100**	**0.21**	7144	6815	6542	6420	6752	6660	6980	7276	7083

Bold print denotes quintuple reduction gearbox. Higher ratios available—consult your Authorised Distributor



ALLOWABLE OVERHUNG LOADS

Units are fitted with input and output bearings of ample proportions to cater for the radial and thrust loads imposed by the gear loads, leaving sufficient capacity for taking overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Permissible overhung loads vary according to the direction of rotation. The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and the load applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to your Distributor for further details. In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life.

All units will accept a 100% momentary overload on stated capacities.

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to the output shaft, one or the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

T = Absorbed torque at shaft in Nm.
kW = Absorbed power in kW.
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n = Rev/min of shaft.
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

(1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.

(2) Mount the sprocket, gear or pulley on a separate shaft, supported on its own bearings and couple to the gear unit output shaft by means of a Fenner shaft coupling.

(3) Use a special extended output shaft and support the free end with an outrigger bearing.

Axial Thrust Capacities (N)

No check or calculation is required for axial loads towards or away from the unit up to 50% of the permissible overhung load. If the axial thrust exceeds these values or if there is a combination of axial thrust loads and overhung loads please refer to your local Authorised Distributor.

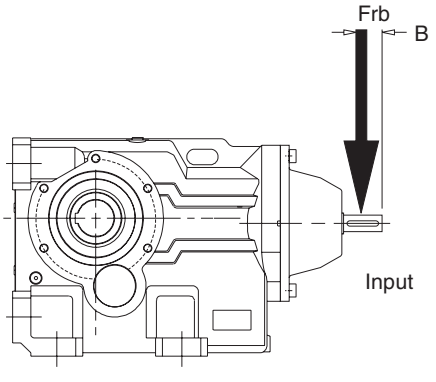
DISTANCE MIDWAY ALONG SHAFT EXTENSION

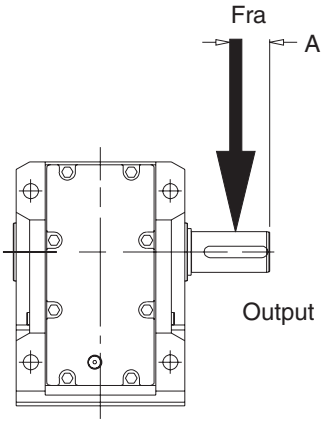
Size of unit	No. of Reductions	Dimension A (mm)	Dimension B (mm)
890	3	23.5	20
	5	23.5	20
891	3	28	20
	5	28	20
892	3	33	20
	5	33	20
893	3	38	20
	5	38	20
894	3	47.5	25
	5	47.5	20
895	3	50	30
	5	50	20
896	3	55	40
	5	55	20
897	3	70	55
	5	70	25
898	3	90	55
	5	90	25

ALLOWABLE INPUT SHAFT OVERHUNG LOADS Frb (KN) @1450 REV/MIN

Unit Size	2 Stage	3 Stage
890	1.5	1.5
891	1.5	1.5
892	1.25	1.5
893	1.05	1.5
894	2.1	1.5
895	3.1	1.5
896	3.5	1.5
897	4.5	1.8
898	12	1.8

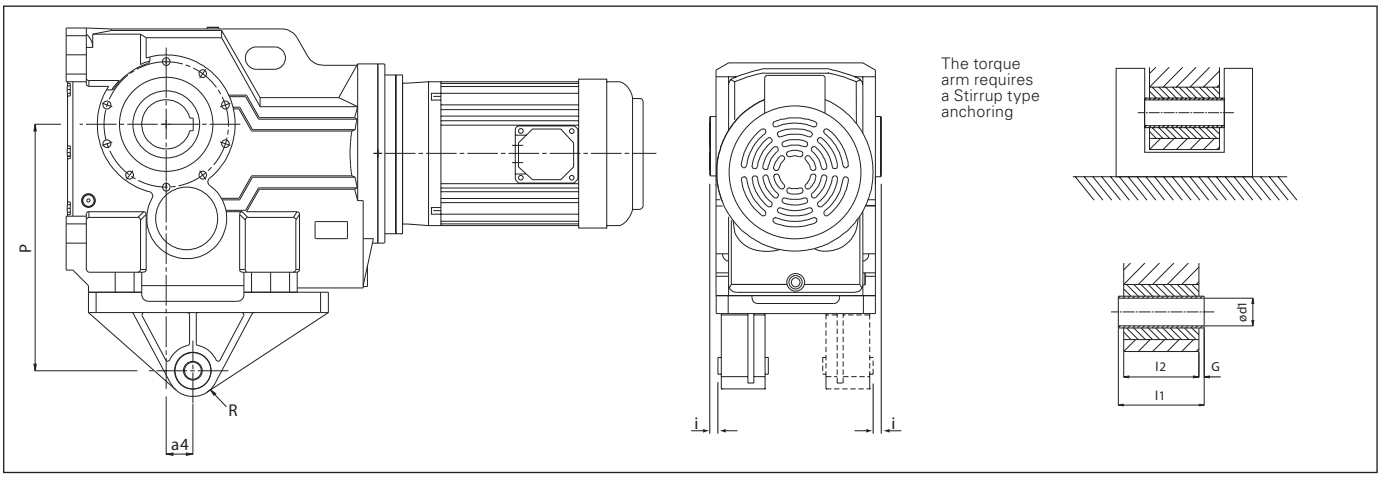
* For Output Shaft Overhung Load Capacities see the relevant selection tables





A range of accessories is available including torque arms, flanges and extension shafts. For ordering part numbers refer to page 300.

TORQUE ARM

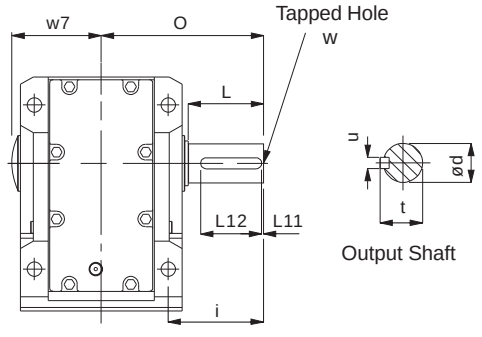


SIZE	A4	d1	G	i	l1	l2	P	R
890	23.5	10.5/10.3	2	20	36	32	140	20
891	30.0	10.5/10.3	2	20	36	32	160	20
892	40.0	16.5/16.3	2	18	60	56	192	35
893	45.0	16.5/16.3	2	25	60	56	200	35
894	52.5	16.5/16.3	2	25	60	56	250	35
895	60.0	25.25/24.75	5	30	80	70	300	40
896	70.0	25.25/24.75	5	40	100	90	350	40
897	74.0	25.25/24.75	5	45	100	90	450	40
898	60.0	38.25/37.75	8	10	126	110	550	58

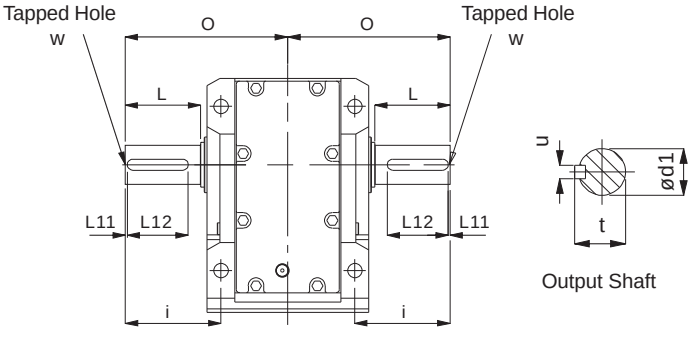
NOTES: It is recommended that the torque arm is fitted on the side of the unit adjacent to the driven machine. The use of a fitted bolt is recommended.

SINGLE & DOUBLE OUTPUT SHAFT OPTIONS

STANDARD OUTPUT SHAFT OPTION

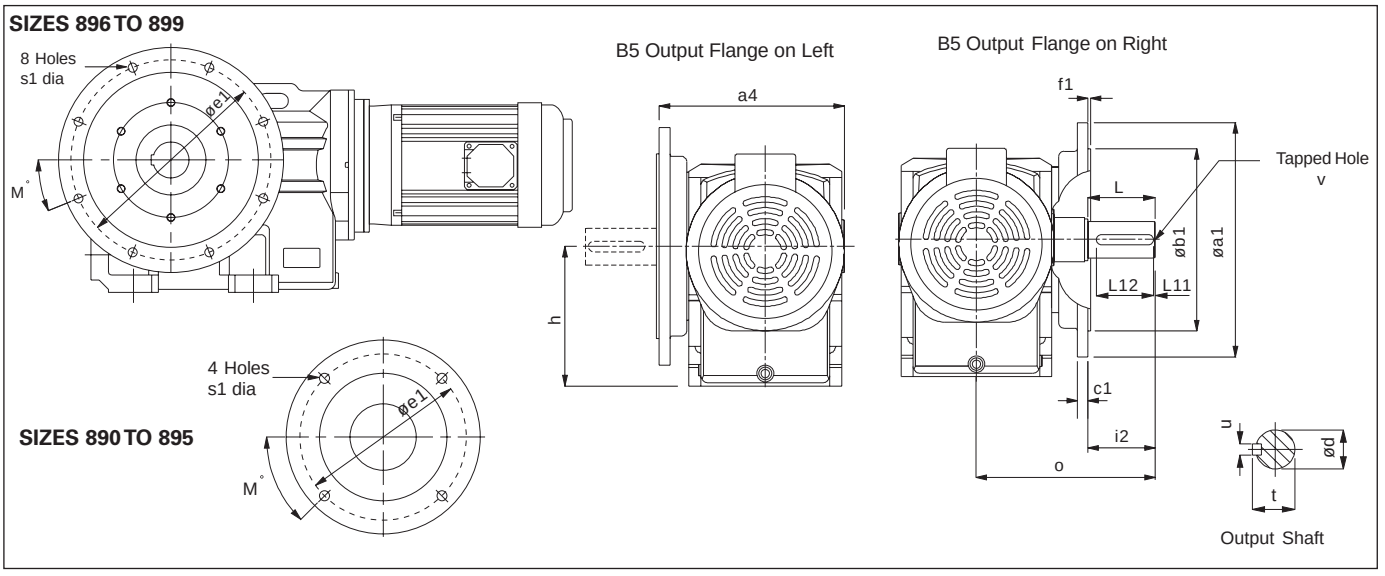


DOUBLE EXTENDED OUTPUT SHAFT OPTION



Size	Ø d	Ø d1	i	L	L11	L12	O	t	u	w	w7
890	25.015 / 25.002	25.015 / 25.002	60.0	47	3	40	110	28.0	8	M10 x 1.5, 22 Deep	63
891	30.15 / 30.002	30.015 / 30.002	75.0	56	3	50	135	33.0	8	M12 x 1.75, 28 Deep	78
892	35.018 / 35.002	35.018 / 35.002	88.0	66	3	56	153	38.0	10	M16 x 2, 36 Deep	87
893	40.018 / 40.002	39.991 / 39.975	101.0	76	3	70	171	43.0	12	M16 x 2, 36 Deep	94
894	50.018 / 50.002	49.991 / 49.975	123.5	95	3	80	206	53.5	14	M16 x 2, 36 Deep	109
895	60.030 / 60.011	59.990 / 59.971	150.0	114	3	100	240	64.0	18	M20 x 2.5, 42 Deep	124
896	70.030 / 70.011	69.990 / 69.971	171.0	135	3	110	291	74.5	20	M20 x 2.5, 42 Deep	154
897	90.035 / 90.013	75.030 / 75.011	212.0	172	5	140	347	95.0	25	M20 x 2.5, 42 Deep	180
898	110.035 / 110.013	95.035 / 95.013	253.0	213	5	180	418	116.0	28	M24 x 3, 55 Deep	210

B5 FLANGE DIMENSIONS



B5 FLANGE DIMENSIONS

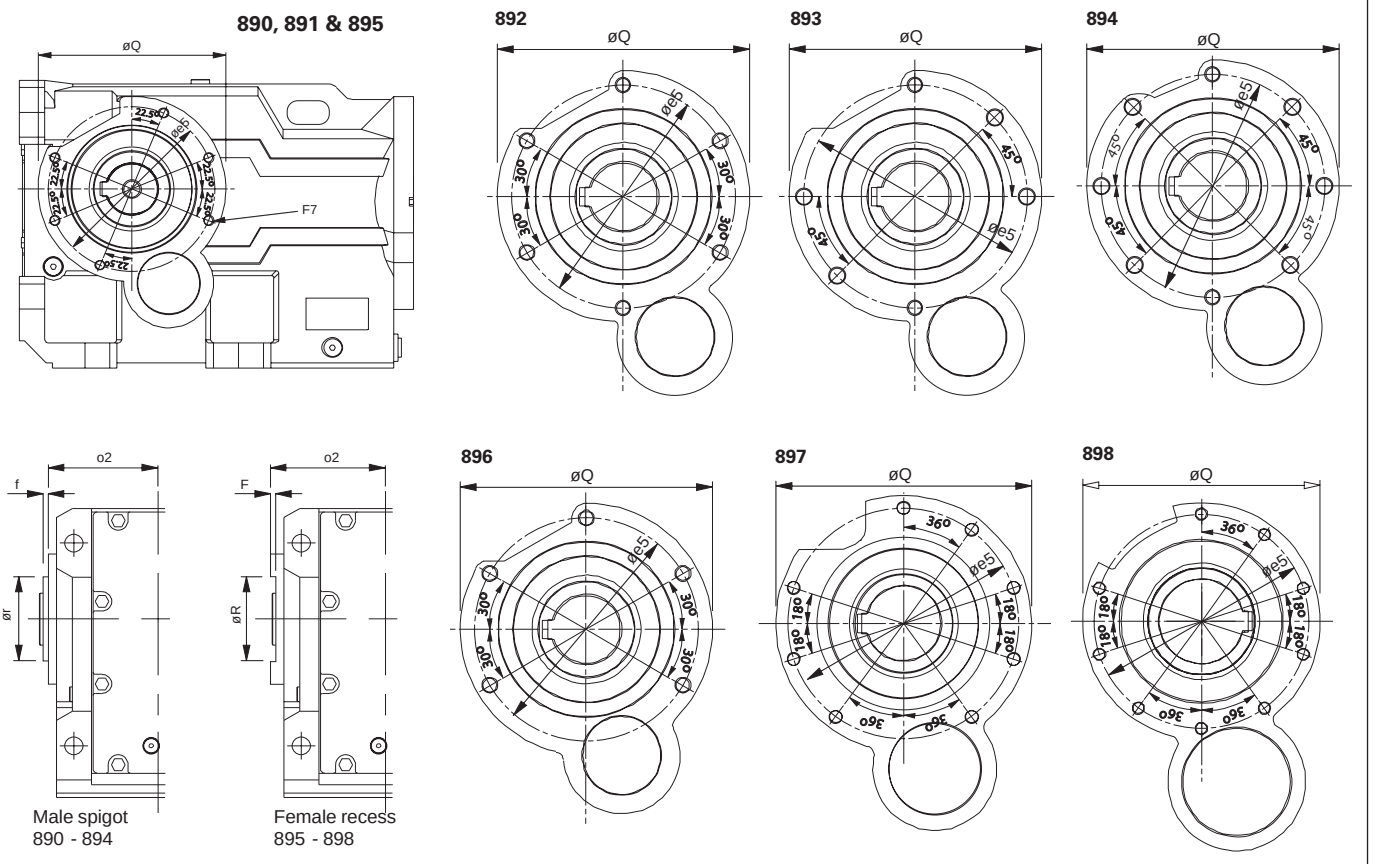
SIZE	Øa1	a4	Øb1	c1	Øe1	f1	h	M	Øs1
890	160	144.0	110 j6	10	130	3.5	100	45°	9
891	200	190.0	130 j6	12	165	3.5	112	45°	11
892	250	189.0	180 j6	16	215	4.0	132	45°	14
893	250	220.0	180 j6	18	215	4.0	140	45°	14
894	300	247.0	230 j6	18	265	4.0	180	45°	14
895	350	285.0	250 h6	18	300	5.0	212	45°	18
896	450	351.0	350 h6	20	400	5.0	265	22.5°	18
897	450	410.5	350 h6	22	400	5.0	315	22.5°	18
898	450	470.5	350 h6	22	400	5.0	375	22.5°	18

EXTENDED OUTPUT SHAFT DIMENSIONS

	Extended Output Shaft *								
SIZE	Ø d	i2	L	L11	L12	o	t	u	v
890	25.015 / 25.002	50	50	3	40	134.0	28.0	8	M10 x 1.5, 22 Deep
891	30.015 / 30.002	60	60	3	50	175.0	33.0	8	M12 x 1.75, 28 Deep
892	35.018 / 35.002	70	70	3	60	176.0	38.0	10	M16 x 2, 36 Deep
893	40.018 / 40.002	80	80	3	70	210.0	43.0	12	M16 x 2, 36 Deep
894	50.018 / 50.002	100	100	3	80	242.0	53.5	14	M16 x 2, 36 Deep
895	60.030 / 60.011	120	120	3	100	285.0	64.0	18	M20 x 2.5, 42 Deep
896	70.030 / 70.011	140	140	3	110	341.0	74.5	20	M20 x 2.5, 42 Deep
897	90.035 / 90.013	170	170	5	140	405.5	95.0	25	M20 x 2.5, 42 Deep
898	110.035 / 110.013	210	210	5	180	475.5	116.0	28	M24 x 3, 55 Deep

* It is recommended that when using a B5 output flange and output shaft, the extended version is used

B14 FLANGE DIMENSIONS

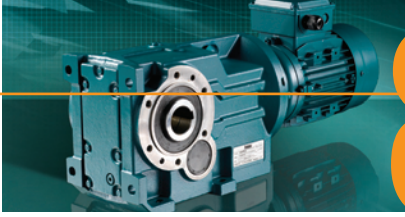


Size	Øe5	F7	o2	Q	Ør h7 SPIGOT Ø	ØR H7	Spigot f	Recess F
890	107 PCD	6 HOLES M8 X 1.25, 12 DEEP	55	122	85	-	2.5	-
891	130 PCD	6 HOLES M8 X 1.25, 12 DEEP	70	146	105	-	2.5	-
892	125 PCD	6 HOLES M10 X 1.5, 17 DEEP	75	150	105	-	3.0	-
893	150 PCD	6 HOLES M10 X 1.5, 17 DEEP	83	180	130	-	3.5	-
894	150 PCD	8 HOLES M10 X 1.5, 17 DEEP	95	180	130	-	6.0	-
895	195 PCD	6 HOLES M12 X 1.75, 20 DEEP	115	220	-	150	-	5
896	230 PCD	5 HOLES M16 X 2.0, 27 DEEP	145	260	-	180	-	6
897	280 PCD	8 HOLES M16 X 2.0, 27 DEEP	170	310	-	210	-	7
898	280 PCD	9 HOLES M16 X 2.0, 27 DEEP	200	310	-	210	-	7

ACCESSORY PRODUCT CODES

Unit Size	Single Extension Output Shaft	Double Extension Output Shaft	Single Extension * Extended Output Shaft	B5 Output Flange	Torque Arm
890	890A9700	890A9800	890A9900	871A9900	890A9600
891	891A9700	891A9800	891A9900	872A9900	891A9600
892	892A9700	892A9800	892A9900	892A9300	892A9600
893	893A9700	893A9800	893A9900	893A9300	893A9600
894	894A9700	894A9800	894A9900	894A9300	894A9600
895	883A9700	895A9800	895A9900	875A9900	895A9600
896	884A9700	896A9800	896A9900	876A9900	896A9600
897	885A9700	897A9800	897A9900	877A9900	897A9600
898	898A9700	898A9800	898A9900	877A9900	898A9600

* For use with B5 Output flange



SHRINK DISK

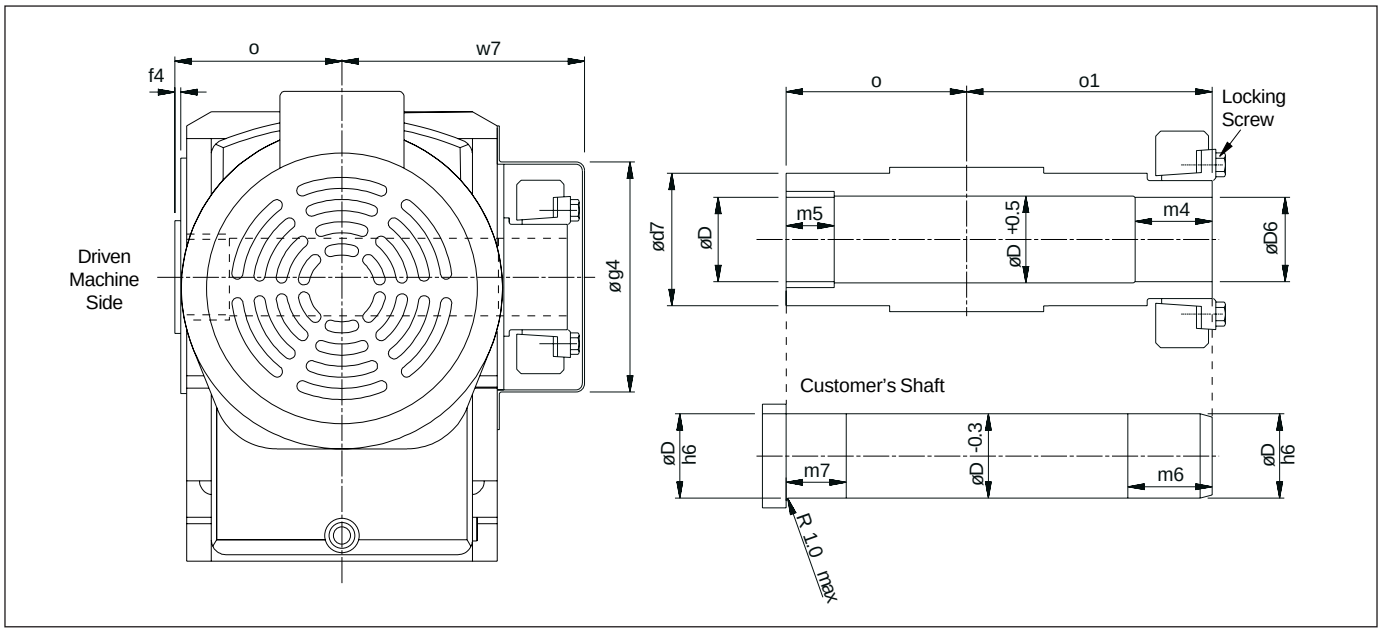
The Fenner Series K gear unit can be supplied with a 'shrink disc' device located on the hollow output shaft to provide a positive outer locking connection between gear unit and driven shaft. The 'shrink disc' is a friction device, without keys, which exerts an external clamping force on the hollow output shaft, thus establishing a mechanical shrink fit between the gear unit hollow shaft and driven shaft. 'Shrink disc' capacities have ample margins in dealing with transmitted torques and external loading imposed on gear units.

Working Principle

The 'shrink disc' consists of a locking collar, a tapered inner ring and locking screws. By tightening the locking screws, the locking collar and tapered inner ring are pulled together, exerting radial forces on the inner ring, thus creating a positive friction connection between hollow shaft and driven shaft.

As the tapered surfaces of the locking collar and inner ring are lubricated with Molykote 321R or similar and the taper angle is not self locking, the locking collar will not seize on the inner ring and can be released easily when removal is necessary.

When the shrink disc is clamped in position the high contact pressures between tapered surfaces and screw heads and their seatings ensure hermetic sealing and eliminate the possibility of fretting corrosion.



SIZE	D	D6	d7	f4	g4	m4	m5	m6	m7	o	o1	w7	Locking screws Torque Ta (Nm)
890	30	30	50	2.5	88.5	31	20	36	25	60	86	91	29
891	35	35	55	2.5	108	32	20	37	25	75	102	113	29
892	40	40	60	3.0	108	36	20	41	25	83	112	118	29
893	40	40	70	3.5	133	38	20	43	25	90	118	140	29
894	50	50	80	6.0	133	36	30	41	35	105	136	152	35
895	65	65	90	5.0	162	41	40	46	45	120	161	175	58
896	75	75	100	5.0	192	55	40	60	55	150	195	210	58
897	95	95	120	5.0	242	65	60	70	65	175	230	265	100
898	105	105	140	5.0	242	85	60	90	75	205	280	295	160

Please consult your local Authorised Distributor for delivery details.

Satisfactory performance depends on proper installation, lubrication and maintenance. All instructions given in the installation leaflet must be followed carefully.

Shaft Mounting

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs.

Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft. Fit side fitting key. **DO NOT USE TAPER OR TOP FITTING KEY**.

Foot Mounting

Mount the unit securely to a rigid structure. Fit the output extension shaft as required. Use flexible couplings such as Fenaflex for shaft to shaft connections and ensure that shaft misalignment is within the coupling's capacity. When a pulley or sprocket is fitted to either shaft, mount it as close as possible to the gearcase.

When fitting or removing drive components do not hammer on shaft as this will damage the bearings, Fenner Taper Lock bushes permit easy fixing and dismantling without undue force.

LUBRICATION

Sizes 890 to 893 will be supplied with a quantity of EP mineral oil (Shell Omala 320) for mounting position B3. Other mountings must be specified on order. However if , as requested, the unit is supplied without lubricant then the oil quantity is obtained from Tables 1 & 2. Sizes 894 to 898 are supplied without oil. Before running they should be filled with an appropriate amount of the correct lubricant shown in tables 1 & 2, dependent on the mounting position, see below.

WARNING Do not overfill as excess lubricant may cause overheating and leakage.

Oil Changes

Sizes 890, 891 and 892 are lubricated for life except when the units are required to work in an explosive atmosphere. (94/9/EC Atex 100a Group II category 2 zones 1 &21 & category 3 zones 2 & 22). See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Initial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below whichever is the soonest.

Unit Op Temp °C	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
75 or less	17000 or 3 yrs	26000 or 3 yrs
80	12000 or 3 yrs	26000 or 3 yrs
85	8500 or 3 yrs	21000 or 3 yrs
90	6000 or 2 yrs	15000 or 3 yrs
95	4200 or 17 mths	10500 or 3 yrs
100	3000 or 12 mths	7500 or 2.5 yrs
105	2100 or 8 mths	6200 or 2 yrs
110	1500 or 6 mths	2100 or 18 mths

Temperature Limitations

The standard lubricant is suitable for operation in ambient temperatures of 0 to 35°C, outside of this consult your local Authorised Distributor.

BREATHERS/MOUNTING POSITIONS

Sizes 890,891 & 892 are supplied for operation without breathers.

Size 893 is supplied for operation with a breather but to prevent leakage during transit this unit is fitted with blanking plugs. It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

Sizes 894 to 898 are supplied for operation with a breather but are despatched without oil.

It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

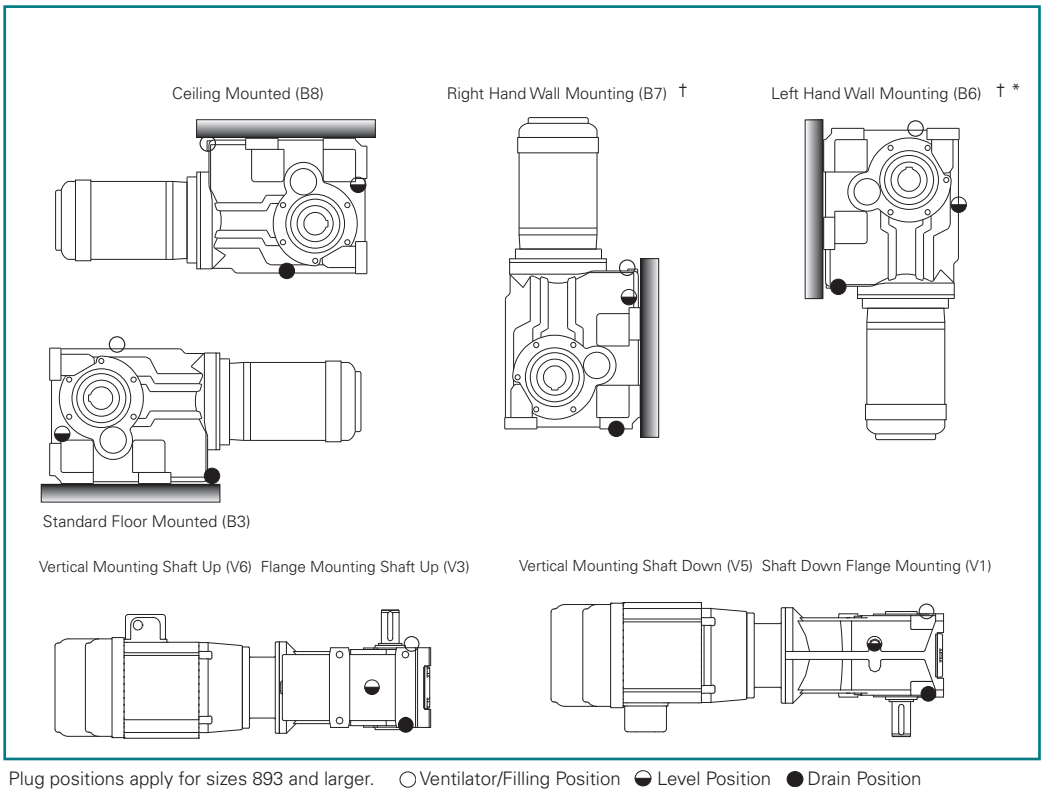
STARTING UP

Prior to starting up the following procedure should be followed

1. Ensure Ventilator is fitted (size 893 and above)
2. Check Oil level (893 and above) top up if necessary
3. Ensure all safety devices are in place (i.e. guards fitted)
4. Remove any safety devices fitted to prevent machine rotation

Starting up should be performed or supervised by suitably qualified personnel.

MOUNTING POSITIONS



Plug positions apply for sizes 893 and larger. ○ Ventilator/Filling Position ◒ Level Position ● Drain Position

† Gear units for use in mounting positions B6 and B7 should only be selected with overall ratios greater than or equal to those shown in the table below.

* Mounting positions B6 are not recommended for geared motors. Please consult your local authorised distributor.

Unit Size	Input Speed (rpm)			
	1000	1500	1800	>1800
890-895	All	All	All	Consult you local distributor
896	All	11:1	14:1	
897	11:1	20:1	25:1	
898	16:1	32:1	36:1	

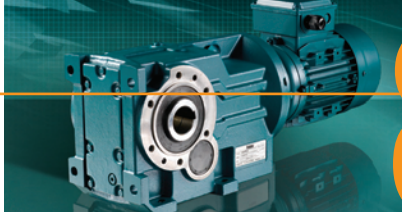


TABLE 1 LUBRICATION QUANTITY (LITRES) TRIPLE REDUCTION

890, 891 & 892 if supplied without lubricant, fill with the correct amount as indicated in the table below. 893 - 898 - fill gearbox until oil escapes from level plug.

Unit Size	Mounting Position					
	B3	V6/V3	V5/V1	B8	B7	B6
890	0.5	0.8	0.7	1.0	1.2	0.9
891	0.7	1.1	0.9	1.3	1.7	1.2
892	1.1	1.7	1.5	1.9	2.5	2.0
893	1.5	2.8	1.8	2.7	3.6	2.6
894	2.7	4.0	3.6	4.5	5.7	4.5
895	4.4	7.6	3.7	7.5	9.6	7.6
896	9.3	18.0	8.3	17.0	21.0	16.0
897	15.0	28.0	15.0	30.0	34.0	24.0
898	23.0	33.0	27.0	39.0	50.0	35.0

TABLE 2 LUBRICATION QUANTITY (LITRES) QUINTUPLE REDUCTION

Unit Size	Mounting Position											
	B3		V5/V1		V6/V3		B8		B7		B6	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
890	0.5	0.5	0.6	0.7	0.8	0.8	0.8	1.0	0.7	1.2	1.0	0.9
891	0.5	0.7	0.6	0.9	0.8	1.1	0.8	1.3	0.7	1.7	1.0	1.2
892	0.8	1.1	0.7	1.5	1.2	1.7	1.2	1.9	1.1	2.5	1.4	2.0
893	0.8	1.5	0.7	1.8	1.2	2.8	1.2	2.7	1.1	3.6	1.4	2.6
894	0.8	2.7	0.7	3.6	1.2	4.0	1.2	4.5	1.1	5.7	1.4	4.5
895	1.5	4.4	1.6	3.7	1.8	7.6	1.8	7.5	2.0	9.6	2.6	7.6
896	1.5	9.3	1.6	8.3	1.8	18.0	1.8	17.0	2.0	21.0	2.6	16.0
897	2.6	15.0	2.7	15.0	2.9	28.0	3.0	30.0	3.2	34.0	4.7	24.0
898	2.6	23.0	2.7	27.0	2.9	33.0	3.0	39.0	3.2	50.0	4.7	35.0

LUBRICANT TYPE TEMPERATURE RANGE

ISO Viscosity	Ambient Temperature °C			
	-5°C to 20°C	-30°C to 20°C	0°C to 35°C	20°C to 50°C
EP Mineral Oil	220	-	320	460
Synthetic Oil 1	-	220	220	320
Synthetic Oil 2	-	220	320	460

Synthetic Oil 1 = Polyalphaolein based.
Synthetic Oil 2 = Polyglycol basrd

RECOMMENDED OIL GRADES

Supplier	Mineral Oils Containing EP Additives	Synthetic Lubricants Polyglycol Based	Synthetic Lubricants Polyalphaolefin based
BP	Energol GR-XP or XF	Enersyn SG-XP	Enersyn EPX
Castrol	Alpha Max or SP	Alphasyn PG	Alphasyn EP or T
Esso	Spartan EP	Glycolube	Spartan Synthetic EP
Fuchs	Renogear V or WE	Renolin PG	Renogear SG
Mobil	Mobilgear 600	Glygoyle	Mobilgear SHC
Shell	Omala or Omala F	Tivela or Tivela S	Omala HD
Texaco	Meropa or Meropa WM	Synlube CLP	Pinnacle EP
Total	Carter EP	Carter SY	Carter EP/HT
Rocol	Sapphire Hi-Torque	-	-

Ordering Instructions

All Fenner Series K geared motors are identified by a product code number; this can consist of an eight or nine digit number depending on the type of motor fitted or the style of unit.

The basic 8 digit code giving the unit type, size, ratio and motor power should be taken from the selection tables. A break down of the coding system for the basic unit and the other options is given below. If a special motor is required a ninth digit is usually added to the end of the normal 8 digit code, see the table below.

These codes should be included on all enquiries, correspondence and orders.

FIRST TWO DIGITS:

Product prefix–constant for Series K = **89**

THIRD DIGIT: unit size **0–8**

FOURTH DIGIT:

MOUNTING TYPE

A: Motorised with Standard Hollow Bore

D: Input Reducer Assembly with Standard Hollow Bore

G: Standard Hollow Bore unmotorised (ready to fit motor)

X: Shrink Disc RH side - motorised

Y: Reducer - Shrink disc RH side

Z: Reducer - Shrink disc RH side

FIFTH AND SIXTH DIGIT: Gear Ratio Code. (for exact ratio see page 296)

SEVENTH/EIGHTH DIGITS:

Type of drive code

1. Motorised units - use complete code from selection tables with if applicable, additional ninth digit for motor type.
2. Input Reducer assembly - use **00**.
3. Unmotorised units ready for a motor fitting by a third party - use the three digit code as shown in the table below

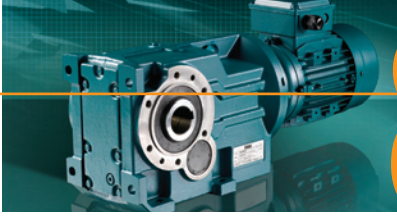
Code	Frame	Flange
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100/112	B14
10D	100/112	B5
13D	132	B5
16D	160	B5
18D	180	B5
20D	200	B5
22D	225	B5
25D	250	B5

NINTH DIGIT:

Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table below of the motor variant required.

Code	Motor Type
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
L	Clutch/brake fitted
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer to Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit



GEARED MOTOR ACCESSORIES

To compliment the Fenner Series, M, C, F & K range of gearboxes a range of backstops suitable for all sizes and types.

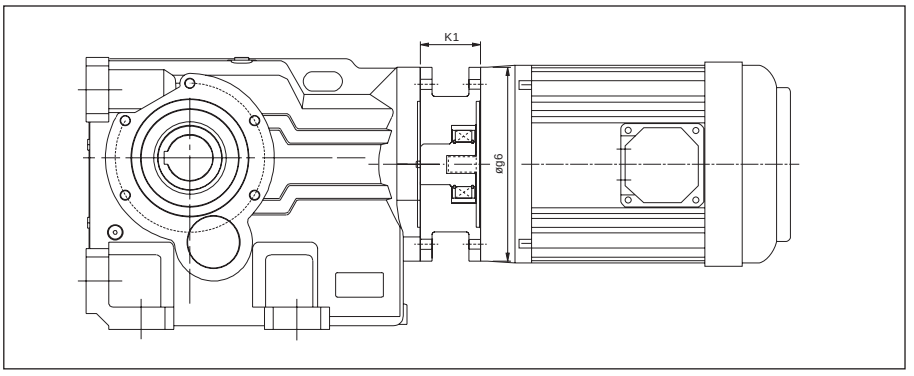
MOTORISED BACKSTOP MODULE

Motorised backstop modules can be fitted between the gear unit and motor of all the gearbox types shown in this catalogue.The backstop device incorporates high quality centrifugal lift off sprags which are wear free above the lift off speed (n min).

To ensure correct operation motor speed must exceed lift off speed. Suitable for ambient temperature - 40°C + 50°C

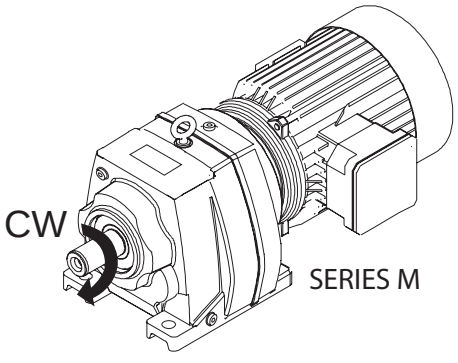
When a backstop module is fitted dimension K1 should be added to the overall length of the geared motor assembly.

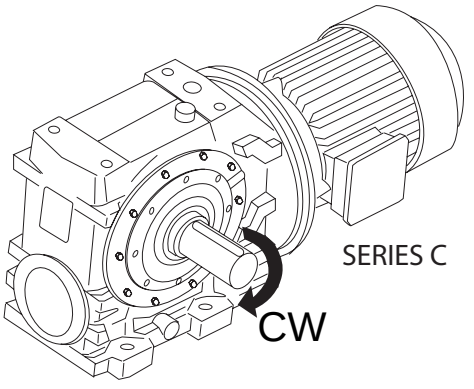
Rotation of outputshaft must be specified when ordering as viewed from the output shaft end (as shown in the diagram below).



Motor Frame Size	Lift off speed (n min) (rev/min)	Rated Locking torque (T max) at motor (Nm)	og6	K1
100	670	170	250	70
112	670	170	250	70
132	620	940	300	95
160	620	940	350	130
180	620	940	350	130
200	550	1260	400	130

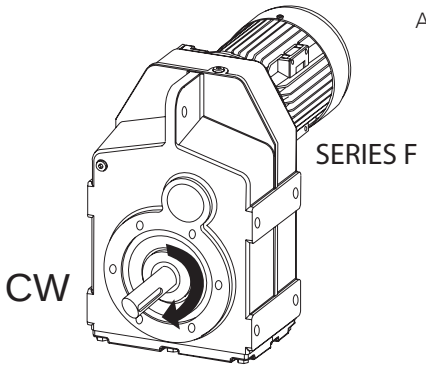
WARNING: Removal of motor or backstop will release the drive.
Ensure all driven machinery is secure prior to any maintenance work.

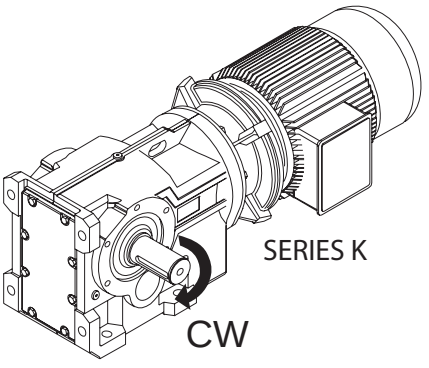




CW - Free Rotation - Clockwise
Locked - Anticlockwise

AC - Free Rotation - Anticlockwise
Locked - Clockwise





REDUCER BACKSTOP MODULE

The reducer units listed below can be fitted with an internal backstop, this has no effect on the external unit size. The backstop device incorporates high quality centrifugal lift off sprags which are wear free above the lift off speed (n min). To ensure correct operation input speed must exceed lift off speed.

Suitable for ambient temperature -40°C to + 50°C

Rotation of outputshaft must be specified when ordering as viewed from the outputshaft end (as shown in the diagram below)

SERIES M

Gear Unit Size	Lift off Speed ('n' min) (at inputshaft) (rev/min)	Rated Locking Torque ('T Max) (at inputshaft) (Nm)
802	800	100
862	800	100
803	800	100
863	670	170
863	800	100
864	670	300
864	670	170
865	620	940
865	670	300
866	550	1260
866	670	300
867	550	2400
867	550	2400
868	550	2400
868	550	2400

Bold typeface indicates triple reduction ratios

SERIES C

Gear Unit Size	Lift off Speed ('n' min) (at inputshaft) (rev/min)	Rated Locking Torque ('T Max) (at inputshaft) (Nm)
873	800	100
874	670	170
875	670	300
876	620	940
877	550	1260

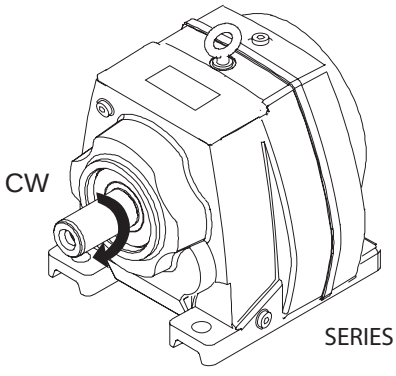
SERIES F

Gear Unit Size	Lift off Speed ('n' min) (at inputshaft) (rev/min)	Rated Locking Torque ('T Max) (at inputshaft) (Nm)
882	670	170
883	670	300
883	670	170
884	620	940
884	670	300
885	550	1260
885	670	300

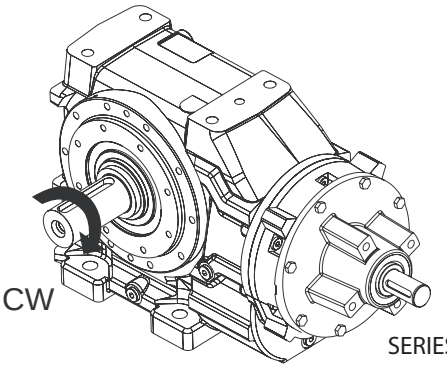
Bold typeface indicates triple reduction ratios

SERIES K

Gear Unit Size	Lift off Speed ('n' min) (at inputshaft) (rev/min)	Rated Locking Torque ('T Max) (at inputshaft) (Nm)
892	800	100
893	800	100
894	670	170
895	670	170
896	670	300
897	670	300
898	550	2400



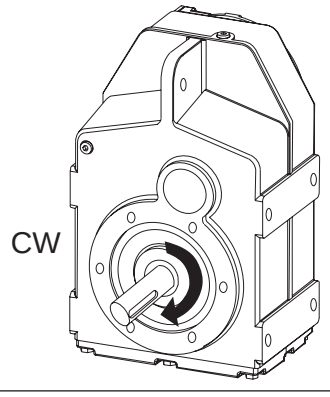
SERIES M



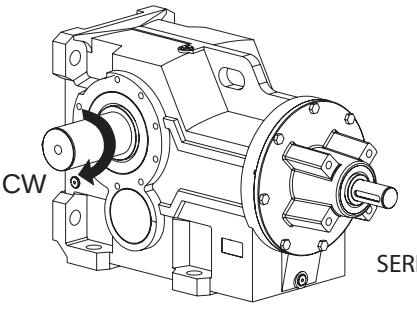
SERIES C

CW - Free Rotation - Clockwise
Locked - Anticlockwise

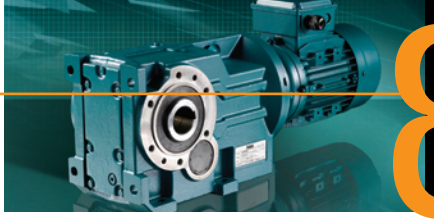
AC - Free Rotation - Anticlockwise
Locked - Clockwise



SERIES F



SERIES K



Standard Motor Specification

Conforming in performance to BS5000 and IEC34-1 in dimensions to BS4999 and IEC72-1 and 2.

Range mounting, squirrel cage, totally enclosed fan cooled design (TEFC).

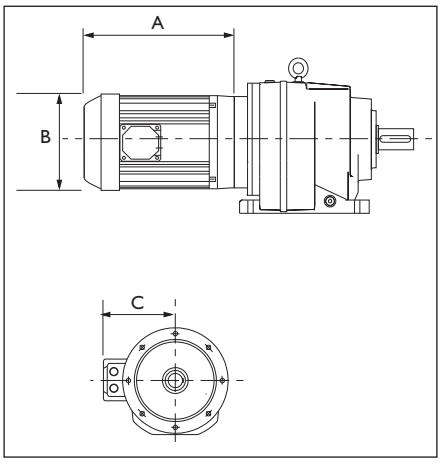
Protection

IP55, dust and hose proof.

Insulation

Class F.

ELECTRIC MOTORS (BS AND IEC SPECIFICATION)



ELECTRIC MOTOR VARIANTS

All variants of standard IEC frame motors can be fitted to the Fenner gearmotor range.They are also capable of accepting NEMA motor variants as well.Examples of some of the variants and their ninth digit code letter are:-

Code	Motor Type
A	Anti-condensation heaters fitted
B	Backstop Fitted
C	Cast Iron motor
D	Brook Motor Fitted
E	Fitted with Encoder
F	Flameproof motor
G	Fitted with Oil seal
H	Class H Insulation
I	IP65 enclosure
J	Inverter-motor
K	Fitted with Tacho-generator
L	Clutch/Brake unit Fitted
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer To Original Quote - Special
R	Fitted with Brook ARGUS Cast Iron motor
S	Single Phase motor
T	Fitted with Thermistors
V	Special Voltage
W	WIMES Spec motor (Water Industry)
X	Fitted with Variator
Z	Fitted with Force Vent unit
5	ExN Non-Sparking motor
8	Two-speed motor
9	Special Feature

Standard clutch brake modules with IEC flanges can be fitted between motor and gearhead. Variable speed packages are available, either belt variators or mechanical disc variators.For any of these combinations please contact your local Authorised Distributor.

2 POLE - 3000 REV/MIN

Motor Code *	Frame Size	Output kW	Output h.p.	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
01	63	**0.18**	0.25	2755	193	124	113	7
03	63	**0.25**	0.33	2790	193	124	113	7
09	71	**0.37**	0.50	2825	218	139	121	8
10	71	**0.55**	0.75	2820	218	139	121	9
19	80	**0.75**	1.00	2810	236	157	130	12
20	80	**1.10**	1.50	2825	236	157	130	13
26	90S/L	**1.50**	2.00	2880	280	177	150	20
29	90S/L	**2.20**	3.00	2850	280	177	150	22
39	100L	**3.00**	4.00	2890	316	198	160	26
44	112M	**4.00**	5.50	2900	333	235	180	39
52	132S	**5.50**	7.50	2940	410	274	207	54
58	132S	**7.50**	10.00	2930	410	274	207	59
63	160MA	**11.00**	15.00	2920	545	330	250	134
64	160MB	**15.00**	20.00	2930	545	330	250	134
69	160LA	**18.50**	25.00	2930	545	330	250	152
77	180MA	**22.00**	30.00	2955	600	380	275	174

4 POLE - 1500 REV/MIN

Motor Code *	Frame Size	Output kW	Output h.p.	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
02	63	**0.18**	0.25	1410	193	124	113	8
06	71	**0.25**	0.33	1420	218	139	121	9
08	71	**0.37**	0.50	1405	218	139	121	9
81	71	**0.55**	0.75	1410	250	159	111	10
16	80	**0.55**	0.75	1440	236	157	130	12
82	71	**0.75**	1.00	1410	250	159	111	10
18	80	**0.75**	1.00	1430	236	157	130	13
24	90S/L	**1.10**	1.50	1445	280	177	150	20
28	90S/L	**1.50**	2.00	1430	280	177	150	23
36	100L	**2.20**	3.00	1430	316	198	160	25
38	100L	**3.00**	4.00	1420	316	198	160	29
46	112M	**4.00**	5.50	1440	333	235	180	44
54	132S	**5.50**	7.50	1470	410	274	207	58
56	132M	**7.50**	10.00	1470	410	274	207	60
66	160MA	**11.00**	15.00	1450	520	330	250	134
68	160LA	**15.00**	20.00	1455	565	330	250	152
76	180MA	**18.50**	25.00	1465	590	380	275	174
78	180LA	**22.00**	30.00	1465	630	380	275	184
88	200L	**30.00**	40.00	1470	670	415	320	286
94	225S	**37.00**	50.00	1480	725	460	345	338
95	225M	**45.00**	60.00	1480	725	460	345	358
96	250MA	**55.00**	75.00	1475	805	512	375	535
98	2805	**75.00**	100	1450	908	550	463	735
99	280ma	**90.00**	125	1475	908	550	463	802

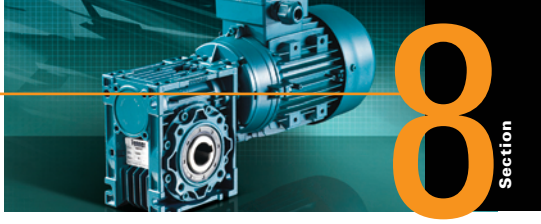
6 POLE - 1000 REV/MIN

Motor Code *	Frame Size	Output kW	Output h/p	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
05	71	**0.18**	0.25	910	218	139	121	9
07	71	**0.25**	0.33	905	218	139	121	10
12	80	**0.37**	0.50	935	236	157	130	12
17	80	**0.55**	0.75	935	236	157	130	13
23	90S/L	**0.75**	1.00	930	280	177	150	21
27	90S/L	**1.10**	1.50	935	280	177	150	23
37	100L	**1.50**	2.00	950	316	198	160	24
45	112M	**2.20**	3.00	950	333	235	180	34
53	132S	**3.00**	4.00	965	410	274	207	47
55	132M	**4.00**	5.50	965	410	274	207	56
57	132M	**5.50**	7.50	965	410	274	207	64
65	160M	**7.50**	10.00	965	520	330	250	134
67	160L	**11.00**	15.00	965	565	330	250	152
74	180L	**15.00**	20.00	970	630	380	275	184
75	200LA	**18.50**	25.00	980	670	415	320	286
84	200LB	**22.00**	30.00	975	670	415	320	286
91	225M	**30.00**	40.00	985	725	460	345	358
92	250M	**37.00**	50.00	980	805	512	375	535
93	280S	**45.00**	60.00	985	830	570	410	563
97	280MA	**55.00**	75.00	985	880	570	410	720

Dimensions A, B and C are based on the standard motor normally supplied, for details when another type of motor is required consult your local Authorised Distributor.

Starting torque,starting current and current at various voltages vary depending on the type of unit. Consult your local Authorised Distributor.

* Last two digits of the complete eight digit ordering code from the selection tables.



Fenner®
SERIES W
WORM REDUCTION

A modular designed aluminium worm box available in a vast range of sizes and ratios for cost effective solutions.



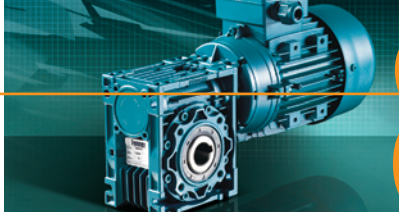
- 11 Sizes with ratings from 0.06 to 15kW
- Ratios from 5:1 to 5000:1 with helical or double worm combinations
- Interchangeable dimensionally with other makes
- Hollow bore or solid shaft versions
- Accepts standard IEC motors

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available, any special motor features required (brake, clutch, flameproof etc.)
- **If non-motorised:** type of prime mover, rotational speed of prime mover, power rating of prime mover, is an input shaft coupling required? if so, prime mover shaft dia.
- **Shaft mounting or foot mounted?** if shaft mounted, machine shaft diameter/length, if foot mounted, is an output shaft coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine** constant or variable over what range?
- **Power absorbed by driven machine** (or required output torque)
- **Hours/day duty & start/stop frequency**

SERIES W

	Page
Selection Procedure	311
Motorised Selection	312
Dimensions - worm geared motor	318
Dimensions - motor input	319
Dimensions - options	320
Dimensions - Heli-worm	322
Dimensions - worm/worm	323
Non-motorised selection	324
Dimensions - reducers	328
Mesh Data	329
Ordering Instructions	330
Ratio Codes	331
Overhung Loads	332
Installation & Maintenance	333
Electric Motors	334



SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive.

If the unit is to be subjected to frequent stop/starts then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Motor Power

Refer to the selection tables on pages 312 to 317 and choose a motor power equal to or in excess of that required, if the motor power is not known then from the formula below determine the power requirements of the driven machine and select a motor power in excess of the calculated machine absorbed power.

$$P_A = \frac{T \times n_2}{9550}$$

P_A = Machine absorbed power (kW)

T = Machine absorbed torque (Nm)

n_2 = Machine speed (Rev/Min)

(c) Unit Selection

Refer to the selection tables on page 312 to 317 and choose a motor power equal to or closest above that calculated in step **(b)**. Then read down the column headed "Nominal Output Speed" until a speed equal to or near to the required speed is found. On this line read across to the service factor column and check that the service factor exceeds the value from step **(a)**. If the service factor is either lower or much higher than that required check the speeds at each side of the required speed to see if a more suitable unit and factor can be found.

(d) Overhung Loads

If the unit is to be fitted with an output shaft and an indirect drive attached to the shaft, calculate the overhung load value using the formula on page 332 and compare this value with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

(e) Shaft mounted

If the unit is to be shaft mounted determine the relevant machine shaft size from the dimension tables on page 318. Torque arm dimensions can be found on page 321.

SELECTION EXAMPLE

A series W shaft mounted gearbox is required to drive a variable density mixer, which absorbs 450 Nm at 36 rev/min and operates for up to 8 hours per day. The mixer stops and starts on average 4 times a day. Specify the shaft diameter required to fit the unit selected, a torque arm bracket is also required please specify the relevant product code.

(a) Service Factor

From table 1, a variable density mixer is classed as a moderately loaded machine and when running for 8 hours per day has a service factor of 1.2.

The machine stops and starts only 4 times a day therefore an additional stop/start factor is not required.

(b) Motor Power

To determine the required motor power use the absorbed torque and the machine shaft speed in the formula given.Then use the next largest standard motor power above this.

Therefore the absorbed Power P_A =

$$\frac{450 \times 36}{9550} = 1.7 \text{ kW}$$

(c) Unit Selection

The nearest standard motor power above 1.7 kW is 2.2 kW therefore we go to the 2.2kW geared motor selections on page 316.

Reading down the column headed nominal output speed it is found that there are 2 units listed at 36 rev/min, at the first one of these read across to maximum service factor column, it can be seen that the unit size 747A0645 has a service factor of 1.4.

This exceeds the 1.2 Service factor required and therefore is suitable for the application.

(d) Overhung Loads

The gearbox is to be shaft mounted therefore there are no overhung loads present.

(e) Shaft Mounted

The unit is to be shaft mounted, referring to page 318 we see that the hub bore size is 42 mm.

From page 321 the torque arm bracket to suit the size 747 unit selected has a product code of 748A9600.

TABLE 1 - MECHANICAL SERVICE FACTOR Fm

Types of Driven Machine	Operational hours per day			
	under 2	2 to 8	over 8 to 16	Over 16
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.20	1.50
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes, travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pulp and Paper Making Machinery Rubber Mixers and Calenders Screens – rotary Textile Machinery	1.00	1.20	1.40	1.70
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.20	1.40	1.60	2.0

For High Inertia Applications, consult your authorised distributor for verification of selection

*** See page 398 for notes on reducing service factors**

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour					
	Up to 5	6 - 20	21 - 30	31 - 50	51 - 80	81 - 100
Uniform Load	1.00	1.05	1.10	1.15	1.20	1.25
Moderate Shock Load	1.05	1.10	1.20	1.25	1.35	1.40
Heavy Shock Load	1.20	1.25	1.30	1.40	1.45	1.50

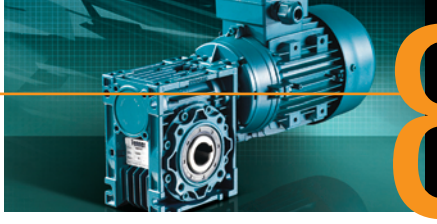
Motorised Selection

Bold print indicates unit with helical input stage
Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.06 KW MOTOR				
280	1.8	6.2	740A0141	439
280	1.8	10.1	741A0141	597
187	2.6	4.2	740A0241	503
187	2.6	6.9	741A0241	683
180	2.7	4.8	740A0142	509
140	3.4	3.5	740A0341	553
140	3.4	5.4	741A0341	752
120	4.0	3.2	740A0242	583
93	4.9	2.5	740A0441	633
93	4.7	3.8	741A0441	861
90	5.2	2.7	740A0342	641
70	6.1	2.0	740A0541	697
70	6.0	3.0	741A0541	948
60	7.4	1.9	740A0442	734
56	7.0	3.0	741A0641	1021
47	8.2	1.6	740A0741	798
47	8.0	2.5	741A0741	1085
45	9.3	1.4	740A0542	808
35	10.0	1.3	740A0841	878
35	9.7	1.9	741A0841	1194
30	12	1.2	740A0742	925
28	12	0.9	740A0941	946
28	11	1.5	741A0941	1286
23	14	0.7	740A1041	1006
23	13	1.3	741A1041	1367
22	15	0.9	740A0842	1018
18	18	0.7	740A0942	1096
18	18	2.3	742A0942	2868
17.5	14	0.9	741A1141	1504
15.0	18	0.9	741A1042	1583
15.0	21	1.9	742A1042	3047
11.0	24	1.4	742A1142	3354
9.0	27	1.2	742A1242	3490
4.7	57	1.3	*742B4041*	3490
3.5	70	0.9	*742B4141*	3490
2.8	96	0.6	*742B4241*	3490
2.3	104	0.7	*742B4341*	3490
1.6	141	1.0	*743B4541*	4840
1.2	169	0.7	*743B4641*	4840
0.9	204	1.1	*744B4741*	6270
0.78	225	0.9	*744B4841*	6270
0.60	330	1.1	*745B4941*	7380
0.58	276	0.8	*744B4941*	6270
0.50	406	1.4	*746B5041*	8180
0.47	377	0.8	*745B5041*	7380
0.35	355	0.7	*745B5241*	7380
0.35	365	1.3	*746B5241*	8180
0.28	431	1.0	*746B5441*	8180
0.09 KW MOTOR				
560	1.40	5.90	740A0143	349
560	1.40	8.80	741A0143	474
373	2.00	3.90	740A0243	399
373	2.00	6.50	741A0243	542
280	2.70	4.10	740A0114	439
280	2.60	3.40	740A0343	439
280	2.70	6.70	741A0114	597
280	2.60	5.00	741A0343	597
187	3.90	2.80	740A0214	503
187	3.80	2.40	740A0443	503
187	3.90	4.60	741A0214	683
187	3.70	3.50	741A0443	683
180	4.10	4.90	741A0115	692
140	5.10	2.40	740A0314	553
140	4.90	1.90	740A0543	553
140	5.00	3.60	741A0314	752
140	4.80	2.50	741A0543	752
120	5.90	3.40	741A0215	792
112	5.70	2.80	741A0643	810
93	7.30	1.60	740A0414	633
93	6.70	1.30	740A0743	633
93	7.10	2.50	741A0414	861
93	6.50	2.30	741A0743	861

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
90	7.60	2.60	741A0315	871
70	9.20	1.30	740A0514	697
70	8.30	1.10	740A0843	697
70	9.00	2.00	741A0514	948
70	8.10	1.70	741A0843	948
60	11.00	1.90	741A0415	997
56	10.00	0.90	740A0943	751
56	10.00	2.00	741A0614	1021
56	10.00	1.40	741A0943	1021
47	12.00	1.10	740A0714	798
47	12.00	1.70	741A0714	1085
47	11.00	1.10	741A1043	1085
45	13.00	1.50	741A0515	1098
36	15.00	1.50	741A0615	1183
35	15.00	0.90	740A0814	878
35	14.00	1.20	741A0814	1194
35	13.00	0.90	741A1143	1194
30	17.00	1.20	741A0715	1257
30	19.00	2.60	742A0715	2419
28	17.00	1.00	741A0914	1286
28	19.00	2.00	742A0914	2475
23	21.00	1.00	741A0815	1383
23	19.00	0.90	741A1014	1367
23	21.00	1.70	742A1014	2630
22.5	24.00	1.90	742A0815	2662
18.0	24.00	0.70	741A0915	1490
18.0	27.00	1.50	742A0915	2868
17.5	26.00	1.30	742A1114	2895
15.0	31.00	1.30	742A1015	3047
15.0	32.00	2.30	743A1015	4183
14.0	29.00	1.00	742A1214	3118
12.0	47.00	1.30	**742A2015**	3283
11.5	37.00	1.00	742A1115	3354
11.5	37.00	1.80	743A1115	4604
10.0	51.00	1.40	**742A2115**	3488
9.0	41.00	0.80	742A1215	3490
9.0	42.00	1.30	743A1215	4840
7.5	62.00	1.10	**742A2215**	3490
6.0	72.00	0.80	**742A2315**	3490
6.0	73.00	1.60	**743A2315**	4840
5.0	79.00	0.70	**742A2415**	3490
5.0	81.00	1.30	**743A2415**	4840
4.7	88.00	0.80	*742B4014*	3490
3.8	94.00	0.90	**743A2515**	4840
3.8	99.00	1.70	**744A2515**	6270
3.5	107.00	1.20	*743B4114*	4840
3.0	106.00	0.70	**743A2615**	4840
3.0	109.00	1.40	**744A2615**	6270
2.8	123.00	1.00	*743B4214*	4840
2.3	159.00	0.90	*743B4314*	4840
1.9	185.00	0.80	*743B4414*	4840
1.6	212.00	0.70	*743B4514*	4840
1.6	200.00	1.00	*744B4414*	6270
1.2	263.00	0.90	*744B4614*	6270
0.93	305.00	0.70	*744B4714*	6270
0.90	360.00	1.10	*745B4714*	7380
0.78	404.00	1.00	*745B4814*	7380
0.58	496.00	0.70	*745B4914*	7380
0.50	609.00	0.90	*746B5014*	8180
0.35	548.00	0.80	*746B5214*	8180
0.12 KW MOTOR				
560	1.80	4.40	740A0147	349
373	2.70	3.00	740A0247	399
280	3.50	2.60	740A0347	439
280	3.60	5.10	741A0148	597
187	5.00	1.80	740A0447	503
187	5.20	3.40	741A0248	683
180	5.40	3.70	741A0113	692
140	6.50	1.40	740A0547	553
140	6.70	2.70	741A0348	752
120	7.90	2.50	741A0213	792
93	9.00	1.00	740A0647	633
93	9.50	1.90	741A0448	861

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
90	10.00	2.00	741A0313	871
70	11.00	0.80	740A0747	697
70	12.00	1.50	741A0548	948
60	14.00	1.40	741A0413	997
56	14.00	1.50	741A0648	1021
47	16.00	1.30	741A0748	1085
47	17.00	2.60	742A0748	2087
45	18.00	1.10	741A0513	1098
36	20.00	1.10	741A0613	1183
35	19.00	0.90	741A0848	1194
35	21.00	1.90	742A0848	2298
30	23.00	0.90	741A0713	1257
30	25.00	1.90	742A0713	2419
28	23.00	0.80	741A0948	1286
28	25.00	1.50	742A0948	2475
23	29.00	2.30	743A1048	3610
23	28.00	1.30	742A1048	2630
22.5	32.00	1.40	742A0813	2662
22.5	32.00	2.60	743A0813	3654
19.0	42.00	1.20	**742A2048**	2833
18.0	36.00	1.20	742A0913	2868
18.0	38.00	2.00	743A0913	3936
17.5	34.00	1.00	742A1148	2895
17.5	35.00	1.90	743A1148	3973
15.5	46.00	1.20	**742A2148**	3011
15.0	41.00	0.90	742A1013	3047
15.0	42.00	1.70	743A1013	4183
14.0	38.00	0.80	742A1248	3118
14.0	40.00	1.40	743A1248	4280
12.0	62.00	1.00	**742A2013**	3283
12.0	63.00	1.70	**743A2013**	4506
11.5	57.00	0.90	**742A2248**	3314
11.5	50.00	1.40	743A1113	4604
10.0	68.00	1.10	**742A2113**	3488
10.0	70.00	2.10	**743A2113**	4788
9.5	66.00	0.70	**742A2348**	3490
9.5	68.00	1.30	**743A2348**	4840
9.0	56.00	1.00	743A1213	4840
8.0	74.00	0.60	**742A2448**	3490
8.0	75.00	1.10	**743A2448**	4840
7.5	83.00	0.80	**742A2213**	3490
7.5	84.00	1.50	**743A2213**	4840
6.0	97.00	1.20	**743A2313**	4840
6.0	101.00	2.10	**744A2313**	6270
5.8	88.00	0.80	**743A2548**	4840
5.8	92.00	1.50	**744A2548**	6270
5.0	108.00	1.00	**743A2413**	4840
5.0	112.00	1.80	**744A2413**	6270
4.7	98.00	0.70	**743A2648**	4840
4.7	119.00	1.20	*743B4048*	4840
4.7	103.00	1.20	**744A2648**	6270
3.8	125.00	0.70	**743A2513**	4840
3.8	131.00	1.30	**744A2513**	6270
3.5	142.00	0.90	*743B4148*	4840
3.0	145.00	1.00	**744A2613**	6270
2.8	164.00	0.70	*743B4248*	4840
2.8	171.00	1.30	*744B4248*	6270
2.3	208.00	1.10	*744B4348*	6270
1.9	241.00	0.90	*744B4448*	6270
1.6	325.00	1.20	*745B4548*	7380
1.2	399.00	0.90	*745B4648*	7380
0.8	547.00	0.90	*746B4848*	8180
0.58	695.00	0.90	*746B4948*	8180
0.50	884.00	1.10	*747B5048*	10320
0.50	884.00	1.20	*748B5048*	10320
0.35	784.00	1.00	*747B5248*	10320
0.35	784.00	1.00	*748B5248*	10320
0.28	928.00	0.78	*747B5448*	10320
0.28	928.00	0.80	*748B5448*	10320



Motorised Selection

Bold print indicates unit with helical input stage

Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.18 KW MOTOR				
560	2.7	4.4	741A0101	474
373	4.0	3.2	741A0201	542
280	5.2	2.5	741A0301	597
280	5.3	3.4	741A0102	597
187	7.5	1.7	741A0401	683
187	8	2.3	741A0202	683
140	10	1.3	741A0501	752
140	10	1.8	741A0302	752
112	11	1.4	741A0601	810
93	13	1.1	741A0701	861
93	14	1.3	741A0402	861
93	14	2.4	742A0701	1657
70	18	0.9	741A0801	948
70	18	1.0	741A0502	948
70	18	1.8	742A0801	1824
70	19	2.0	742A0502	1824
56	21	1.0	741A0602	1021
56	21	1.4	742A0901	1964
56	23	1.7	742A0602	1964
47	24	0.8	741A0702	1085
47	26	1.7	742A0702	2087
47	24	2.1	743A1001	2865
35	32	1.3	742A0802	2298
35	30	1.5	743A1101	3153
35	33	2.3	743A0802	3153
28	38	1.0	742A0902	2475
28	34	1.2	743A1201	3397
28	39	1.9	743A0902	3397
23	43	0.8	742A1002	2630
23	43	1.6	743A1002	3610
19.0	64	0.8	**742A2002**	2833
19.0	64	1.4	**743A2002**	3889
18.0	56	1.4	743A0905	3936
17.5	52	1.2	743A1102	3973
15.5	70	0.8	**742A2102**	3011
15.5	71	1.5	**743A2102**	4132
15.0	63	1.1	743A1005	4183
15.0	66	2.1	744A1005	5467
14.0	60	0.9	743A1202	4280
12.0	95	1.2	**743A2005**	4506
12.0	97	2.2	**744A2005**	5889
11.5	85	0.6	**742A2202**	3314
11.5	87	1.1	**743A2202**	4548
11.5	79	1.6	744A1105	6018
11.0	75	0.9	743A1105	4604
10.0	105	1.4	**743A2105**	4788
10.0	107	2.4	**744A2105**	6259
9.5	101	0.9	**743A2302**	4840
9.5	103	1.7	**744A2302**	6270
9.0	90	1.4	744A1205	6270
8.0	113	0.7	**743A2402**	4840
8.0	117	1.4	**744A2402**	6270
7.5	126	1.0	**743A2205**	4840
7.5	131	1.8	**744A2205**	6270
6.0	152	1.4	**744A2305**	6270
5.8	133	0.6	**743A2502**	4840
5.8	139	1.0	**744A2502**	6270
5.0	168	1.2	**744A2405**	6270
5.0	179	1.7	**745A2405**	7380
4.7	155	0.8	**744A2602**	6270
3.8	197	0.9	**744A2505**	6270
3.8	211	1.2	**745A2505**	7380
3.5	222	1.0	*744B4102*	6270
3.0	218	0.7	**744A2605**	6270
3.0	235	1.0	**745A2605**	7380
2.8	257	0.8	*744B4202*	6270
2.3	362	1.1	*745B4302*	7380
1.9	435	0.9	*745B4402*	7380
1.6	487	0.8	*745B4502*	7380
1.2	629	1.0	*746B4602*	8180
0.9	735	0.8	*746B4702*	8180
0.8	861	1.3	*747B4802*	10320
0.8	861	1.5	*748B4802*	10320
0.6	1113	0.9	*747B4902*	10320
0.6	1113	1.1	*748B4902*	10320

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.25 KW MOTOR				
560	3.8	3.2	741A0103	474
373	5.6	2.3	741A0203	542
280	7.2	1.8	741A0303	597
280	8	4.5	742A0106	1149
187	10	1.3	741A0403	683
187	11	3.6	742A0206	1315
180	12	3.5	742A0107	1331
140	13	0.9	741A0503	752
140	14	2.8	742A0306	1447
120	17	2.6	742A0207	1524
112	16	1.0	741A0603	810
93	18	0.8	741A0703	861
93	21	1.9	742A0406	1657
90	22	2.0	742A0307	1677
70	27	1.5	742A0506	1824
70	27	2.7	743A0506	2503
60	31	1.4	742A0407	1920
56	32	1.2	742A0606	1964
56	32	2.2	743A0606	2696
47	36	1.3	742A0706	2087
47	37	2.3	743A0706	2865
45	40	1.1	742A0507	2113
45	40	1.9	743A0507	2900
36	48	0.9	742A0607	2276
36	48	1.5	743A0607	3124
35	44	0.9	742A0806	2298
35	42	1.1	743A1103	3153
35	46	1.7	743A0806	3153
30	53	0.9	742A0707	2419
30	54	1.7	743A0707	3320
28	48	0.8	743A1203	3397
28	54	1.4	743A0906	3397
28	56	2.4	744A0906	4440
23	60	1.1	743A1006	3610
23	63	2.0	744A1006	4719
23	67	1.2	743A0807	3654
19.0	88	1.0	**743A2006**	3889
19.0	91	1.8	**744A2006**	5083
18.0	78	1.0	743A0907	3936
18.0	81	1.8	744A0907	5145
18.0	72	0.9	743A1106	3973
17.5	78	1.6	744A1106	5193
17.5	82	2.3	745A1106	6130
15.5	98	1.1	**743A2106**	4132
15.5	100	2.0	**744A2106**	5401
15.0	88	0.8	743A1007	4183
15.0	92	1.5	744A1007	5467
14.0	87	1.4	744A1206	5595
14.0	94	1.9	745A1206	6603
12.0	135	1.6	**744A2007**	5889
12.0	139	2.4	**745A2007**	6952
11.5	121	0.8	**743A2206**	4548
11.5	125	1.5	**744A2206**	5945
11.5	117	1.7	745A1107	7103
11.0	110	1.2	744A1107	6018
10.0	148	1.8	**744A2107**	6259
10.0	155	2.5	**745A2107**	7380
9.5	143	1.2	**744A2306**	6270
9.5	151	1.7	**745A2306**	7380
9.0	125	1.0	744A1207	6270
9.0	133	1.4	745A1207	7380
8.0	163	1.0	**744A2406**	6270
8.0	172	1.4	**745A2406**	7380
7.5	181	1.3	**744A2207**	6270
7.5	191	1.9	**745A2207**	7380
7.0	159	1.4	*744B4103*	6270
6.0	211	1.0	**744A2307**	6270
6.0	219	1.5	**745A2307**	7380
5.8	192	0.7	**744A2506**	6270
5.8	201	1.1	**745A2506**	7380
5.6	185	1.2	*744B4203*	6270
5.0	248	1.2	**745A2407**	7380
5.0	263	1.9	**746A2407**	8180

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
4.7	215	0.6	**744A2606**	6270
4.7	230	0.9	**745A2606**	7380
3.8	318	1.4	**746A2507**	8180
3.5	336	1.1	*745B4106*	7380
3.0	358	1.1	**746A2607**	8180
2.8	384	0.8	*745B4206*	7380
2.3	512	1.2	*746B4306*	8180
1.9	598	0.9	*746B4406*	8180
1.6	667	0.8	*746B4506*	8180
1.2	943	1.1	*747B4606*	10320
1.2	943	1.3	*748B4606*	10320
0.93	1064	1.0	*747B4706*	10320
0.93	1064	1.2	*748B4706*	10320
0.80	1199	1.8	*750B4806*	18000
0.78	1195	0.9	*747B4806*	10320
0.78	1195	1.1	*748B4806*	10320
0.60	1624	1.0	*749B4906*	13500
0.60	1446	1.8	*750B4906*	18000
0.50	1713	1.4	*750B5006*	18000
0.47	1935	0.8	*749B5006*	13500
0.40	2026	0.9	*750B5206*	18000
0.35	2046	0.6	*749B5206*	13500
0.30	2251	0.7	*750B5406*	18000
0.28	2430	0.5	*749B5406*	13500
0.37 KW MOTOR				
560	5.6	2.1	741A01**	474
560	5.7	4.2	742A0109	912
373	8.2	1.6	741A02**	542
373	8.4	3.3	742A0209	1044
280	11	1.2	741A03**	597
280	11	2.6	742A0309	1149
280	11	3	742A0108	1149
187	15	0.8	741A04**	683
187	16	1.9	742A0409	1315
187	16	2.4	742A0208	1315
180	17	4.3	743A0112	1827
140	21	1.4	742A0509	1447
140	21	1.9	742A0308	1447
140	22	3.3	743A0308	1987
120	25	3.3	743A0212	2091
112	25	1.1	742A0609	1559
112	25	2.0	743A0609	2140
93	31	1.3	742A0408	1657
93	29	2.2	743A0709	2274
93	31	2.4	743A0408	2274
90	33	2.5	743A0312	2302
70	39	1.0	742A0508	1824
70	37	1.6	743A0809	2503
70	40	1.8	743A0508	2503
60	47	1.8	743A0412	2635
56	47	0.8	742A0608	1964
56	44	1.2	743A0909	2696
56	48	1.5	743A0608	2696
47	53	0.8	742A0708	2087
47	50	1.0	743A1009	2865
47	55	1.5	743A0708	2865
45	60	1.3	743A0512	2900
45	60	2.4	744A0512	3791
36	72	1	743A0612	3124
36	74	1.9	744A0612	4084
35	62	0.7	743A1109	3153
35	68	1.1	743A0808	3153
35	71	2.1	744A0808	4122
30	80	1.1	743A0712	3320
30	82	2.1	744A0712	4339
28	80	0.9	743A0908	3397
28	83	1.6	744A0908	4440
23	89	0.8	743A1008	3610
23	94	1.4	744A1008	4719
23	98	2.0	745A1008	5569
22.5	102	1.6	744A0812	4776
19	134	1.2	**744A2008**	5083

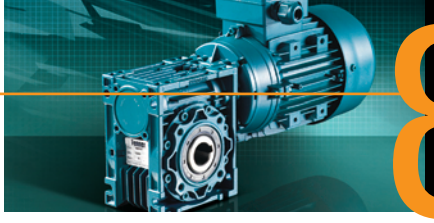
** For full product code please consult your local authorised distributor

Motorised Selection

Bold print indicates unit with helical input stage
Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.37 KW MOTOR				
19.0	138	1.8	**745A2008**	6000
18.0	120	1.2	744A0912	5145
18.0	126	1.8	745A0912	6073
17.5	115	1.1	744A1108	5193
17.5	121	1.6	745A1108	6130
15.5	148	1.4	**744A2108**	5401
15.5	154	1.9	**745A2108**	6375
15.0	137	1.0	744A1012	5467
15.0	144	1.5	745A1012	6453
14.0	129	0.9	744A1208	5595
14.0	139	1.3	745A1208	6603
12.0	206	1.6	**745A2012**	6952
11.5	185	1.0	**744A2208**	5945
11.5	173	1.2	745A1112	7103
11.5	191	1.5	**745A2108**	7017
11.5	185	1.7	746A1112	7859
10.0	230	1.7	**745A2112**	7380
9.5	212	0.8	**744A2308**	6270
9.5	181	1.3	*744B4009*	6270
9.5	223	1.1	**745A2108**	7380
9.0	196	1.0	745A1212	7380
9.0	212	1.3	746A1212	8180
8.0	254	0.9	**745A2108**	7380
8.0	268	1.5	**746A2408**	8180
7.5	283	1.3	**745A2112**	7380
7.0	236	1.0	*744B4109*	6270
6.0	324	1.0	**745A2112**	7380
6.0	347	1.6	**746A2312**	8180
5.8	321	1.1	**746A2508**	8180
5.0	389	1.3	**746A2412**	8180
4.7	405	1.0	*745B4008*	7380
4.7	371	0.9	**746A2608**	8180
4.7	402	1.5	*746B4008*	8180
3.8	471	1.0	**746A2512**	8180
3.8	509	1.5	**747A2512**	10320
3.8	509	1.6	**748A2512**	10320
3.5	498	0.7	*745B4108*	7380
3.5	523	1.2	*746B4108*	8180
3.0	577	1.2	**747A2612**	10320
3.0	577	1.3	**748A2612**	10320
2.8	611	0.9	*746B4208*	8180
2.3	757	0.8	*746B4308*	8180
1.9	950	1.2	*747B4408*	10320
1.9	950	1.3	*748B4408*	10320
1.6	1079	1.0	*747B4508*	10320
1.6	1079	1.2	*748B4508*	10320
1.2	1396	0.7	*747B4608*	10320
1.2	1396	0.8	*748B4608*	10320
0.90	1674	1.1	*749B4708*	13500
0.80	1775	1.2	*750B4808*	18000
0.78	1887	0.9	*749B4808*	13500
0.60	2141	1.2	*750B4908*	18000
0.50	2535	0.9	*750B5008*	18000
0.55 KW MOTOR				
560	8.4	2.8	742A0110	912
373	13	2.2	742A0210	1044
280	17	1.8	742A0310	1149
280	17	2.0	742A0181	1149
280	17	3.7	743A0116	1577
187	24	1.3	742A0410	1315
187	24	1.6	742A0281	1315
187	25	2.9	743A0216	1805
140	31	0.9	742A0510	1447
140	32	1.3	742A0381	1447
140	31	1.7	743A0510	1987
140	32	2.2	743A0316	1987
120	38	2.2	743A0217	2091
112	37	0.8	742A0610	1559
112	38	1.4	743A0610	2140
93	46	0.9	742A0481	1657
93	43	1.5	743A0710	2274
93	46	1.6	743A0416	2274
90	49	1.7	743A0317	2302
70	55	1.1	743A0810	2503
70	59	1.2	743A0516	2503
70	56	1.9	744A0810	3272
70	61	2.2	744A0516	3272
60	69	1.2	743A0417	2635
60	71	2.2	744A0417	3444
56	65	0.8	743A0910	2696
56	71	1.0	743A0616	2696
56	67	1.5	744A0910	3524
56	73	1.8	744A0616	3524
47	74	0.7	743A1010	2865
47	81	1.0	743A0716	2865
47	77	1.2	744A1010	3745
47	83	1.9	744A0716	3745
45	89	0.9	743A0517	2900
45	90	1.6	744A0517	3791
36	109	1.3	744A0617	4084
35	95	0.9	744A1110	4122
35	105	1.4	744A0816	4122
35	99	1.3	745A1110	4865
35	108	2.0	745A0816	4865
30	123	1.4	744A0717	4339
30	128	2	745A0717	5122
28	109	0.7	744A1210	4440
28	124	1.1	744A0916	4440
28	114	1.0	745A1210	5241
28	129	1.6	745A0916	5241
23	140	0.9	744A1016	4719
23	146	1.4	745A1016	5569
22.5	152	1.1	744A0817	4776
22.5	159	1.5	745A0817	5637
19.0	200	0.8	**744A2081**	5083
19.0	205	1.2	**745A2081**	6000
19.0	205	1.2	**745A2016**	6000
18.0	187	1.2	745A0917	6073
18.0	198	2.0	746A0917	6719
17.5	180	1.1	745A1116	6130
17.5	189	1.5	746A1116	6783
17.5	201	2.4	747A1116	8571
17.5	201	2.6	748A1116	8571
15.5	219	0.9	**744A2181**	5401
15.5	230	1.3	**745A2181**	6375
15.5	230	1.3	**745A2116**	6375
15.5	240	2.3	**746A2116**	7054
15.0	214	1.0	745A1017	6453
15.0	224	1.6	746A1017	7140
14.0	206	0.9	745A1216	6603
14.0	221	1.2	746A1216	7306
14.0	236	1.9	747A1216	9232
14.0	236	2.0	748A1216	9232
12.0	306	1.1	**745A2017**	6952
11.5	284	1.0	**745A2281**	7017
11.5	284	1.0	**745A2216**	7017
11.5	275	1.1	746A1117	7859
11.5	297	1.6	**746A2216**	7764
11.5	294	1.8	747A1117	9931
11.5	294	1.9	748A1117	9931
10.0	341	1.1	**745A2117**	7380
10.0	357	2.0	**746A2117**	8174
9.5	332	0.8	**745A2316**	7380
9.5	355	1.3	**746A2316**	8180
9.5	306	2.0	*746B4010*	8180
9.0	315	0.9	746A1217	8180
9.0	338	1.4	747A1217	10320
9.0	338	1.5	748A1217	10320
8.0	398	1.0	**746A2416**	8180
8.0	425	1.7	**747A2416**	10320
8.0	425	1.8	**748A2416**	10320
7.5	441	1.4	**746A2217**	8180
7.5	462	2.2	**747A2217**	10320
7.5	462	2.6	**748A2217**	10320
7.0	403	1.5	*746B4110*	8180
6.0	516	1.1	**746A2317**	8180
6.0	513	1.2	**747A2516**	10320
6.0	552	1.8	**747A2317**	10320
6.0	513	1.3	**748A2516**	10320
6.0	552	2.0	**748A2217**	10320
5.5	470	1.2	*746B4210*	8180
5.0	578	0.9	**746A2417**	8180
5.0	620	1.5	**747A2417**	10320
5.0	620	1.6	**748A2417**	10320
4.7	597	1.0	**747A2616**	10320
4.7	639	1.7	*747B4016*	10320
4.7	597	1	**748A2616**	10320
4.7	639	2.0	*748B4016*	10320
3.8	756	1.0	**747A2517**	10320
3.8	756	1.1	**748A2517**	10320
3.8	756	1.6	**749A2517**	13500
3.5	826	1.2	*747B4116*	10320
3.5	826	1.4	*748B4116*	10320
3.0	858	1.3	**749A2617**	13500
2.8	984	1.0	*747B4216*	10320
2.8	984	1.1	*748B4216*	10320
2.8	996	1.6	*749B4216*	13500
2.3	1181	0.9	*747B4316*	10320
2.3	1181	1.0	*748B4316*	10320
1.9	1411	0.8	*747B4416*	10320
1.9	1411	0.9	*748B4416*	10320
1.9	1471	1.2	*749B4416*	13500
1.2	2132	0.8	*749B4516*	13500
0.8	2638	0.8	*750B4816*	18000
0.6	3182	0.8	*750B4916*	18000
0.75 KW MOTOR				
560	12	2.1	742A01**	912
560	12	3.9	743A0119	1251
373	17	1.6	742A02**	1044
373	17	3.0	743A0219	1433
280	23	1.3	742A03**	1149
280	23	2.4	743A0319	1577
280	23	2.7	743A0118	1577
187	32	1.0	742A04**	1315
187	33	1.7	743A0419	1805
187	34	2.1	743A0218	1805
140	42	1.3	743A0519	1987
140	44	1.6	743A0318	1987
140	43	2.3	744A0519	2597
120	52	2.9	744A0223	2734
112	51	1.0	743A0619	2140
112	52	1.8	744A0619	2797
93	58	1.1	743A0719	2274
93	63	1.2	743A0418	2274
93	60	2.0	744A0719	2973
93	64	2.2	744A0418	2973
90	68	2.3	744A0323	3009
70	81	0.9	743A0518	2503
70	77	1.4	744A0819	3272
70	83	1.6	744A0518	3272
60	97	1.6	744A0423	3444
60	98	2.4	745A0423	4065
56	91	1.1	744A0919	3524
56	100	1.3	744A0618	3524
56	102	2.0	745A0618	4160
47	104	0.9	744A1019	3745
47	114	1.4	744A0718	3745
47	109	1.3	745A1019	4421
47	117	2.0	745A0718	4421
45	123	1.2	744A0523	3791
45	126	1.9	745A0523	4474
36	149	0.9	744A0623	4084
36	153	1.4	745A0623	4820
35	143	1.0	744A0818	4122
35	147	1.5	745A0818	4865
35	141	1.6	746A1119	5383
30	167	1.0	744A0723	4339
30	174	1.5	745A0723	5122
30	179	2.6	746A0723	5667
28	156	0.8	745A1219	5241
28	177	1.2	745A0918	5241

** For full product code please consult your local authorised distributor



Motorised Selection

Bold print indicates unit with helical input stage

Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.75 KW MOTOR				
28	166	1.2	746A1219	5799
28	184	1.8	746A0918	5799
23	200	1.0	745A1018	5569
23	212	1.5	746A1018	6163
22.5	216	1.1	745A0823	5637
22.5	226	1.8	746A0823	6238
19.0	280	0.9	**745A2018**	6000
18.0	271	1.4	746A0923	6719
17.5	258	1.1	746A1118	6783
17.5	274	1.8	747A1118	8571
17.5	274	1.9	748A1118	8571
15.5	313	1.0	**745A2018**	6375
15.5	327	1.7	**746A2118**	7054
15.0	306	1.1	746A1023	7140
15.0	325	1.9	747A1023	9023
15.0	325	2.1	748A1023	9023
14.0	302	0.9	746A1218	7306
14.0	322	1.4	747A1218	9232
14.0	322	1.5	748A1218	9232
12.5	393	2.8	**747A2023**	9614
12.5	393	3.2	**748A2023**	9614
12.5	399	4.4	**749A2023**	12575
11.5	405	1.2	**746A2218**	7764
11.5	401	1.3	747A1123	9931
11.5	430	1.9	**747A2218**	9811
11.5	401	1.4	748A1123	9931
11.5	430	2.2	**748A2218**	9811
11.5	407	2.1	749A1123	12989
9.5	483	0.9	**746A2318**	8180
9.5	506	1.6	**747A2318**	10320
9.5	508	2.0	**747A2123**	10320
9.5	446	2.5	*747B4019*	10320
9.5	506	1.7	**748A2318**	10320
9.5	508	2.3	**748A2123**	10320
9.5	446	2.8	*748B4019*	10320
9.5	508	3.2	**749A2123**	13500
9.0	462	1.1	747A1223	10320
9.0	462	1.1	748A1223	10320
9.0	470	1.7	749A1223	13500
8.0	543	0.7	**746A2418**	8180
8.0	580	1.2	**747A2418**	10320
8.0	580	1.3	**748A2418**	10320
7.5	607	1.6	**747A2223**	10320
7.5	607	1.8	**748A2223**	10320
7.5	607	2.6	**749A2223**	13500
7.0	549	1.1	*746B41***	18180
7.0	563	1.8	*747B4119*	10320
7.0	563	2.1	*748B4119*	10320
6.0	700	0.9	**747A2518**	10320
6.0	682	1.3	**747A2323**	10320
6.0	700	0.9	**748A2518**	10320
6.0	682	1.5	**748A2323**	10320
6.0	712	1.4	**749A2518**	13500
6.0	682	2.1	**749A2323**	13500
5.5	642	0.9	*746B42***	8180
5.5	687	1.5	*747B4219*	10320
5.5	687	1.6	*748B4219*	10320
4.7	871	1.3	*747B4018*	10320
4.7	871	1.5	*748B4018*	10320
4.7	813	1.1	**749A2618**	13500
4.5	832	0.9	**747A2423**	10320
4.5	832	1.0	**748A2423**	10320
4.5	832	1.5	**749A2423**	13500
3.7	944	1.2	**749A2523**	13500
3.5	1126	0.9	*747B4118*	10320
3.5	1126	1.1	*748B4118*	10320
2.8	1358	1.1	*749B4218*	13500
2.8	1291	1.8	*750B4218*	18000
2.3	1631	1.0	*749B4318*	13500
2.3	1529	1.7	*750B4318*	18000
1.9	2005	0.9	*749B4418*	13500
1.9	1783	1.3	*750B4418*	18000
1.6	2283	0.8	*749B4518*	13500
1.6	2215	0.9	*750B4518*	18000
1.2	2680	1.0	*750B4618*	18000

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.1 KW MOTOR				
560	17	2.6	743A0120	1251
373	25	2.1	743A0220	1433
280	33	1.6	743A0320	1577
187	48	1.2	743A0420	1805
187	48	2.1	744A0420	2359
187	50	2.6	744A0224	2359
140	62	0.9	743A0520	1987
140	63	1.6	744A0520	2597
140	65	2.0	744A0324	2597
120	76	2.0	744A0227	2734
112	77	1.2	744A0620	2797
112	78	1.9	745A0620	3302
93	88	1.4	744A0720	2973
93	93	1.5	744A0424	2973
93	90	1.9	745A0720	3509
93	96	2.1	745A0424	3509
90	99	1.5	744A0327	3009
90	100	2.3	745A0327	3551
70	113	1.0	744A0820	3272
70	122	1.1	744A0524	3272
70	116	1.4	745A0820	3862
70	123	1.7	745A0524	3862
60	142	1.1	744A0427	3444
60	144	1.6	745A0427	4065
56	146	0.9	744A0624	3524
56	139	1.1	745A0920	4160
56	150	1.3	745A0624	4160
47	167	1.0	744A0724	3745
47	160	0.9	745A1020	4421
47	171	1.3	745A0724	4421
45	180	0.8	744A0527	3791
45	184	1.3	745A0527	4474
36	225	1.0	745A0627	4820
36	231	1.6	746A0627	5333
35	216	1.0	745A0824	4865
35	207	1.1	746A1120	5383
35	225	1.6	746A0824	5383
30	256	1.0	745A0727	5122
30	263	1.8	746A0727	5667
28	244	0.8	746A1220	5799
28	270	1.3	746A0924	5799
28	281	2.1	747A0924	7328
28	281	2.3	748A0924	7328
23	311	1.0	746A1024	6163
23	324	1.7	747A1024	7787
23	324	1.9	748A1024	7787
22.5	331	1.2	746A0827	6238
22.5	345	2.0	747A0827	7882
22.5	345	2.3	748A0827	7882
19.5	392	2.2	**747A2024**	8298
19.5	392	2.5	**748A2024**	8298
19.5	398	3.5	**749A2024**	10853
18.0	397	1.0	746A0927	6719
18.0	414	1.6	747A0927	8491
18.0	414	1.8	748A0927	8491
17.5	402	1.2	747A1124	8571
17.5	402	1.3	748A1124	8571
17.5	408	2.1	749A1124	11210
15.0	448	0.8	746A1027	7140
15.0	476	1.3	747A1027	9023
15.0	476	1.4	748A1027	9023
14.5	508	1.6	**747A2124**	9133
14.5	508	1.8	**748A2124**	9133
14.5	508	2.6	**749A2124**	11945
14.0	473	1.0	747A1224	9232
14.0	473	1.0	748A1124	9232
14.0	480	1.5	749A1224	12076
12.5	576	1.9	**747A2027**	9614
12.5	576	2.2	**748A2027**	9614
12.5	585	3.0	**749A2027**	12575
11.6	599	1.3	**747A2224**	9838
11.6	599	1.5	**748A2224**	9838
11.6	608	2.0	**749A2224**	12868

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11.5	588	0.9	747A1127	9931
11.5	588	1.0	748A1127	9931
11.5	598	1.4	749A1127	12989
9.6	686	1.0	**747A2324**	10320
9.6	686	1.1	**748A2324**	10320
9.6	686	1.6	**749A2324**	13500
9.5	746	1.4	**747A2127**	10320
9.5	654	1.7	*747B4020*	10320
9.5	746	1.6	**748A2127**	10320
9.5	654	1.9	*748B4020*	10320
9.5	746	2.2	**749A2127**	13500
9.0	689	1.1	749A1227	13500
7.5	890	1.1	**747A2227**	10320
7.5	890	1.2	**748A2227**	10320
7.5	890	1.7	**749A2227**	13500
7.0	828	0.8	**747A2424**	10320
7.0	845	1.2	*747B4120*	10320
7.0	828	0.8	**748A2424**	10320
7.0	845	1.4	*748B4120*	10320
7.0	843	1.2	**749A2424**	13500
6.0	1000	0.9	**747A2327**	10320
6.0	1000	1.0	**748A2327**	10320
6.0	1000	1.4	**749A2327**	13500
6.0	962	0.9	**749A2524**	13500
5.5	1007	1.0	*747B4220*	10320
5.5	1007	1.1	*748B4220*	10320
4.7	1312	1.3	*749B4024*	13500
4.7	1364	1.7	*750B4024*	18000
4.5	1220	1.0	**749A2427**	13500
3.5	1671	1.0	*749B4124*	13500
3.5	1619	1.6	*750B4124*	18000
2.8	1991	0.8	*749B4224*	13500
2.8	1893	1.2	*750B4224*	18000
2.3	2242	1.2	*750B4324*	18000
1.9	2616	0.9	*750B4424*	18000
1.5 KW MOTOR				
560	23	1.9	743A01**	1251
373	35	1.5	743A02**	1433
373	35	2.7	744A0226	1873
280	45	1.2	743A03**	1577
280	46	2.1	744A0326	2061
280	46	3.1	745A0326	2433
187	65	0.9	743A04**	1805
187	68	1.9	744A0228	2359
187	66	1.6	744A0426	2359
187	67	2.2	745A0426	2785
140	89	1.5	744A0328	2597
140	86	1.2	744A0526	2597
140	90	2.2	745A0328	3065
140	87	1.8	745A0526	3065
120	105	2.0	745A0237	3227
112	105	0.9	744A0626	2797
112	106	1.4	745A0626	3302
93	127	1.1	744A0428	2973
93	120	1.0	744A0726	2973
93	130	1.5	745A0428	3509
93	123	1.4	745A0726	3509
90	137	1.7	745A0337	3551
90	138	2.7	746A0337	3929
70	166	0.8	744A0528	3272
70	168	1.3	745A0528	3862
70	158	1.0	745A0826	3862
70	172	2.1	746A0528	4273
60	196	1.2	745A0437	4065
60	201	2.1	746A0437	4498
56	189	0.8	745A0926	4160
56	205	1.0	745A0628	4160
56	210	1.6	746A0628	4603
56	194	1.4	746A0926	4603
47	218	0.7	745A1026	4421
47	233	1.0	745A0728	4421

** For full product code please consult your local authorised distributor

Motorised Selection

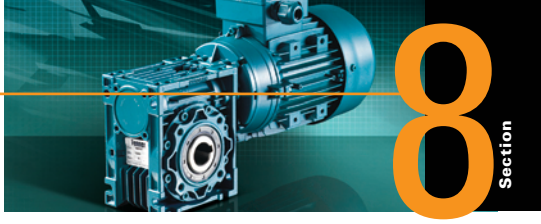
Bold print indicates unit with helical input stage
Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
1.5KW MOTOR				
47	239	1.7	746A0728	4891
47	227	1.1	746A1026	4891
47	236	1.8	747A1026	6181
47	236	2.0	748A1026	6181
45	258	1.5	746A0537	4951
45	264	2.4	747A0537	6256
45	264	2.7	748A0537	6256
36	314	1.2	746A0637	5333
36	322	2.0	747A0637	6739
36	322	2.4	748A0637	6739
35	307	1.2	746A0828	5383
35	319	1.9	747A0828	6803
35	299	1.3	747A1126	6803
35	319	2.2	748A0828	6803
35	299	1.3	748A1126	6803
30	358	1.3	746A0737	5667
30	363	2.0	747A0737	7161
30	363	2.3	748A0737	7161
28	368	0.9	746A0928	5799
28	384	1.6	747A0928	7328
28	353	1.0	747A1226	7328
28	384	1.7	748A0928	7328
28	353	1.0	748A1226	7328
23	424	0.8	746A1028	6163
23	442	1.3	747A1028	7787
23	442	1.4	748A1028	7787
22.5	471	1.5	747A0837	7882
22.5	471	1.7	748A0837	7882
22.5	478	2.3	749A0837	10309
19.5	535	1.6	**747A2028**	8298
19.5	535	1.9	**748A2028**	8928
19.5	542	2.6	**749A2028**	10853
18.0	565	1.2	747A0937	8491
18.0	565	1.3	748A0937	8491
18.0	573	1.8	749A0937	11105
17.5	548	0.9	747A1128	8571
17.5	548	0.9	748A1128	8571
17.5	557	1.5	749A1128	11210
15.0	649	1.0	747A1037	9023
15.0	649	1.1	748A1037	9023
15.0	659	1.4	749A1037	11801
14.5	693	1.2	**747A2128**	9133
14.5	693	1.3	**748A2128**	9133
14.5	693	1.9	**749A2128**	11945
14.0	655	1.1	749A1228	12076
11.6	817	1.0	**747A2228**	9838
11.6	817	1.1	**748A2228**	9838
11.6	830	1.5	**749A2228**	12868
11.5	815	1.1	749A1137	12989
9.6	936	0.8	**747A2328**	10320
9.6	936	0.8	**748A2328**	10320
9.6	936	1.1	**749A2328**	13500
9.5	891	1.2	*747B40***	10320
9.5	891	1.4	*748B4026*	10320
9.5	915	1.9	*749B4026*	13500
7.0	1153	0.9	*747B41***	10320
7.0	1153	1.0	*748A41***	10320
7.0	1149	0.8	**749A2428**	13500
7.0	1166	1.4	*749B4126*	13500
5.5	1373	0.7	*747B4226*	10320
5.5	1373	0.8	*748B4226*	10320
5.5	1389	1.1	*749B4226*	13500
4.7	1789	1.0	*749B4028*	13500
4.7	1860	1.3	*750B4028*	18000
3.5	2279	0.7	*749B4128*	13500
3.5	2208	1.2	*750B4128*	18000
2.8	2582	0.9	*750B4228*	18000
2.3	3057	0.9	*750B4328*	18000

** For full product code please consult your local authorised distributor

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
2.2 KW MOTOR				
373	51	1.8	744A0229	1873
373	51	2.5	745A0229	2210
280	67	1.5	744A0329	2061
280	68	2.1	745A0329	2433
187	97	1.1	744A0429	2359
187	100	1.8	745A0236	2785
187	98	1.5	745A0429	2785
187	101	2.9	746A0236	3081
140	132	1.5	745A0336	3065
140	128	1.3	745A0529	3065
140	134	2.3	746A0336	3391
140	131	2.0	746A0529	3391
120	156	2.2	746A0245	3570
112	156	1.0	745A0629	3302
112	159	1.6	746A0629	3653
112	163	2.7	747A0629	4616
112	163	3.1	748A0629	4616
93	191	1.0	745A0436	3509
93	180	0.9	745A0729	3509
93	194	1.9	746A0436	3882
93	185	1.7	746A0729	3882
93	187	2.6	747A0729	4905
93	187	3.0	748A0729	4905
90	203	1.8	746A0345	3929
90	205	3.0	747A0345	4965
90	205	3.5	748A0345	4965
70	252	1.4	746A0536	4273
70	237	1.2	746A0829	4273
70	255	2.2	747A0536	5399
70	246	1.9	747A0829	5399
70	255	2.5	748A0536	5399
70	246	2.1	748A0829	5399
60	294	1.4	746A0445	4498
60	298	2.2	747A0445	5684
60	298	2.6	748A0445	5684
56	308	1.1	746A0636	4603
56	285	0.9	746A0929	4603
56	315	1.9	747A0636	5816
56	296	1.5	747A0929	5816
56	315	2.2	748A0636	5816
56	296	1.7	748A0929	5816
47	351	1.2	746A0736	4891
47	356	1.8	747A0736	6181
47	347	1.2	747A1029	6181
47	356	2.0	748A0736	6181
47	347	1.4	748A1029	6181
45	378	1.0	746A0545	4951
45	388	1.6	747A0545	6256
45	388	1.9	748A0545	6256
38.6	398	1.8	**747A2029**	6586
38.6	398	2.1	**748A2029**	6586
38.6	409	2.9	**749A2029**	8614
36.0	473	1.4	747A0645	6739
36.0	473	1.6	748A0645	6739
36.0	479	2.2	749A0645	8814
35.0	468	1.3	747A0836	6803
35.0	468	1.5	748A0836	6803
35.0	468	2.2	749A0836	8897
35.0	438	1.3	749A1129	8897
30.0	532	1.4	747A0745	7161
30.0	532	1.6	748A0745	7161
30.0	546	2.1	749A0745	9366
28.9	516	1.3	**747A2129**	7249
28.9	516	1.5	**748A2129**	7249
28.9	545	2.0	**749A2129**	9481
28.0	563	1.1	747A0936	7328
28.0	563	1.2	748A0936	7328
28.0	563	1.7	749A0936	9584
28.0	525	1.0	749A1229	9584
28.0	570	2.5	750A0936	13103
23.1	617	1.1	**747A2229**	7809
23.1	617	1.2	**748A2229**	7809

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
23.1	654	1.6	**749A2229**	10213
23.0	648	0.9	747A1036	7787
23.0	648	1.0	748A1036	7787
23.0	648	1.4	749A1036	10185
23.0	657	1.9	750A1036	13924
22.5	700	1.6	749A0845	10309
19.5	752	1.3	**749A2329**	10853
18.0	840	1.2	749A0945	11105
17.5	816	1.0	749A1136	11210
17.5	816	1.4	750A1136	15325
15.0	966	1.0	749A1045	11801
14.0	960	1.0	750A1236	16508
3.0 KW MOTOR				
373	70	1.9	745A0239	2210
373	71	3.0	746A0239	2446
280	92	1.6	745A0339	2433
280	92	2.6	746A0339	2692
187	137	1.4	744A0238	2785
187	138	2.1	746A0238	3081
140	180	1.1	744A0338	3065
140	182	1.7	746A0338	3391
120	212	2.7	747A0253	4511
120	212	3.1	748A0253	4511
93	261	0.8	744A0438	3509
93	264	1.4	746A0438	3882
93	264	2.2	747A0438	4905
93	264	2.5	748A0438	4905
90	280	2.2	747A0353	4965
90	280	2.5	748A0353	4965
90	280	3.4	749A0353	6494
70	344	1.0	746A0538	4273
70	348	1.6	747A0538	5399
70	348	1.9	748A0538	5399
60	406	1.6	747A0453	5684
60	406	1.9	748A0453	5684
60	406	2.6	749A0453	7434
56	420	0.8	746A0638	4603
56	430	1.4	747A0638	5816
56	430	1.6	748A0638	5816
56	430	2.2	749A0638	7607
47	479	0.9	746A0738	4891
47	485	1.3	747A0738	6181
47	485	1.5	748A0738	6181
47	491	2.1	749A0738	8084
45	528	1.2	747A0553	6256
45	528	1.4	748A0553	6256
45	535	1.9	749A0553	8182
36	653	1.6	749A0653	8814
35	638	1.0	747A0838	6803
35	638	1.1	748A0838	6803
35	638	1.6	749A0838	8897
30	745	1.6	749A0753	9366
28	767	0.8	747A0938	7328
28	767	0.9	748A0938	7328
28	767	1.3	749A0938	9584
28	778	1.8	750A0938	13103
23	884	1.0	749A1038	10185
23	896	1.4	750A1038	13924
22.5	955	1.2	749A0853	10309
17.5	1113	0.8	749A1138	11210
17.5	1113	1.0	750A1138	15325
14	1310	0.8	750A1238	16508



Motorised Selection

Bold print indicates unit with helical input stage

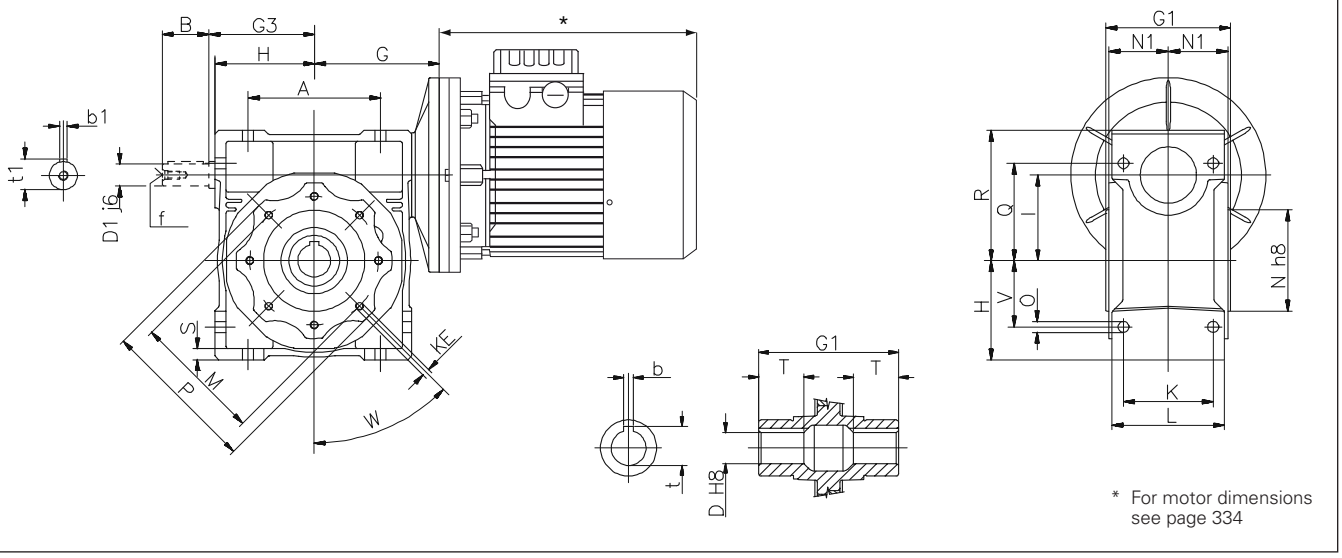
Italic print indicates worm/worm combination

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
4.0 KW MOTOR				
373	93	1.4	745A0244	2210
373	94	2.2	746A0244	2446
280	123	1.2	745A0344	2433
280	123	1.9	746A0344	2692
187	182	1.0	745A0246	2785
187	184	1.6	746A0246	3081
140	240	0.8	745A0346	3065
140	243	1.3	746A0346	3391
140	243	2.1	747A0346	4285
140	243	2.5	748A0346	4285
120	283	2.0	747A0255	4511
120	283	2.3	748A0255	4511
120	287	3.1	749A0255	5901
93	352	1.0	746A0446	3882
93	352	1.6	747A0446	4905
93	352	1.9	748A0446	4905
90	374	1.7	747A0355	4965
90	374	1.9	748A0355	4965
90	374	2.6	749A0355	6494
70	458	0.8	746A0546	4273
70	464	1.2	747A0546	5399
70	464	1.4	748A0546	5399
60	541	1.2	747A0455	5684
60	541	1.4	748A0455	5684
60	541	2.0	749A0455	7434
56	573	1.0	747A0646	5816
56	573	1.2	748A0646	5816
56	573	1.6	749A0646	7607
47	647	1.0	747A0746	6181
47	647	1.1	748A0746	6181
47	655	1.6	749A0746	8084
45	713	1.5	749A0555	8182
36	870	1.2	749A0655	8814
35	851	1.2	749A0846	8897
28	1023	1.0	749A0946	9584
28	1037	1.4	750A0946	13103
23	1179	0.8	749A1046	10185
23	1195	1.1	750A1046	13924
17.5	1484	0.8	750A1146	15325

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
5.5 KW MOTOR				
187	253	1.9	747A0254	3893
187	253	2.2	748A0254	3893
140	334	1.6	747A0354	4285
140	334	1.8	748A0354	4285
140	334	2.5	749A0354	5605
93	484	1.2	747A0454	4905
93	484	1.4	748A0454	4905
93	490	1.9	749A0454	6416
70	638	0.9	747A0554	5399
70	638	1.0	748A0554	5399
70	645	1.4	749A0554	7062
70	645	2.0	750A0554	9654
56	788	1.2	749A0654	7607
56	788	1.5	750A0654	10400
47	900	1.2	749A0754	8084
47	934	1.3	750A0754	11051
35	1171	0.9	749A0854	8897
35	1171	1.3	750A0854	12163
28	1426	1.0	750A0954	13103
23	1643	0.8	750A1054	13924
7.5 KW MOTOR				
187	345	1.4	747A0256	3893
187	345	1.6	748A0256	3893
187	349	2.1	749A0256	5092
140	455	1.1	747A0356	4285
140	455	1.3	748A0356	4285
140	455	1.8	749A0356	5605
93	660	0.9	747A0456	4905
93	660	1.0	748A0456	4905
93	668	1.4	749A0456	6416
70	880	1.0	749A0556	7062
70	880	1.5	750A0556	9654
56	1074	0.9	749A0656	7607
56	1074	1.1	750A0656	10400
47	1228	0.8	749A0756	8084
47	1274	0.9	750A0756	11051
35	1596	0.7	749A0856	8897
35	1596	1.0	750A0856	12163
35	1596	1.0	750A0856	12163

Nom. Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11.0 KW MOTOR				
187	512	2.3	750A0266	6962
140	675	1.8	750A0366	7663
93	990	1.3	750A0466	8771
70	1291	1.0	750A0566	9654
56	1576	0.8	750A0666	10400
15.0 KW MOTOR				
187	698	1.7	750A0268	6962
140	921	1.3	750A0368	7663
93	1351	0.9	750A0468	8771
70	1760	0.7	750A0568	9654

Dimensions Motorised



* For motor dimensions see page 334

Dimension (mm)	Unit Size										
	740	**741**	**742**	**743**	**744**	**745**	**746**	**747**	**748**	**749**	**750**
A	45	54	70	80	100	120	140	170	170	200	240
B	-	20	23	30	40	50	50	60	60	80	80
D†	11	14	18 (19)	25 (24)	25 (28)	28 (35)	35 (38)	42	42	45	50
D1	-	9	11	14	19	24	24	28	28	30	35
G	45	55	70	80	95	112.5	129.5	160	160	180	210
G1	50	63	78	92	112	120	140	155	155	170	200
G3	-	45	53	64	75	90	108	135	135	155	175
H	35	40	50	60	72	86	103	127.5	127.5	147.5	170
I	25	30	40	50	63	75	90	110	110	130	150
K	34	44	60	70	85	90	100	115	115	120	145
KE**	6.5 (3)	M6x11 (4)	M6x10 (4)	M8x10 (4)	M8x14(8)	M8x14(8)	M10x18(8)	M10x18(8)	M10x18(8)	M12x21(8)	M12x21(8)
L	42	56	71	85	103	112	130	144	144	155	185
M	55	65	75	85	95	115	130	165	165	215	215
N (h8)	45	55	60	70	80	95	110	130	130	180	180
N1	22.5	29.0	36.5	43.5	53.0	57.0	67.0	74.0	74.0	81.0	96.0
O	6.0	6.5	6.5	8.5	8.5	11.5	13.0	14.0	14.0	16.0	18.0
P	-	75	87	100	110	140	160	200	200	250	250
Q	35.5	44	55	64	80	93	102	125	125	140	180
R	48.0	57.0	71.5	84.0	102.0	119.0	135.0	167.5	167.5	187.5	230.0
S	5.0	5.5	6.5	7.0	8.0	10.0	11.0	16.0	14.5	15.5	18.0
T	16.0	21.0	26.0	30.0	36.0	40.0	45.0	50.0	50.0	60.0	72.5
V	22.5	27	35	40	50	60	70	85	85	100	120
W	100°	0°	45°	45°	45°	45°	45°	45°	45°	45°	45°
b†	4	5	6	8	8	8 (10)	10	12	12	14	14
t†	12.8	16.3	20.8 (21.8)	28.3 (27.3)	28.3 (31.3)	31.3 (38.3)	38.3 (41.3)	45.3	45.3	48.8	53.8
b1	-	3	4	5	6	8	8	8	8	8	10
t1	-	10.2	12.5	16.0	21.5	27.0	27.0	31.0	31.0	33.0	38.0
f	-	-	-	M6	M6	M8	M8	M10	M10	M10	M12
~kg	0.7	1.2	2.3	3.5	6.2	9.0	13.0	21.0	35.0	48.0	84.0

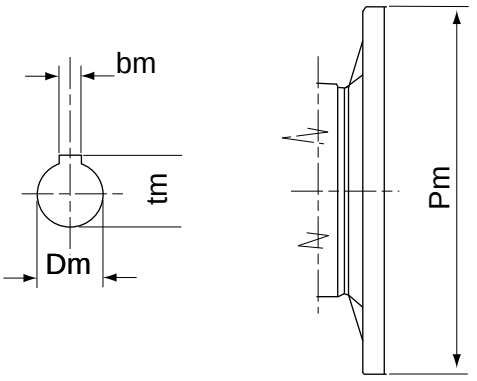
All dimensions in mm.

† Dimension in brackets are the alternative bore option.

** Number in brackets are the number of tapped holes with the exception of the size 740 where the holes are not tapped.

~kg refers to the approximate weight without motor.

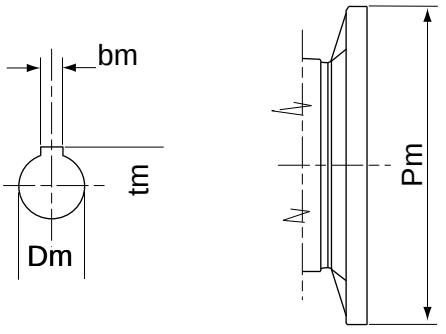
B5 FLANGE DIMENSIONS



B5 Flange	IEC Motor Frame Size										
	56	63	71	80	90	100	112	132	160	180	200
Pm	120	140	160	200	200	250	250	300	350	350	400
Dm	9	11	14	19	24	28	28	38	42	48	55
bm	3	4	5	6	8	8	8	10	12	14	16
tm	10.4	12.8	16.3	21.8	27.3	31.3	31.3	41.3	45.3	51.8	59.3

* Sizes 748 & 749 Dimension tm is 40.3 (IEC 132)

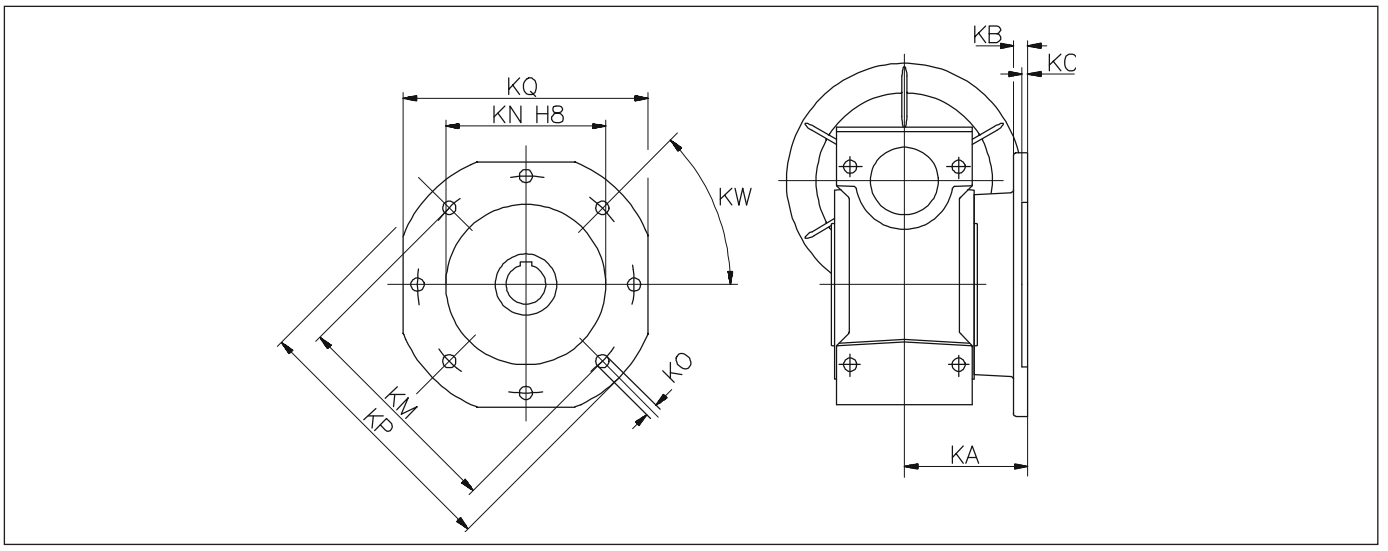
B14 FLANGE DIMENSIONS



B14 Face	IEC Motor Frame Size							
	56	63	71	80	90	100	112	132
Pm	80	90	105	120	140	160	160	200
Dm	9	11	14	19	24	28	28	38
bm	3	4	5	6	8	8	8	10
tm	10.4	12.8	16.3	21.8	27.3	31.3	31.3	41.3

* Sizes 748 & 749 Dimension tm is 40.3 (IEC 132).

Output Flange Dimensions



STANDARD OUTPUT FLANGE (TYPE FA)

Unit Size	KA	KB	KC	KM	KN	KO	KP	KQ	KW
740	45	6	3	55	40	6.5 (4)	75	70	45°
741	54.5	6	4	68	50	6.5 (4)	80	70	45°
742	67	7	4	80 min	60	9 (4)	110	95	45°
743	90	9	5	90 min	70	11 (4)	125	110	45°
744	82	10	6	150	115	11 (4)	180	142	45°
745	111	13	6	165	130	14 (4)	200	170	45°
746	111	13	6	175	152	14 (4)	210	200	45°
747	131	15	6	230	170	14 (8)	280	260	45°
748	131	15	6	230	170	14 (8)	280	260	45°
749	140	15	6	255	180	16 (8)	320	290	22.5°
750	155	15	6	255	180	16 (8)	320	290	22.5°

OUTPUT FLANGE (TYPE FB)

Unit Size	KA	KB	KC	KM	KN	KO	KP	KQ	KW
742	97	7	4	80 min	60	9 (4)	110	95	45°
743	120	9	5	90 min	70	11 (4)	125	110	45°
744	112	10	6	150	115	11 (4)	180	142	45°
745	90	13	6	130	110	14 (4)	160	-	45°
746	122	18	6	215	180	14 (4)	250	-	45°
747	180	15	6	230	170	14 (8)	280	260	45°
748	180	15	6	230	170	14 (8)	280	260	45°

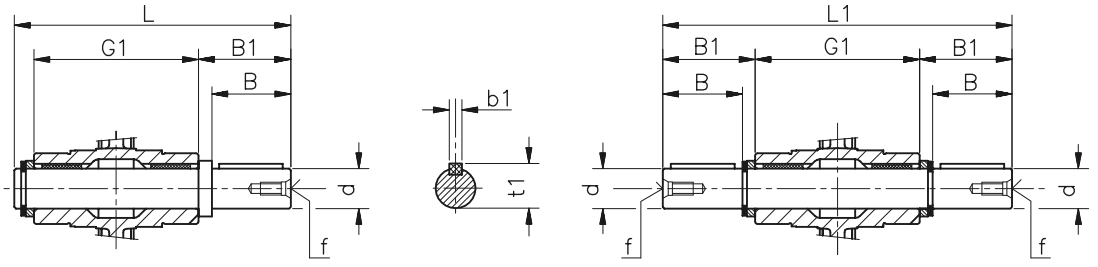
OUTPUT FLANGE (TYPE FC)

Unit Size	KA	KB	KC	KM	KN	KO	KP	KQ	KW
742	80	9	5	115	95	9.5 (4)	140	-	45°
743	89	10	5	130	110	9.5 (4)	160	-	45°
744	98	10	5	165	130	11 (4)	200	-	45°
745	-	-	-	-	-	-	-	-	-
746	110	17	6	165	130	11 (4)	200	-	45°

OUTPUT FLANGE (TYPE FD)

Unit Size	KA	KB	KC	KM	KN	KO	KP	KQ	KW
742	58	12	5	100	80	9 (4)	120	-	45°
743	72	14.5	5	115	95	11 (4)	140	-	45°
744	107	10	5	165	130	11 (4)	200	-	45°
745	-	-	-	-	-	-	-	-	-
746	151	13	6	175	152	14 (4)	210	-	45°

OUTPUT SHAFTS



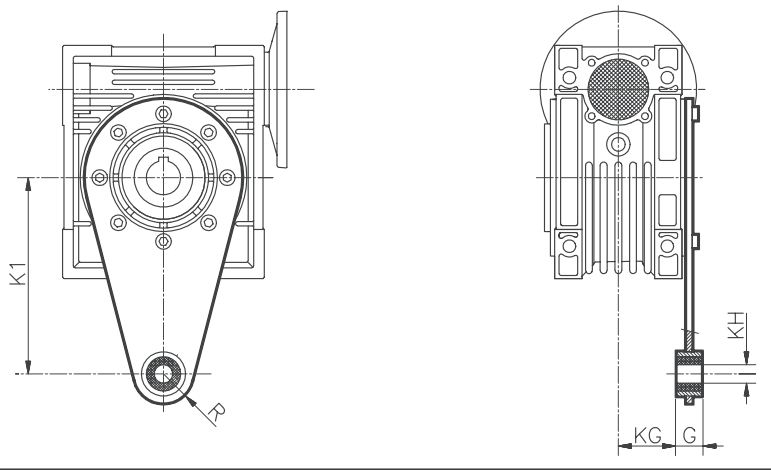
Single Extension

Double Extension

Unit Size	d h6	B	B1	G1	L	L1	f	b1	t1
740*	11 g6	23	25.5	50	81	101	-	4	12.5
741	14	30	32.5	63	102	128	M6	5	16.0
742	18	40	43.0	78	128	164	M6	6	20,5
743	25	50	53.5	92	153	199	M10	8	28.0
744	25	50	53.5	112	173	219	M10	8	28.0
745	28	60	63.5	120	192	247	M10	8	31.0
746	35	80	84.5	140	234	309	M12	10	38.0
747	42	80	84.5	155	249	324	M16	12	45.0
748	42	80	84.5	155	249	324	M16	12	45.0
749	45	80	85.0	170	265	340	M16	14	48.5
750	50	82	87.0	200	297	374	M16	14	53.5

*Alternative small shaft available on request contact your local Authorised Distributor
All dimensions in mm

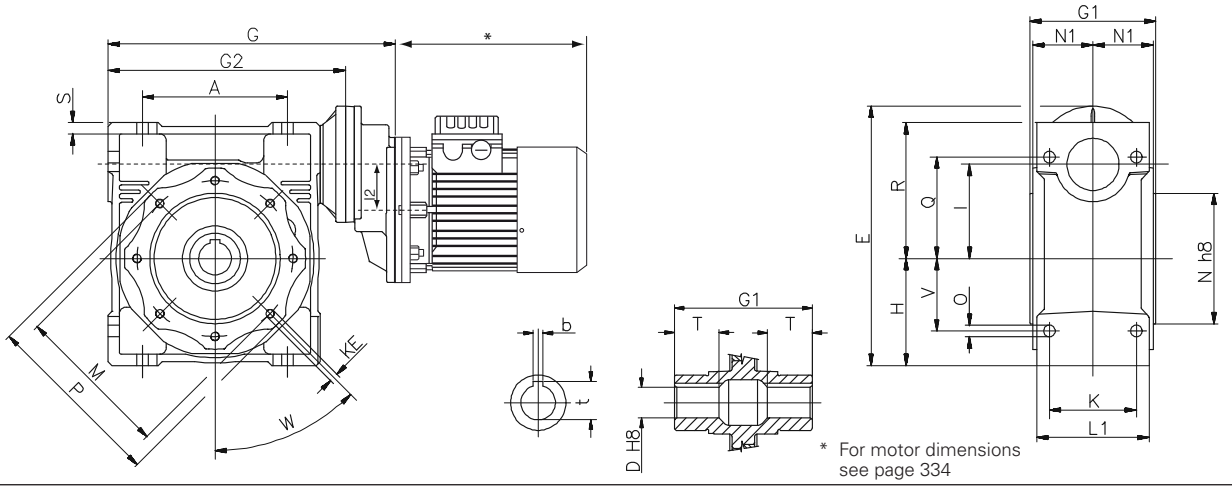
TORQUE ARM DIMENSIONS



Unit Size	K1	G	KG	KH	R
740	70	14	17.5	8	15
741	85	14	24.0	8	15
742	100	14	31.5	10	18
743	100	14	38.5	10	18
744	150	14	49.0	10	18
745	200	25	47.5	20	30
746	200	25	57.5	20	30
747	250	30	62.0	25	35
748	250	30	62.0	25	35
749	250	30	69.0	25	35
750	250	30	84.0	25	35

All dimensions in mm

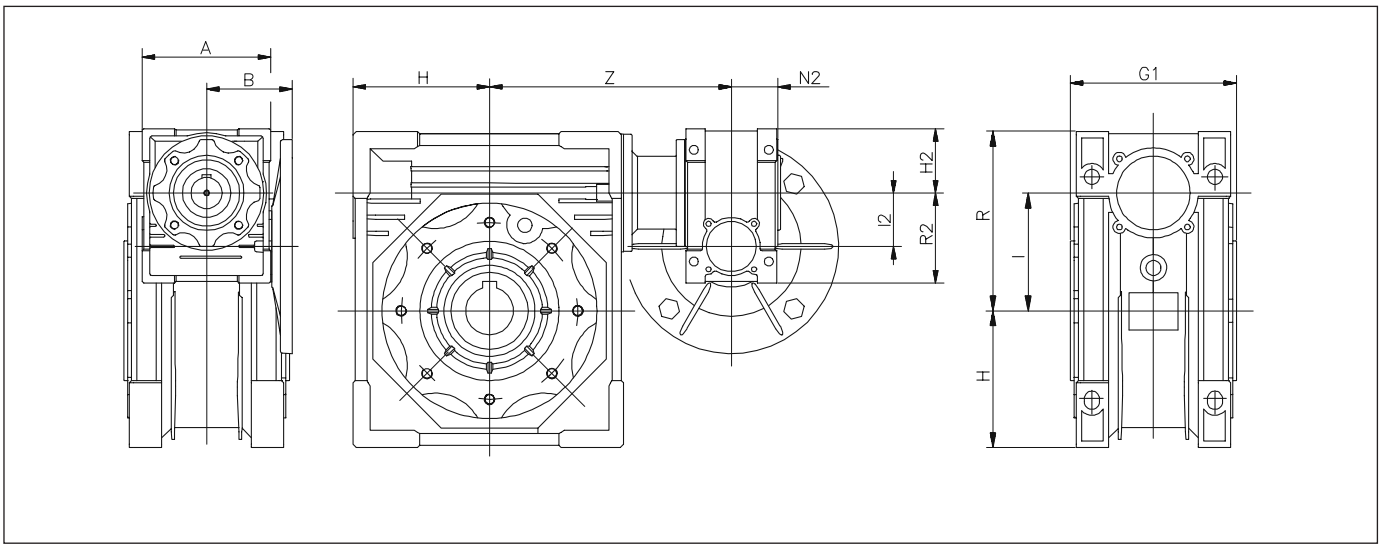
Helical Worm Unit Dimensions



IEC Motor	63 Frame			71 Frame				80 & 90 Frame				
Size	**742**	**743**	**744**	**743**	**744**	**745**	**746**	**745**	**746**	**747**	**748**	**749**
A	70	80	100	80	100	120	140	120	140	170	170	200
E	147.0	167.0	192.0	177.5	202.5	228.5	260.5	241.0	273.0	317.5	317.5	357.5
G	165	185	212	193	220	251.5	285.5	267.5	301.5	356.5	356.5	396.5
G1	78	92	112	92	112	120	140	120	140	155	155	170
G2	120.0	140.0	167.0	140.0	167.0	198.5	232.5	198.5	232.5	287.5	287.5	327.5
H	50.0	60.0	72.0	60.0	72.0	86.0	103.0	86.0	103.0	127.5	127.5	147.5
I	40	50	63	50	63	75	90	75	90	110	110	130
I2	40	40	40	50	50	50	50	63	63	63	63	63
L1	71	85	103	85	103	112	130	112	130	144	144	155
K	60	70	85	70	85	90	100	90	100	115	115	120
KE**	M6x10(4)	M8x10(4)	M8x14(8)	M8x10(4)	M8x14(8)	M8x14(8)	M10x18(8)	M8x14(8)	M10x18(8)	M10x18(8)	M10x18(8)	M12x21(8)
M	75	85	95	85	95	115	130	115	130	165	165	215
N	60	70	80	70	80	95	110	95	110	130	130	180
N1	36.5	43.5	53.0	43.5	53.0	57.0	67.0	57.0	67.0	74.0	74.0	81.0
O	6.5	8.5	8.5	8.5	8.5	11.5	13.0	11.5	13.0	14.0	14.0	16.0
P	87	100	110	100	110	140	160	140	160	200	200	250
Q	55	64	80	64	80	93	102	93	102	125	125	140
R	71.5	84.0	102.0	84.0	102.0	119.0	135.0	119.0	135.0	167.5	167.5	187.5
S	6.5	7.0	8.0	7.0	8.0	10.0	11.0	10.0	11.0	16.0	14.5	15.5
T	26	30	36	30	36	40	45	40	45	50	50	60
V	35	40	50	40	50	60	70	60	70	85	85	100
W	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°
D	18	25	25	25	25	28	35	28	35	42	42	45
b	6	8	8	8	8	8	10	8	10	12	12	14
t	20.8	28.3	28.3	28.3	28.3	31.3	38.3	31.3	38.3	45.3	45.3	48.8
~kg	3.4	4.6	7.3	5.1	7.8	10.6	14.6	12.4	16.4	24.4	38.4	51.4

All Dimesions in mm. For alternative hollow bore options see page 319 and the relevant motorised worm unit size.
The frame size of the electric motor fitted to a worm unit determines the helical gear part of the asembly,the relevant dimensions are given in the above table
Eg: Dimension G (the overall length) for a size 743 Helical Worm gearbox fitted with an IEC 71 Frame motor is 193mm.
** Number in brackets are the number of tapped holes.
~kg Refers to the approximate weight without motor.

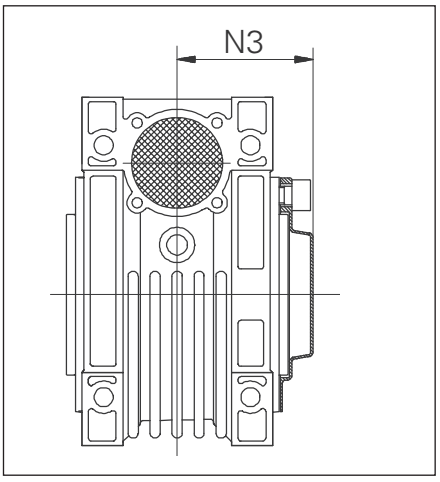
MOTORISED WORM-WORM COMBINATION UNIT DIMENSIONS



	740-741	741-742	741-743	741-744	742-745	742-746	743-747	743-748	744-749	744-750
A	70	80	80	80	100	100	120	120	144	144
B	45	55	55	55	70	70	80	80	95	95
G1	63	78	92	112	120	140	155	155	170	200
H	40.0	50.0	60.0	72.0	86.0	103.0	127.5	127.5	147.5	170.0
H2	35	40	40	40	50	50	60	60	72	72
I	30	40	50	63	75	90	110	110	130	150
I2	25	30	30	30	40	40	50	50	63	63
N2	22.5	29.0	29.0	29.0	36.5	36.5	43.5	43.5	53.0	53.0
R	57.0	71.5	84.0	102.0	119.0	135.0	167.5	167.5	187.5	230.0
R2	48.0	57.0	57.0	57.0	71.5	71.5	84.0	84.0	102.0	102.0
Z	100.0	122.0	132.0	145.0	167.5	184.5	226.0	226.0	245.0	275.0
~kg	1.9	3.5	4.7	7.4	11.3	15.3	24.5	38.5	54.2	90.2

All dimensions in mm
~kg refers to the approximate weight without motor
The unit size given in the selection tables refers to the final stage gearbox

OUTPUT HUB COVER DIMENSIONS



Unit Size	N3
741	42.0
742	50.0
743	57.5
744	68.5
745	73.5
746	85.5
747	94.0
748	94.0
749	102.0
750	117.0

Non Motorised Ratings - Input Speed 500 rev/min

NON MOTORISED RATINGS

Input speed 500 rev/min

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
741	5.0	100	0.30	24	210	841
	7.5	66.7	0.21	24	210	963
	10	50.0	0.16	24	210	1060
	15	33.3	0.12	24	210	1213
	20	25.0	0.09	23	210	1336
	25	20.0	0.10	29	210	1439
	30	16.7	0.08	26	210	1529
	40	12.5	0.06	23	210	1683
	50	10.0	0.05	21	210	1813
	60	8.3	0.04	19	210	1830
	80	6.3	0.03	17	210	1830
742	5	100	0.60	49	350	1619
	7.5	66.7	0.45	54	350	1853
	10	50.0	0.35	54	350	2040
	15	33.3	0.26	55	350	2335
	20	25.0	0.19	52	350	2570
	25	20.0	0.15	49	350	2769
	30	16.7	0.16	58	350	2942
	40	12.5	0.12	53	350	3238
	50	10.0	0.10	49	350	3488
	60	8.3	0.08	46	350	3490
	80	6.3	0.06	40	350	3490
	100	5.0	0.05	36	350	3490
743	5	100	1.1	92	490	2222
	7.5	66.7	0.86	103	490	2544
	10	50.0	0.67	103	490	2800
	15	33.3	0.47	103	490	3205
	20	25.0	0.33	93	490	3528
	25	20.0	0.28	91	490	3800
	30	16.7	0.29	108	490	4038
	40	12.5	0.22	98	490	4445
	50	10.0	0.17	91	490	4788
	60	8.3	0.14	83	490	4840
	80	6.3	0.11	75	490	4840
	100	5.0	0.09	65	490	4840
744	7.5	66.7	1.50	184	700	3325
	10	50.0	1.20	185	700	3660
	15	33.3	0.85	187	700	4190
	20	25.0	0.63	178	700	4611
	25	20.0	0.48	164	700	4967
	30	16.7	0.54	200	700	5279
	40	12.5	0.40	185	700	5810
	50	10.0	0.32	173	700	6259
	60	8.3	0.26	160	700	6270
	80	6.3	0.19	137	700	6270
	100	5.0	0.16	128	700	6270
745	7.5	66.7	2.10	260	980	3925
	10	50.0	1.70	270	980	4320
	15	33.3	1.20	280	980	4945
	20	25.0	0.98	285	980	5443
	25	20.0	0.73	255	980	5863
	30	16.7	0.77	300	980	6231
	40	12.5	0.58	280	980	6858
	50	10.0	0.44	250	980	7380
	60	8.3	0.37	240	980	7380
	80	6.3	0.29	215	980	7380
	100	5.0	0.24	210	980	7380

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
746	7.5	66.7	3.30	410	1270	4343
	10	50.0	2.70	435	1270	4780
	15	33.3	2.10	490	1270	5472
	20	25.0	1.60	470	1270	6022
	25	20.0	1.20	440	1270	6487
	30	16.7	1.40	550	1270	6894
	40	12.5	0.95	480	1270	7588
	50	10.0	0.75	450	1270	8174
	60	8.3	0.59	400	1270	8180
	80	6.3	0.45	365	1270	8180
	100	5.0	0.35	330	1270	8180
747	7.5	66.7	5.50	690	1700	5488
	10	50.0	4.60	740	1700	6040
	15	33.3	3.40	790	1700	6914
	20	25.0	2.50	750	1700	7610
	25	20.0	2.10	790	1700	8198
	30	16.7	2.10	870	1700	8711
	40	12.5	1.50	810	1700	9588
	50	10.0	1.30	800	1700	10320
	60	8.3	0.98	710	1700	10320
	80	6.3	0.72	630	1700	10320
	100	5.0	0.56	570	1700	10320
748	7.5	66.7	6.40	794	1700	5488
	10	50.0	5.20	851	1700	6040
	15	33.3	3.90	909	1700	6914
	20	25.0	2.80	863	1700	7610
	25	20.0	2.40	909	1700	8198
	30	16.7	2.40	1000	1700	8711
	40	12.5	1.70	932	1700	9588
	50	10.0	1.40	880	1700	10320
	60	8.3	1.10	781	1700	10320
	80	6.3	0.76	662	1700	10320
	100	5.0	0.59	599	1700	10320
749	7.5	66.7	8.60	1080	2100	7178
	10	50.0	7.10	1160	2100	7900
	15	33.3	5.50	1300	2100	9043
	20	25.0	4.00	1230	2100	9953
	25	20.0	3.20	1200	2100	10722
	30	16.7	3.30	1400	2100	11394
	40	12.5	2.40	1300	2100	12540
	50	10.0	1.90	1220	2100	13500
	60	8.3	1.50	1070	2100	13500
	80	6.3	1.10	970	2100	13500
	100	5.0	0.85	860	2100	13500
750	7.5	66.7	13.5	1700	2800	9812
	10	50.0	10.7	1780	2800	10800
	15	33.3	7.2	1730	2800	12363
	20	25.0	5.9	1820	2800	13607
	25	20.0	4.3	1630	2800	14658
	30	16.7	3.8	1670	2800	15576
	40	12.5	3.9	2120	2800	17144
	50	10.0	2.9	1870	2800	18000
	60	8.3	2.3	1680	2800	18000
	80	6.3	1.7	1530	2800	18000
	100	5.0	1.3	1350	2800	18000



Non Motorised Ratings - Input Speed 900 rev/min

NON MOTORISED RATINGS

Input speed 900 rev/min

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
741	5	180	0.44	20	175	692
	7.5	120	0.30	20	175	792
	10	90.0	0.24	20	197	871
	15	60.0	0.17	20	197	997
	20	45.0	0.13	20	210	1098
	25	36.0	0.14	23	210	1183
	30	30.0	0.11	21	210	1257
	40	22.5	0.09	20	210	1383
	50	18.0	0.07	18	210	1490
	60	15.0	0.06	17	210	1583
	80	11.3	0.04	15	210	1743
742	5	180	0.87	40	290	1331
	7.5	120	0.65	44	319	1524
	10	90.0	0.50	44	350	1677
	15	60.0	0.36	45	350	1920
	20	45.0	0.28	44	350	2113
	25	36.0	0.23	43	350	2276
	30	30.0	0.23	49	350	2419
	40	22.5	0.17	45	350	2662
	50	18.0	0.14	42	350	2868
	60	15.0	0.11	39	350	3047
	80	11.3	0.09	35	350	3354
	100	9.0	0.07	32	350	3490
743	5	180	1.60	75	400	1827
	7.5	120	1.20	84	448	2091
	10	90.0	0.94	84	490	2302
	15	60.0	0.67	84	490	2635
	20	45.0	0.48	77	490	2900
	25	36.0	0.39	75	490	3124
	30	30.0	0.42	90	490	3320
	40	22.5	0.31	82	490	3654
	50	18.0	0.25	77	490	3936
	60	15.0	0.21	72	490	4183
	80	11.3	0.16	68	490	4604
	100	9.0	0.12	56	490	4840
744	7.5	120	2.20	151	580	2734
	10	90.0	1.70	153	661	3009
	15	60.0	1.20	155	670	3444
	20	45.0	0.91	148	700	3791
	25	36.0	0.69	137	700	4084
	30	30.0	0.79	175	700	4339
	40	22.5	0.58	160	700	4776
	50	18.0	0.45	145	700	5145
	60	15.0	0.37	138	700	5467
	80	11.3	0.29	128	700	6018
	100	9.0	0.25	124	700	6270
745	7.5	120	3.10	215	810	3227
	10	90.0	2.50	230	975	3551
	15	60.0	1.80	235	980	4065
	20	45.0	1.40	235	980	4474
	25	36.0	1.10	215	980	4820
	30	30.0	1.10	260	980	5122
	40	22.5	0.83	240	980	5637
	50	18.0	0.65	220	980	6073
	60	15.0	0.54	210	980	6453
	80	11.3	0.43	200	980	7103
	100	9.0	0.36	190	980	7380

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
746	7.5	120	4.8	340	1040	3570
	10	90.0	4.0	370	1270	3929
	15	60.0	3.1	420	1270	4498
	20	45.0	2.3	390	1270	4951
	25	36.0	1.8	370	1270	5333
	30	30.0	1.9	460	1270	5667
	40	22.5	1.4	410	1270	6238
	50	18.0	1.1	390	1270	6719
	60	15.0	0.86	350	1270	7140
	80	11.3	0.63	315	1270	7859
	100	9.0	0.49	280	1270	8180
747	7.5	120	8.0	565	1390	4511
	10	90.0	6.6	620	1700	4965
	15	60.0	4.9	660	1700	5684
	20	45.0	3.6	630	1700	6256
	25	36.0	3.1	660	1700	6739
	30	30.0	3.0	730	1700	7161
	40	22.5	2.2	690	1700	7882
	50	18.0	1.8	680	1700	8491
	60	15.0	1.4	620	1700	9023
	80	11.3	1.0	540	1700	9931
	100	9.0	0.8	490	1700	10320
748	7.5	120	9.2	650	1390	4511
	10	90.0	7.6	713	1700	4965
	15	60.0	5.6	759	1700	5684
	20	45.0	4.1	725	1700	6256
	25	36.0	3.5	759	1700	6739
	30	30.0	3.5	840	1700	7161
	40	22.5	2.5	794	1700	7882
	50	18.0	2.0	748	1700	8491
	60	15.0	1.6	682	1700	9023
	80	11.3	1.1	567	1700	9931
	100	9.0	0.84	515	1700	10320
749	7.5	120	12.3	880	1740	5901
	10	90.0	10.3	960	2100	6494
	15	60.0	7.8	1060	2100	7434
	20	45.0	5.8	1040	2100	8182
	25	36.0	4.8	1050	2100	8814
	30	30.0	4.7	1170	2100	9366
	40	22.5	3.5	1100	2100	10309
	50	18.0	2.7	1050	2100	11105
	60	15.0	2.1	940	2100	11801
	80	11.3	1.6	860	2100	12989
	100	9.0	1.2	780	2100	13500
750	7.5	120	19.5	1400	2270	8067
	10	90.0	15.7	1480	2700	8878
	15	60.0	10.5	1450	2645	10163
	20	45.0	8.4	1500	2800	11186
	25	36.0	6.3	1380	2800	12050
	30	30.0	5.4	1400	2800	12805
	40	22.5	5.7	1800	2800	14094
	50	18.0	4.1	1600	2800	15182
	60	15.0	3.2	1440	2800	16133
	80	11.3	2.4	1300	2800	17757
	100	9.0	1.8	1150	2800	18000

Non Motorised Ratings - Input Speed 1400 rev/min

NON MOTORISED RATINGS

Input speed 1400 rev/min

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
741	5	280.0	0.61	18	150	597
	7.5	186.7	0.41	18	150	683
	10	140.0	0.32	18	169	752
	15	93.3	0.23	18	169	861
	20	70.0	0.18	18	190	948
	25	56.0	0.18	21	210	1021
	30	46.7	0.15	20	210	1085
	40	35.0	0.11	18	210	1194
	50	28.0	0.09	17	210	1286
	60	23.3	0.08	16	210	1367
	80	17.5	0.05	13	210	1504
742	5	280.0	1.10	34	250	1149
	7.5	186.7	0.90	40	294	1315
	10	140.0	0.69	40	331	1447
	15	93.3	0.48	40	331	1657
	20	70.0	0.37	39	350	1824
	25	56.0	0.30	38	350	1964
	25	56.0	0.30	38	350	1964
	30	46.7	0.31	45	350	2087
	40	35.0	0.23	41	350	2298
	50	28.0	0.18	39	350	2475
	60	23.3	0.15	36	350	2630
	80	17.5	0.12	33	350	2895
	100	14.0	0.09	29	350	3118
743	5	280.0	2.00	62	350	1577
	7.5	186.7	1.60	71	401	1805
	10	140.0	1.20	72	490	1987
	15	93.3	0.88	74	490	2274
	20	70.0	0.68	73	490	2503
	25	56.0	0.54	70	490	2696
	30	46.7	0.57	84	490	2865
	40	35.0	0.42	76	490	3153
	50	28.0	0.34	73	490	3397
	60	23.3	0.28	68	490	3610
	80	17.5	0.22	65	490	3973
	100	14.0	0.16	55	490	4280
744	7.5	186.7	2.80	128	500	2359
	10	140.0	2.20	130	571	2597
	15	93.3	1.60	140	615	2973
	20	70.0	1.20	135	667	3272
	25	56.0	1.00	130	700	3524
	30	46.7	1.10	160	700	3745
	40	35.0	0.76	145	700	4122
	50	28.0	0.6	135	700	4440
	60	23.3	0.51	130	700	4719
	80	17.5	0.39	122	700	5193
	100	14.0	0.34	118	700	5595
745	7.5	186.7	4.10	185	700	2785
	10	140.0	3.20	195	830	3065
	15	93.3	2.30	200	851	3509
	20	70.0	1.90	210	980	3862
	25	56.0	1.50	200	980	4160
	30	46.7	1.50	230	980	4421
	40	35.0	1.10	220	980	4865
	50	28.0	0.89	210	980	5241
	60	23.3	0.75	200	980	5569
	80	17.5	0.58	190	980	6130
	100	14.0	0.48	180	980	6603

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
746	7.5	186.7	6.3	290	900	3081
	10	140.0	5.1	310	1082	3391
	15	93.3	4.1	360	1257	3882
	20	70.0	3.1	355	1270	4273
	25	56.0	2.4	340	1270	4603
	30	46.7	2.6	410	1270	4891
	40	35.0	1.8	360	1270	5383
	50	28.0	1.4	340	1270	5799
	60	23.3	1.1	320	1270	6163
	80	17.5	0.83	285	1270	6783
	100	14.0	0.67	270	1270	7306
747	7.5	186.7	10.4	480	1200	3893
	10	140.0	8.6	520	1463	4285
	15	93.3	6.5	570	1603	4905
	20	70.0	4.8	560	1700	5399
	25	56.0	4.1	590	1700	5816
	30	46.7	3.9	630	1700	6181
	40	35.0	2.9	610	1700	6803
	50	28.0	2.3	600	1700	7328
	60	23.3	1.9	560	1700	7787
	80	17.5	1.3	490	1700	8571
	100	14.0	1.1	460	1700	9232
748	7.5	186.7	12.0	552	1200	3893
	10	140.0	9.8	598	1463	4285
	15	93.3	7.5	656	1604	4905
	20	70.0	5.6	644	1700	5399
	25	56.0	4.7	679	1700	5816
	30	46.7	4.5	725	1700	6181
	40	35.0	3.3	702	1700	6803
	50	28.0	2.6	660	1700	7328
	60	23.3	2.1	616	1700	7787
	80	17.5	1.4	515	1700	8571
	100	14.0	1.1	483	1700	9232
749	7.5	186.7	16.1	750	1500	5092
	10	140.0	13.5	820	1845	5605
	15	93.3	10.3	920	2070	6416
	20	70.0	7.8	910	2100	7062
	25	56.0	6.5	930	2100	7607
	30	46.7	6.4	1040	2100	8084
	40	35.0	4.9	1050	2100	8897
	50	28.0	3.8	980	2100	9584
	60	23.3	3.1	900	2100	10185
	80	17.5	2.3	840	2100	11210
	100	14.0	1.7	740	2100	12076
750	7.5	186.7	25.8	1200	1950	6962
	10	140.0	20.2	1240	2267	7663
	15	93.3	13.9	1250	2285	8771
	20	70.0	11.1	1300	2674	9654
	25	56.0	8.4	1200	2800	10400
	30	46.7	7.1	1200	2800	11051
	40	35.0	7.3	1550	2800	12163
	50	28.0	5.4	1400	2800	13103
	60	23.3	4.2	1260	2800	13924
	80	17.5	3.1	1150	2800	15325
	100	14.0	2.3	1000	2800	16508



Non Motorised Ratings - Input Speed 2800 rev/min

NON MOTORISED RATINGS

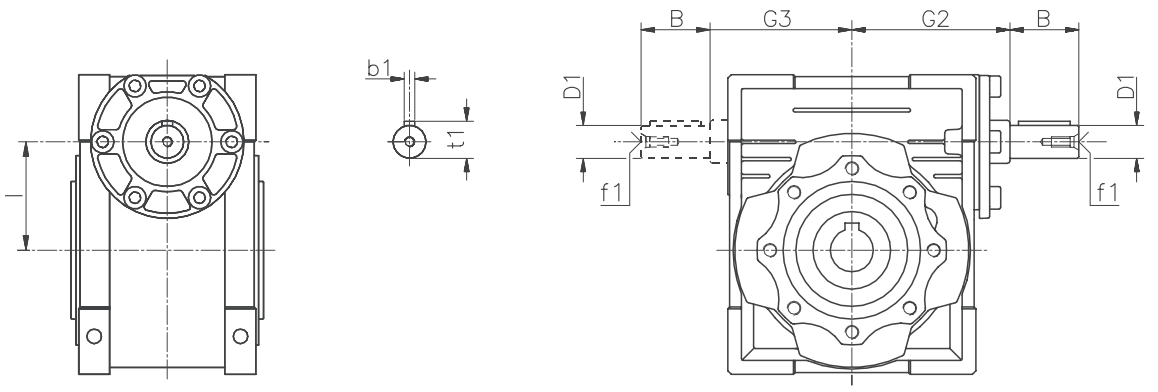
Input speed 2800 rev/min

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
741	5	560.0	0.79	12	115	474
	7.5	373.3	0.58	13	125	542
	10	280.0	0.45	13	140	597
	15	186.7	0.31	13	140	683
	20	140.0	0.23	12	146	752
	25	112.0	0.25	16	210	810
	30	93.3	0.21	15	210	861
	40	70.0	0.16	14	127	948
	50	56.0	0.12	13	128	1021
	60	46.7	0.10	12	126	1085
	80	35.0	0.08	11	130	1194
742	5	560.0	1.6	24	200	912
	7.5	373.3	1.2	28	233	1044
	10	280.0	1.0	29	272	1149
	15	186.7	0.72	31	291	1315
	20	140.0	0.52	29	204	1447
	25	112.0	0.42	28	236	1559
	30	93.3	0.44	34	350	1657
	40	70.0	0.32	31	350	1824
	50	56.0	0.26	30	350	1964
	60	46.7	0.21	28	350	2087
	80	35.0	0.16	25	350	2298
	100	28.0	0.12	23	350	2475
743	5	560.0	2.9	45	280	1251
	7.5	373.3	2.3	52	324	1433
	10	280.0	1.8	54	378	1577
	15	186.7	1.3	57	399	1805
	20	140.0	0.95	53	417	1987
	25	112.0	0.75	51	482	2140
	30	93.3	0.82	64	490	2274
	40	70.0	0.59	59	490	2503
	50	56.0	0.45	53	490	2696
	60	46.7	0.37	50	490	2865
	80	35.0	0.27	45	490	3153
	100	28.0	0.21	40	490	3397
744	7.5	373.3	4.0	93	395	1873
	10	280.0	3.2	97	463	2061
	15	186.7	2.3	103	492	2359
	20	140.0	1.7	100	538	2597
	25	112.0	1.3	92	593	2797
	30	93.3	1.5	120	700	2973
	40	70.0	1.1	108	700	3272
	50	56.0	0.83	100	700	3524
	60	46.7	0.68	95	700	3745
	80	35.0	0.49	85	700	4122
	100	28.0	0.37	74	700	4440
745	7.5	373.3	5.6	130	560	2210
	10	280.0	4.7	145	703	2433
	15	186.7	3.4	150	727	2785
	20	140.0	2.8	160	872	3065
	25	112.0	2.1	150	980	3302
	30	93.3	2.1	170	980	3509
	40	70.0	1.6	165	980	3862
	50	56.0	1.2	150	980	4160
	60	46.7	1.0	145	980	4421
	80	35.0	0.72	130	980	4865
	100	28.0	0.58	120	980	5241

Unit Size	Ratio	Nominal Output Speed Rev/Min	Input Power kW	Output Torque Nm	Overhung Load Fr_1 N	Overhung Load Fr_2 N
746	7.5	373.3	8.9	210	715	2446
	10	280.0	7.7	235	900	2692
	15	186.7	6.0	270	1034	3081
	20	140.0	4.4	260	1120	3391
	25	112.0	3.4	250	1270	3653
	30	93.3	3.7	310	1270	3882
	40	70.0	2.6	275	1270	4273
	50	56.0	2.0	265	1270	4603
	60	46.7	1.6	245	1270	4891
	80	35.0	1.2	225	1270	5383
	100	28.0	0.9	200	1270	5799
747	7.5	373.3	14.4	340	950	3090
	10	280.0	12.2	380	1194	3401
	15	186.7	9.3	425	1336	3893
	20	140.0	7.0	420	1485	4285
	25	112.0	5.9	440	1700	4616
	30	93.3	5.7	480	1700	4905
	40	70.0	4.1	460	1700	5399
	50	56.0	3.3	450	1700	5816
	60	46.7	2.7	430	1700	6181
	80	35.0	1.9	380	1700	6803
	100	28.0	1.5	350	1700	7328
748	7.5	373.3	16.6	391	950	3090
	10	280.0	14.1	437	1194	3401
	15	186.7	10.7	489	1337	3893
	20	140.0	8.0	483	1485	4285
	25	112.0	6.8	506	1700	4616
	30	93.3	6.5	552	1700	4905
	40	70.0	4.7	529	1700	5399
	50	56.0	3.7	495	1700	5816
	60	46.7	3.0	473	1700	6181
	80	35.0	2.0	399	1700	6803
	100	28.0	1.6	368	1700	7328
749	7.5	373.3	22.1	520	1190	4042
	10	280.0	18.7	580	1493	4449
	15	186.7	14.7	670	1725	5092
	20	140.0	11.0	660	1912	5605
	25	112.0	9.0	670	2100	6038
	30	93.3	9.0	770	2100	6416
	40	70.0	6.5	730	2100	7062
	50	56.0	5.1	700	2100	7607
	60	46.7	4.0	640	2100	8084
	80	35.0	3.0	590	2100	8897
	100	28.0	2.2	520	2100	9584
750	7.5	373.3	35.7	840	1550	5526
	10	280.0	28.4	890	1848	6082
	15	186.7	19.8	910	1889	6962
	20	140.0	16.1	980	2289	7663
	25	112.0	12.0	890	2494	8254
	30	93.3	10.5	920	2800	8771
	40	70.0	10.6	1200	2800	9654
	50	56.0	8.1	1100	2800	10400
	60	46.7	6.2	990	2800	11051
	80	35.0	4.6	920	2800	12163
	100	28.0	3.3	810	2800	13103

Worm Reducer Dimensions

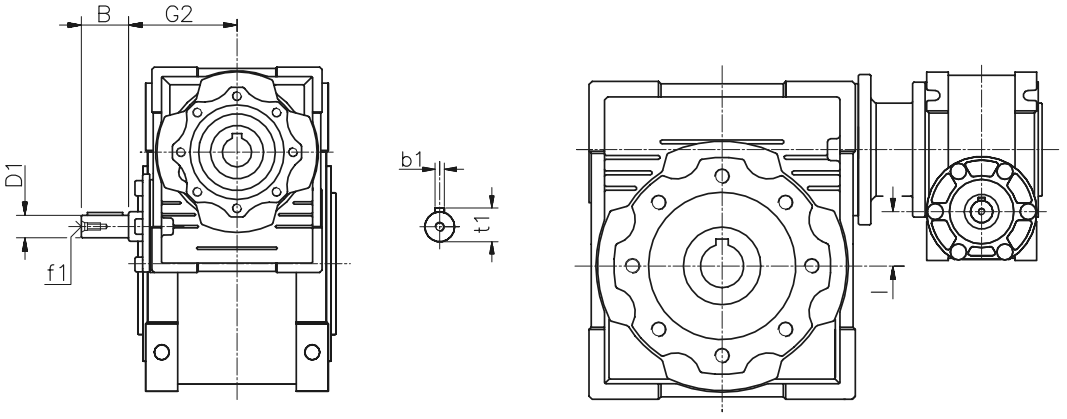
SHAFT MOUNTED WORM REDUCER



Unit Size	B	D1 j6	G2	G3	l	b1	f1	t1	kg
741	20	9	51	45	30	3	-	10.2	1.2
742	23	11	60	53	40	4	-	12.5	2.3
743	30	14	74	64	50	5	M6	16.0	3.5
744	40	19	90	75	63	6	M6	21.5	6.2
745	50	24	105	90	75	8	M8	27.0	9.0
746	50	24	125	108	90	8	M8	27.0	13.0
747	60	28	142	135	110	8	M10	31.0	21.0
748	60	28	142	135	110	8	M10	31.0	35.0
749	80	30	162	155	130	8	M10	33.0	48.0
750	80	35	195	175	150	10	M12	38.0	84.0

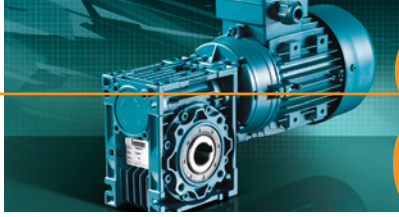
For all other dimensions consult page 318

WORM/WORM COMBINATION REDUCER



Unit Size	B	D1 j6	G2	l	b1	f1	t1	kg
741-742	20	9	51	10	3	-	10.2	4.0
741-743	20	9	51	20	3	-	10.2	5.0
741-744	20	9	51	33	3	-	10.2	8.0
742-745	23	11	60	35	4	-	12.5	12.0
742-746	23	11	60	50	4	-	12.5	16.0
743-747	30	14	74	60	5	M6	16.0	25.0
743-748	30	14	74	60	5	M6	16.0	39.0
744-749	40	19	90	67	6	M6	21.5	55.0
744-750	40	19	90	87	6	M6	21.5	91.0

For all other dimensions consult page 323



MESH DATA

Unit Size		Ratio											
		5	7,5	10	15	20	25	30	40	50	60	80	100
740	Z1	6	4	3	2	2	-	1	1	1	1	-	-
	γ	35°02′	25°03′	19°19′	13°09′	10°41′	-	6°40′	5°23′	4°31′	3°53′	-	-
	Mx	1.30	1.30	1.30	1.30	0.995	-	1.30	0.995	0.80	0.67	-	-
	ηd(1400)	0.87	0.85	0.83	0.79	0.75	-	0.67	0.62	0.58	0.55	-	-
	ηs	0.72	0.71	0.68	0.61	0.56	-	0.46	0.41	0.36	0.34	-	-
741	Z1	6	4	3	2	2	1	1	1	1	1	1	-
	γ	27°04′	18°49′	14°20′	9°40′	7°42′	5°35′	4°52′	3°52′	3°12′	2°45′	2°07′	-
	Mx	1.44	1.44	1.44	1.44	1.09	1.70	1.44	1.09	0.89	0.74	0.56	-
	ηd(1400)	0.87	0.85	0.82	0.77	0.73	0.68	0.65	0.59	0.55	0.51	0.44	-
	ηs	0.72	0.67	0.63	0.55	0.50	0.43	0.39	0.35	0.31	0.27	0.23	-
742	Z1	6	4	3	2	2	2	1	1	1	1	1	1
	γ	34°19′	24°28′	18°51′	12°49′	10°23′	8°43′	6°29′	5°14′	4°23′	3°47′	2°57′	2°25′
	Mx	2.06	2.06	2.06	2.06	1.57	1.27	2.06	1.57	1.27	1.06	0.81	0.65
	ηd(1400)	0.89	0.87	0.85	0.82	0.78	0.75	0.70	0.65	0.62	0.58	0.52	0.47
	ηs	0.74	0.71	0.67	0.60	0.55	0.51	0.45	0.40	0.36	0.32	0.28	0.24
743	Z1	6	4	3	2	2	2	1	1	1	1	1	1
	γ	33°37′	23°54′	18°23′	12°30′	10°06′	8°29′	6°19′	5°06′	4°16′	3°40′	2°52′	2°21′
	Mx	2.56	2.56	2.56	2.56	1.95	1.58	2.56	1.95	1.58	1.32	1.00	0.8
	ηd(1400)	0.89	0.88	0.86	0.82	0.79	0.76	0.72	0.67	0.63	0.59	0.53	0.49
	ηs	0.74	0.70	0.66	0.59	0.55	0.51	0.44	0.39	0.35	0.32	0.27	0.23
744	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	24°31′	18°53′	12°51′	10°25′	8°45′	6°30′	5°15′	4°24′	3°47′	2°58′	2°26′
	Mx	-	3.25	3.25	3.25	2.48	2.00	3.25	2.48	2.0	1.68	1.27	1.02
	ηd(1400)	-	0.88	0.87	0.83	0.81	0.78	0.74	0.70	0.66	062	0.57	0.51
	ηs	-	0.71	0.67	0.60	0.55	0.51	045	0.40	0.36	0.33	0.28	0.24
745	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	26°17′	20°20′	13°52′	11°18′	9°32′	7°02′	5°42′	4°48′	4°08′	3°14′	2°40′
	Mx	-	3.94	3.94	3.94	3.00	2.42	3.94	3.0	2.42	2.03	1.54	1.24
	ηd(1400)	-	0.89	0.88	0.85	0.82	0.80	0.76	0.72	0.69	0.65	0.60	0.55
	ηs	-	0.71	0.68	0.61	0.57	0.53	0.46	0.42	0.38	0.35	0.29	0.26
746	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	29°11′	22°44′	15°36′	12°50′	10°54′	7°57′	6°30′	5°30′	4°46′	3°45′	3°06′
	Mx	-	4.84	4.84	4.84	3.69	2.98	4.84	3.69	2.98	2.50	1.89	1.52
	ηd(1400)	-	0.90	0.89	0.86	0.84	0.82	0.78	0.75	0.72	0.69	0.63	0.59
	ηs	-	0.73	0.70	0.64	0.60	0.56	0.49	0.45	0.41	0.38	0.32	0.28
747	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	28°15′	21°57′	15°02′	14°41′	12°34′	7°39′	7°28′	6°22′	5°32′	4°24′	3°39′
	Mx	-	5.875	5.875	5.875	4.62	3.73	5.875	4.62	3.73	3.13	2.37	1,91
	ηd(1400)	-	0.90	0.89	0.86	0.85	0.84	0.79	0.78	0.75	0.72	0.67	0,63
	ηs	-	0.72	0.69	0.63	0.62	0.59	0.48	0.48	0.44	0.41	0.36	0,32
748	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	28°15′	21°57′	15°02′	14°41′	12°34′	7°39′	7°28′	6°22′	5°32′	4°24′	3°39′
	Mx	-	5.875	5.875	5.875	4.62	3.73	5.875	4.62	3.73	3.13	2.37	1.91
	ηd(1400)	-	0.90	0.89	0.86	0.85	0.84	0.79	0.78	0.75	0.72	0.67	0.63
	ηs	-	0.72	0.69	0.63	0.62	0.59	0.48	0.48	0.44	0.41	0.36	0.32
749	Z1	-	4	3	2	2	2	1	1	1	1	1	1
	γ	-	28°41′	22°19′	15°18′	13°52′	11°49′	7°47′	7°02′	5°58′	5°11′	4°07′	3°24′
	Mx	-	6.97	6.97	6.97	5.4	4.37	6.97	5.4	4.37	3.67	2.77	2.23
	ηd(1400)	-	0.91	0.89	0.87	0.86	0.84	0.80	0.78	0.75	0.72	0.68	0.64
	ηs	-	0.72	0.69	0.63	0.61	0.58	0.49	0.46	0.43	0.39	0.34	0.30
750	Z1	-	6	4	3	2	2	2	1	1	1	1	1
	γ	-	32°09′	24°35′	17°27′	12°53′	11°19′	9°50′	6°32′	5°43′	4°57′	3°55′	3°14′
	Mx	-	5.5	6.155	6.155	6.155	5.0	4.193	6.155	5.0	4.193	3.17	2.55
	ηd(1400)	-	0.91	0.90	0.88	0.86	0.84	0.83	0.78	0.76	0.73	0.68	0.64
	ηs	-	0.73	0.71	0.66	0.60	0.57	0.54	0.45	0.42	0.39	0.33	0.29

ORDERING INSTRUCTIONS

FIRST THREE DIGITS: Gearmotor size.

Select from the tables on pages 312 to 317 for motorised units and pages 324 to 327 for non-motorised units.

FOURTH DIGIT: Mounting Type.

A: Standard Bore - Motorised worm gear unit

B: Standard Bore - Motorised worm/worm combination gear unit

D: Standard Bore - Motor ready worm gear unit

E: Standard Bore - Motor ready worm/worm combination unit

G: Standard Bore - Speed reducer worm gear unit

H: Standard Bore - Speed reducer worm/worm combination unit

Z: Alternative Bore - Motorised worm gear unit

Y: Alternative Bore - Motorised worm/worm combination unit

W: Alternative Bore - Motor ready worm gear unit

V: Alternative Bore - Motor ready worm/ worm combination unit

T: Alternative Bore - Speed reducer worm gear unit

S: Alternative Bore - Speed Reducer worm/worm combination unit

FIFTH AND SIXTH DIGIT: Gear Ratio Code.

1. Assemblies A and B use complete eight digit code obtained directly from selection tables. Exact gear ratios can be found on page 327.
2. For selection and specification for D, E. G and H assemblies then consult your local Authorised Distributor.

SEVENTH/EIGHTH DIGITS: Type of drive

1. Motorised units - use complete code from selection tables with if applicable, additional ninth digit for motor type.
2. Input reducer assembly - use **00**
3. Motor ready - units ready to accept a standard IEC frame motor, use code from table below.

Code	Frame	Flange
56C	56	B14
56D	56	B5
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100/112	B14
10D	100/112	B5
13C	132	B14
13D	132	B5
16D	160	B5

NINTH DIGIT:

Additional feature.

Code	Additional Feature
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer To Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit

EFFICIENCY - STATIC AND DYNAMIC IRREVERSIBILITY

EFFICIENCY

Efficiency is a parameter which has a major influence on the sizing of certain applications, and basically depends on gear pair design elements.

The mesh data table on page 329 shows dynamic efficiency (n1=1400) and static efficiency values. Remember that these values are only achieved after the unit has been run in.

DYNAMIC IRREVERSIBILITY

Dynamic irreversibility is achieved when the output shaft stops instantly when drive is no longer transmitted through the worm shaft. This condition requires a dynamic efficiency of $\eta_d < 0.5$ (see table on page 329).

STATIC IRREVERSIBILITY

Static irreversibility is achieved when, with the gear reducer at a standstill, the application of a load to the output shaft does not set in motion the worm shaft. This condition requires a static efficiency of $\eta_s < 0.5$ (see table on page 329).

The tables below shows approximate irreversibility classes.

Vibrations and shocks can affect a gear reducer's irreversibility.

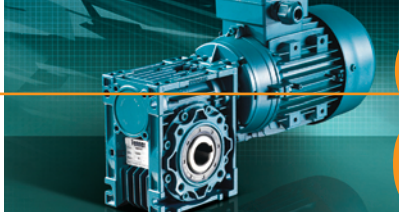
For the irreversibility conditions of a combined geared unit one must consider that the efficiency of the group is given by the product of the efficiencies of each single reducer, i.e. $\eta_{tot} = \eta_1 \times \eta_2$

DYNAMIC IRREVERSIBILITY

η_d	Dynamic Irreversibilty
>0.6	dynamic reversibilty
0.5 ÷ 0.6	low dynamic reversibilty
0.4 ÷ 0.5	good dynamic irreversibilty
< 0.4	dynamic irreversibilty

STATIC IRREVERSIBILITY

η_s	Static Irreversibilty
> 0.55	static reversibilty
0.5 ÷ 0.55	low static reversibilty
< 0.5	static irreversibilty



WORM GEAR UNIT RATIOS

Ratio Code	Ratio
01	5.0
02	7.5
03	10.0
04	15.0
05	20.0
06	25.0
07	30.0
08	40.0
09	50.0
10	60.0
11	80.0
12	100.0

HELICAL WORM GEAR UNIT RATIOS

			IEC90 Frame Unit	
Ratio Code	Ratio Combination	Final Ratio	Ratio Combination	Final Ratio
20	3 x 25	75	2.42 x 30	72.6
21	3 x 30	90	2.42 x 40	96.8
22	3 x 40	120	2.42 x 50	121.0
23	3 x 50	150	2.42 x 60	145.2
24	3 x 60	180	2.42 x 80	193.6
25	3 x 80	240	2.42 x 100	242.0
26	3 x 100	300	-	-

WORM-WORM GEAR UNIT RATIOS

Ratio Code	Ratio Combination	Final Ratio
40	10 x 30	300
41	10 x 40	400
42	20 x 25	500
43	20 x 30	600
44	25 x 30	750
45	30 x 30	900
46	30 x 40	1200
47	50 x 30	1500
48	60 x 30	1800
49	60 x 40	2400
50	60 x 50	3000*
51	80 x 40	3200
52	50 x 80	4000
53	60 x 80	4800**
54	50 x 100	5000

* Not available on size 742
** Only available on size 743

ACCESSORY PRODUCT CODES

Unit Size	Single Extension Output Shaft	Double Extended Output Shaft	Torque Arm	Output Flanges				Output Cover
				Type FA	Type FB	Type FC	Type FD	
740	740A9700	740A9800	740A9600	740A9900	-	-	-	-
741	741A9700	741A9800	741A9600	741A9900	-	-	-	741A9300
742	742A9700	742A9800	742A9600	742A9900	742A9901	742A9902	742A9903	742A9300
743	743A9700	743A9800	743A9600	743A9900	743A9901	743A9902	743A9903	743A9300
744	744A9700	744A9800	744A9600	744A9900	744A9901	744A9902	744A9903	744A9300
745	745A9700	745A9800	745A9600	745A9900	745A9901	-	-	745A9300
746	746A9700	746A9800	746A9600	746A9900	746A9901	746A9902	746A9903	746A9300
747	748A9700	748A9800	748A9600	748A9900	748A9901	-	-	748A9300
748	748A9700	748A9800	748A9600	748A9900	748A9901	-	-	748A9300
749	749A9700	749A9800	749A9600	749A9900	-	-	-	749A9300
750	750A9700	750A9800	750A9600	750A9900	-	-	-	750A9300

ALLOWABLE OVERHUNG LOADS

Units are fitted with input and output bearings of ample proportions to cater for the radial and thrust loads imposed by the gearing, leaving sufficient capacity for taking typical overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

Permissible overhung loads vary according to the direction of rotation. The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and the load applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to your Distributor for further details. In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life.

All units will accept 100% momentary overload on stated capacities.

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to the output shaft, one of the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

T = Absorbed torque at worm gear output shaft in Nm.
kW = Absorbed torque at worm gear output shaft in (kW).
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n = Rev/min of worm gear output shaft.
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

The same formulae can be used to calculate the overhung load on the input shaft, substituting the input torque or kW for the output values.

Overhung loads may be reduced by one of the following methods:

(1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.

(2) Mount the sprocket, gear or pulley on a separate shaft, supported on its own bearings and couple to the worm gear output shaft by means of a Fenner shaft coupling.

(3) Use a special extended output shaft and support the free end with an outrigger bearing.

Axial Thrust Capacities (N)

No check or calculation is required for axial loads towards or away from the unit up to 20% of the permissible overhung load. If the axial thrust exceeds these values or if there is a combination of axial thrust loads and overhung loads please refer to your local Authorised Distributor.

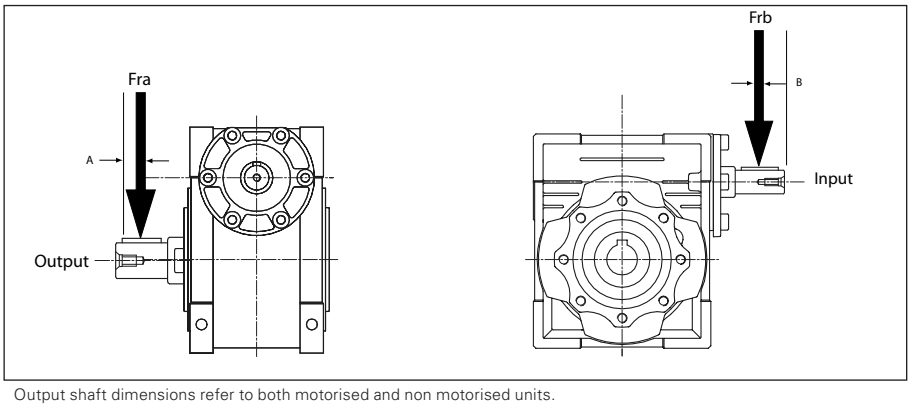
DISTANCE MIDWAY ALONG SHAFT EXTENSION

Unit Size	Dimension A (mm)	Dimension B (mm)
740	11.5	-
741	15	10
742	20	11.5
743	25	15
744	25	20
745	30	25
746	40	25
747	40	30
748	40	30
749	40	40
750	41	40

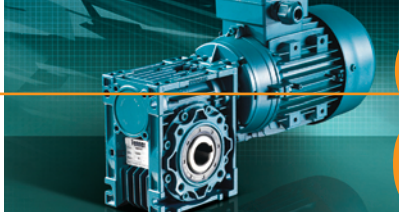
ALLOWABLE INPUT SHAFT OVERHUNG LOADS Frb (N) @1450 REV/MIN

Unit Size	Max. Load (N)
740	-
741	210
742	350
743	490
744	700
745	980
746	1270
747	1700
748	1700
749	2100
750	2800

* For Output Shaft Overhung Load Capacities (Fra) see the relevant selection tables



Output shaft dimensions refer to both motorised and non motorised units.



Satisfactory performance depends on proper installation, lubrication and maintenance. All instructions given in the installation leaflet must be followed carefully.

Shaft Mounting

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs. Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft fit side fitting key. DO NOT USE TAPER OR TOP FITTING KEY.

Foot Mounting

Mount the unit securely to a rigid structure. Fit the output extension shaft as required use flexible couplings such as Fenaflex for shaft to shaft connections and ensure that shaft misalignment is within the couplings capacity. When a pulley or sprocket is fitted to either shaft, mount it as close as possible to the gearcase.

When fitting or removing drive components do not hammer on shaft as this will damage the bearings, Fenner Taper Lock bushes permit easy fixing and dismantling without undue force.

LUBRICATION

Sizes 740 to 747 are pre-filled with IP TELIUM VSF 320 a synthetic gear oil suitable for permanent lubrication. They can be mounted in any position. Sizes 745, 746 & 747 should not be installed in the V5 or V6 position without prior consultation.

The synthetic oil used is suitable for ambient temperatures between -25°C and +50°C

Sizes 748, 749 and 750 are pre-filled for mounting position B3 with IP MELLANA OIL 220, a mineral based gear oil. Other mounting positions must be specified on order.

The Mineral oil used is suitable to operate in ambient temperatures between -15°C and +25°C

Helical-worm Gear Unit

The helical modules are supplied as a sealed for life unit complete with a long-life synthetic oil, AGIP TELIUM VSF320 and can be mounted in all positions.

The lubrication is separate from that of the worm gear unit.

Worm/worm Combination Units

When using a worm/worm combination unit both gearboxes are lubricated seperately.

Both units are supplied lubricated up to size 747, on sizes above 747 the small unit will be supplied lubricated, the large one not.

Use the mounting position detail below and fill to the required level.

BREATHERS/MOUNTING POSITIONS

Sizes 740 to 747 are supplied for operation without breathers, level & drain plugs.

Sizes 748 to 750 are supplied for operation with a breather but are dispatched with a closed transport plug. When the unit is in its operating position it is essential to replace the transport plug with the breather plug (supplied) in the position indicated on the installation leaflet prior to operating the unit.

MAINTENANCE

The high quality of Series W ensures that the unit will operate correctly with only the minimum amount of maintenance. Periodically check that the exterior of the assembly is clean, especially the cooling areas; periodically check for any oil leaks especially around the oil seals.

Sizes 740 to 747 are lubricated for life and do not require any special maintenance other than stated above.

Sizes 748 to 750 will require an oil change between 8/10000 hours of use depending on the type of environment and use. Make sure the breather hole in the plug is clean and using the oil window, check for sufficient lubricant. Should it be necessary to top up the lubricant use the same type that is already in the unit or one that is compatible with it. If in doubt we recommend you empty the oil from the gearbox completely and before refilling with new oil, wash out the unit to remove any residue.

LUBRICATION CAPACITY

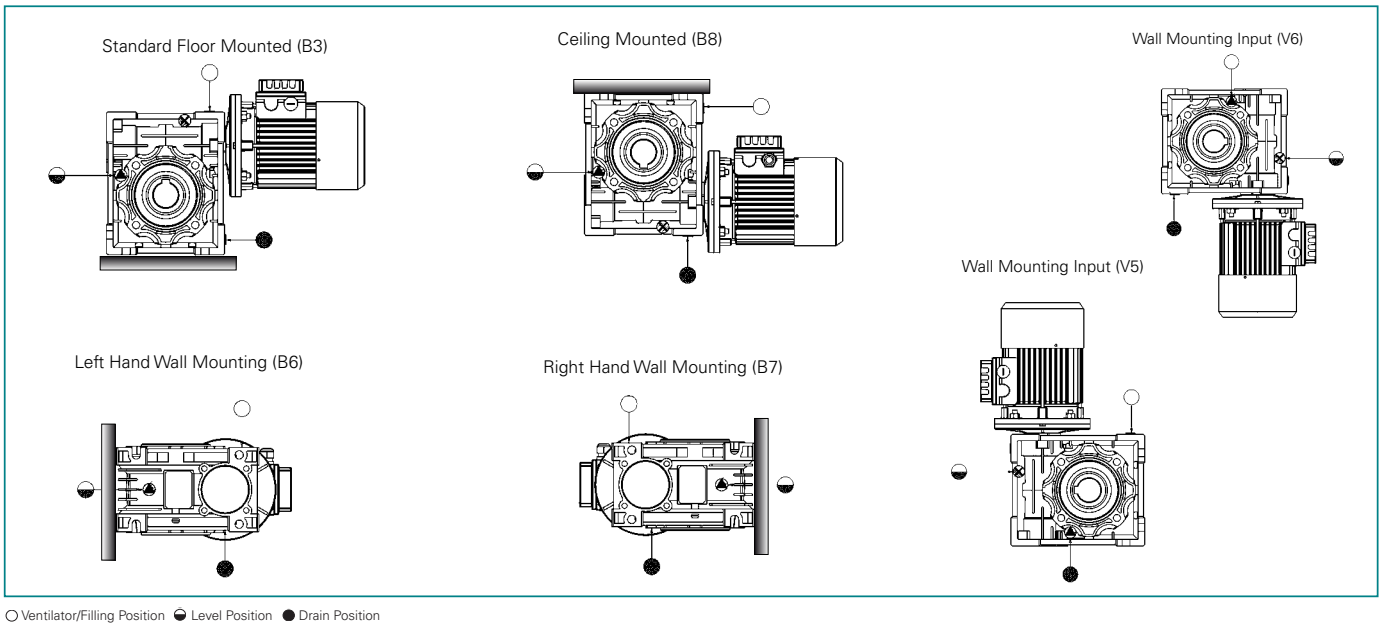
Unit size	All Positions
740	0.02
741	0.04
742	0.08
743	0.15
744	0.30
745	0.55
746	1.00
747	1.60

Mounting Position	Unit Size		
	748	749	750
B3	3.0	4.5	7.0
B8	2.2	3.3	5.1
B6-B7	2.5	3.5	5.4
V5	3.0	4.5	7.0
V6	2.2	3.3	5.1

RECOMMENDED TYPES

Supplier	Synthetic Oil Operating Temp. °C	Mineral Oil Operating Temp. °C	
	-25°C to +50°C	-5°C to +40°C	-15°C to +25°C
AGIP	TELIUM VSF 320	BLASIA 460	BLASIA 220
BP	ENERGOL SG-XP320	ENERGOL GR-XP 460	ENERGOL GR-XP 220
CASTROL	ALPHASYN PG320	ALPHA MAX 460	ALPHA MAX 220
ESSO	S220	SPARTAN EP 460	SPARTAN EP 220
MOBIL	GLYGOYLE 30	MOBILGEAR 634	MOBILGEAR 630
SHELL	TIVELA OIL SC320	OMALA OIL 460	OMALA OIL 220

MOUNTING POSITIONS



○ Ventilator/Filling Position ◒ Level Position ● Drain Position

Standard Motor Specification

Conforming in performance to BS5000 and IEC34-1 in dimensions to BS4999 and IEC72-1 and 2.

Flange mounted, squirrel cage, totally enclosed fan cooled design (TEFC).

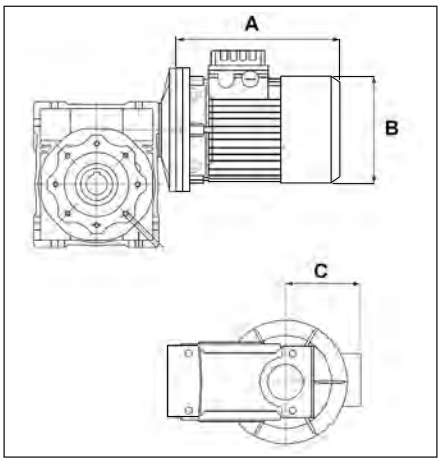
Protection

IP55, dust and hose proof.

Insulation

Class F.

ELECTRIC MOTORS (BS AND IEC SPECIFICATION)



ELECTRIC MOTOR VARIANTS

All variants of standard IEC frame motors can be fitted to the Fenner gearmotor range. Examples of some of the variants and their ninth digit code letter are:-

Code	Additional Feature
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with Encoder
M	Brake motor
N	Brake motor with Hand Release
P	Premium Efficiency Motor Fitted (EFF1)
Q	Refer To Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit

Modular fit clutches, brakes and backstops are also available along with a range of variable speed units, please refer to page xxx or contact your local authorised distributor for further details.

2 POLE - 3000 REV/MIN

Motor Code *	Frame Size	Output kW	Output h.p.	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
43	56A	0.09	0.12	2755	163	110	85	4
47	56B	0.12	0.16	2755	163	110	85	4
01	63	0.18	0.24	2755	193	124	113	7
03	63	0.25	0.33	2790	193	124	113	7
09	71	0.37	0.50	2825	218	139	121	8
10	71	0.55	0.75	2820	218	139	121	9
19	80	0.75	1.00	2810	236	157	130	12
20	80	1.10	1.50	2825	236	157	130	13
26	90S/L	1.50	2.00	2880	280	177	150	20
29	90S/L	2.20	3.00	2850	280	177	150	22
39	100L	3.00	4.00	2890	316	198	160	26
44	112M	4.00	5.50	2900	333	235	180	39

4 POLE - 1500 REV/MIN

Motor Code *	Frame Size	Output kW	Output h.p.	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
41	56A	0.06	0.08	1400	163	110	85	4
14	56B	0.09	0.12	1400	163	110	85	4
48	63	0.12	0.16	1400	193	124	113	8
02	63	0.18	0.25	1410	193	124	113	8
06	71	0.25	0.33	1420	218	139	121	9
08	71	0.37	0.50	1405	218	139	121	9
81	71	0.55	0.75	1410	250	159	111	10
16	80	0.55	0.75	1440	236	157	130	12
82	71	0.75	1.00	1410	250	159	111	10
18	80	0.75	1.00	1430	236	157	130	13
24	90S/L	1.10	1.50	1445	280	177	150	20
28	90S/L	1.50	2.00	1430	280	177	150	23
36	100L	2.20	3.00	1430	316	198	160	25
38	100L	3.00	4.00	1420	316	198	160	29
46	112M	4.00	5.50	1440	333	235	180	44
54	132S	5.50	7.50	1470	410	274	207	58
56	132M	7.50	10.00	1470	410	274	207	60
66	160MA	11.00	15.00	1450	520	330	250	134
68	160LA	15.00	20.00	1455	565	330	250	152

6 POLE - 1000 REV/MIN

Motor Code *	Frame Size	Output kW	Output h/p	Speed rev/min	Dimensions (mm) A	B	C	Mass kg
42	56B	0.06	0.08	900	163	110	85	4
15	63A	0.09	0.12	900	197	122	90	4.3
13	63	0.12	0.16	915	193	124	113	8
05	71	0.18	0.25	890	218	139	121	10
07	71	0.25	0.33	890	218	139	121	10
12	80	0.37	0.50	925	236	157	130	12
17	80	0.55	0.75	920	236	157	130	13
23	90S/L	0.75	1.00	930	280	177	150	21
27	90S/L	1.10	1.50	935	280	177	150	23
37	100L	1.50	2.00	950	316	198	160	24
45	112M	2.20	3.00	950	333	235	180	34
53	132S	3.00	4.00	965	410	274	207	47
55	132M	4.00	5.50	965	410	274	207	56

Dimensions A, B and C are based on the standard motor normally supplied, for details when another type of motor is required consult your local Authorised Distributor.

Starting torque, starting current and current at various voltages vary depending on the type of unit. Consult your local Authorised Distributor.

* Last two digits of the complete eight digit ordering code from the selection tables.



Fenner®
CYCLO
EPICYCLIC GEARBOX

A whole new concept in gear design using a patented epicyclic gear profile to offer trouble free, high ratio solutions to a wide range of industries.



- 21 sizes with ratings from 0.12 to 55kW
- Ratios from 6:1 to 658,503:1
- 500% shock overload capacity
- 2 year warranty
- Dry-fit gearhead
- Standard IEC or integrated motor options
- Compact, silent & low maintenance

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available
  any special motor features required (brake, clutch, flameproof etc.)
- **If non-motorised:** type of prime mover
  rotational speed of prime mover
  power rating of prime mover
  is an input shaft coupling required?
  if so, prime mover shaft dia.
- **Flange mounted or foot mounted?**
  if foot mounted, is an output shaft coupling required?
- **Type of driven machine**
- **Rotational speed of driven machine**
  constant or variable over what range?
- **Power absorbed by driven machine**
  (or required output torque)
- **Hours/day duty & start/stop frequency**

FENNER CYCLO

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Fenner® Cyclo

REVOLUTIONARY DESIGN OFFERS SMOOTH, SILENT, EFFICIENT OPERATION

The revolutionary design of the Cyclo discs offers smooth and silent operation and excellent resistance to overloads. Extremely high ratios can be achieved within a very small envelope offering high efficiency in a very small package.

- High overload capacity up to 500%
- Offering high efficiency, especially at high reduction ratios
- Compact size and low noise level
- High reliability with 2 years warranty
- Exceptional life compared to other types of gearing



www.fptgroup.com

OPERATING PRINCIPLE

The unique concept of the Cyclo unit provides exceptional performance, reliability and long life in the most severe applications.

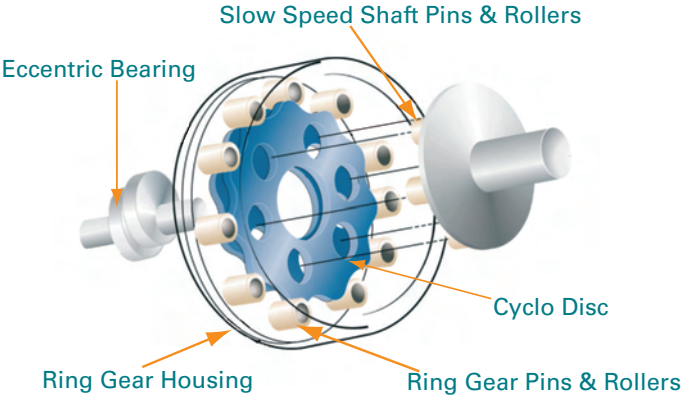
Unlike Helical gears, the Cyclo has thirty percent of its reduction components in contact at all times offering an extremely high overload capacity.

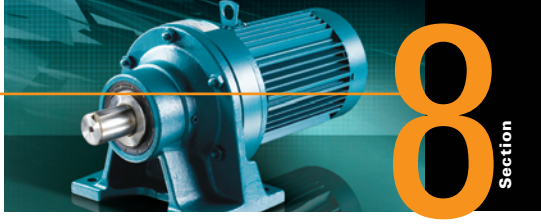
As the Eccentric bearing rotates, it rolls the Cyclo Disc around the internal circumference of the stationary Ring Gear Housing (an action similar to that of a wheel rolling around the inside of a ring).

As the Cyclo Disc travels in a clockwise path around the Ring Gear Housing, the Cyclo Disc itself rotates slowly on its own axis in the opposite direction. For each complete revolution of the INPUT shaft, the Cyclo Disc turns one cycloidal tooth pitch in the opposite direction.

The ratio of the Cyclo drive is numerically equal to the number of cycloidal teeth on the Cyclo Disc.

The reduced speed is transmitted to the OUTPUT shaft by means of the Slow speed shaft pins and rollers which engage with the holes located around the middle of each disc. Typically a Two-Disc system is used allowing a smoother and vibration-free drive with a higher torque capacity.





SELECTION PROCEDURE

(a) Service Factor

From table 1 select the Mechanical Service Factor (Fm) applicable to the drive.

If the unit is to be subjected to frequent stop/starts then multiply factor **Fm** by Factor **Fs** from table 2.

(b) Motor Power

Refer to the selection tables on pages 338 to 341 and choose a motor power equal or in excess of that required.

If the power is not known, use the formula below to establish a minimum input power and select from the nearest available selection table.

$$P_A = \frac{M \times n_2}{9550}$$

P_A = Absorbed power (kW)

T = Output torque (Nm)

n_2 = Output speed (rpm)

(c) Unit Selection

Refer to the selection tables for the required motor selected in step **(b)** on pages 338 to 341.

Read down the column to find the closest speed to meet your requirements. Trace along the line to the service factor from step **(a)**.

If the service factor is either lower or significantly higher than that required, scan up and down to establish if a better selection is available.

(d) Overhung Loads

If an indirect drive is to be fitted to the output shaft, calculate the overhung load value using the formula below and ensure that the maximum allowable overhung load is not exceeded. If the calculated overhung load is greater than the allowable overhund load, either re-design the indirect drive or select a unit with a greater overhung load capacity.

$$F_{Rq} = \frac{2000 \times M_{ef} \times F_{B1} \times L_f \times C_f}{\text{PCD of drive element (mm)}}$$

F_{Rq} = Equivalent radial load used for selection (N)

M_{ef} = Required output torque (Nm)

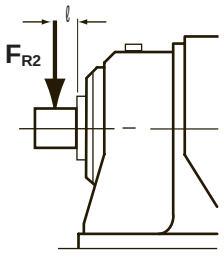
F_{B1} = Service factor from section **(a)**

L_f = Correction factor for load position

C_f = Correction factor for type of drive

C_f value for different drive types

Chain = 1.00
Pinion = 1.25
V-Belt = 1.50



SELECTION EXAMPLE

A Fenner Cyclo geared motor unit is required to operate a stone crusher that will start 35 times a day and operate for a total of 9 hours per day.

The absorbed torque is 700Nm and the speed required is 50rpm. There will be a flexible coupling on the output shaft so the Overhung Load will not be an issue.

(a) Service Factor

From table 1 a stone crusher has been classified as a Heavy Shock Load. The service factor for such a unit operating at up to 10 hours per day is shown as 1.35.

The unit is going to experience frequent stop/starts so the Fm factor needs to be multiplied by the Fs factor from table 2. For Heavy Shock Loads <200 stop/starts per day, the Fs factor is 1.25.

(b) Motor Power

As we do not know the motor power required, we need to calculate it based on our torque requirement.

Therefore the absorbed Power P_A =

$$\frac{700\text{Nm} \times 50\text{ rpm}}{9550} = 3.66\text{ kW}$$

(c) Unit Selection

Refer to the selection table relevant to the closest motor size of 4.0kW on page 340. Look down the Output speed column for the nearest speed to 50rpm and for a unit with a service factor equal to or greater than 1.69.

The closest selection is a 614X1146.

TABLE 1 - MECHANICAL SERVICE FACTOR Fm

Types of Driven Machine	Operational hours per day		
	3 hours	10 hours	24 hours
Uniform Loads Agitators and Mixers – constant viscosity Conveyors - uniformly loaded Cookers Paper bleaching apparatus Pumps - centrifugal Rubber extruders	**0.80**	**1.00**	**1.20**
Moderate Shock Loads Agitators and Mixers – variable viscosity Calenders Conveyors - heavy duty with irregular loads Cranes and hoists Drying drums Dyeing machines Excavator winches Rolling mill transfer beds Scrapers Screw pumps Sugar mills Tanning machines	**1.00**	**1.10**	**1.35**
Heavy Shock Loads Brick Presses Kneeding machines Metal presses and shears Paper beaters and wet presses Roller tables Stone crushers	**1.20**	**1.40**	**1.60**

TABLE 2 - STARTING SERVICE FACTOR Fs

	Start/stops per hour		
	<10	<200	<500
Uniform Load	**1.00**	**1.10**	**1.15**
Moderate ShockLoad	**1.00**	**1.18**	**1.32**
Heavy Shock Load	**1.00**	**1.25**	**1.40**

TABLE 3 - CORRECTION FACTOR (LF) FOR LOAD POSITION

Size	5 mm	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	45 mm	50 mm	60 mm	70 mm	80 mm	90 mm	100 mm	120 mm
606	0.83	0.94	1.19	1.56	1.74	1.98	-	-	-	-	-	-	-	-	-	
607	0.82	0.91	1.00	1.29	1.59	1.88	2.00	2.23	-	-	-	-	-	-	-	
608	0.81	0.87	0.94	1.03	1.28	1.54	1.80	1.85	2.00	2.19	-	-	-	-	-	-
609	0.86	0.92	0.97	1.13	1.38	1.64	1.90	1.98	2.15	2.32	-	-	-	-	-	-
610	0.86	0.92	0.97	1.13	1.38	1.64	1.90	1.98	2.15	2.32	2.68	-	-	-	-	-
611	0.78	0.84	0.90	0.96	1.02	1.08	1.19	1.36	1.53	1.65	1.71	2.00	-	-	-	-
612	-	0.82	0.87	0.92	0.97	1.08	1.25	1.42	1.59	1.76	1.90	2.15	-	-	-	-
613	-	-	0.83	0.87	0.92	0.96	1.00	1.13	1.25	1.38	1.63	1.88	1.95	2.19	2.67	-
614	-	-	-	0.66	0.73	0.80	0.87	0.93	1.00	1.10	1.30	1.50	1.70	1.90	2.05	-
616	-	-	-	0.83	0.87	0.90	0.93	0.97	1.00	1.11	1.32	1.53	1.75	1.96	-	-
617	-	-	-	0.86	0.89	0.92	0.94	0.97	1.00	1.11	1.32	1.53	1.75	1.96	-	-
618	-	-	-	-	0.85	0.87	0.90	0.93	0.95	0.98	1.09	1.26	1.43	1.60	1.78	-
619	-	-	-	-	-	0.85	0.87	0.89	0.91	0.93	0.97	1.04	1.18	1.32	1.46	1.75

Motorised Selection

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
0.12 KW				
1.86	538	1.21	612DAX4648	9810
1.86	538	1.81	613DBX4648	14700
2.10	478	1.36	612DAX4548	9810
2.10	478	2.30	613DBX4548	14700
2.29	438	1.49	612DAX4448	9810
2.29	438	2.22	613DBX4448	14700
2.43	412	1.58	612DAX4348	9810
2.43	412	2.37	613DBX4348	14700
2.59	387	0.80	610DAX4248	1460
2.59	387	1.69	612DAX4248	9810
2.88	348	0.89	610DAX3948	4140
2.88	348	1.87	612DAX3948	9810
3.20	313	0.99	610DAX3748	5400
3.20	313	2.08	612DAX3748	9810
3.61	278	1.12	610DAX3548	5400
3.61	278	2.34	612DAX3548	9810
3.81	263	1.18	610DAX3448	5400
3.81	263	2.48	612DAX3448	9810
4.26	235	1.32	610DAX3248	5400
4.26	235	2.69	612DAX3248	9810
4.98	201	1.03	609DAX3048	3340
4.98	201	1.54	610DAX3048	5400
5.89	170	1.22	609DAX2848	3340
5.89	170	1.83	610DAX2848	5400
6.97	144	1.44	609DAX2648	3340
6.97	144	2.17	610DAX2648	5400
8.24	122	1.70	609DAX2348	3340
8.24	122	2.56	610DAX2348	5400
9.51	105	1.80	609DAX2248	3340
11.2	89	1.86	609DAX2148	3340
11.4	93	1.21	609X1848	3340
13.1	77	0.81	607DAX2048	1770
13.1	77	2.40	609DAX2048	3340
15.6	68	1.01	608X1748	2560
15.6	68	2.16	609X1748	3340
19.2	55	1.66	608X1648	2560
19.2	55	2.30	609X1648	3340
23.1	46	1.13	607X1548	1630
23.1	46	1.95	608X1548	2560
26.7	40	1.19	607X1448	1660
26.7	40	2.01	608X1448	2560
31.6	33	0.93	606X1348	1180
31.6	33	1.86	607X1348	1770
38.9	27	1.14	606X1248	1180
38.9	27	2.27	607X1248	1770
46.9	23	1.38	606X4848	1180
46.9	23	2.31	607X4848	1770
54.4	19	1.38	606X1048	1180
54.4	19	2.42	607X1048	1770
64.8	16	1.90	606X0948	1180
80.0	13	2.35	606X0848	1180
90.7	12	2.38	606X0748	1180
104.6	10	2.38	606X0648	1180
123.6	9	2.38	606X0548	1120
170.0	6	2.38	606X0448	821
226.7	5	2.38	606X0348	717
0.18KW				
1.87	731	0.81	612DAX4602	9810
1.87	731	1.21	613DBX4602	14700
2.11	649	0.91	612DAX4502	9810
2.11	649	1.52	613DBX4502	14700
2.30	595	0.99	612DAX4402	9810
2.30	595	1.48	613DBX4402	14700
2.45	559	1.06	612DAX4302	9810
2.45	559	1.58	613DBX4302	14700
2.61	525	1.12	612DAX4202	9810
2.61	525	1.64	613DBX4202	14700
2.90	473	1.25	612DAX3902	9810
2.90	473	1.86	613DBX3902	14700
3.22	425	1.39	612DAX3702	9810
3.22	425	2.03	613DBX3702	14700
3.63	377	1.57	612DAX3502	9810
3.84	357	1.65	612DAX3402	9810
4.29	319	0.88	610DAX3202	4520
4.29	319	1.85	612DAX3202	9810
5.02	273	1.03	610DAX3002	5400
5.02	273	2.17	612DAX3002	9810
5.93	231	0.81	609DAX2802	3240
5.93	231	1.22	610DAX2802	5400
5.93	231	2.55	612DAX2802	9810
7.03	195	0.96	609DAX2602	3340
7.03	195	1.44	610DAX2602	5400
7.03	195	3.04	612DAX2602	9810
8.30	165	1.14	609DAX2302	3340
8.30	165	1.70	610DAX2302	5400
9.60	143	1.20	609DAX2202	3340
9.60	143	1.97	610DAX2202	5400

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11.3	121	1.24	609DAX2102	3340
11.3	121	2.35	610DAX2102	5400
11.5	119	0.81	609X1802	3340
13.2	104	1.63	609DAX2002	3340
15.7	87	1.46	609X1702	3340
19.3	71	1.12	608X1602	2560
19.3	82	1.54	609X1602	3340
23.2	68	1.30	608X1502	2560
23.2	68	1.87	609X1502	3340
26.9	59	1.34	608X1402	2560
26.9	59	2.24	609X1402	3340
31.9	49	1.24	607X1302	1740
31.9	49	1.63	608X1302	2560
39.1	40	1.51	607X1202	1770
39.1	40	2.28	608X1202	2560
47.2	33	0.92	606X1102	1180
47.2	33	1.59	607X1102	1770
47.2	33	2.60	608X1102	2520
54.8	29	0.92	606X1002	1180
54.8	29	1.63	607X1002	1770
54.8	29	2.64	608X1002	2460
65.2	24	1.30	606X0902	1180
65.2	24	2.26	607X0902	1770
80.6	20	1.60	606X0802	1180
91.3	17	1.60	606X0702	1180
105.4	15	1.60	606X0602	1180
124.5	13	1.60	606X0502	1110
171.3	9	1.60	606X0402	817
228.3	7	1.60	606X0302	714
0.25KW				
1.92	1140	0.87	613DBX4606	14700
1.92	1140	1.26	614DCX4606	16000
2.16	1010	1.09	613DBX4506	14700
2.16	1010	1.42	614DCX4506	16000
2.35	926	1.07	613DBX4406	14700
2.35	926	1.55	614DCX4406	16000
2.50	870	1.13	613DBX4306	14700
2.50	870	1.65	614DCX4306	16000
2.67	817	0.81	612DAX4206	9810
2.67	817	1.16	613DBX4206	14700
2.67	817	1.76	614DCX4206	16000
2.96	736	0.90	612DAX3906	9810
2.96	736	1.34	613DBX3906	14700
2.96	736	1.88	614DCX3906	16000
3.29	662	1.00	612DAX3706	9810
3.29	662	1.43	613DBX3706	14700
3.29	662	2.08	614DCX3706	16000
3.71	587	1.13	612DAX3506	9810
3.71	587	1.68	613DBX3506	14700
3.92	556	1.19	612DAX3406	9810
3.92	556	1.78	613DBX3406	14700
4.39	497	1.33	612DAX3206	9810
4.39	497	1.99	613DBX3206	14700
5.13	425	1.56	612DAX3006	9810
6.06	360	0.88	610DAX2806	4940
6.06	360	1.72	612DAX2806	9810
6.06	360	1.84	612DBX2806	9810
7.18	304	1.04	610DAX2606	5400
7.18	304	1.66	612DAX2606	9810
8.48	257	0.82	609DAX2306	3340
8.48	257	1.23	610DAX2306	5400
8.48	257	1.66	612DAX2306	9810
9.79	223	0.87	609DAX2206	3340
9.79	223	1.42	610DAX2206	5400
9.79	223	1.66	612DAX2206	9810
11.6	188	0.89	609DAX2106	3340
11.6	188	1.72	610DAX2106	5400
11.8	196	1.14	610X1806	4710
13.5	162	1.17	609DAX2006	3340
13.5	162	1.72	610DAX2006	5400
16.1	143	1.05	609X1706	3340
16.1	143	2.01	610X1706	4790
19.7	117	1.11	609X1606	3340
19.7	117	2.02	610X1606	4770
23.7	86	1.02	608X1506	2560
23.7	86	1.47	609X1506	3340
27.5	84	0.96	608X1406	2560
27.5	84	1.63	609X1406	3340
32.6	82	0.77	607X1306	1620
32.6	82	0.99	608X1306	2560
32.6	82	2.02	609X1306	3340
40.0	58	1.09	607X1206	1730
40.0	58	1.60	608X1206	2560
48.3	48	1.14	607X1106	1730
48.3	48	1.87	608X1106	2500
56.0	41	1.18	607X1006	1740
56.0	41	1.90	608X1006	2450
66.7	35	0.91	606X0906	1180
66.7	35	1.63	607X0906	1770

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
82.4	28	1.13	606X0806	1180
82.4	28	1.63	607X0806	1770
93.3	25	1.14	606X0706	1180
93.3	25	1.63	607X0706	1670
107.7	21	1.14	606X0606	1170
107.7	21	1.63	607X0606	1670
127.3	18	1.14	606X0506	1090
127.3	18	1.63	607X0506	1580
175.0	13	1.14	606X0406	811
175.0	13	1.63	607X0406	1410
233.3	10	1.14	606X0306	710
233.3	10	1.63	607X0306	1280
0.37KW				
1.90	1650	0.85	614DCX4608	16000
2.14	1470	0.96	614DCX4508	16000
2.34	1350	1.05	614DCX4408	16000
2.49	1270	1.12	614DCX4308	16000
2.65	1190	1.19	614DCX4208	16000
2.94	1070	0.91	613DBX3908	14700
2.94	1070	1.32	614DCX3908	16000
3.27	962	0.98	613DBX3708	14700
3.27	962	1.47	614DCX3708	16000
3.69	853	1.14	613DBX3508	14700
3.69	853	1.66	614DCX3508	16000
3.89	808	0.80	612DAX3408	9810
3.89	808	1.20	613DBX3408	14700
3.89	808	1.71	614DCX3408	16000
4.36	722	0.90	612DAX3208	9810
4.36	722	1.34	613DBX3208	14700
5.09	618	1.05	612DAX3008	9810
5.09	618	1.57	613DBX3008	14700
6.02	523	1.16	612DAX2808	9810
6.02	523	1.24	612DBX2808	9810
6.02	523	1.86	613DBX2808	14700
7.13	441	1.47	612DBX2608	9810
7.13	441	2.24	613DBX2608	14700
8.42	373	0.83	610DAX2308	3610
8.42	373	1.74	612DBX2308	9810
9.72	324	0.96	610DAX2208	5400
9.72	324	1.15	612DAX2208	9810
9.72	324	2.01	612DBX2208	9810
11.5	274	1.16	610DAX2108	5400
11.5	274	1.15	612DAX2108	9810
13.4	235	1.16	610DAX2008	5400
13.4	235	1.15	612DAX2008	9810
16.0	208	1.36	610X1708	4750
16.0	208	2.00	611X1708	6870
19.6	170	1.37	610X1608	4740
19.6	170	2.00	611X1608	6880
23.6	141	0.91	609X1508	3340
23.6	141	1.84	610X1508	4980
27.3	122	1.10	609X1408	3340
27.3	122	2.10	610X1408	5060
32.3	103	1.63	609X1308	3340
39.7	84	1.10	608X1208	2560
39.7	84	2.05	609X1208	3340
47.9	69	1.26	608X1108	2470
47.9	69	2.12	609X1108	3340
55.6	60	1.28	608X1008	2430
55.6	60	2.33	609X1008	3340
66.2	50	1.10	607X0908	1730
66.2	50	1.49	608X0908	2360
66.2	50	4.02	609X0908	3340
81.8	41	1.10	607X0808	1730
81.8	41	2.10	608X0808	2430
92.7	36	1.10	607X0708	1640
92.7	36	2.10	608X0708	2320
106.9	31	1.10	607X0608	1640
106.9	31	2.10	608X0608	2240
126.4	26	1.10	607X0508	1550
126.4	26	2.10	608X0508	2090
173.8	19	1.10	607X0408	1390
173.8	19	2.10	608X0408	1890
231.7	14	1.10	607X0308	1260
231.7	14	2.10	608X0308	1750
0.55KW				
1.93	2490	0.88	616DBX4616	22100
1.93	2490	1.32	617DCX4616	29500
2.17	2210	0.99	616DBX4516	22100
2.17	2210	1.49	617DCX4516	29500
2.37	2030	1.08	616DBX4416	22100
2.37	2030	1.62	617DCX4416	29500
2.52	1910	1.15	616DBX4316	22100
2.52	1910	1.73	617DCX4316	29500
2.69	1790	0.80	614DCX4216	16000
2.69	1790	1.23	616DBX4216	22100
2.69	1790	1.84	617DCX4216	29500
2.98	1610	0.89	614DCX3916	16000



Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
2.98	1610	1.36	616DBX3916	22100
2.98	1610	2.04	617DCX3916	29500
3.32	1450	0.99	614DCX3716	16000
3.32	1450	1.52	616DBX3716	22100
3.74	1290	1.11	614DCX3516	16000
3.74	1290	1.71	616DBX3516	22100
3.95	1220	0.81	613DBX3416	14700
3.95	1220	1.15	614DCX3416	16000
3.95	1220	1.80	616DBX3416	22100
4.42	1090	0.90	613DBX3216	14700
4.42	1090	1.32	614DCX3216	16000
4.42	1090	2.02	616DBX3216	22100
5.16	932	1.06	613DBX3016	14700
5.16	932	1.50	614DCX3016	16000
6.10	788	0.84	612DBX2816	9810
6.10	788	1.25	613DBX2816	14700
6.10	788	1.78	614DCX2816	16000
7.23	666	0.99	612DBX2616	9810
7.23	666	1.48	613DBX2616	14700
8.55	563	1.17	612DBX2316	9810
8.55	563	1.75	613DBX2316	14700
9.86	488	1.35	612DBX2216	9810
9.86	488	2.02	613DBX2216	14700
11.7	413	1.58	612DBX2116	9810
11.7	413	2.40	613DBX2116	14700
13.6	355	1.87	612DBX2016	9810
16.2	313	0.92	610X1716	4690
16.2	313	1.38	611X1716	6780
16.2	313	1.87	612X1716	9810
19.9	256	0.92	610X1616	4690
19.9	256	1.38	611X1616	6810
19.9	256	2.07	612X1616	9810
23.9	213	1.24	610X1516	4940
23.9	213	1.84	611X1516	6880
27.6	184	1.41	610X1416	5020
27.6	184	2.02	611X1416	6890
32.8	155	1.10	609X1316	3340
32.8	155	1.96	610X1316	5070
40.3	126	1.38	609X1216	3340
40.3	126	2.12	610X1216	5080
48.6	104	0.85	608X1116	2430
48.6	104	1.43	609X1116	3340
48.6	104	2.83	610X1116	5120
56.4	90	0.84	608X1016	2390
56.4	90	1.57	609X1016	3340
67.1	76	1.00	608X0916	2330
67.1	76	2.75	609X0916	3340
82.9	61	1.41	608X0816	2390
94.0	54	1.41	608X0716	2290
108.5	47	1.41	608X0616	2220
128.2	40	1.41	608X0516	2070
176.3	29	1.41	608X0416	1880
235.0	22	1.41	608X0316	1730
0.75 KW				
1.92	3380	0.97	617DCX4618	29500
1.92	3380	1.54	618DBX4618	41700
2.16	3000	1.09	617DCX4518	29500
2.16	3000	1.73	618DBX4518	41700
2.35	2750	1.19	617DCX4418	29500
2.35	2750	1.89	618DBX4418	41700
2.50	2580	0.85	616DBX4318	22100
2.50	2580	1.27	617DCX4318	29500
2.50	2580	2.01	618DBX4318	41700
2.67	2430	0.90	616DBX4218	22100
2.67	2430	1.35	617DCX4218	29500
2.67	2430	2.14	618DBX4218	41700
2.96	2190	1.00	616DBX3918	22100
2.96	2190	1.50	617DCX3918	29500
3.29	1960	1.11	616DBX3718	22100
3.29	1960	1.67	617DCX3718	29500
3.71	1740	0.82	614DCX3518	16000
3.71	1740	1.25	616DBX3518	22100
3.71	1740	1.88	617DCX3518	29500
3.92	1650	0.84	614DCX3418	16000
3.92	1650	1.32	616DBX3418	22100
3.92	1650	1.98	617DCX3418	29500
4.39	1470	0.97	614DCX3218	16000
4.39	1470	1.48	616DBX3218	22100
5.13	1260	1.10	614DCX3018	16000
5.13	1260	1.73	616DBX3018	22100
6.06	1070	0.92	613DBX2818	14700
6.06	1070	1.30	614DCX2818	16000
6.06	1070	2.04	616DBX2818	22100
7.18	901	1.08	613DBX2618	14700
7.18	901	1.57	614DCX2618	16000
8.48	762	0.86	612DBX2318	9810
8.48	762	1.28	613DBX2318	14700
9.80	661	0.99	612DBX2218	9810
9.80	661	1.48	613DBX2218	14700

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
11.6	559	1.20	612DBX2118	9810
11.6	559	1.80	613DBX2118	14700
13.5	481	1.40	612DBX2018	9810
13.5	481	2.00	613DBX2018	14700
16.1	424	1.00	611X1718	6680
16.1	424	1.40	612X1718	9810
19.7	346	1.00	611X1618	6730
19.7	346	1.50	612X1618	9810
23.7	288	0.90	610X1518	4890
23.7	288	1.40	611X1518	6820
23.7	288	2.20	612X1518	9810
27.5	249	1.02	610X1418	4980
27.5	249	1.50	611X1418	6830
32.6	210	0.79	609X1318	3190
32.6	210	1.41	610X1318	5030
32.6	210	2.00	611X1318	6840
40.0	171	1.00	609X1218	3340
40.0	171	1.60	610X1218	5040
48.3	141	1.05	609X1118	3340
48.3	141	2.12	610X1118	5090
56.0	133	1.05	609X1018	3340
56.0	133	2.01	610X1018	5090
66.7	113	1.80	609X0918	3340
82.4	83	1.04	608X0818	2360
82.4	83	2.03	609X0818	3340
93.3	73	1.04	608X0718	2260
93.3	73	2.03	609X0718	3340
107.7	63	1.04	608X0618	2190
107.7	63	2.03	609X0618	3340
127.3	54	1.04	608X0518	2040
127.3	54	2.03	609X0518	3340
175.0	39	1.04	608X0418	1860
175.0	39	2.03	609X0418	3340
233.3	29	1.04	608X0318	1720
233.3	29	2.03	609X0318	3340
1.1KW				
1.94	4900	1.05	618DBX4624	41700
1.94	4900	1.67	619DAX4624	58600
2.19	4350	1.18	618DBX4524	41700
2.19	4350	1.88	619DAX4524	58600
2.39	3990	0.81	617DCX4424	29500
2.39	3990	1.29	618DBX4424	41700
2.39	3990	2.05	619DAX4424	58600
2.54	3750	0.86	617DCX4324	29500
2.54	3750	1.37	618DBX4324	41700
2.70	3520	0.92	617DCX4224	29500
2.70	3520	1.46	618DBX4224	41700
3.00	3170	1.02	617DCX3924	29500
3.00	3170	1.62	618DBX3924	41700
3.34	2850	1.14	617DCX3724	29500
3.34	2850	1.80	618DBX3724	41700
3.77	2530	0.85	616DBX3524	22100
3.77	2530	1.28	617DCX3524	29500
3.77	2530	2.03	618DBX3524	41700
3.98	2390	0.90	616DBX3424	22100
3.98	2390	1.35	617DCX3424	29500
3.98	2390	2.15	618DBX3424	41700
4.45	2140	1.01	616DBX3224	22100
4.45	2140	1.51	617DCX3224	29500
5.20	1830	1.18	616DBX3024	22100
5.20	1830	1.77	617DCX3024	29500
6.15	1550	0.89	614DCX2824	16000
6.15	1550	1.39	616DBX2824	22100
6.15	1550	2.09	617DCX2824	29500
7.28	1310	1.07	614DCX2624	16000
7.28	1310	1.65	616DBX2624	22100
8.61	1110	0.87	613DBX2324	14700
8.61	1110	1.26	614DCX2324	16000
8.61	1110	1.95	616DBX2324	22100
9.93	959	1.01	613DBX2224	14700
9.93	959	1.47	614DCX2224	16000
9.93	959	2.23	616DBX2224	22100
11.7	811	1.19	613DBX2124	14700
11.7	811	1.64	614DCX2124	16000
13.7	697	0.93	612DBX2024	9810
13.7	697	1.39	613DBX2024	14700
16.3	616	0.94	612X1724	7460
16.3	616	1.50	613X1724	13200
20.0	502	1.04	612X1624	9350
20.0	502	1.85	613X1624	12300
24.1	418	0.92	611X1524	6700
24.1	418	1.47	612X1524	9810
27.8	361	1.01	611X1424	6720
27.8	361	1.79	612X1424	9810
33.0	304	0.98	610X1324	4970
33.0	304	1.38	611X1324	6770
33.0	304	2.13	612X1324	9730
40.6	248	1.09	610X1224	4990
40.6	248	1.65	611X1224	6540

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
49.0	205	1.45	610X1124	5040
49.0	205	2.02	611X1124	6500
56.8	177	1.52	610X1024	5040
56.8	177	2.02	611X1024	6350
67.6	149	1.37	609X0924	3340
67.6	149	2.07	610X0924	5110
83.5	120	1.38	609X0824	3340
94.7	106	1.38	609X0724	3340
109.2	92	1.38	609X0624	3340
129.1	78	1.38	609X0524	3340
177.5	57	1.38	609X0424	3340
236.7	43	1.38	609X0324	3340
1.5KW				
1.92	6710	1.22	619DAX4628	58600
2.16	5950	0.87	618DBX4528	41700
2.16	5950	1.38	619DAX4528	58600
2.35	5460	0.95	618DBX4428	41700
2.35	5460	1.5	619DAX4428	58600
2.50	5130	1.01	618DBX4328	41700
2.50	5130	1.60	619DAX4328	58600
2.67	4820	1.07	618DBX4228	41700
2.67	4820	1.71	619DAX4228	58600
2.96	4340	1.19	618DBX3928	41700
2.96	4340	1.89	619DAX3928	58600
3.29	3900	0.83	617DCX3728	29500
3.29	3900	1.32	618DBX3728	41700
3.29	3900	2.11	619DAX3728	58600
3.71	3460	0.94	617DCX3528	29500
3.71	3460	1.49	618DBX3528	41700
3.92	3280	0.99	617DCX3428	29500
3.92	3280	1.58	618DBX3428	41700
4.39	2930	1.11	617DCX3228	29500
4.39	2930	1.76	618DBX3228	41700
5.13	2500	0.87	616DBX3028	22100
5.13	2500	1.30	617DCX3028	29500
5.13	2500	2.06	618DBX3028	41700
6.06	2120	1.02	616DBX2828	22100
6.06	2120	1.53	617DCX2828	29500
7.18	1790	1.21	616DBX2628	22100
7.18	1790	1.82	617DCX2628	29500
8.48	1510	0.93	614DCX2328	16000
8.48	1510	1.43	616DBX2328	22100
8.48	1510	2.15	617DCX2328	29500
9.80	1310	1.08	614DCX2228	16000
9.80	1310	1.65	616DBX2228	22100
11.6	1110	0.87	613DBX2128	14700
11.6	1110	1.20	614DCX2128	16000
11.6	1110	1.95	616DBX2128	22100
13.5	954	1.02	613DBX2028	14700
13.5	954	1.48	614DCX2028	16000
16.1	843	1.10	613X1728	13100
16.1	843	1.44	614X1728	16000
19.7	688	1.35	613X1628	12200
19.7	688	1.75	614X1628	16000
23.7	571	1.08	612X1528	8330
23.7	571	1.63	613X1528	11500
27.5	494	1.31	612X1428	9480
27.5	494	1.81	613X1428	11000
32.6	416	1.01	611X1328	6670
32.6	416	1.56	612X1328	9650
40.0	339	0.80	610X1228	4920
40.0	339	1.21	611X1228	6460
40.0	339	1.92	612X1228	9040
48.3	281	1.06	610X1128	4980
48.3	281	1.48	611X1128	6440
56.0	242	1.10	610X1028	4990
56.0	242	1.50	611X1028	6300
66.7	203	1.00	609X0928	3330
66.7	203	1.50	610X0928	5060
82.4	165	1.00	609X0828	3340
82.4	165	1.60	610X0828	5060
93.3	145	1.00	609X0728	3340
93.3	145	2.10	610X0728	5000
107.7	126	1.00	609X0628	3340
107.7	126	2.10	610X0628	4730
127.3	107	1.00	609X0528	3340
127.3	107	2.10	610X0528	4550
175.0	78	1.00	609X0428	3340
175.0	78	2.10	610X0428	4010
233.3	58	1.00	609X0328	3340
233.3	58	2.10	610X0328	3600
2.2KW				
1.94	9840	0.84	619DAX4636	58600
2.19	8730	0.94	619DAX4536	58600
2.39	8010	1.03	619DAX4436	58600
2.54	7520	1.09	619DAX4336	58600
2.70	7070	1.16	619DAX4236	58600

Motorised Selection

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
3.00	6370	0.81	618DBX3936	41700
3.00	6370	1.29	619DAX3936	58600
3.34	5720	0.90	618DBX3736	41700
3.34	5720	1.44	619DAX3736	58600
3.77	5070	1.02	618DBX3536	41700
3.77	5070	1.62	619DAX3536	58600
3.98	4800	1.07	618DBX3436	41700
3.98	4800	1.71	619DAX3436	58600
4.45	4290	1.20	618DBX3236	41700
4.45	4290	1.90	619DAX3236	58600
5.20	3670	0.90	617DCX3036	29500
5.20	3670	1.40	618DBX3036	41700
6.15	3110	1.10	617DCX2836	29500
6.15	3110	1.70	618DBX2836	41700
7.28	2620	0.80	616DBX2636	22100
7.28	2620	1.20	617DCX2636	29500
7.28	2620	1.90	618DBX2636	41700
8.61	2220	1.00	616DBX2336	22100
8.61	2220	1.50	617DCX2336	29500
9.90	1920	1.10	616DBX2236	22100
9.90	1920	1.70	617DCX2236	29500
11.7	1630	0.80	614DCX2136	16000
11.7	1630	1.30	616DBX2136	22100
11.7	1630	2.00	617DCX2136	29500
13.7	1400	1.01	614DCX2036	16000
13.7	1400	1.53	616DBX2036	22100
13.7	1400	1.55	616DCX2036	22100
13.7	1400	2.27	617DCX2036	29500
16.3	1240	0.98	614X1736	16000
16.3	1240	1.71	616X1736	22100
20.0	1010	0.92	613X1636	12000
20.0	1010	1.19	614X1636	16000
20.0	1010	2.15	616X1636	22100
24.1	838	1.11	613X1536	11300
24.1	838	1.45	614X1536	16000
27.8	724	0.90	612X1436	4470
27.8	724	1.16	613X1436	10800
27.8	724	1.68	614X1436	15500
33.0	611	1.06	612X1336	7600
33.0	611	1.52	613X1336	10400
40.6	497	0.82	611X1236	6320
40.6	497	1.31	612X1236	9810
40.6	497	1.87	613X1236	9740
49.0	412	1.01	611X1136	6330
49.0	412	1.58	612X1136	8420
56.8	355	1.01	611X1036	6200
56.8	355	1.80	612X1036	8040
67.6	298	1.04	610X0936	4980
67.6	298	1.41	611X0936	6120
83.5	241	1.12	610X0836	4990
83.5	241	1.77	611X0836	5790
94.7	213	1.45	610X0736	4930
94.7	213	1.77	611X0736	5740
109.2	185	1.45	610X0636	4670
109.2	185	1.77	611X0636	5390
129.1	156	1.45	610X0536	4500
129.1	156	1.78	611X0536	5220
177.5	114	1.45	610X0436	3970
177.5	114	1.78	611X0436	4570
236.7	85	1.45	610X0336	3570
236.7	85	1.78	611X0336	4100
3.0KW				
560	17	2.6	743A0120	1251
2.52	10110	0.81	619DAX4338	58600
2.69	9500	0.85	619DAX4238	58600
2.98	8560	0.95	619DAX3938	58600
3.32	7690	1.05	619DAX3738	58600
3.74	6820	1.19	619DAX3538	58600
3.95	6460	1.25	619DAX3438	58600
4.42	5770	0.88	618DBX3238	41700
4.42	5770	1.40	619DAX3238	58600
5.16	4940	1.03	618DBX3038	41700
5.16	4940	1.64	619DAX3038	58600
6.10	4180	1.22	618DBX2838	41700
6.10	4180	1.94	619DAX2838	58600
7.23	3530	0.91	617DCX2638	29500
7.23	3530	1.42	618DBX2638	41700
8.55	2990	1.07	617DCX2338	29500
8.55	2990	1.68	618DBX2338	41700
9.86	2590	0.83	616DCX2238	22100
9.86	2590	1.24	617DCX2238	29500
9.86	2590	1.93	618DBX2238	41700
11.7	2190	0.98	616DCX2138	22100
11.7	2190	1.46	617DCX2138	29500
13.6	1880	1.14	616DCX2038	22100
13.6	1880	1.70	617DCX2038	29500
16.2	1660	1.26	616X1738	22100
19.9	1360	0.87	614X1638	16000
19.9	1360	1.58	616X1638	22100

Speed Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
23.9	1130	0.81	613X1538	11100
23.9	1130	1.06	614X1538	16000
23.9	1130	1.90	616X1538	22100
27.6	974	0.85	613X1438	10600
27.6	974	1.23	614X1438	15400
32.8	821	1.12	613X1338	10300
32.8	821	1.56	614X1338	15500
40.3	668	0.96	612X1238	6020
40.3	668	1.37	613X1238	9630
40.3	668	2.09	614X1238	15400
48.6	554	1.16	612X1138	8300
48.6	554	1.63	613X1138	9180
56.4	477	1.32	612X1038	7940
56.4	477	1.92	613X1038	8750
67.1	401	1.04	611X0938	6020
67.1	401	1.60	612X0938	7530
82.9	325	1.30	611X0838	5720
82.9	325	1.89	612X0838	7060
94.0	286	1.30	611X0738	5670
94.0	286	1.97	612X0738	6810
108.5	248	1.30	611X0638	5330
108.5	248	1.97	612X0638	6480
128.2	210	1.31	611X0538	5160
128.2	210	1.97	612X0538	6150
176.3	153	1.31	611X0438	4530
176.3	153	2.32	612X0438	5550
235.0	115	1.31	611X0338	4070
235.0	115	2.32	612X0338	5060
4.0KW				
3.79	9130	0.89	619DAX3546	58600
4.01	8640	0.94	619DAX3446	58600
4.48	7720	1.05	619DAX3246	58600
5.24	6610	1.23	619DAX3046	58600
6.19	5590	0.91	618DBX2846	41700
6.19	5590	1.45	619DAX2846	58600
7.33	4720	1.06	618DBX2646	41700
7.33	4720	1.41	619DAX2646	58600
7.33	4720	1.71	619DBX2646	59000
8.67	3990	0.81	617DCX2346	29500
8.67	3990	1.26	618DBX2346	41700
8.67	3990	2.02	619DBX2346	59000
10.0	3460	0.93	617DCX2246	29500
10.0	3460	1.45	618DBX2246	41700
11.8	2930	1.10	617DCX2146	29500
11.8	2930	1.68	618DBX2146	41700
13.8	2520	0.85	616DCX2046	22100
13.8	2520	1.28	617DCX2046	29500
13.8	2520	1.99	618DBX2046	41700
16.4	2220	0.94	616X1746	21600
20.1	1810	1.18	616X1646	22100
24.2	1510	1.42	616X1546	22100
28.0	1300	0.93	614X1446	14500
28.0	1300	1.65	616X1446	21000
33.3	1100	0.84	613X1346	10100
33.3	1100	1.17	614X1346	15200
33.3	1100	1.95	616X1346	20300
40.9	894	1.03	613X1246	9490
40.9	894	1.57	614X1246	15300
49.3	741	0.87	612X1146	3320
49.3	741	1.22	613X1146	9070
49.3	741	1.88	614X1146	14300
57.2	639	0.98	612X1046	6850
57.2	639	1.44	613X1046	8650
57.2	639	1.98	614X1046	14000
68.1	537	1.20	612X0946	7420
68.1	537	1.68	613X0946	8340
84.1	434	0.98	611X0846	5610
84.1	434	1.42	612X0846	6970
95.3	383	0.98	611X0746	5570
95.3	383	1.48	612X0746	6730
110.0	332	0.98	611X0646	5250
110.0	332	1.48	612X0646	6400
130.0	281	0.98	611X0546	5090
130.0	281	1.48	612X0546	6090
178.8	178	1.12	611X0446	4480
178.8	178	2.00	612X0446	5510
238.3	153	0.98	611X0346	4040
238.3	153	1.74	612X0346	5020
5.5KW				
7.49	6450	1.24	619DBX2654	59000
8.85	5450	0.92	618DBX2354	41700
8.85	5450	1.47	619DBX2354	59000
10.2	4730	1.05	618DBX2254	41700
10.2	4730	1.64	619DBX2254	59000
12.1	4000	1.22	618DBX2154	41700
12.1	4000	1.92	619DBX2154	59000
14.0	3440	1.45	618DBX2054	41700
20.6	2480	0.86	616X1654	22100

Nom. Output Rev/Min	Output Torque Nm	Max Service Factor	Unit Selection	Overhung Load N
24.7	2060	1.03	616X1554	22100
28.6	1780	1.20	616X1454	20800
34.0	1500	0.85	614X1354	13700
34.0	1500	1.42	616X1354	20000
41.7	1220	1.14	614X1254	15000
41.7	1220	1.74	616X1254	18800
50.3	1010	0.89	613X1154	8880
50.3	1010	1.37	614X1154	14200
50.3	1010	2.07	616X1154	17800
58.4	872	1.05	613X1054	8490
58.4	872	1.44	614X1054	13900
69.5	733	1.20	613X0954	8210
69.5	733	1.70	614X0954	13300
85.9	593	1.50	613X0854	7720
97.3	523	1.61	613X0754	7210
112.3	454	1.90	613X0654	7080
132.7	384	2.10	613X0554	6810
182.5	279	2.10	613X0454	5980
243.3	209	2.10	613X0354	5370
7.5KW				
7.49	8670	0.91	619DBX2656	59000
8.85	7330	1.08	619DBX2356	59000
10.2	6360	1.20	619DBX2256	59000
12.1	5380	0.89	618DBX2156	41700
12.1	5380	1.41	619DBX2156	59000
14.0	4620	1.06	618DBX2056	41700
14.0	4620	1.59	619DBX2056	59000
28.6	2390	0.88	616X1456	20400
34.0	2020	1.04	616X1356	19700
41.7	1640	0.84	614X1256	13100
41.7	1640	1.28	616X1256	18600
50.3	1360	1.01	614X1156	14100
50.3	1360	1.52	616X1156	17600
58.4	1170	1.06	614X1056	13800
58.4	1170	1.79	616X1056	16900
69.5	985	0.90	613X0956	8020
69.5	985	1.27	614X0956	13200
69.5	985	2.13	616X0956	16200
85.9	798	1.11	613X0856	7580
85.9	798	1.60	614X0856	12400
85.9	798	2.51	616X0856	15100
97.3	704	1.20	613X0756	7090
97.3	704	1.93	614X0756	11900
112.3	610	1.36	613X0656	6970
112.3	610	2.01	614X0656	11400
132.7	516	1.51	613X0556	6710
132.7	516	2.01	614X0556	11100
182.5	375	1.51	613X0456	5890
182.5	375	2.02	614X0456	9910
243.3	282	1.51	613X0356	5300
243.3	282	2.01	614X0356	8950
11.0KW				
41.7	2410	0.87	616X1266	18100
50.3	2000	1.04	616X1166	17200
58.4	1720	1.22	616X1066	16600
69.5	1450	1.45	616X0966	15900
85.9	1170	1.71	616X0866	14900
97.3	1030	2.04	616X0766	14500
112.3	895	2.08	616X0666	13700
15.0KW				
58.0	2330	0.90	616X1068	16200
69.0	1960	1.07	616X0968	15600
85.3	1580	1.27	616X0868	14600
96.7	1400	1.50	616X0768	14200
112	1210	1.52	616X0668	13500
132	1030	1.61	616X0568	12900
181	746	1.61	616X0468	11400
242	559	1.61	616X0368	10200

Larger power selections are also possible using integrated motors or by means of the alternate IEC adapter detailed on page 369.

Please consult your local authorised distributor for assistance on selections outside the range shown above.

Selection tables show part numbers for the preferred "dry-fit" IEC geared motor option. Please refer to page 372 for coding of alternate mounting configurations.



0.1570 rpm 9,251:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX6748	1180
60	0.12	607TAX6748	1770
200	0.12	609TAX6748	3340
300	0.12	610TAX6748	5400
630	0.18	612TAX6702	6740
940	0.18	613TAX6702	14500
1370	0.18	614TAX6702	16000
2100	0.25	616TAX6706	22100
3150	0.37	617TAX6708	29500
5000	0.37	618TAX6708	41700
7960	0.75	619TBX6718	58400

0.1330rpm rpm 10,933:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX6848	1180
60	0.12	607TAX6848	1770
200	0.12	609TAX6848	3340
300	0.12	610TAX6848	5400
630	0.18	612TAX6802	6740
940	0.18	613TAX6802	14500
1370	0.18	614TAX6802	16000
2100	0.18	616TAX6802	22100
3150	0.37	617TAX6808	29500
5000	0.37	618TAX6808	41700
7960	0.75	619TBX6818	58400

0.1060rpm 13,629:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
57	0.12	607TAX6948	1770
146	0.12	609TAX6948	3340
296	0.12	610TAX6948	5400
630	0.12	612TAX6948	6740
1050	0.18	613TAX6902	14500
1370	0.18	614TAX6902	16000
2100	0.18	616TAX6902	22100
3150	0.37	617TAX6908	29500
5000	0.37	618TAX6908	41700
7960	0.75	619TBX6918	58400

0.0894rpm 16,211:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX7048	1180
60	0.12	607TAX7048	1770
200	0.12	609TAX7048	3340
300	0.12	610TAX7048	5400
630	0.12	612TAX7048	6740
940	0.18	613TAX7002	14500
1370	0.18	614TAX7002	16000
2100	0.18	616TAX7002	22100
3150	0.37	617TAX7008	29500
5000	0.37	618TAX7008	41700
7960	0.75	619TBX7018	58400

0.0713rpm 20,339:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX7148	1180
60	0.12	607TAX7148	1770
200	0.12	609TAX7148	3340
300	0.12	610TAX7148	5400
630	0.12	612TAX7148	6740
940	0.18	613TAX7102	14500
1370	0.18	614TAX7102	16000
2100	0.18	616TAX7102	22100
3150	0.18	617TAX7102	29500
5000	0.37	618TAX7108	41700
7960	0.37	619TAX7108	58400

0.0603rpm 24,037:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX7248	1180
60	0.12	607TAX7248	1770
200	0.12	609TAX7248	3340
300	0.12	610TAX7248	5400
630	0.12	612TAX7248	6740
940	0.18	613TAX7202	14500
1370	0.18	614TAX7202	16000
2100	0.18	616TAX7202	22100
3150	0.18	617TAX7202	29500
5000	0.18	618TAX7202	41700
7960	0.37	619TAX7208	58400

0.520rpm 27,907:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
57	0.12	607TAX7348	1770
146	0.12	609TAX7348	3340
296	0.12	610TAX7348	5400
630	0.12	612TAX7348	6740
1050	0.18	613TAX7302	14500
1370	0.18	614TAX7302	16000
2100	0.18	616TAX7302	22100
3150	0.18	617TAX7302	29500
5000	0.18	618TAX7302	41700
7960	0.37	619TAX7308	58400

0.0461rpm 31,4331: ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX7448	1180
60	0.12	607TAX7448	1770
200	0.12	609TAX7448	3340
300	0.12	610TAX7448	5400
630	0.12	612TAX7448	6740
940	0.18	613TAX7402	14500
1370	0.18	614TAX7402	16000
2100	0.18	616TAX7402	22100
3150	0.18	617TAX7402	29500
5000	0.18	618TAX7402	41700
7960	0.37	619TAX7408	58400

0.379rpm 38,291:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
146	0.12	609TAX7548	3340
296	0.12	610TAX7548	5400
630	0.12	612TAX7548	6740
1050	0.18	613TAX7502	14500
1370	0.18	614TAX7502	16000
2100	0.18	616TAX7502	22100
3150	0.18	617TAX7502	29500
5000	0.18	618TAX7502	41700
7960	0.37	619TAX7508	58400

0.0336rpm 43,129:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
57	0.12	607TAX7648	1770
146	0.12	609TAX7648	3340
296	0.12	610TAX7648	5400
630	0.12	612TAX7648	6740
1050	0.18	613TAX7602	14500
1370	0.18	614TAX7602	16000
2100	0.18	616TAX7602	22100
3150	0.18	617TAX7602	29500
5000	0.18	618TAX7602	41700
7960	0.37	619TAX7608	58400

0.0270rpm 53,621:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX7748	1180
60	0.12	607TAX7748	1770
200	0.12	609TAX7748	3340
300	0.12	610TAX7748	5400
630	0.12	612TAX7748	6740
940	0.18	613TAX7702	14500
1370	0.18	614TAX7702	16000
2100	0.18	616TAX7702	22100
3150	0.18	617TAX7702	29500
5000	0.18	618TAX7702	41700
7960	0.37	619TAX7708	58400

0.0245rpm 59,177:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
146	0.12	609TAX7848	3340
296	0.12	610TAX7848	5400
630	0.12	612TAX7848	6740
1050	0.18	613TAX7802	14500
1370	0.18	614TAX7802	16000
2100	0.18	616TAX7802	22100
3150	0.18	617TAX7802	29500
5000	0.18	618TAX7802	41700
7960	0.37	619TAX7808	58400

0.0197rpm 73,573:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
57	0.12	607TAX7948	1770
146	0.12	609TAX7948	3340
296	0.12	610TAX7948	5400
630	0.12	612TAX7948	6740
1050	0.18	613TAX7902	14500
1370	0.18	614TAX7902	16000
2100	0.18	616TAX7902	22100
3150	0.18	617TAX7902	29500
5000	0.18	618TAX7902	41700
7960	0.37	619TAX7908	58400

0.0182rpm 79,507:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
30	0.12	606TAX8048	1180
60	0.12	607TAX8048	1770
200	0.12	609TAX8048	3340
300	0.12	610TAX8048	5400
630	0.12	612TAX8048	6740
940	0.18	613TAX8002	14500
1370	0.18	614TAX8002	16000
2100	0.18	616TAX8002	22100
3150	0.18	617TAX8002	29500
5000	0.18	618TAX8002	41700
7960	0.18	619TAX8002	58400

0.0133rpm 109,091:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
57	0.12	607TAX8148	1770
146	0.12	609TAX8148	3340
296	0.12	610TAX8148	5400
630	0.12	612TAX8148	6740
1050	0.18	613TAX8102	14500
1370	0.18	614TAX8102	16000
2100	0.18	616TAX8102	22100
3150	0.18	617TAX8102	29500
5000	0.18	618TAX8102	41700
7960	0.18	619TAX8102	58400

0.0097rpm 149,683:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
146	0.12	609TAX8248	3340
296	0.12	610TAX8248	5400
630	0.12	612TAX8248	6740
1050	0.18	613TAX8202	14500
1370	0.18	614TAX8202	16000
2100	0.18	616TAX8202	22100
3150	0.18	617TAX8202	29500
5000	0.18	618TAX8202	41700
7960	0.18	619TAX8202	58400

0.0033rpm 446,571:1 ratio

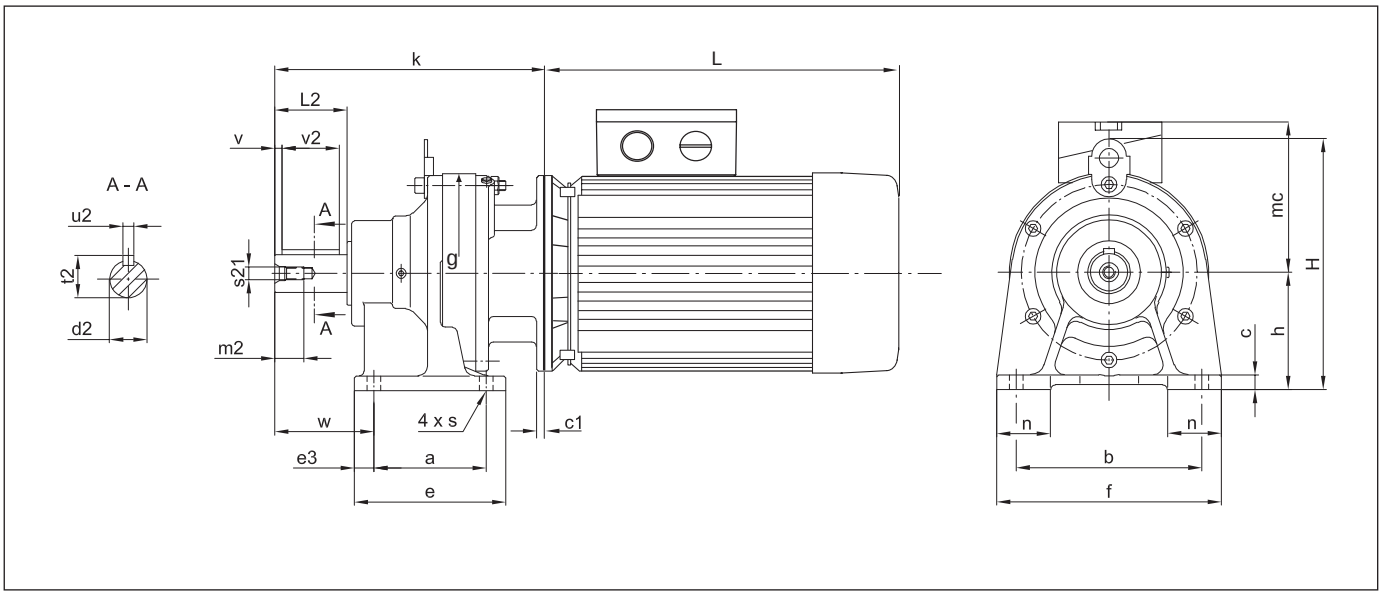
Output Torque	Motor Power	Unit Selection	Overhung Load (N)
630	0.12	612TBX8348	6740
979	0.18	613TBX8302	14500
1250	0.18	614TBX8302	16000
2050	0.18	616TAX8302	22100
3150	0.18	617TAX8302	29500
5000	0.18	618TAX8302	41700
7960	0.18	619TAX8302	58400

0.0022rpm 658,503:1 ratio

Output Torque	Motor Power	Unit Selection	Overhung Load (N)
2050	0.18	616TDX8402	22100
3150	0.18	617TDX8402	29500
5000	0.18	618TCX8402	41700
7960	0.18	619TBX8402	58400

Dimensions (IEC) Foot Mounted

FOOT MOUNTING (TYPE X)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	H	L2	m2	n	s	s21	t2	u2	v	v2	w	Weight ~kg
606	60	120	10	14k6	84	12	144	110	80	-	30	12	48	Ø9	M5	12	5	2.5	25	46	4.5
607	60	120	10	20k6	84	12	144	110	80	-	40	15	48	Ø9	M6	23	6	4	32	57	4.5
608	75	120	13	25k6	99	12	144	134	90	-	50	22	49	Ø9	M10	28	8	3.5	40	67	12
609	90	150	12	25k6	135	15	180	150	100	-	50	22	65	Ø11	M10	28	8	3.5	40	75	12
610	90	150	12	30k6	135	15	180	150	100	-	60	22	40	Ø11	M10	33	8	3.5	50	85	17
611	90	150	12	35k6	135	15	180	162	120	-	70	28	45	Ø11	M12	38	10	7	56	95	20
612	115	190	15	35k6	155	20	230	204	120	257	70	28	55	Ø14	M12	38	10	7	56	97	32
613	145	290	22	50k6	195	25	330	230	150	300	100	36	65	Ø18	M16	54	14	10	80	130	53
614	145	290	22	50k6	195	25	330	230	150	300	100	36	65	Ø18	M16	54	14	10	80	130	54
616	150	370	25	60h6	238	44	410	300	160	367	90	18	75	Ø18	M10	64	18	-	80	139	98

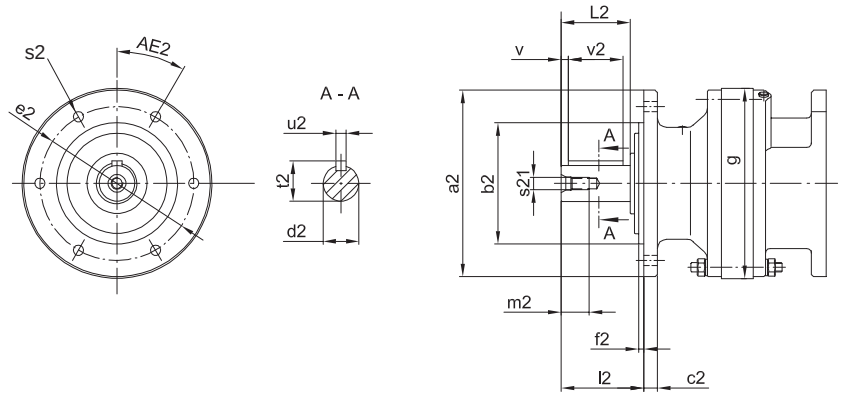
All dimensions are in mm ~ Gearbox kg refers to the approximate weight without motor - see table below for additional motor weight

MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
606	0.12	63K	B5	11	154	192	98	3.5
	0.18	63G	B5	11	154	192	98	4.0
	0.25	71K	B5	11	154	210	126	6.1
607	0.12	63K	B5	11	165	192	98	3.5
	0.18	63G	B5	11	165	192	98	4.0
	0.25	71K	B5	11	165	210	126	6.1
	0.37	71J	B5	11	165	210	126	6.7
608	0.12	63K	B5	11	201	192	98	3.5
	0.18	63G	B5	11	201	192	98	4.0
	0.25	71K	B5	11	206	210	126	6.1
	0.37	71J	B5	11	206	210	126	6.7
	0.55	80K	B5	12	223	255	142	8.9
	0.75	80G	B5	12	223	255	142	9.6
	1.10	90S	B5	12	223	265	160	13.8
609	0.12	63K	B5	11	217	192	98	3.5
	0.18	63G	B5	11	217	192	98	4.0
	0.25	71K	B5	11	217	210	126	6.1
	0.37	71J	B5	11	217	210	126	6.7
	0.55	80K	B5	12	243	255	142	8.9
	0.75	80G	B5	12	243	255	142	9.6
	1.10	90S	B5	13	243	265	160	13.8
	1.50	90L	B5	13	243	290	160	16.5
610	0.25	71K	B5	11	241	210	126	6.1
	0.37	71J	B5	11	241	210	126	6.7
	0.55	80K	B5	13	267	255	142	8.9
	0.75	80G	B5	13	267	255	142	9.6
	1.10	90S	B5	13	267	265	160	13.8
	1.50	90L	B5	13	267	290	160	16.5
	2.20	100L	B14	14	277	325	165	21.5
611	0.37	71J	B5	11	256	210	126	6.7
	0.55	80K	B5	12	278	255	142	8.9
	0.75	80G	B5	12	278	255	142	9.6
	1.10	90S	B5	12	278	265	160	13.8
	1.50	90L	B5	12	278	290	160	16.5
	2.20	100L	B5	14	287	325	165	21.5
	3.00	100Lx	B5	14	287	325	165	25.3
	4.00	112M	B5	14	287	335	188	32.0

Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
612	0.55	80K	B5	13	279	255	142	8.9
	0.75	80G	B5	13	279	255	142	9.6
	1.10	90S	B5	13	279	265	160	13.8
	1.50	90L	B5	13	279	290	160	16.5
	2.20	100L	B5	14	289	325	165	21.5
	3.00	100Lx	B5	14	289	325	165	25.3
	4.00	112M	B5	14	289	335	188	32.0
613	0.75	80G	B5	11	351	255	142	9.6
	1.10	90S	B5	11	351	265	160	13.8
	1.50	90L	B5	11	351	290	160	16.5
	2.20	100L	B5	13	361	325	165	21.5
	3.00	100Lx	B5	13	361	325	165	25.3
	4.00	112M	B5	13	361	335	188	32.0
	5.50	132S	B5	17	387	392	208	47.0
	7.50	132M	B5	17	387	430	208	58.0
614	0.75	80G	B5	11	351	255	142	9.6
	1.10	90S	B5	11	351	265	160	13.8
	1.50	90L	B5	11	351	290	160	16.5
	2.20	100L	B5	13	361	325	165	21.5
	3.00	100Lx	B5	13	361	325	165	25.3
	4.00	112M	B5	13	361	335	188	32.0
	5.50	132S	B5	17	387	392	208	47.0
	7.50	132M	B5	17	387	430	208	58.0
616	2.20	100L	B5	14	394	325	165	21.5
	3.00	100Lx	B5	14	394	325	165	25.3
	4.00	112M	B5	14	394	335	188	32.0
	5.50	132S	B5	16	416	392	208	47.0
	7.50	132M	B5	16	416	430	208	58.0
	11.00	160M	B5	16	452	490	252	125.0
	15.00	160L	B5	16	452	550	252	146.0

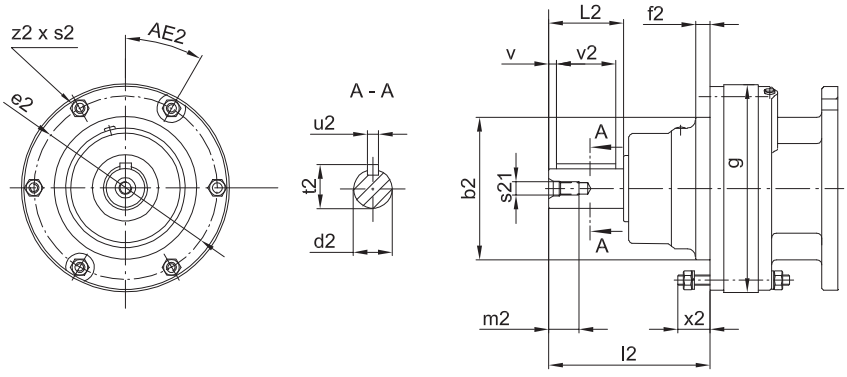
FLANGE MOUNTING (TYPE Y)



All sizes have 6 holes on the flange with the exception of sizes 607, 608, 609 & 610 which have 4.

Unit Size	Ø a2	Ø b2	c2	Ø d2	Ø e2	f2	Ø g	l2	L2	m2	s2	s21	t2	u2	v	v2	AE2	kg
606	120	80 j6	8	14k6	100	3	110	39	30	12	9	M5	16.0	5	2.5	25	30°	5.5
607	160	110 j6	9	20k6	130	3	110	52	40	15	11	M6	22.5	6	4.0	32	45°	6.5
608	160	110 j6	9	25k6	130	3	134	63	50	22	11	M10	28.0	8	3.5	40	45°	13
609	160	110 j6	9	25k6	130	3	150	63	50	22	11	M10	28.0	8	3.5	40	45°	13
610	160	110 j6	9	30k6	130	3	150	73	60	22	11	M10	33.0	8	3.5	50	45°	15
611	200	130 j6	11	35k6	165	4	162	83	70	28	11	M12	38.0	10	7.0	56	30°	18
612	200	130 j6	13	35k6	165	4	204	84	70	28	11	M12	38.0	10	7.0	56	30°	31
613	260	200 f8	15	50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	0°	52
614	260	200 f8	15	50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	0°	53
616	340	270 f8	20	60h6	310	4	300	89	90	18	11	M10	64.0	18	0	80	0°	95

FACE MOUNTING (TYPE Z)



Unit Size	Øb2	Ød2	Øe2	f2	Øg	l2	L2	m2	s2	s21	t2	u2	v	v2	x2	z2	AE2	kg
606	80 g6	14k6	98	4	110	73	30	12	M6	M5	16.0	5	2.5	25	21	6	0°	5
607	80 g6	20k6	98	4	110	84	40	15	M6	M6	22.5	6	4.0	32	21	6	0°	5
608	95 g6	25k6	118	5	134	106	50	22	M8	M10	28.0	8	3.5	40	27	8	22.5°	12
609	105 g6	25k6	134	6	150	129	50	22	M8	M10	28.0	8	3.5	40	29	8	22.5°	12
610	105 g6	30k6	134	6	150	139	60	22	M8	M10	33.0	8	3.5	50	28	8	22.5°	14
611	115 g6	35k6	146	6	162	143	70	28	M8	M12	38.0	10	7.0	56	28	8	22.5°	16
612	140 g6	35k6	180	14	204	154	70	28	M10	M12	38.0	10	7.0	56	30	6	0°	28
613	165 g6	50k6	205	16	230	208	100	36	M10	M16	53.5	14	10	80	31	6	0°	47
614	165 g6	50k6	205	16	230	208	100	36	M10	M16	53.5	14	10	80	31	6	0°	48
616	200 g6	60h6	270	10	300	222	90	18	M12	M10	64.0	18	-	80	35	6	30°	84

TECHNICAL NOTES

Tolerances according to DIN ISO 286 part 2.

Keys and keyways according to DIN 6885

MOUNTING POSTIONS

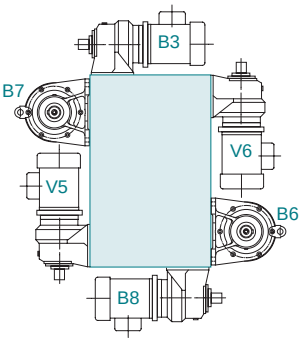
Foot mounted and Flange mounted units from size 606 - 612 are grease lubricated for life and suitable for any mounting position.

Units from size 613 - 616 are oil lubricated for Horizontal and vertical mounting.

Size 616 requires an additional oil pump and circulating pipe when used in the vertical position - please consult your local Authorised Distributor.

Size 613-616 Flange mounted units use special Ring Gear Housings.

FOOT MOUNTED



HORIZONTAL MOUNTING

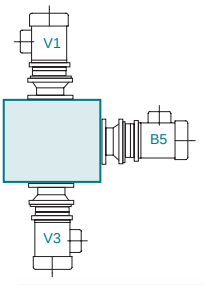
Approximate oil quantity (litres)

	B3	B6	B7	B8
613	0.7	0.7	0.7	0.7
614	0.7	0.7	0.7	0.7
616	1.4	1.4	1.4	1.4

VERTICAL MOUNTING

	V5	V6
613 614 616	Please consult your local Authorised Distributor	

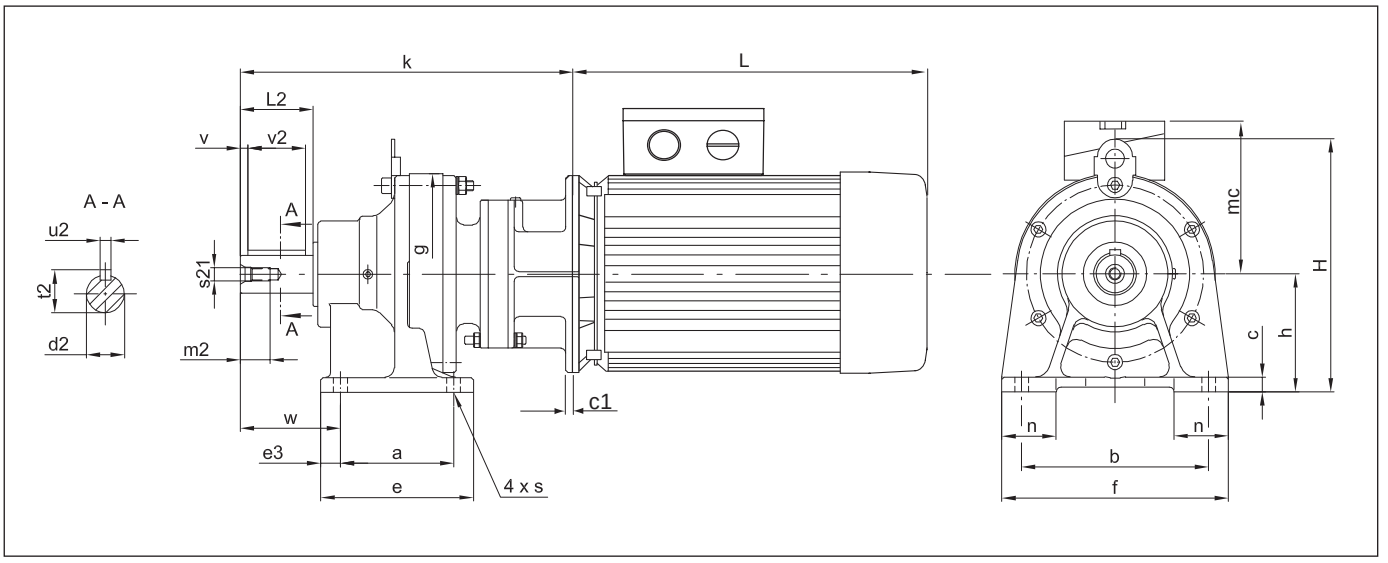
FLANGE MOUNTED



	B5	V1	V3
613 614 616	Please consult your local Authorised Distributor		

Dimensions (IEC) - Foot Mounted

FOOT MOUNTING (TYPE DAX / DBX / DCX)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	H	L2	m2	n	s	s21	t2	u2	v	v2	w	Weight ~kg
606DA	60	120	10	14k6	84	12	144	110	80	-	30	12	48	9	M5	16	5	2.5	25	46	6
607DA	60	120	10	20k6	84	12	144	110	80	-	40	15	48	9	M6	23	6	4	32	57	7
609DA	90	150	12	25k6	135	15	180	150	100	-	50	22	65	11	M10	28	8	3.5	40	75	14
610DA	90	150	12	30k6	135	15	180	150	100	-	60	22	40	11	M10	33	8	3.5	50	85	17
612DA	115	190	15	35k6	155	20	230	204	120	257	70	28	55	14	M12	38	10	7	56	97	28
612DB	115	190	15	35k6	155	20	230	204	120	257	70	28	55	14	M12	38	10	7	56	97	34
613DB	145	290	22	50k6	195	25	330	230	150	300	100	36	65	18	M16	53.5	14	10	80	130	50
613DC	145	290	22	50k6	195	25	330	230	150	300	100	36	65	18	M16	53.5	14	10	80	130	50
614DC	145	290	22	50k6	195	25	330	230	150	300	100	36	65	18	M16	53.5	14	10	80	130	50
616DB	150	370	25	60h6	238	44	410	300	160	353	90	18	75	18	M10	64	18	0	80	139	90
616DC	150	370	25	60h6	238	44	410	300	160	353	90	18	75	18	M10	64	18	0	80	139	100
617DC	275	380	30	70h6	335	30	430	340	200	418	90	24	80	22	M12	74.5	20	0	80	125	133
618DB	320	420	30	80h6	380	30	470	370	220	451	110	24	85	22	M12	85	22	0	100	145	190
619DA	380	480	35	95h6	440	30	530	430	250	531	135	34	90	26	M20	100	25	0	125	170	250
619DB	380	480	35	95h6	440	30	530	430	250	531	135	34	90	26	M20	100	25	0	125	170	260

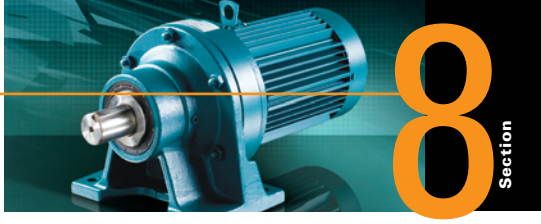
All dimensions are in mm

~ Gearbox kg refers to the approximate weight without motor - see table below for additional motor weight

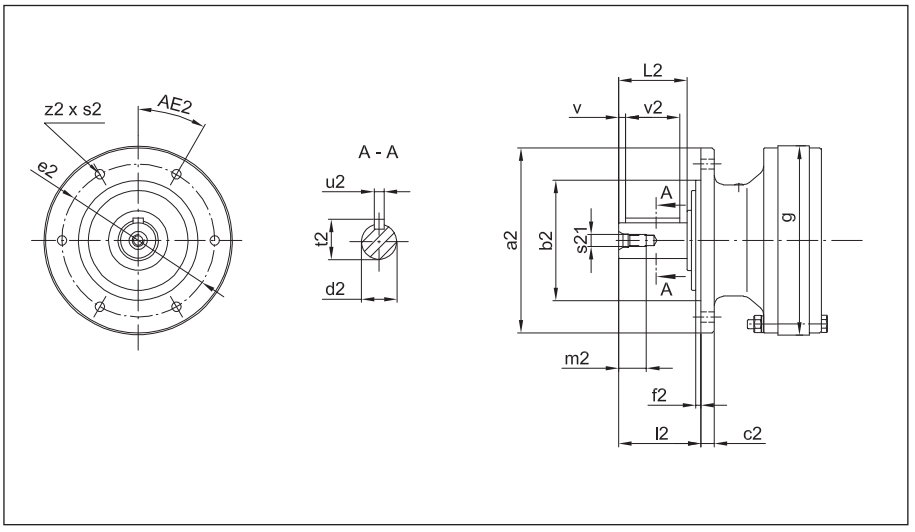
MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
606DA	0.12	63K	B5	11	188	192	98	3.5
	0.18	63G	B5	11	188	192	98	4.0
607DA	0.12	63K	B5	11	199	192	98	3.5
	0.18	63G	B5	11	199	192	98	4.0
609DA	0.12	63K	B5	11	263	192	98	3.5
	0.18	63G	B5	11	263	192	98	4.0
	0.25	71K	B5	11	263	210	126	6.1
	0.37	71J	B5	11	263	210	126	6.7
610DA	0.12	63K	B5	11	287	192	98	3.5
	0.18	63G	B5	11	287	192	98	4.0
	0.25	71K	B5	11	287	210	126	6.1
	0.37	71J	B5	11	287	210	126	6.7
612DA	0.12	63K	B5	11	313	192	98	3.5
	0.18	63G	B5	11	313	192	98	4.0
	0.25	71K	B5	11	313	210	126	6.1
	0.37	71J	B5	11	313	210	126	6.7
612DB	0.25	71K	B5	11	327	210	126	6.1
	0.37	71J	B5	11	327	210	126	6.7
	0.55	80K	B5	12	353	255	142	8.9
	0.75	80G	B5	12	353	255	142	9.6
	1.1	90S	B5	12	353	265	160	13.8
	1.5	90L	B5	12	353	290	160	16.5
613DB	0.12	63K	B5	11	393	192	98	3.5
	0.18	63G	B5	11	393	192	98	4.0
	0.25	71K	B5	11	393	210	126	6.1
	0.37	71J	B5	11	393	210	126	6.7
	0.55	80K	B5	12	419	255	142	8.9
	0.75	80G	B5	12	419	255	142	9.6
	1.1	90S	B5	12	419	265	160	13.8
	1.5	90L	B5	12	419	290	160	16.5
614DC	0.25	71K	B5	11	407	210	126	6.1
	0.37	71J	B5	11	407	210	126	6.7
	0.55	80K	B5	12	433	255	142	8.9
	0.75	80G	B5	12	433	255	142	9.6
	1.1	90S	B5	12	433	265	160	13.8

Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
614DC	1.50	90L	B5	12	433	290	160	16.5
	2.20	100L	B5	14	433	325	165	21.5
	3.0	100Lx	B5	14	433	325	165	25.3
616DB	0.55	80K	B5	12	473	255	142	8.9
	0.75	80G	B5	12	473	255	142	9.6
	1.10	90S	B5	12	473	265	160	13.8
	1.50	90L	B5	12	473	290	160	16.5
	2.20	100L	B5	14	483	325	165	21.5
	3.0	100Lx	B5	14	483	325	165	25.3
616DC	2.20	100L	B5	14	478	325	165	21.5
	3.0	100Lx	B5	14	478	325	165	25.3
	4.0	112M	B5	14	478	335	188	32.0
617DC	0.55	80K	B5	13	515	255	142	8.9
	0.75	80G	B5	13	515	255	142	9.6
	1.10	90S	B5	13	515	265	160	13.8
	1.50	90L	B5	13	515	290	160	16.5
	2.20	100L	B5	14	525	325	165	21.5
	3.0	100Lx	B5	14	525	325	165	25.3
	4.0	112M	B5	14	525	335	188	32.0
618DB	0.75	80G	B5	11	577	255	142	9.6
	1.10	90S	B5	11	577	265	160	13.8
	1.50	90L	B5	11	577	290	160	16.5
	2.20	100L	B5	13	587	325	165	21.5
	3.0	100Lx	B5	13	587	325	165	25.3
	4.0	112M	B5	13	587	335	188	32.0
	5.50	132S	B5	17	613	392	208	47.0
	7.50	132M	B5	17	613	430	208	58.0
619DA	1.10	90S	B5	13	635	265	160	13.8
	1.50	90L	B5	13	635	290	160	16.5
	2.20	100L	B5	14	645	325	165	21.5
	3.0	100Lx	B5	14	645	325	165	25.3
	4.0	112M	B5	14	645	335	188	32.0
619DB	4.0	112M	B5	13	663	335	188	32.0
	5.50	132S	B5	17	689	392	208	47.0
	7.50	132M	B5	17	689	430	208	58.0

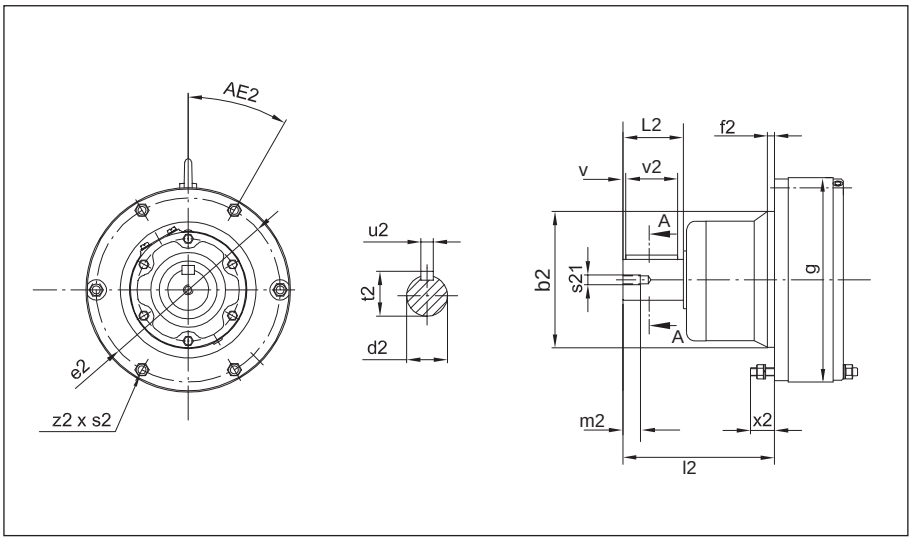


FLANGE MOUNTING (TYPE DAY / DBY / DCY)



Unit Size	Ø a2	Ø b2	c2	Ø d2	Ø e2	f2	Ø g	l2	L2	m2	s2	s21	t2	u2	v	v2	z2	AE2
606DA	120	80 j6	8	14k6	100	3	110	39	30	12	9	M5	16.0	5	2.5	25	6	30°
607DA	160	110 j6	9	20k6	130	3	110	52	40	15	11	M6	22.5	6	4.0	32	6	45°
609DA	160	110 j6	9	25k6	130	3	150	63	50	22	11	M10	28.0	8	3.5	40	8	45°
610DA	160	110 j6	9	30k6	130	3	150	73	60	22	11	M10	33.0	8	3.5	50	8	45°
612D_	200	130 j6	13	35k6	165	4	204	84	70	28	11	M12	38.0	10	7.0	56	6	30°
613D_	260	200 f8	15	50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	6	0°
614D_	260	200 f8	15	50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	6	0°
616D_	340	270 f8	20	60h6	310	4	300	89	90	18	11	M10	64.0	18	0	80	6	0°
617D_	400	316 f8	22	70h6	360	5	340	94	243	24	14	M12	74.5	20	0	80	8	22.5°
618D_	430	345 f8	22	80h6	390	5	370	110	258	24	18	M12	85.0	22	0	100	8	22.5°
619D_	490	400 f8	30	95h6	450	6	430	145	284	34	18	M20	100	25	0	125	12	15°

FACE MOUNTING (TYPE DAZ / DBZ / DCZ)



Unit Size	Øb2	Ød2	Øe2	f2	Øg	l2	L2	m2	s2	s21	t2	u2	v	v2	x2	z2	AE2
606 DA	80 g6	14 k6	98	4	110	73	30	12	M6	M5	16.0	5	2.5	25	22	6	0°
607 DA	80 g6	20 k6	98	4	110	84	40	15	M6	M6	22.5	6	4.0	32	22	6	0°
609 DA	105 g6	25 k6	134	6	150	129	50	22	M8	M10	28.0	8	3.5	40	25	8	22.5°
610 DA	105 g6	30 k6	134	6	150	139	60	22	M8	M10	33.0	8	3.5	50	26	8	22.5°
612 D_	140 g6	35 k6	180	14	204	154	70	28	M10	M12	38.0	10	7.0	56	30	6	0°
613 D_	165 g6	50 k6	205	16	230	208	100	36	M10	M16	53.5	14	10.0	80	31	6	0°
614 D_	165 g6	50 k6	205	16	230	208	100	36	M10	M16	53.5	14	10.0	80	31	6	0°
616 D_	200 g6	60 h6	270	10	300	222	90	18	M12	M10	64.0	18	0	80	36	6	30°
617 D_	250 g6	70 h6	300	12	340	262	90	24	M12	M12	74.5	20	0	80	41	8	22.5°
618 D_	280 g6	80 h6	330	12	370	299	110	24	M12	M12	85.0	22	0	100	42	8	22.5°
619 D_	320 g6	95 h6	380	10	430	365	135	34	M12	M20	100	25	0	125	41	12	15°

TECHNICAL NOTES

Tolerances according to DIN ISO 286 part 2.

Key and keyways according to DIN 6885.

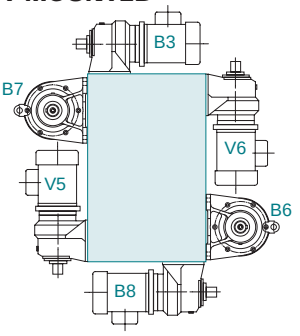
MOUNTING POSTIONS

Foot mounted units from size 606DA - 612DB are grease lubricated for life and suitable for any mounting position.

Other sizes are either grease or oil lubricated based upon mounting position - typically, Horizontally mounted units up to 616DB are grease lubricated and larger units are oil lubricated.

Vertical mounted units are grease lubricated with the exclusion of 616DC - 619DB that use special oil lubrication systems.

FOOT MOUNTED



HORIZONTAL MOUNTING

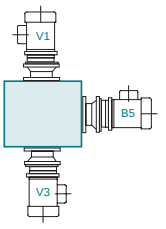
Approximate oil quantity (litres)

	B3	B6	B7	B8
616DC	0.7	0.7	0.7	Consult your local Authorised Distributor
617DC	0.7	0.7	0.7	
618DB	1.4	1.4	1.4	
619DA	5.8	5.8	5.8	
619DB	6.0	6.0	6.0	

VERTICAL MOUNTING

	V5	V6	Ratios Applicable
616DC	Consult your local Authorised Distributor	Consult your local Authorised Distributor	<473:1
617DC			<841:1
618DC			<1015:1
619DA			<2065:1
619DB			<2065:1

FLANGE MOUNTED

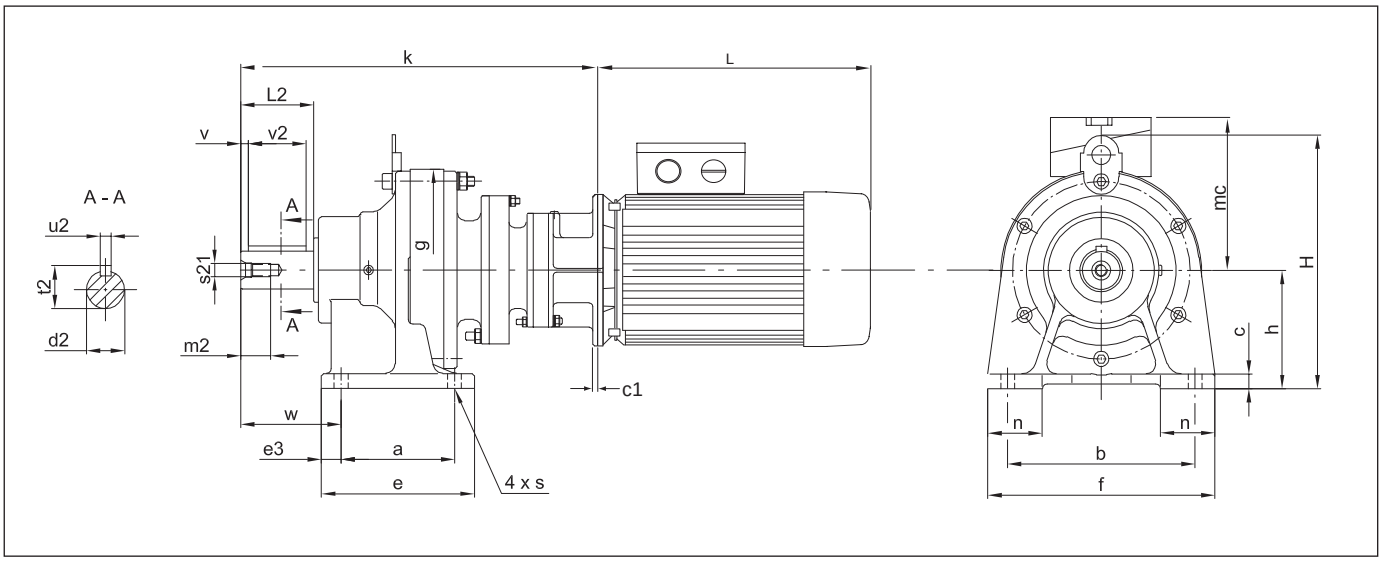


	B5	V1	V3
616DC 617DC 618DC 619DA 619DB	Please consult your local Authorised Distributor		

Specially modified ring gear housing is required

Dimensions (IEC) - Foot Mounted

FOOT MOUNTING (TYPE TAX / TBX / TCX / TDX)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	H	L2	m2	n	s	s21	t2	u2	v	v2	w	Weight ~kg
606TA	60	120	10	14 k6	84	12	144	110	80	-	30	12	48	9	M5	16	5	2.5	25	46	8.0
607TA	60	120	10	20 k6	84	12	144	110	80	-	40	15	48	9	M6	23	6	4	32	57	9.0
609TA	90	150	12	25 k6	135	15	180	150	100	-	50	22	65	11	M10	28	8	3.5	40	75	16.0
610TA	90	150	12	30 k6	135	15	180	150	100	-	60	22	40	11	M10	33	8	3.5	50	85	18.0
612TA	115	190	15	35 k6	155	20	230	204	120	257	70	28	55	14	M12	38	10	7	56	97	30.0
612TB	115	190	15	35 k6	155	20	230	204	120	257	70	28	55	14	M12	38	10	7	56	97	36.0
613TA	145	290	22	50 k6	195	25	330	230	150	300	100	36	65	18	M16	54	14	10	80	130	50.0
613TB	145	290	22	50 k6	195	25	330	230	150	300	100	36	65	18	M16	54	14	10	80	130	52.0
614TA	145	290	22	50 k6	195	25	330	230	150	300	100	36	65	18	M16	54	14	10	80	130	50.0
614TB	145	290	22	50 k6	195	25	330	230	150	300	100	36	65	18	M16	54	14	10	80	130	52.0
616TA	150	370	25	60 h6	238	44	410	300	160	367	90	18	75	18	M10	64	18	0	80	139	84.0
616TD	150	370	25	60 h6	238	44	410	300	160	367	90	18	75	18	M10	64	18	0	80	139	103
617TA	275	380	30	70 h6	335	30	430	340	200	429	90	24	80	22	M12	74.5	20	0	80	125	125
617TD	275	380	30	70 h6	335	30	430	340	200	429	90	24	80	22	M12	74.5	20	0	80	125	137
618TA	320	420	30	80 h6	380	30	470	370	220	467	110	24	85	22	M12	85	22	0	100	145	178
618TC	320	420	30	80 h6	380	30	470	370	220	467	110	24	85	22	M12	85	22	0	100	145	192
619TA	380	480	35	95 h6	440	30	530	430	250	538	135	34	90	26	M20	100	25	0	125	170	255
619TB	380	480	35	95 h6	440	30	530	430	250	538	135	34	90	26	M20	100	25	0	125	170	262

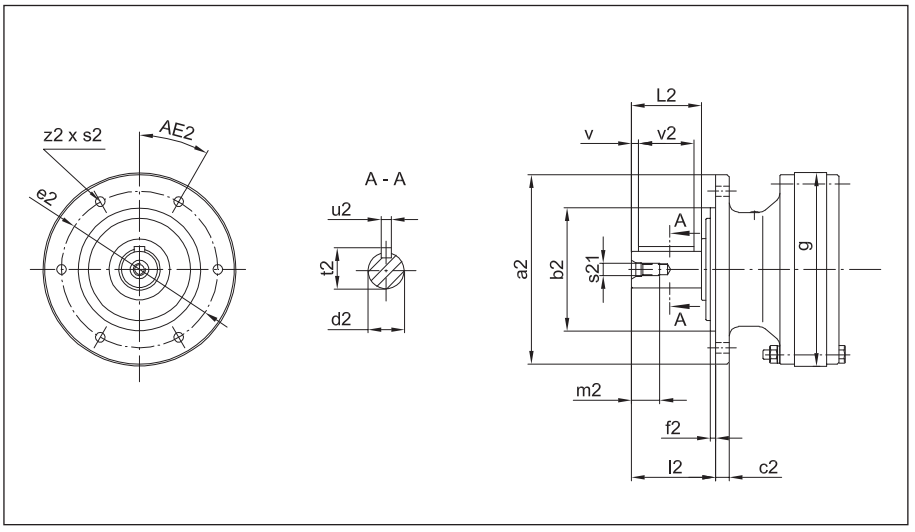
All dimensions are in mm ~ Gearbox kg refers to the approximate weight without motor - see table below for additional motor weight

MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
606TA	0.12	63K	B5	11	222	192	98	3.5
607TA	0.12	63K	B5	11	233	192	98	3.5
609TA	0.12	63K	B5	11	297	192	98	3.5
610TA	0.12	63K	B5	11	321	192	98	3.5
612TA	0.12	63K	B5	11	347	192	98	3.5
	0.18	63G	B5	11	347	192	98	4
612TB	0.12	63K	B5	11	373	192	98	3.5
613TA	0.18	63G	B5	11	375	192	98	4
613TB	0.18	63G	B5	11	439	192	98	4
614TA	0.18	63G	B5	11	375	192	98	4
614TB	0.18	63G	B5	11	439	192	98	4

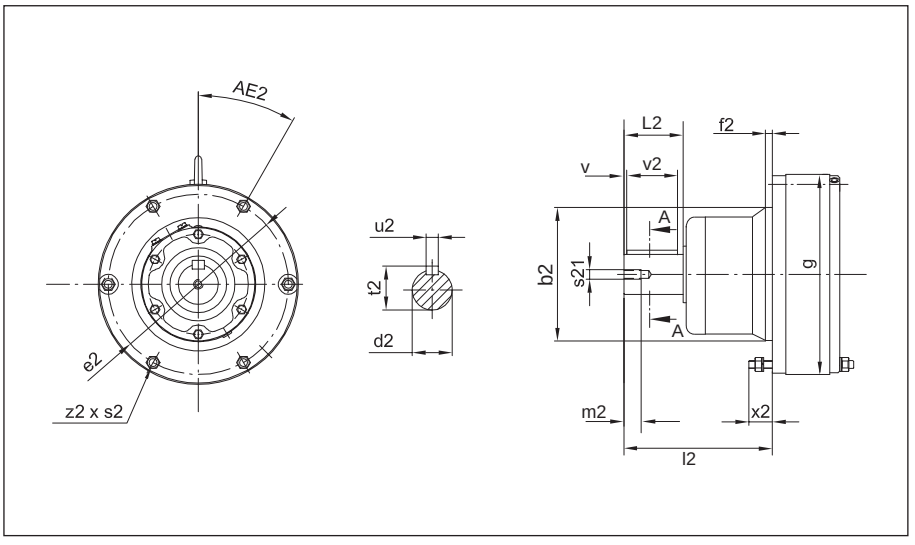
Unit Size	kW	Frame	IEC	c1	k	L	mc	Motor kg
616TA	0.18	63G	B5	11	469	192	98	4
	0.25	71K	B5	11	469	210	126	6.1
616TD	0.18	63G	B5	11	542	192	98	4
617TA	0.18	63G	B5	11	516	192	98	4
	0.37	71J	B5	11	516	210	126	6.7
617TD	0.18	63G	B5	11	589	192	98	4
618TA	0.18	63G	B5	11	539	192	98	4
	0.37	71J	B5	11	539	210	126	6.7
618TC	0.18	63G	B5	11	661	192	98	4
619TA	0.18	63G	B5	11	681	192	98	4
	0.37	71J	B5	11	681	210	126	6.7
619TB	0.18	63G	B5	11	737	192	98	4
	0.75	80G	B5	11	737	255	142	9.6

FLANGE MOUNTING (TYPE TAY / TBY / TCY / TDY)



Unit Size	Ø a2	Ø b2	c2	Ø d2	Ø e2	f2	Ø g	l2	L2	m2	s2	s21	t2	u2	v	v2	z2	AE2
606TA	120	80 j6	8	Ø14k6	100	3	110	39	30	12	9	M5	16.0	5	2.5	25	6	30°
607TA	160	110 j6	9	Ø20k6	130	3	110	52	40	15	11	M6	22.5	6	4.0	32	6	45°
609TA	160	110 j6	9	Ø25k6	130	3	150	63	50	22	11	M10	28.0	8	3.5	40	8	45°
610TA	160	110 j6	9	Ø30k6	130	3	150	73	60	22	11	M10	33.0	8	3.5	50	8	45°
612T_	200	130 j6	13	Ø35k6	165	4	204	84	70	28	11	M12	38.0	10	7.0	56	8	30°
613T_	260	200 f8	15	Ø50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	6	0°
614T_	260	200 f8	15	Ø50k6	230	4	230	106	100	36	11	M16	53.5	14	10	80	6	0°
616T_	340	270 f8	20	Ø60h6	310	4	300	89	90	18	11	M10	64.0	18	0	80	6	0°
617T_	400	316 f8	22	Ø70h6	360	5	340	94	243	24	14	M12	74.5	20	0	80	8	22.5°
618T_	430	345 f8	22	Ø80h6	390	5	370	110	258	24	18	M12	85.0	22	0	100	8	22.5°
619T_	490	400 f8	30	Ø95h6	450	6	430	145	284	34	18	M20	100	25	0	125	12	15°

FACE MOUNTING (TYPE TAZ / TBZ / TCZ /TDZ)



Unit Size	Øb2	Ød2	Øe2	f2	Øg	l2	L2	m2	s2	s21	t2	u2	v	v2	x2	z2	AE2
606 TA	80 g6	14 k6	98	4	110	73	30	12	M6	M5	16.0	5	2.5	25	22	6	0°
607 TA	80 g6	20 k6	98	4	110	84	40	15	M6	M6	22.5	6	4.0	32	22	6	0°
609 TA	105 g6	25 k6	134	6	150	129	50	22	M8	M10	28.0	8	3.5	40	25	8	22.5°
610 TA	105 g6	30 k6	134	6	150	139	60	22	M8	M10	33.0	8	3.5	50	26	8	22.5°
612 T_	140 g6	35 k6	180	14	204	154	70	28	M10	M12	38.0	10	7.0	56	30	6	0°
613 T_	165 g6	50 k6	205	16	230	208	100	36	M10	M16	53.5	14	10.0	80	31	6	0°
614 T_	165 g6	50 k6	205	16	230	208	100	36	M10	M16	53.5	14	10.0	80	31	6	0°
616 T_	200 g6	60 h6	270	10	300	222	90	18	M12	M10	64.0	18	0	80	36	6	30°
617 T_	250 g6	70 h6	300	12	340	262	90	24	M12	M12	74.5	20	0	80	41	8	22.5°
618 T_	280 g6	80 h6	330	12	370	299	110	24	M12	M12	85.0	22	0	100	42	8	22.5°
619 T_	320 g6	95 h6	380	10	430	365	135	34	M12	M20	100	25	0	125	41	12	15°

TECHNICAL NOTES

Tolerances according to DIN ISO 286 part 2.

Key and keyways according to DIN 6885.

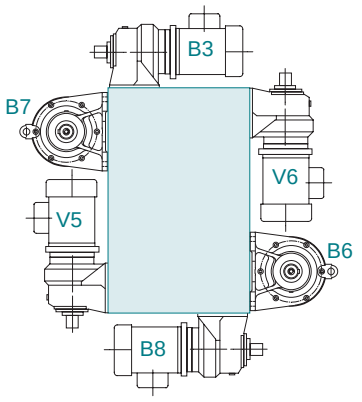
MOUNTING POSTIONS

All Three-stage CYCLO units are grease lubricated.

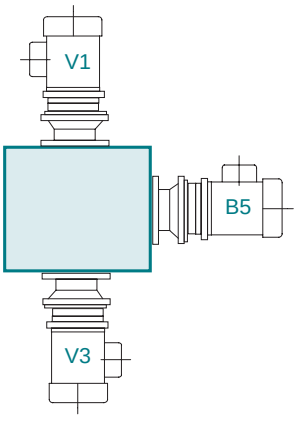
Size 606TA - 612TB are suitable for all mounting positions and are maintenance free.

Sizes 613TA and above are also grease lubricated for all mounting positions but on units mounted vertically, the gearheads have double sealing on the output and shielded bearings.

FOOT MOUNTED

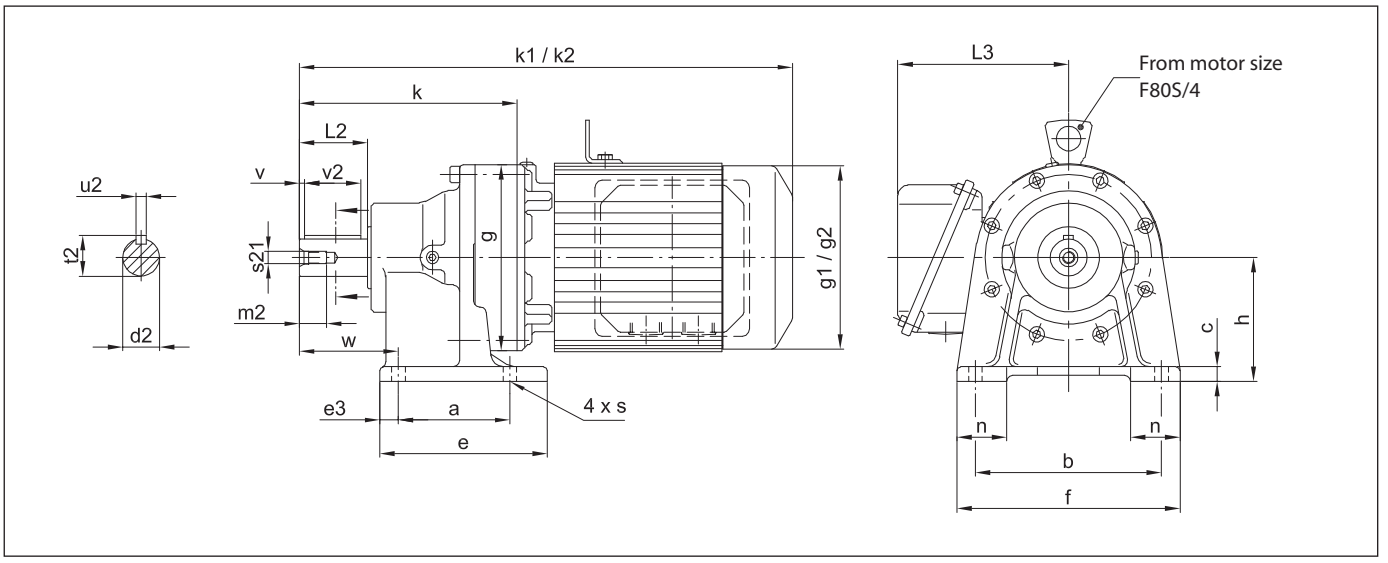


FLANGE MOUNTED



Dimensions (Integrated Motor) - Foot Mounted

FOOT MOUNTING (TYPE A)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	k	L2	m2	n	Øs	s21	t2	u2	v	v2	w
606	60	120	10	14k6	84	12	144	110	80	97	30	12	48	9	M5	16	5	2.5	25	46
607	60	120	10	20k6	84	12	144	110	80	108	40	51	48	9	M6	23	6	4	32	57
608	75	120	13	25k6	99	12	144	134	90	144	50	22	49	9	M10	28	8	3.5	40	67
609	90	150	12	25k6	135	15	180	150	100	157	50	22	65	11	M10	28	8	3.5	40	75
610	90	150	12	30k6	135	15	180	150	100	181	60	22	40	11	M10	33	8	3.5	50	85
611	90	150	12	35k6	135	15	180	162	120	195	70	28	45	11	M12	38	10	7	56	95
612	115	190	15	35k6	155	20	230	204	120	201	70	28	55	14	M12	38	10	7	56	97
613	145	290	22	50k6	195	25	330	230	150	270	100	36	65	18	M16	54	14	10	80	130
614	145	290	22	50k6	195	25	330	230	150	270	100	36	65	18	M16	54	14	10	80	130
616	150	370	25	60h6	238	44	410	300	160	308	90	18	75	18	M10	64	18	0	80	139

All dimensions are in mm

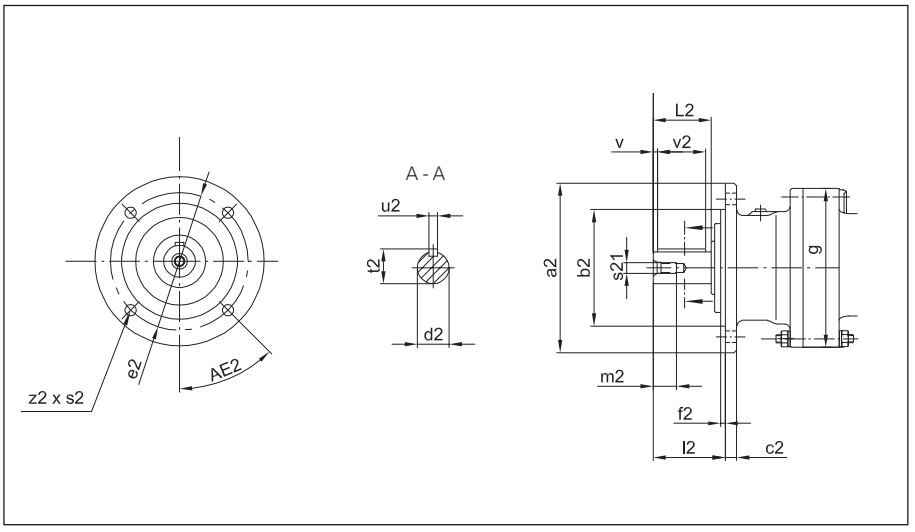
Units from size 612 have a lifting eye fitted to the gearhead rather than the motor - please consult your local authorised distributor.

MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

Unit Size	kW	Frame	Standard			Braked			L3
			Øg1	k1	kg	Øg2	k2	kg	
606	0.12	F63S/4	119	259	6	124	266	7	128
	0.18	F63M/4	124	277	7	124	305	8	128
	0.25	F63M/4	124	277	7	124	305	8	128
607	0.12	F63S/4	119	270	6	124	277	7	128
	0.18	F63M/4	124	288	7	124	316	8	128
	0.25	F63M/4	124	288	7	124	316	8	128
	0.37	F71M/4	124	308	8	124	336	9	128
608	0.12	F63S/4	119	301	9	124	308	10	128
	0.18	F63M/4	124	319	10	124	347	11	128
	0.25	F63M/4	124	319	10	124	347	11	128
	0.37	F71M/4	124	339	12	124	367	13	128
	0.55	F80S/4	148	376	16	148	419	17	138
	0.75	F80M/4	148	376	16	148	419	17	138
609	0.12	F63S/4	119	318	11	124	326	13	128
	0.18	F63M/4	124	336	12	124	365	14	128
	0.25	F63M/4	124	336	12	124	365	14	128
	0.37	F71M/4	124	356	13	124	385	15	128
	0.55	F80S/4	148	394	17	148	437	20	138
	0.75	F80M/4	148	394	17	148	437	20	138
	1.1	F90S/4	160	427	20	160	489	25	143
	1.5	F90L/4	160	427	20	160	489	25	143
610	0.18	F63M/4	124	360	18	124	389	19	128
	0.25	F63M/4	124	360	18	124	389	19	128
	0.37	F71M/4	124	380	19	124	409	20	128
	0.55	F80S/4	148	418	22	148	461	25	138
	0.75	F80M/4	148	418	22	148	461	25	138
	1.1	F90S/4	160	451	26	160	513	31	143
	1.5	F90L/4	160	451	26	160	513	31	143
	2.2	F100L/4	173	471	30	173	534	36	150
611	0.37	F71M/4	124	391	19	124	419	20	128
	0.55	F80S/4	148	428	22	148	471	25	138
	0.75	F80M/4	148	428	22	148	471	25	138
	1.1	F90S/4	160	461	25	160	523	30	143
	1.5	F90L/4	160	461	25	160	523	30	143
	2.2	F100L/4	173	481	29	173	544	35	150
	3.0	F112S/4	212	516	39	212	588	49	166
	4.0	F112M/4	212	516	39	212	588	49	166

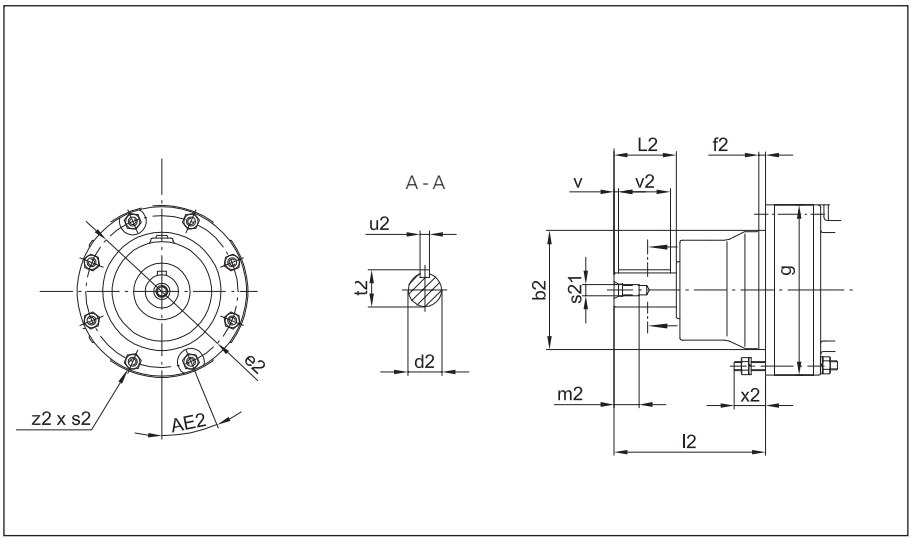
Unit Size	kW	Frame	Standard			Braked			L3
			Øg1	k1	kg	Øg2	k2	kg	
612	0.37	F71M/4	124	406	29	124	434	31	128
	0.55	F80S/4	148	438	31	148	481	33	138
	0.75	F80M/4	148	438	31	148	481	33	138
	1.1	F90S/4	160	471	35	160	533	40	143
	1.5	F90L/4	160	471	35	160	533	40	143
	2.2	F100L/4	173	491	39	173	554	46	150
	3.0	F112S/4	212	514	49	212	586	59	166
	4.0	F112M/4	212	514	49	212	586	59	166
	5.5	F132S/4	212	558	56	212	630	66	166
613	0.75	F80M/4	148	507	50	148	550	53	138
	1.1	F90S/4	160	540	54	160	602	59	143
	1.5	F90L/4	160	540	54	160	602	59	143
	2.2	F100L/4	173	560	57	173	623	64	150
	3.0	F112S/4	212	583	67	212	655	77	166
	4.0	F112M/4	212	583	67	212	655	77	166
	5.5	F132S/4	212	627	74	212	699	84	166
	7.5	F132M/4	251	650	89	251	745	107	211
	11.0	F160M/4	251	710	103	251	805	120	211
614	0.75	F80M/4	148	507	51	148	550	54	138
	1.1	F90S/4	160	540	55	160	602	60	143
	1.5	F90L/4	160	540	55	160	602	60	143
	2.2	F100L/4	173	560	58	173	623	65	150
	3.0	F112S/4	212	583	68	212	655	78	166
	4.0	F112M/4	212	583	68	212	655	78	166
	5.5	F132S/4	212	627	75	212	699	85	166
	7.5	F132M/4	251	650	90	251	745	108	211
	11.0	F160M/4	251	710	103	251	805	121	211
	15.0	G160L/4	323	800	155	323	890	188	261
616	1.5	F90L/4	160	583	93	160	645	98	143
	2.2	F100L/4	173	598	96	173	661	102	150
	3.0	F112S/4	212	621	105	212	693	115	166
	4.0	F112M/4	212	621	105	212	693	115	166
	5.5	F132S/4	212	665	112	212	737	122	166
	7.5	F132M/4	251	693	128	251	788	145	211
	11.0	F160M/4	251	753	142	251	848	159	211
	15.0	G160L/4	232	838	195	323	928	228	261

FLANGE MOUNTING (TYPE B)



Unit Size	Ø a2	Ø b2	c2	Ø d2	Ø e2	f2	Ø g	l2	L2	m2	s2	s21	t2	u2	v	v2	z2	AE2
606	120	80 j6	8	Ø14k6	100	3	Ø110	39	30	12	9	M5	16.0	5	2.5	25	6	30°
607	160	110 j6	9	Ø20k6	130	3	Ø110	52	40	15	11	M6	22.5	6	4.0	32	6	45°
608	160	110 j6	9	Ø25k6	130	3	Ø134	63	50	22	11	M10	28.0	8	3.5	40	8	45°
609	160	110 j6	9	Ø25k6	130	3	Ø150	63	50	22	11	M10	28.0	8	3.5	40	8	45°
610	160	110 j6	9	Ø30k6	130	3	Ø150	73	60	22	11	M10	33.0	8	3.5	50	8	45°
611	200	130 j6	11	Ø35k6	165	4	Ø162	83	70	28	11	M12	38.0	10	7.0	56	8	30°
612	200	130 j6	13	Ø35k6	165	4	Ø204	84	70	28	11	M12	38.0	10	7.0	56	6	30°
613	260	200 f8	15	Ø50k6	230	4	Ø230	106	100	36	11	M16	53.5	14	10	80	6	0°
614	260	200 f8	15	Ø50k6	230	4	Ø230	106	100	36	11	M16	53.5	14	10	80	6	0°
616	340	270 f8	20	Ø60h6	310	4	Ø300	89	90	18	11	M10	64.0	18	0	80	6	0°

FACE MOUNTING (TYPE C)



Unit Size	Øb2	Ød2	Øe2	f2	Øg	l2	L2	m2	s2	s21	t2	u2	v	v2	x2	z2	AE2
606	80 g6	Ø14k6	98	4	110	73	30	12	M6	M5	12.0	5	2.5	25	21	6	0°
607	80 g6	Ø20k6	98	4	110	84	40	15	M6	M6	23.0	6	4.0	32	21	6	0°
608	95 g6	Ø25k6	118	5	134	106	50	22	M8	M10	28.0	8	3.5	40	27	8	22.5°
609	105 g6	Ø25k6	134	6	150	129	50	22	M8	M10	28.0	8	3.5	40	29	8	22.5°
610	105 g6	Ø30k6	134	6	150	139	60	22	M8	M10	33.0	8	3.5	50	28	8	22.5°
611	115 g6	Ø35k6	146	6	162	143	70	28	M8	M12	38.0	10	7.0	56	28	8	22.5°
612	140 g6	Ø35k6	180	14	204	154	70	28	M10	M12	38.0	10	7.0	56	30	6	0°
613	165 g6	Ø50k6	205	16	230	208	100	36	M10	M16	54.0	14	10	80	31	6	0°
614	165 g6	Ø50k6	205	16	230	208	100	36	M10	M16	54.0	14	10	80	31	6	0°
616	200 g6	Ø60h6	270	10	300	222	90	18	M12	M10	64.0	18	-	80	35	6	30°

TECHNICAL NOTES

Tolerances according to DIN ISO 286 part 2.

Key and keyways according to DIN 6885.

MOUNTING POSTIONS

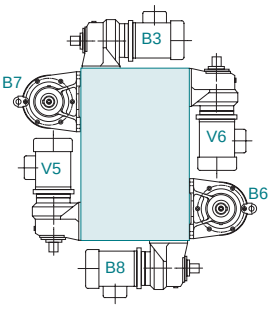
Foot mounted units from size 606 - 612 are grease lubricated for life and suitable for any mounting position.

Units from size 613 - 616 are oil lubricated for Horizontal and vertical mounting.

Size 616 requires an additional oil pump and circulating pipe when used in the vertical position - please consult your local authorised distributor.

Size 613-616 Flange mounted units use special Ring Gear Housings.

FOOT MOUNTED



HORIZONTAL MOUNTING

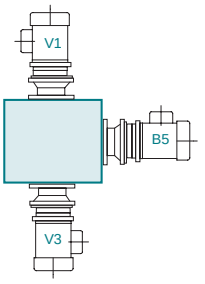
Approximate oil quantity (litres)

	B3	B6	B7	B8
613	0.7	0.7	0.7	0.7
614	0.7	0.7	0.7	0.7
616	1.4	1.4	1.4	1.4

VERTICAL MOUNTING

	V5	V6
613 614 616	Consult your local Authorised Distributor	

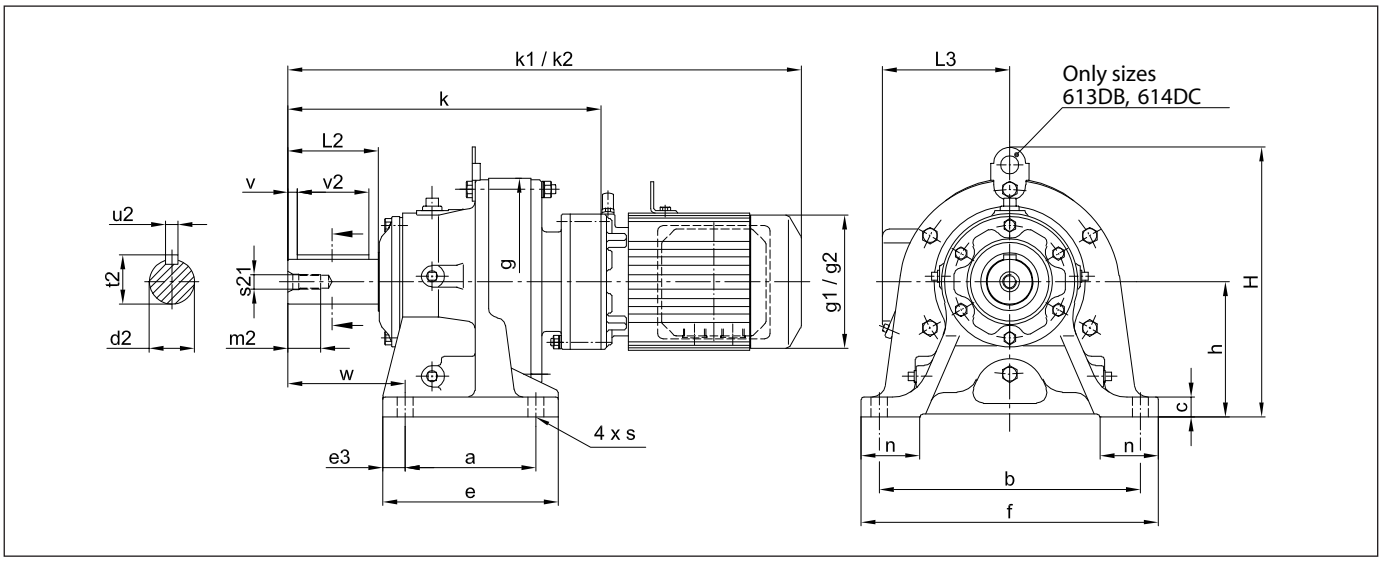
FLANGE MOUNTED



	B5	V1	V3
613 614 616	Please consult your local Authorised Distributor as a special ring gear housing is required for flange and face mounted units.		

Dimensions (Integrated Motor) - Foot Mounted

FOOT MOUNTING (TYPE DAA / DVA / DCA)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	H	k	L2	m2	n	Øs	s21	t2	u2	v	v2	w
606DA	60	120	10	14k6	84	12	144	110	80	-	131	30	12	48	9	M5	16.0	5	2.5	25	46
607DA	60	120	10	20k6	84	12	144	110	80	-	142	40	15	48	9	M6	23.0	6	4	32	57
609DA	90	150	12	25k6	135	15	180	150	100	-	206	50	22	65	11	M10	28.0	8	3.5	40	75
610DA	90	150	12	30k6	135	15	180	150	100	-	230	60	22	40	11	M10	33.0	8	3.5	50	85
612DA	115	190	15	35k6	155	20	230	204	120	257	256	70	28	55	14	M12	38.0	10	7	56	97
612DB	115	190	15	35k6	155	20	230	204	120	257	267	70	28	55	14	M12	38.0	10	7	56	97
613DB	145	290	22	50k6	195	25	330	230	150	300	334	100	36	65	18	M16	53.5	14	10	80	130
613DC	145	290	22	50k6	195	25	330	230	150	300	348	100	36	65	18	M16	53.5	14	10	80	130
614DC	145	290	22	50k6	195	25	330	230	150	300	348	100	36	65	18	M16	53.5	14	10	80	130
616DB	150	370	25	60h6	238	44	410	300	160	353	388	90	18	75	18	M10	64.0	18	0	80	139
616DC	150	370	25	60h6	238	44	410	300	160	353	390	90	18	75	18	M10	64.0	18	0	80	139
617DC	275	380	30	70h6	335	30	430	340	200	418	437	90	24	80	22	M12	74.5	20	0	80	125
618DB	320	420	30	80h6	380	30	470	370	220	451	496	496	24	85	22	M12	85.0	22	0	100	145

All dimensions are in mm

MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

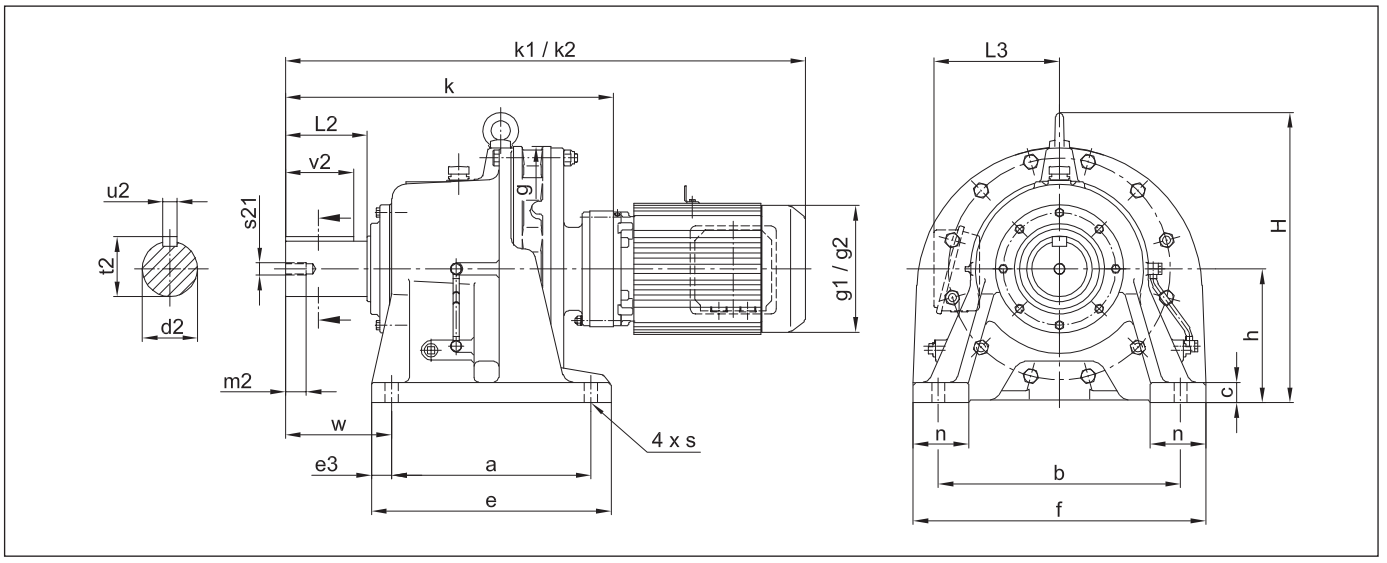
Unit Size	kW	Frame	Standard			Braked			L3
			Øg1	k1	kg	Øg2	k2	kg	
606DA	0.12	F63S/4	119	292	8	124	300	9	128
607DA	0.12	F63S/4	119	303	8	124	311	9	128
	0.18	F63M/4	124	321	9	124	350	10	128
609DA	0.12	F63S/4	119	367	16	124	375	17	128
	0.18	F63M/4	124	385	17	124	414	18	128
	0.25	F63M/4	124	385	17	124	414	18	128
	0.37	F71M/4	124	405	18	124	434	19	128
610DA	0.12	F63S/4	119	391	18	124	399	19	128
	0.18	F63M/4	409	124	19	124	438	20	128
	0.25	F63M/4	409	124	19	124	438	20	128
	0.37	F71M/4	429	124	20	124	458	21	128
612DA	0.12	F63S/4	119	417	29	124	425	30	128
	0.18	F63M/4	124	435	30	124	464	31	128
	0.25	F63M/4	124	435	30	124	464	31	128
	0.37	F71M/4	124	455	31	124	484	32	128
612DB	0.12	F63S/4	119	424	32	124	436	34	128
	0.18	F63M/4	124	447	33	124	475	35	128
	0.25	F63M/4	124	447	33	124	475	35	128
	0.37	F71M/4	124	467	34	124	495	36	128
	0.55	F80S/4	148	504	38	148	547	41	138
	0.75	F80M/4	148	504	38	148	547	41	138
	1.1	F90S/4	160	537	41	160	599	46	143
	1.5	F90L/4	160	537	41	160	599	46	143
613DB	0.12	F63S/4	119	495	47	124	503	49	128
	0.18	F63M/4	124	513	48	124	542	50	128
	0.25	F63M/4	124	513	48	124	542	50	128
	0.37	F71M/4	124	533	49	124	562	51	128
	0.55	F80S/4	148	571	53	148	614	56	138
	0.75	F80M/4	148	571	53	148	614	56	138
	1.1	F90S/4	160	604	56	160	666	61	143
	1.5	F90L/4	160	604	56	160	666	61	143
613DC	0.55	F80S/4	148	585	55	148	628	58	138
	0.75	F80M/4	148	585	55	148	628	58	138
	1.1	F90S/4	160	618	59	160	680	64	143
	1.5	F90L/4	160	618	59	160	680	64	143
	2.2	F100L/4	173	638	63	173	701	69	150

Unit Size	kW	Frame	Standard			Braked			L3
			Øg1	k1	kg	Øg2	k2	kg	
614DC	0.18	F63M/4	124	527	50	124	556	52	128
	0.25	F63M/4	124	527	50	124	556	52	128
	0.37	F71M/4	124	547	51	124	576	53	128
	0.55	F80S/4	148	585	55	148	628	58	138
	0.75	F80M/4	148	585	55	148	628	58	138
	1.1	F90S/4	160	618	59	160	680	64	143
	1.5	F90L/4	160	618	59	160	680	64	143
	2.2	F100L/4	173	638	63	173	701	69	150
616DB	0.18	F63M/4	124	568	92	124	596	93	128
	0.25	F63M/4	124	568	92	124	596	93	128
	0.37	F71M/4	124	588	93	124	616	94	128
	0.55	F80S/4	148	625	96	148	668	99	138
	0.75	F80M/4	148	625	96	148	668	99	138
	1.1	F90S/4	160	658	100	160	720	105	143
	1.5	F90L/4	160	658	100	160	720	105	143
	2.2	F100L/4	173	678	104	173	741	110	150
616DC	2.2	F100L/4	173	680	110	173	743	117	150
	3	F112S/4	212	703	120	212	775	130	166
	4	F112M/4	212	703	120	212	775	130	166
	5.5	F132S/4	212	747	127	212	819	137	166
617DC	0.37	F71M/4	124	641	133	124	670	135	128
	0.55	F80S/4	148	674	137	148	717	140	138
	0.75	F80M/4	148	674	137	148	717	140	138
	1.1	F90S/4	160	707	140	160	769	145	143
	1.5	F90L/4	160	707	140	160	769	145	143
	2.2	F100L/4	173	727	144	173	790	151	150
	3	F112S/4	212	750	154	212	822	164	166
	4	F112M/4	212	750	154	212	822	164	166
	5.5	F132S/4	212	794	161	212	866	171	166
618DB	0.75	F80M/4	148	733	189	148	776	192	138
	1.1	F90S/4	160	766	192	160	828	197	143
	1.5	F90L/4	160	766	192	160	828	197	143
	2.2	F100L/4	173	786	196	173	849	203	166
	3	F112S/4	212	809	206	212	881	216	166
	4	F112M/4	212	809	206	212	881	216	166
	5.5	F132S/4	212	853	213	212	925	223	166
	7.5	F132M/4	251	876	228	251	971	246	211
	11	F160M/4	251	936	242	251	1031	260	211



Dimensions (integrated Motor) Foot Mounted

FOOT MOUNTING (TYPE DAA / DBA / DCA)



Unit Size	a	b	c	Ød2	e	e3	f	Ø g	h	H	k	L2	m2	n	Øs	s21	t2	u2	v2	w
619DA	380	480	35	95h6	440	30	530	430	250	531	557	135	34	90	26	M20	100	25	125	170
619DB	380	480	35	95h6	440	30	530	430	250	531	572	135	34	90	26	M20	100	25	125	170
620DB	360	440	35	100h6	440	40	530	448	250	530	624	165	34	100	26	M20	106	28	165	215
621DA	395	480	40	110h6	475	40	580	485	265	575	651	165	34	110	26	M20	116	28	165	210
622DA	420	540	40	120h6	520	50	620	526	280	610	692	165	34	115	33	M20	127	32	165	230
622DB	420	540	40	120h6	520	50	620	526	280	610	735	165	34	115	33	M20	127	32	165	230
623DA	460	580	45	130h6	560	50	670	562	300	667	778	200	41	120	33	M24	137	32	200	260
624DA	480	630	45	140h6	580	50	720	614	335	729	816	200	41	128	39	M24	148	36	200	263
625DA	520	670	50	160h6	630	55	780	670	375	815	956	240	49	140	39	M30	169	40	240	320
626DA	590	770	55	170h6	700	55	880	736	400	874	1088	300	49	160	45	M30	179	40	300	390

All dimensions are in mm

MOTOR OPTIONS AVAILABLE (USING 4 POLE MOTORS)

Unit Size	kW	Frame	Øg1	k1	kg	Øg2	k2	kg	L3
	0.55	F80S/4	148	794	249	148	837	252	138
	0.75	F80M/4	148	794	249	148	837	252	138
	1.1	F90S/4	160	827	253	160	889	258	143
619DA	1.5	F90L/4	160	827	253	160	889	258	143
	2.2	F100L/4	173	847	257	173	910	264	150
	3	F112S/4	212	870	267	212	942	277	166
	4	F112M/4	212	870	267	212	942	277	166
	5.5	F132S/4	212	914	274	212	986	284	166
	2.2	F100L/4	173	862	264	173	925	271	150
	3	F112S/4	212	885	274	212	957	284	166
	4	F112M/4	212	885	274	212	957	284	166
619DB	5.5	F132S/4	212	929	281	251	1001	291	211
	7.5	F132M/4	251	952	296	251	1047	314	211
	11	F160M/4	251	1012	310	323	1107	328	261
	15	G160L/4	323	1102	362	323	1192	395	261
	0.75	F80M/4	148	861	281	148	904	284	138
	1.1	F90S/4	160	894	285	160	956	290	143
	1.5	F90L/4	160	894	285	160	956	290	143
	2.2	F100L/4	173	914	288	173	977	295	150
620DB	3	F112S/4	212	937	298	212	1009	308	166
	4	F112M/4	212	937	298	212	1009	308	166
	5.5	F132S/4	212	981	305	212	1053	315	166
	7.5	F132M/4	251	1004	320	251	1099	338	211
	11	F160M/4	251	1064	333	251	1159	351	211
	15	G160L/4	323	1154	385	323	1234	417	261
	0.75	F80M/4	148	887	362	148	930	365	138
	1.1	F90S/4	160	920	366	160	982	371	143
	1.5	F90L/4	160	920	366	160	982	371	143
	2.2	F100L/4	173	940	369	173	1003	376	150
621DA	3	F112S/4	212	964	379	212	1035	389	166
	4	F112M/4	212	964	379	212	1035	389	166
	5.5	F132S/4	212	1007	386	212	1079	396	166
	7.5	F132M/4	251	1030	401	251	1125	419	211
	11	F160M/4	251	1090	414	251	1185	432	211
	15	G160L/4	323	1180	466	323	1270	499	261
	1.1	F90S/4	160	962	440	160	1024	445	143
	1.5	F90L/4	160	962	440	160	1024	445	143
	2.2	F100L/4	173	982	443	173	1045	450	150
	3	F112S/4	212	1005	453	212	1077	463	166
622DA	4	F112M/4	212	1005	453	212	1077	463	166
	5.5	F132S/4	212	1049	460	212	1121	470	166
	7.5	F132M/4	251	1072	475	251	1167	493	211
	11	F160M/4	251	1132	489	251	1227	507	211
	15	G160L/4	323	1222	541	323	1312	574	261

Unit Size	kW	Frame	Øg1	k1	kg	Øg2	k2	kg	L3
	5.5	F132S/4	212	1107	505	212	1179	516	166
	7.5	F132M/4	251	1125	520	251	1220	538	211
	11	F160M/4	251	1185	534	251	1280	552	211
622DB	15	G160L/4	323	1265	588	323	1355	621	261
	18.5	F180MG/4	394	1360	656	394	1570	707	342
	22	F180MG/4	394	1360	656	394	1570	707	342
	30	F180L/4	394	1360	673	394	1570	724	342
	2.2	F100L/4	173	1068	560	173	1131	566	150
	3	F112S/4	212	1091	569	212	1163	579	166
	4	F112M/4	212	1091	569	212	1163	579	166
	5.5	F132S/4	212	1135	576	212	1207	586	166
623DA	7.5	F132M/4	251	1163	592	251	1258	609	211
	11	F160M/4	251	1223	606	251	1318	623	211
	15	G160L/4	323	1308	659	323	1398	692	261
	18.5	F180MG/4	394	1403	732	394	1613	783	342
	22	F180MG/4	394	1403	732	394	1613	783	342
	2.2	F100L/4	173	1106	669	173	1169	675	150
	3	F112S/4	212	1129	678	212	1201	688	166
	4	F112M/4	212	1129	678	212	1201	688	166
	5.5	F132S/4	212	1173	685	212	1245	695	166
624DA	7.5	F132M/4	251	1201	701	251	1296	718	211
	11	F160M/4	251	1261	715	251	1356	732	211
	15	G160L/4	323	1346	768	323	1436	801	261
	18.5	F180MG/4	394	1441	835	394	1651	886	342
	22	F180MG/4	394	1441	835	394	1651	886	342
	3	F112S/4	212	1284	1030	212	1356	1040	166
	4	F112M/4	212	1284	1030	212	1356	1040	166
	5.5	F132S/4	212	1328	1040	212	1400	1050	166
	7.5	F132M/4	251	1346	1055	251	1441	1070	211
625DA	11	F160M/4	251	1406	1070	251	1501	1085	211
	15	G160L/4	323	1486	1120	323	1576	1155	261
	18.5	F180MG/4	394	1581	1190	394	1791	1241	342
	22	F180MG/4	394	1581	1190	394	1791	1241	342
	30	F180L/4	394	1581	1210	394	1791	1253	342
	5.5	F132S/4	212	1480	1365	212	1552	1375	166
	7.5	F132M/4	251	1493	1380	251	1588	1400	211
	11	F160M/4	251	1553	1395	251	1648	1410	211
	15	G160L/4	323	1618	1445	323	1708	1480	261
626DA	18.5	F180MG/4	394	1713	1520	394	1923	1565	342
	22	F180MG/4	394	1713	1520	394	1923	1565	342
	30	F180L/4	394	1713	1535	394	1923	1578	342
	37	F200L/4	394	1828	1570	394	2043	1667	342
	45	F225S/6	394	1828	1570	394	2043	1667	342

SPEED REDUCER SELECTION TABLES - 580rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	96.7	72.5	52.7	44.6	38.7	34.1	27.6	23.2	20.0	16.6	13.5	11.4	9.83	8.17	6.67	4.87
	Ratio	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	P_1	0.267	0.216	0.174	0.148	0.128	0.113	0.091	0.077	0.066	0.055	0.045	-	-	-	-	-
	M_2	25.0	27.1	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	-	-	-	-
	F_{R2}	796	811	957	1050	1170	1180	1180	1180	1180	1180	1180	-	-	-	-	-
607	P_1	0.316	0.280	0.291	0.273	0.256	0.226	0.183	0.153	0.132	0.110	0.089	0.071	0.062	-	-	-
	M_2	29.7	36.1	50.1	55.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0	56.9	57.4	-	-	-
	F_{R2}	1690	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1550	1560	-	-	-
608	P_1	0.778	0.778	0.581	0.492	0.426	0.376	0.235	0.256	0.220	0.183	0.149	0.125	0.108	0.090	0.073	-
	M_2	73.0	97.3	100	100	100	100	77.2	100	100	100	100	100	100	100	100	-
	F_{R2}	2280	2440	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	-
609	P_1	1.47	1.34	1.05	0.984	0.852	0.752	0.609	0.499	0.441	0.365	0.297	0.192	0.158	0.119	0.131	0.058
	M_2	138	168	181	200	200	200	200	195	200	200	200	153	146	132	178	108
	F_{R2}	3340	3340	3340	3240	3240	3240	3240	3340	3240	3240	3240	3340	3340	3340	3340	3340
610	P_1	1.82	1.86	1.79	1.48	1.28	1.13	0.913	0.767	0.661	0.548	0.446	0.372	0.321	0.238	0.220	0.139
	M_2	171	233	308	300	300	300	300	300	300	300	300	297	296	264	300	258
	F_{R2}	4770	5300	5400	5400	5400	5400	5400	5400	5400	5400	5400	5120	4880	4680	4690	4660
611	P_1	2.06	3.25	2.44	2.07	1.79	1.58	1.28	1.07	0.926	0.767	0.624	0.526	0.455	0.378	0.309	-
	M_2	193	406	420	420	420	420	420	420	420	420	420	420	420	420	420	-
	F_{R2}	5490	5940	6860	6830	6960	6760	6690	6430	6320	6380	6660	6660	6680	6640	6670	-
612	P_1	3.90	4.00	3.47	3.10	2.69	2.37	1.92	1.61	1.39	1.15	0.940	0.790	0.680	0.533	0.463	-
	M_2	366	501	596	630	630	630	630	630	630	630	630	630	630	592	630	-
	F_{R2}	6650	7260	7520	6740	6760	6740	6740	6740	6740	6740	6870	6740	6740	7610	6740	-
613	P_1	6.47	6.11	5.46	4.62	4.01	3.53	2.86	2.30	2.07	1.72	1.40	1.21	1.14	0.938	0.719	-
	M_2	607	764	940	940	940	940	940	900	940	940	940	967	1050	1040	979	-
	F_{R2}	6970	7780	8920	9370	9630	10400	11200	11700	12300	13000	13600	13300	14200	14300	14500	-
614	P_1	7.64	7.80	7.51	6.74	5.79	5.15	4.07	3.50	3.02	2.50	2.04	1.72	1.48	1.19	0.917	-
	M_2	717	976	1290	1370	1360	1370	1340	1370	1370	1370	1370	1370	1370	1320	1250	-
	F_{R2}	11600	12800	14400	14400	14500	14500	14700	14500	14200	14400	14100	14200	16000	16000	16000	-
616	P_1	14.10	14.90	12.20	10.30	8.95	7.90	6.39	5.37	4.63	3.84	3.12	2.63	2.28	1.89	1.51	-
	M_2	1320	1870	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2050	-
	F_{R2}	13500	14900	17000	18000	19200	19900	21500	22100	22100	22100	22100	22100	22100	22100	21800	-
617	P_1	19.80	20.80	18.30	15.50	13.40	11.80	9.59	8.06	6.94	5.75	4.68	3.95	3.41	2.84	2.31	-
	M_2	1860	2600	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	-
	F_{R2}	15100	16500	18900	19900	21000	22000	24100	25100	26600	28400	29500	29500	29500	29500	29500	-
618	P_1	-	-	27.90	24.10	19.90	18.80	15.20	12.80	11.00	9.13	7.43	6.27	5.42	4.06	3.67	-
	M_2	-	-	4810	4900	4670	5000	5000	5000	5000	5000	5000	5000	5000	4510	5000	-
	F_{R2}	-	-	25200	26400	28000	29600	32200	33600	35300	37900	40800	41700	41600	41700	41700	-
619	P_1	-	-	44.00	36.10	33.20	29.90	24.20	20.40	17.50	14.50	11.80	9.98	8.63	7.17	5.85	-
	M_2	-	-	7570	7350	7800	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	-
	F_{R2}	-	-	35100	36700	38600	41000	44600	46900	49500	52500	56700	58200	58100	58000	58400	-

* For larger unit ratings, please refer to page 362



SPEED REDUCER SELECTION TABLES - 720rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	163	123	89.1	75.4	65.3	57.6	46.7	39.2	33.8	28.0	22.8	19.2	16.6	13.8	11.3	8.24
	Ratio	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	P_1	0.286	0.259	0.216	0.183	0.159	0.140	0.113	0.095	0.082	0.068	0.055	-	-	-	-	-
	M_2	21.6	26.1	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	-	-	-	-
	F_{R2}	796	811	957	1050	1170	1180	1180	1180	1180	1180	1180	-	-	-	-	-
607	P_1	0.376	0.325	0.344	0.322	0.317	0.280	0.227	0.190	0.164	0.136	0.111	0.089	0.077	-	-	-
	M_2	28.4	32.8	47.7	52.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	56.9	57.4	-	-	-
	F_{R2}	1570	1730	1770	1770	1770	1770	1770	1770	1770	1770	1660	1550	1560	-	-	-
608	P_1	0.778	0.778	0.683	0.610	0.529	0.467	0.292	0.317	0.274	0.227	0.185	0.156	0.135	0.112	0.091	-
	M_2	58.8	78.4	94.7	100	100	100	77.2	100	100	100	100	100	100	100	100	-
	F_{R2}	2140	2300	2530	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2260	-
609	P_1	1.52	1.52	1.24	1.19	1.06	0.934	0.756	0.588	0.547	0.453	0.369	0.239	0.196	0.148	0.154	0.072
	M_2	115	153	172	196	200	200	200	185	200	200	200	153	146	132	169	108
	F_{R2}	3340	3340	3340	3240	3240	3240	3240	3340	3240	3240	3240	3340	3340	3340	3340	3340
610	P_1	2.26	2.20	2.22	1.83	1.59	1.40	1.13	0.952	0.821	0.680	0.554	0.462	0.398	0.295	0.274	0.172
	M_2	171	222	308	300	300	300	300	300	300	300	300	297	296	264	300	258
	F_{R2}	4430	4920	5400	5400	5400	5400	5400	5400	5400	5400	5400	5120	4880	4680	4690	4660
611	P_1	2.56	3.92	3.03	2.56	2.22	1.96	1.59	1.33	1.15	0.952	0.775	0.654	0.565	0.469	0.383	-
	M_2	193	395	420	420	420	420	420	420	420	420	420	420	420	420	420	-
	F_{R2}	5100	5510	6350	6620	6960	6760	6690	6430	6320	6380	6660	6660	6680	6640	6670	-
612	P_1	4.85	4.72	4.09	3.69	3.33	2.94	2.38	2.00	1.72	1.43	1.16	0.980	0.847	0.661	0.575	-
	M_2	366	476	567	605	630	630	630	630	630	630	630	630	630	592	630	-
	F_{R2}	6160	6740	7480	7320	6760	6740	6740	6740	6740	6740	6870	6740	6740	7610	6740	-
613	P_1	7.87	7.27	6.78	5.74	4.97	4.39	3.55	2.86	2.57	2.13	1.73	1.49	1.41	1.160	0.893	-
	M_2	595	733	940	940	940	940	940	900	940	940	940	959	1050	1040	979	-
	F_{R2}	6450	7220	8240	8680	8920	9620	10300	10800	11400	12100	13000	13300	14200	14300	14500	-
614	P_1	9.48	9.20	9.32	8.36	7.18	6.40	5.06	4.35	3.75	3.10	2.53	2.13	1.84	1.48	1.14	-
	M_2	717	928	1290	1370	1360	1370	1340	1370	1370	1370	1370	1370	1370	1320	1250	-
	F_{R2}	10900	12000	13500	13800	14500	14500	14700	14500	14200	14400	14100	14200	16000	16000	16000	-
616	P_1	17.50	17.80	15.20	12.80	11.10	9.80	7.94	6.67	5.75	4.76	3.88	3.27	2.82	2.35	1.87	-
	M_2	1320	1790	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2050	-
	F_{R2}	12500	13800	15800	16600	17700	18400	19900	21000	22000	22100	22100	22100	22100	22100	21800	-
617	P_1	24.60	25.80	22.70	19.20	16.70	14.70	11.90	10.00	8.62	7.14	5.81	4.90	4.24	3.52	2.87	-
	M_2	1860	2600	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	-
	F_{R2}	13900	15200	17500	18400	19400	20400	22300	23300	24600	26300	28200	29500	29500	29500	29500	-
618	P_1	-	-	34.70	29.90	23.50	22.40	18.90	15.90	13.70	11.30	9.23	7.78	6.73	5.05	4.56	-
	M_2	-	-	4810	4900	4440	4790	5000	5000	5000	5000	5000	5000	5000	4510	5000	-
	F_{R2}	-	-	23300	24400	26000	27400	29800	31200	32700	35100	37800	39400	41300	41700	41700	-
619	P_1	-	-	48.100	42.60	39.20	37.20	30.10	25.30	21.80	18.00	14.70	12.40	10.70	8.90	7.26	-
	M_2	-	-	6670	6980	7410	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	-
	F_{R2}	-	-	32800	34100	35800	37900	41400	43500	45900	48700	52600	55000	57900	58000	58400	-

* For larger unit ratings, please refer to page 362

SPEED REDUCER SELECTION TABLES - 980rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	163	123	89.1	75.4	65.3	57.6	46.7	39.2	33.8	28.0	22.8	19.2	16.6	13.8	11.3	8.24
	Ratio	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	P1	0.286	0.286	0.286	0.249	0.216	0.191	0.154	0.130	0.112	0.093	0.075	-	-	-	-	-
	M_2	15.9	21.2	29.2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	-	-	-	-
	F_{R2}	802	861	968	1050	1170	1180	1180	1180	1180	1180	1180	-	-	-	-	-
607	P_1	0.407	0.386	0.407	0.407	0.404	0.381	0.309	0.245	0.223	0.185	0.151	0.119	0.101	-	-	-
	M_2	22.6	28.6	41.4	49.0	56.1	60.0	60.0	56.8	60.0	60.0	60.0	56.4	55.1	-	-	-
	F_{R2}	1420	1570	1730	1770	1770	1770	1770	1770	1770	1770	1660	1590	1620	-	-	-
608	P_1	0.778	0.778	0.778	0.778	0.720	0.635	0.397	0.432	0.372	0.309	0.251	0.212	0.183	0.152	0.121	-
	M_2	43.2	57.6	79.2	93.6	100	100	77.2	100	100	100	100	100	100	100	97.6	-
	F_{R2}	1940	2090	2290	2440	2530	2560	2560	2560	2500	2560	2560	2560	2560	2560	2560	-
609	P_1	1.52	1.52	1.52	1.51	1.44	1.27	1.03	0.745	0.698	0.610	0.471	0.325	0.267	0.201	0.195	0.098
	M_2	84.2	112	154	182	200	200	200	172	187	198	187	153	146	132	157	108
	F_{R2}	3340	3340	3340	3340	3240	3240	3340	3340	3340	3320	3340	3340	3340	3340	3340	3340
610	P_1	3.02	2.78	2.86	2.49	2.16	1.91	1.54	1.30	1.12	0.926	0.754	0.629	0.530	0.402	0.372	0.235
	M_2	168	206	291	300	300	300	300	300	300	300	300	297	290	264	300	258
	F_{R2}	3980	4430	5000	5220	5400	5400	5400	5400	5400	5400	5400	5120	4880	4680	4690	4660
611	P_1	3.48	3.92	3.92	3.49	3.02	2.67	2.16	1.81	1.56	1.30	1.06	0.890	0.769	0.639	0.521	-
	M_2	193	290	399	420	420	420	420	420	420	420	420	420	420	420	420	-
	F_{R2}	4580	5050	5710	5930	6360	6460	6690	6430	6320	6380	6660	6660	6680	6640	6670	-
612	P_1	6.40	5.97	5.18	4.68	4.54	4.00	3.24	2.72	2.35	1.94	1.58	1.33	1.15	0.843	0.761	-
	M_2	355	442	527	563	630	630	630	630	630	630	630	630	630	554	613	-
	F_{R2}	5530	6070	6740	7110	6760	6740	6740	6740	6740	6740	6870	6740	6740	8320	7150	-
613	P_1	9.96	9.20	9.23	7.58	6.77	5.97	4.84	3.89	3.50	2.90	2.36	1.89	1.81	1.50	1.22	-
	M_2	553	682	940	912	940	940	940	900	940	940	940	892	987	987	979	-
	F_{R2}	5800	6490	7360	7780	7980	8620	9270	9730	10300	10900	11700	12300	12900	13800	14500	-
614	P_1	12.2	11.6	12.1	11.4	9.78	8.71	6.88	5.92	5.10	4.23	3.44	2.74	2.36	1.94	1.55	-
	M_2	678	863	1230	1370	1360	1370	1340	1370	1370	1370	1370	1290	1290	1280	1250	-
	F_{R2}	9890	11000	12300	12500	13200	13800	14700	14500	14200	14400	14100	14500	16000	16000	16000	-
616	P_1	23.8	22.5	20.6	17.4	15.1	13.3	10.8	9.07	7.82	6.48	5.28	4.45	3.84	3.19	2.55	-
	M_2	1320	1670	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2050	-
	F_{R2}	11100	12400	14100	14900	15900	16500	17800	18800	19700	21000	22100	22100	22100	22100	21800	-
617	P_1	30.1	30.1	30.1	26.2	22.3	20.0	16.2	13.6	11.7	9.72	7.91	6.67	5.77	4.79	3.91	-
	M_2	1670	2230	3070	3150	3100	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	-
	F_{R2}	12600	13800	15600	16400	17300	18200	20000	20800	22100	23600	25200	26500	27900	29500	29500	-
618	P_1	-	-	39.0	39.0	29.8	28.3	25.7	21.6	18.6	15.4	12.6	10.6	9.15	6.87	6.21	-
	M_2	-	-	3970	4690	4130	4450	5000	5000	5000	5000	5000	5000	5000	4510	5000	-
	F_{R2}	-	-	21200	21900	23400	24700	26700	27900	29300	31500	33900	35400	37100	39800	41700	-
619	P_1	-	-	48.1	48.1	48.1	48.1	40.9	34.4	29.6	24.6	20.0	16.9	14.6	12.1	9.88	-
	M_2	-	-	4900	5790	6680	7570	7960	7960	7960	7960	7960	7960	7960	7960	7960	-
	F_{R2}	-	-	30000	31000	32300	34100	37100	39000	41200	43700	47200	49400	52000	55300	58400	-

* For larger unit ratings, please refer to page 362



SPEED REDUCER SELECTION TABLES - 1450rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	242	181	132	112	96.7	85.5	69.0	58.0	50.0	41.4	33.7	28.4	24.6	20.4	16.7	12.2
	Ratio	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	P_1	0.286	0.286	0.286	0.286	0.286	0.282	0.228	0.166	0.165	0.137	0.112	-	-	-	-	-
	M_2	10.7	14.3	19.7	23.3	26.9	30.0	30.0	25.9	30.0	30.0	30.0	-	-	-	-	-
	F_{R2}	708	808	1070	1140	1180	1180	1180	1180	1180	1180	1180	-	-	-	-	-
607	P_1	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.294	0.286	0.272	0.223	0.143	0.136	-	-	-
	M_2	15.3	20.4	28.0	33.1	38.2	43.3	53.5	46.0	52.0	59.6	60.0	45.7	50.1	-	-	-
	F_{R2}	1260	1390	1550	1630	1630	1720	1710	1720	1710	1720	1660	1620	1600	-	-	-
608	P_1	0.778	0.778	0.778	0.778	0.778	0.778	0.550	0.475	0.467	0.412	0.294	0.241	0.234	0.202	0.121	-
	M_2	29.2	38.9	53.5	63.3	73.0	82.7	72.3	74.3	84.8	90.2	79.1	76.9	86.2	89.7	66.0	-
	F_{R2}	1720	1860	2040	2330	2400	2510	2510	2560	2560	2560	2560	2560	2560	2560	2560	-
609	P_1	1.52	1.52	1.52	1.52	1.52	1.52	1.51	0.866	0.784	0.758	0.603	0.407	0.336	0.278	0.263	0.145
	M_2	56.9	75.8	104	123	142	161	198	136	142	166	162	130	124	124	143	108
	F_{R2}	3340	3340	3340	3340	3340	3340	3310	3340	3340	3340	3340	3340	3340	3340	3340	3340
610	P_1	3.18	3.18	3.18	3.18	3.18	2.46	2.28	1.67	1.59	1.20	1.08	0.776	0.681	0.506	0.503	0.286
	M_2	119	159	219	259	298	261	300	262	288	262	292	248	251	225	274	213
	F_{R2}	3530	3920	4430	4590	4830	4960	4970	4970	4970	4970	4970	4980	4910	4700	4700	4690
611	P_1	3.92	3.92	3.92	3.90	3.90	3.90	3.11	2.22	2.22	1.81	1.52	1.11	1.01	0.758	0.758	-
	M_2	147	196	270	317	366	415	409	348	403	396	408	355	373	337	412	-
	F_{R2}	4040	4490	5100	5260	5580	5620	6000	6200	6330	6400	6670	6720	6730	6720	6680	-
612	P_1	6.96	6.95	5.92	5.92	5.92	5.66	4.79	3.96	3.47	2.88	2.34	1.97	1.62	1.14	1.03	-
	M_2	261	348	407	482	556	602	630	619	630	630	630	630	598	506	559	-
	F_{R2}	4910	5370	5970	6260	6560	6820	6740	7010	6740	6750	6870	6750	7470	9110	8240	-
613	P_1	11.3	11.3	11.3	10.2	8.97	8.29	6.72	5.75	4.88	4.11	3.35	2.55	2.44	2.03	1.65	-
	M_2	424	566	778	832	842	882	883	900	886	900	900	813	900	900	900	-
	F_{R2}	5160	5730	6500	6810	6990	7520	8100	8470	8960	9480	10200	10800	11300	12000	13000	-
614	P_1	15.1	15.1	15.1	15.1	14.5	12.0	9.49	7.91	7.53	6.26	4.67	3.70	3.18	2.62	2.16	-
	M_2	569	758	1040	1230	1360	1280	1250	1240	1370	1370	1260	1180	1170	1160	1170	-
	F_{R2}	8810	9750	10900	11100	11600	12200	13100	13800	14100	14400	14600	14900	16000	16000	16000	-
616	P_1	24.1	24.1	24.1	22.6	22.4	18.8	16.0	13.4	11.4	9.59	7.81	6.58	5.69	4.73	3.77	-
	M_2	903	1200	1660	1840	2100	2000	2100	2100	2070	2100	2100	2100	2100	2100	2050	-
	F_{R2}	9990	11100	12500	13100	13800	14300	15500	16300	17100	18300	19600	20600	22100	22100	21800	-
617	P_1	30.1	30.1	30.1	30.1	30.1	24.1	23.6	19.5	17.4	14.4	11.3	9.87	8.29	6.98	5.62	-
	M_2	1130	1510	2070	2450	2820	2560	3100	3050	3150	3150	3040	3150	3060	3100	3060	-
	F_{R2}	11300	12400	14100	14600	15100	16100	17300	18100	19200	20500	22000	23000	24300	25800	27800	-
618	P_1	-	-	39.0	39.0	39.0	38.2	38.1	30.1	24.1	22.6	18.6	15.1	12.0	9.79	8.59	-
	M_2	-	-	2680	3170	3660	4060	5000	4710	4360	4950	5000	4810	4430	4350	4680	-
	F_{R2}	-	-	19000	19600	20500	21600	23200	24400	25800	27500	29500	30900	32500	34800	37400	-
619	P_1	-	-	48.1	48.1	48.1	48.1	48.1	40.5	37.8	30.1	27.1	20.9	18.8	15.6	13.6	-
	M_2	-	-	3310	3910	4510	5120	6320	6330	6860	6600	7300	6680	6950	6930	7420	-
	F_{R2}	-	-	26700	27600	28900	30500	32700	34400	36200	38400	41400	43500	45700	48500	52300	-

* For larger unit ratings, please refer to page 362

SPEED REDUCER SELECTION TABLES - 2900rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	163	123	89.1	75.4	65.3	57.6	46.7	39.2	33.8	28.0	22.8	19.2	16.6	13.8	11.3	8.24
	Ratio	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	P_1	0.286	0.286	0.286	0.249	0.216	0.191	0.154	0.130	0.112	0.093	0.075	-	-	-	-	-
	M_2	15.9	21.2	29.2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	-	-	-	-
	F_{R2}	802	861	968	1050	1170	1180	1180	1180	1180	1180	1180	-	-	-	-	-
607	P_1	0.407	0.386	0.407	0.407	0.404	0.381	0.309	0.245	0.223	0.185	0.151	0.119	0.101	-	-	-
	M_2	22.6	28.6	41.4	49.0	56.1	60.0	60.0	56.8	60.0	60.0	60.0	56.4	55.1	-	-	-
	F_{R2}	1420	1570	1730	1770	1770	1770	1770	1770	1770	1770	1660	1590	1620	-	-	-
608	P_1	0.778	0.778	0.778	0.778	0.720	0.635	0.397	0.432	0.372	0.309	0.251	0.212	0.183	0.152	0.121	-
	M_2	43.2	57.6	79.2	93.6	100	100	77.2	100	100	100	100	100	100	100	97.6	-
	F_{R2}	1940	2090	2290	2440	2530	2560	2560	2560	2500	2560	2560	2560	2560	2560	2560	-
609	P_1	1.52	1.52	1.52	1.51	1.44	1.27	1.03	0.745	0.698	0.610	0.471	0.325	0.267	0.201	0.195	0.098
	M_2	84.2	112	154	182	200	200	200	172	187	198	187	153	146	132	157	108
	F_{R2}	3340	3340	3340	3340	3240	3240	3340	3340	3340	3320	3340	3340	3340	3340	3340	3340
610	P_1	3.02	2.78	2.86	2.49	2.16	1.91	1.54	1.30	1.12	0.926	0.754	0.629	0.530	0.402	0.372	0.235
	M_2	168	206	291	300	300	300	300	300	300	300	300	297	290	264	300	258
	F_{R2}	3980	4430	5000	5220	5400	5400	5400	5400	5400	5400	5400	5120	4880	4680	4690	4660
611	P_1	3.48	3.92	3.92	3.49	3.02	2.67	2.16	1.81	1.56	1.30	1.06	0.890	0.769	0.639	0.521	-
	M_2	193	290	399	420	420	420	420	420	420	420	420	420	420	420	420	-
	F_{R2}	4580	5050	5710	5930	6360	6460	6690	6430	6320	6380	6660	6660	6680	6640	6670	-
612	P_1	6.40	5.97	5.18	4.68	4.54	4.00	3.24	2.72	2.35	1.94	1.58	1.33	1.15	0.843	0.761	-
	M_2	355	442	527	563	630	630	630	630	630	630	630	630	630	554	613	-
	F_{R2}	5530	6070	6740	7110	6760	6740	6740	6740	6740	6740	6870	6740	6740	8320	7150	-
613	P_1	9.96	9.20	9.23	7.58	6.77	5.97	4.84	3.89	3.50	2.90	2.36	1.89	1.81	1.50	1.22	-
	M_2	553	682	940	912	940	940	940	900	940	940	940	892	987	987	979	-
	F_{R2}	5800	6490	7360	7780	7980	8620	9270	9730	10300	10900	11700	12300	12900	13800	14500	-
614	P_1	12.2	11.6	12.1	11.4	9.78	8.71	6.88	5.92	5.10	4.23	3.44	2.74	2.36	1.94	1.55	-
	M_2	678	863	1230	1370	1360	1370	1340	1370	1370	1370	1370	1290	1290	1280	1250	-
	F_{R2}	9890	11000	12300	12500	13200	13800	14700	14500	14200	14400	14100	14500	16000	16000	16000	-
616	P_1	23.8	22.5	20.6	17.4	15.1	13.3	10.8	9.07	7.82	6.48	5.28	4.45	3.84	3.19	2.55	-
	M_2	1320	1670	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2050	-
	F_{R2}	11100	12400	14100	14900	15900	16500	17800	18800	19700	21000	22100	22100	22100	22100	21800	-
617	P_1	30.1	30.1	30.1	26.2	22.3	20.0	16.2	13.6	11.7	9.72	7.91	6.67	5.77	4.79	3.91	-
	M_2	1670	2230	3070	3150	3100	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	-
	F_{R2}	12600	13800	15600	16400	17300	18200	20000	20800	22100	23600	25200	26500	27900	29500	29500	-
618	P_1	-	-	39.0	39.0	29.8	28.3	25.7	21.6	18.6	15.4	12.6	10.6	9.15	6.87	6.21	-
	M_2	-	-	3970	4690	4130	4450	5000	5000	5000	5000	5000	5000	5000	4510	5000	-
	F_{R2}	-	-	21200	21900	23400	24700	26700	27900	29300	31500	33900	35400	37100	39800	41700	-
619	P_1	-	-	48.1	48.1	48.1	48.1	40.9	34.4	29.6	24.6	20.0	16.9	14.6	12.1	9.88	-
	M_2	-	-	4900	5790	6680	7570	7960	7960	7960	7960	7960	7960	7960	7960	7960	-
	F_{R2}	-	-	30000	31000	32300	34100	37100	39000	41200	43700	47200	49400	52000	55300	58400	-

* For larger unit ratings, please refer to page 362



TWO STAGE REDUCER SELECTION - 580rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	5.58	4.79	4.06	3.52	2.97	2.51	2.12	1.82	1.62	1.54	1.36	1.23	1.10	1.04	0.975	0.894	0.793
	Ratio	**104**	**121**	**143**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**	**595**	**649**	**731**
606DA	P_1	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	-	0.040
	M_2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	30.0
	F_{R2}	1180	1140	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	1180
607DA	P_1	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
	M_2	60.0	50.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	57.4	60.0
	F_{R2}	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1770	1660	1770	1580	1660
609DA	P_1	0.117	0.089	0.087	0.082	0.069	0.058	0.049	0.042	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
	M_2	181	160	183	200	200	200	200	200	200	200	195	200	195	200	200	146	200
	F_{R2}	3340	3340	3340	3340	3340	3340	3340	3200	3340	3200	3190	3220	3190	3220	3200	3300	3220
610DA	P_1	0.195	0.172	0.142	0.123	0.104	0.088	0.074	0.063	0.057	0.054	0.048	0.043	0.040	0.040	0.040	0.040	0.040
	M_2	300	308	300	300	300	300	300	300	300	300	300	300	300	300	300	296	300
	F_{R2}	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5090	5400
612DA	P_1	0.304	0.308	0.297	0.258	0.218	0.184	0.156	0.133	0.119	0.113	0.100	0.090	0.081	0.076	0.071	0.066	0.058
	M_2	469	552	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
612DB	P_1	0.409	0.347	0.297	0.258	0.218	0.184	0.156	0.133	0.119	0.113	0.100	0.090	0.081	0.076	0.071	0.066	0.058
	M_2	630	622	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
613DB	P_1	0.610	0.524	0.444	0.384	0.325	0.275	0.232	0.199	0.178	0.168	0.143	0.134	0.116	0.113	0.107	0.109	0.087
	M_2	940	940	940	940	940	940	940	940	940	940	900	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
613DC	P_1	0.610	0.524	0.444	0.384	0.325	0.275	0.232	0.199	0.178	0.168	0.143	0.134	0.116	0.113	0.107	0.109	0.087
	M_2	940	940	940	940	940	940	940	940	940	940	900	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
614DC	P_1	0.889	0.721	0.646	0.555	0.470	0.391	0.331	0.290	0.253	0.245	0.218	0.195	0.176	0.165	0.155	0.142	0.126
	M_2	1370	1290	1370	1360	1360	1340	1340	1370	1340	1370	1370	1370	1370	1370	1370	1370	1370
	F_{R2}	15900	16000	15900	16000	16000	16000	16000	15800	16000	15800	16000	15700	16000	15700	16000	16000	15700
616DB	P_1	1.36	1.17	0.991	0.859	0.727	0.613	0.519	0.444	0.397	0.376	0.333	0.300	0.270	0.254	0.238	0.218	0.194
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
616DC	P_1	1.36	1.17	0.991	0.859	0.727	0.613	0.519	0.444	0.397	0.376	0.333	0.300	0.270	0.254	0.238	0.218	0.194
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
617DC	P_1	2.04	1.76	1.49	1.29	1.09	0.920	0.779	0.666	0.595	0.564	0.500	0.449	0.405	0.380	0.357	0.328	0.291
	M_2	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	F_{R2}	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500
618DB	P_1	3.18	2.68	2.31	2.01	1.70	1.46	1.24	1.06	0.945	0.895	0.794	0.713	0.643	0.604	0.567	0.520	0.462
	M_2	4900	4810	4900	4920	4920	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	F_{R2}	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41600	41700
619DA	P_1	4.22	3.66	3.60	3.23	2.74	2.33	1.97	1.68	1.50	1.42	1.26	1.14	1.02	0.961	0.903	0.828	0.735
	M_2	6510	6560	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58200	59000	58200	58300	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000
619DB	P_1	4.95	4.23	3.60	3.23	2.74	2.33	1.97	1.68	1.50	1.42	1.26	1.14	1.02	0.961	0.903	0.828	0.735
	M_2	7630	7580	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58200	59000	58200	58300	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000

* For larger unit ratings, please refer to page 362

TWO STAGE REDUCER SELECTION - 720rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	6.92	5.95	5.03	4.36	3.69	3.12	2.64	2.26	2.02	1.91	1.69	1.52	1.37	1.29	1.21	1.11	0.985
	Ratio	**104**	**121**	**143**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**	**595**	**649**	**731**
606DA	P_1	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	0.050
	M_2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	30.0
	F_{R2}	1180	1140	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	1180
607DA	P_1	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	M_2	60.0	50.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	574	60.0
	F_{R2}	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1770	1660	1770	1580	1660
609DA	P_1	0.146	0.111	0.107	0.102	0.086	0.073	0.061	0.053	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	M_2	181	160	183	200	200	200	200	200	200	200	195	200	195	200	200	146	200
	F_{R2}	3340	3340	3340	3340	3340	3340	3340	3200	3340	3200	3190	3220	3190	3220	3200	3300	3220
610DA	P_1	0.242	0.213	0.176	0.152	0.129	0.109	0.092	0.079	0.070	0.067	0.059	0.053	0.050	0.050	0.050	0.050	0.050
	M_2	300	308	300	300	300	300	300	300	300	300	300	300	300	300	300	296	300
	F_{R2}	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5090	5400
612DA	P_1	0.343	0.363	0.363	0.320	0.271	0.228	0.193	0.165	0.148	0.140	0.124	0.112	0.101	0.094	0.089	0.081	0.072
	M_2	426	524	620	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
612DB	P_1	0.507	0.431	0.369	0.320	0.271	0.228	0.193	0.165	0.148	0.140	0.124	0.112	0.101	0.094	0.089	0.081	0.072
	M_2	630	622	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
613DB	P_1	0.757	0.651	0.551	0.477	0.404	0.341	0.288	0.247	0.221	0.209	0.177	0.166	0.144	0.141	0.132	0.136	0.108
	M_2	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
613DC	P_1	0.757	0.651	0.551	0.477	0.404	0.341	0.288	0.247	0.221	0.209	0.177	0.166	0.144	0.141	0.132	0.136	0.108
	M_2	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
614DC	P_1	1.10	0.894	0.803	0.689	0.583	0.485	0.411	0.360	0.314	0.304	0.270	0.243	0.219	0.205	0.193	0.177	0.157
	M_2	1370	1290	1370	1360	1360	1340	1340	1370	1340	1370	1370	1370	1370	1370	1370	1370	1370
	F_{R2}	15900	16000	15900	16000	16000	16000	16000	15800	16000	15800	16000	15700	16000	15700	16000	16000	15700
616DB	P_1	1.69	1.45	1.23	1.07	0.902	0.762	0.644	0.551	0.493	0.467	0.414	0.372	0.335	0.315	0.296	0.271	0.241
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
616DC	P_1	1.69	1.45	1.23	1.07	0.902	0.762	0.644	0.551	0.493	0.467	0.414	0.372	0.335	0.315	0.296	0.271	0.241
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
617DC	P_1	2.54	2.18	1.85	1.60	1.35	1.14	0.967	0.827	0.739	0.700	0.621	0.558	0.503	0.472	0.443	0.407	0.361
	M_2	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	F_{R2}	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500
618DB	P_1	3.95	3.33	2.87	2.50	2.11	1.81	1.53	1.31	1.17	1.11	0.986	0.886	0.798	0.749	0.704	0.645	0.573
	M_2	4900	4810	4900	4920	4920	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	F_{R2}	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700
619DA	P_1	4.98	4.32	4.32	3.93	3.40	2.89	2.44	2.09	1.87	1.77	1.57	1.41	1.27	1.19	1.12	1.03	0.912
	M_2	6180	6230	7370	7750	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58800	59000	58300	58400	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000
619DB	P_1	6.14	5.25	4.47	4.02	3.40	2.89	2.44	2.09	1.87	1.77	1.57	1.41	1.27	1.19	1.12	1.03	0.912
	M_2	7630	7580	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58200	59000	58200	58300	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000

* For larger unit ratings, please refer to page 362



TWO STAGE REDUCER SELECTION - 980rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	9.42	8.10	6.85	5.94	5.03	4.24	3.59	3.07	2.75	2.60	2.31	2.07	1.87	1.75	1.65	1.51	1.34
	Ratio	**104**	**121**	**143**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**	**595**	**649**	**731**
606DA	P_1	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	-	0.068
	M_2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	30.0
	F_{R2}	1180	1140	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	1180
607DA	P_1	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068
	M_2	60.0	50.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	57.4	60.0
	F_{R2}	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1770	1660	1770	1580	1660
609DA	P_1	0.198	0.151	0.146	0.138	0.117	0.099	0.084	0.071	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068
	M_2	181	160	183	200	200	200	200	200	200	200	195	200	195	200	200	146	200
	F_{R2}	3340	3340	3340	3340	3340	3340	3340	3200	3340	3200	3190	3220	3190	3220	3200	3300	3220
610DA	P_1	0.329	0.290	0.239	0.207	0.175	0.148	0.125	0.107	0.096	0.091	0.080	0.072	0.068	0.068	0.068	0.068	0.068
	M_2	300	308	300	300	300	300	300	300	300	300	300	300	300	300	300	296	300
	F_{R2}	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400
612DA	P_1	0.407	0.429	0.429	0.429	0.368	0.311	0.263	0.225	0.201	0.191	0.169	0.152	0.137	0.129	0.121	0.111	0.098
	M_2	372	456	539	621	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
612DB	P_1	0.691	0.586	0.502	0.435	0.368	0.311	0.263	0.225	0.201	0.191	0.169	0.152	0.137	0.129	0.121	0.111	0.098
	M_2	630	622	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
613DB	P_1	1.03	0.886	0.750	0.650	0.550	0.464	0.393	0.336	0.300	0.284	0.241	0.227	0.195	0.192	0.180	0.184	0.147
	M_2	940	940	940	940	940	940	940	940	940	940	940	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
613DC	P_1	1.03	0.886	0.750	0.650	0.550	0.464	0.393	0.336	0.300	0.284	0.241	0.227	0.195	0.192	0.180	0.184	0.147
	M_2	940	940	940	940	940	940	940	940	940	940	940	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
614DC	P_1	1.50	1.22	1.09	0.940	0.790	0.660	0.560	0.490	0.430	0.410	0.370	0.330	0.300	0.280	0.260	0.240	0.210
	M_2	1370	1290	1370	1360	1360	1340	1340	1370	1340	1370	1370	1370	1370	1370	1370	1370	1370
	F_{R2}	15900	16000	15900	16000	16000	16000	16000	15800	16000	15800	16000	15700	16000	15700	16000	16000	15700
616DB	P_1	2.30	1.98	1.67	1.45	1.23	1.04	0.877	0.751	0.671	0.635	0.563	0.506	0.456	0.428	0.402	0.369	0.328
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
616DC	P_1	2.30	1.98	1.67	1.45	1.23	1.04	0.877	0.751	0.671	0.635	0.563	0.506	0.456	0.428	0.402	0.369	0.328
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
617DC	P_1	3.45	2.97	2.51	2.18	1.84	1.55	1.32	1.13	1.01	0.950	0.850	0.760	0.680	0.640	0.600	0.550	0.490
	M_2	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	F_{R2}	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500
618DB	P_1	5.37	4.53	3.91	3.40	2.88	2.47	2.09	1.79	1.60	1.51	1.34	1.21	1.09	1.02	0.960	0.880	0.780
	M_2	4900	4810	4900	4920	4920	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	F_{R2}	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41600	41700
619DA	P_1	6.31	5.46	5.31	4.83	4.33	3.93	3.32	2.85	2.54	2.41	2.14	1.92	1.73	1.62	1.53	1.40	1.24
	M_2	5750	5800	6660	6990	7410	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58900	59000	58600	58600	58500	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000
619DB	P_1	8.36	7.14	6.08	5.46	4.62	3.93	3.32	2.85	2.54	2.41	2.14	1.92	1.73	1.62	1.53	1.40	1.24
	M_2	7630	7580	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	58200	59000	58200	58300	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000

* For larger unit ratings, please refer to page 362

TWO STAGE REDUCER SELECTION - 1450rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	13.9	12.0	10.1	8.79	7.44	6.28	5.31	4.55	4.06	3.85	3.41	3.07	2.76	2.59	2.44	2.23	1.98
	Ratio	**104**	**121**	**143**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**	**595**	**649**	**731**
606DA	P_1	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	-	0.100
	M_2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	30.0
	F_{R2}	1180	1140	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	1180
607DA	P_1	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
	M_2	60.0	50.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	57.4	60.0
	F_{R2}	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1770	1660	1770	1580	1660
609DA	P_1	0.293	0.224	0.216	0.204	0.173	0.146	0.124	0.106	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
	M_2	181	160	183	200	200	200	200	200	200	200	195	200	195	200	200	146	200
	F_{R2}	3340	3340	3340	3340	3340	3340	3340	3200	3340	3200	3190	3220	3190	3220	3200	3300	3220
610DA	P_1	0.429	0.429	0.354	0.307	0.260	0.219	0.185	0.159	0.142	0.134	0.119	0.107	0.100	0.100	0.100	0.100	0.100
	M_2	265	308	300	300	300	300	300	300	300	300	300	300	300	300	300	296	300
	F_{R2}	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5090	5400
612DA	P_1	0.429	0.429	0.429	0.429	0.429	0.429	0.389	0.333	0.298	0.282	0.250	0.225	0.202	0.190	0.179	0.164	0.145
	M_2	265	308	364	420	496	588	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
612DB	P_1	1.02	0.867	0.743	0.644	0.545	0.460	0.389	0.333	0.298	0.282	0.250	0.225	0.202	0.190	0.179	0.164	0.145
	M_2	630	622	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
613DB	P_1	1.52	1.31	1.11	0.961	0.813	0.686	0.581	0.497	0.444	0.421	0.357	0.335	0.289	0.284	0.267	0.273	0.217
	M_2	940	940	940	940	940	940	940	940	940	940	900	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
613DC	P_1	1.52	1.31	1.11	0.961	0.813	0.686	0.581	0.497	0.444	0.421	0.357	0.335	0.289	0.284	0.267	0.273	0.217
	M_2	940	940	940	940	940	940	940	940	940	940	900	940	900	940	940	1050	940
	F_{R2}	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
614DC	P_1	2.22	1.80	1.62	1.39	1.17	0.977	0.827	0.725	0.632	0.613	0.544	0.489	0.440	0.413	0.388	0.356	0.316
	M_2	1370	1290	1370	1360	1360	1340	1340	1370	1340	1370	1370	1370	1370	1370	1370	1370	1370
	F_{R2}	15900	16000	15900	16000	16000	16000	16000	15800	16000	15800	16000	15700	16000	15700	16000	16000	15700
616DB	P_1	3.36	2.93	2.48	2.15	1.82	1.53	1.30	1.11	0.992	0.940	0.834	0.749	0.675	0.634	0.595	0.546	0.485
	M_2	2070	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
616DC	P_1	3.41	2.93	2.48	2.15	1.82	1.53	1.30	1.11	0.992	0.940	0.834	0.749	0.675	0.634	0.595	0.546	0.485
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
617DC	P_1	5.11	4.39	3.72	3.22	2.73	2.30	1.95	1.67	1.49	1.41	1.25	1.12	1.01	0.951	0.893	0.819	0.727
	M_2	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	F_{R2}	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500
618DB	P_1	7.95	6.70	5.78	5.03	4.26	3.65	3.09	2.64	2.36	2.24	1.98	1.78	1.61	1.51	1.42	1.30	1.15
	M_2	4900	4810	4900	4920	4920	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	F_{R2}	39900	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41600	41700
619DA	P_1	7.33	6.25	6.25	6.25	5.63	5.81	4.92	4.21	3.76	3.56	3.16	2.84	2.56	2.40	2.26	2.07	1.84
	M_2	4520	4480	5300	6110	6500	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	56500	59000	59000	59000	58800	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000
619DB	P_1	11.90	10.60	9.00	8.09	6.84	5.81	4.92	4.21	3.76	3.56	3.16	2.84	2.56	2.40	2.26	2.07	1.84
	M_2	7350	7580	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	55400	59000	58200	58300	58300	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000

* For larger unit ratings, please refer to page 362



TWO STAGE REDUCER SELECTION - 2900rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	27.9	24.0	20.3	17.6	14.9	12.6	10.6	9.09	8.12	7.69	6.82	6.13	5.52	5.19	4.87	4.47	3.97
	Ratio	**104**	**121**	**143**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**	**595**	**649**	**731**
606DA	P_1	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	-	0.200
	M_2	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-	30.0
	F_{R2}	1180	1140	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	1180
607DA	P_1	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	M_2	60.0	50.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	57.4	60.0
	F_{R2}	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1660	1770	1660	1770	1580	1660
609DA	P_1	0.422	0.429	0.429	0.409	0.346	0.292	0.247	0.212	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	M_2	130	154	182	200	200	200	200	200	200	200	195	200	195	200	200	146	200
	F_{R2}	3340	3340	3340	3340	3340	3340	3340	3200	3340	3200	3190	3220	3190	3220	3200	3300	3220
610DA	P_1	0.422	0.429	0.429	0.429	0.429	0.429	0.371	0.317	0.284	0.268	0.238	0.214	0.200	0.200	0.200	0.200	0.200
	M_2	130	154	182	210	248	294	300	300	300	300	300	300	300	300	300	296	300
	F_{R2}	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400	5090	5400
612DA	P_1	0.422	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.405	0.380	0.357	0.328	0.291
	M_2	130	154	182	210	248	294	347	406	454	480	541	602	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
612DB	P_1	1.19	1.60	1.49	1.29	1.09	0.920	0.779	0.666	0.595	0.564	0.500	0.449	0.405	0.380	0.357	0.328	0.291
	M_2	367	573	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
	F_{R2}	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810	9810
613DB	P_1	1.19	1.60	1.60	1.60	1.60	1.37	1.16	0.994	0.888	0.841	0.715	0.671	0.578	0.567	0.533	0.546	0.434
	M_2	367	573	678	782	924	940	940	940	940	940	940	940	940	940	940	1050	940
	F_{R2}	12900	13600	14200	14400	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
613DC	P_1	3.05	2.62	2.22	1.92	1.63	1.37	1.16	0.994	0.888	0.841	0.715	0.671	0.578	0.567	0.533	0.546	0.434
	M_2	940	940	940	940	940	940	940	940	940	940	900	940	900	940	940	1050	940
	F_{R2}	12500	13300	14000	14300	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	14700
614DC	P_1	3.36	3.36	3.23	2.78	2.35	1.95	1.65	1.45	1.26	1.23	1.09	0.977	0.880	0.827	0.777	0.712	0.632
	M_2	1030	1200	1370	1360	1360	1340	1340	1370	1340	1370	1370	1370	1370	1370	1370	1370	1370
	F_{R2}	16000	16000	15900	16000	16000	16000	16000	15800	16000	15800	16000	15700	16000	15700	16000	16000	15700
616DB	P_1	3.36	3.36	3.36	3.36	3.36	3.07	2.60	2.22	1.98	1.88	1.67	1.50	1.35	1.27	1.19	1.09	0.969
	M_2	1030	1200	1420	1640	1940	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	21900	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
616DC	P_1	6.81	5.86	4.95	4.29	3.63	3.07	2.60	2.22	1.98	1.88	1.67	1.50	1.35	1.27	1.19	1.09	0.969
	M_2	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	F_{R2}	21300	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100
617DC	P_1	7.31	6.25	6.25	6.25	5.45	4.60	3.89	3.33	2.98	2.82	2.50	2.25	2.02	1.90	1.79	1.64	1.45
	M_2	2250	2240	2650	3060	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	F_{R2}	24100	25800	26800	28000	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500
618DB	P_1	15.9	13.4	11.6	10.1	8.52	7.30	6.18	5.29	4.73	4.47	3.97	3.57	3.21	3.02	2.84	2.60	2.31
	M_2	4900	4810	4900	4920	4920	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	F_{R2}	31200	33400	34900	37000	39200	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41600	41700
619DA	P_1	7.31	6.25	6.25	6.25	6.25	6.25	6.25	6.25	5.97	6.25	5.97	5.68	5.12	4.80	4.51	4.14	3.67
	M_2	2250	2240	2650	3060	3610	4280	5060	5910	6320	6980	7520	7960	7960	7960	7960	7960	7960
	F_{R2}	45300	48300	50300	52800	55700	59000	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000
619DB	P_1	21.9	21.1	18.0	16.2	13.7	11.6	9.84	8.42	7.52	7.12	6.32	5.68	5.12	4.80	4.51	4.14	3.67
	M_2	6740	7580	7630	7910	7910	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960	7960
	F_{R2}	43700	46500	48500	51100	54100	58800	59000	59000	59000	59000	59000	59000	59000	59000	58600	58100	59000

* For larger unit ratings, please refer to page 362

SINGLE STAGE REDUCER SELECTION - 580rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	52.7	38.7	27.6	20.0	13.5	9.8	6.7
	Ratio	**11**	**15**	**21**	**29**	**43**	**59**	**87**
620	P_1	46.8	39.5	28.2	20.3	13.8	10.1	6.43
	M_2	8050	9270	9270	9230	9300	9300	8760
	F_{R2}	67300	72500	81600	84100	84100	84100	84100
621	P_1	64.0	51.9	38.1	27.9	18.8	13.7	8.28
	M_2	11000	12200	12500	12700	12700	12700	11300
	F_{R2}	67300	72600	82500	90200	102000	104000	104000
622	P_1	74.7	61.7	45.1	33.2	23.8	17.2	11.1
	M_2	12900	14500	14800	15000	16000	15900	15100
	F_{R2}	71100	77100	86900	95200	108000	118000	133000
623	P_1	99.9	83.6	57.5	41.7	30.5	22.2	12.6
	M_2	17200	19600	18900	18900	20500	20500	17200
	F_{R2}	88800	95300	108000	119000	133000	146000	166000
624	P_1	117.0	112.0	78.5	56.9	38.4	28.0	16.6
	M_2	20200	26200	25800	25800	25800	25800	22600
	F_{R2}	98600	106000	119000	131000	149000	163000	185000
625	P_1	151.0	133.0	94.4	71.6	51.3	37.4	22.8
	M_2	25900	31200	31000	32500	34500	34500	31000
	F_{R2}	121000	130000	146000	161000	182000	200000	226000
626	P_1	175.0	175.0	140.0	101.0	68.4	49.8	32.3
	M_2	30100	41000	46000	46000	46000	46000	44000
	F_{R2}	148000	158000	177000	197000	222000	243000	274000

SINGLE STAGE REDUCER SELECTION - 720rpm Input

Size	n_2	65.5	48.0	34.3	24.8	16.7	12.2	8.3
	Ratio	**11**	**15**	**21**	**29**	**43**	**59**	**87**
620	P_1	55.2	49.0	35.0	25.3	17.2	12.5	7.99
	M_2	7650	9270	9270	9230	9300	9300	8760
	F_{R2}	63000	67800	76300	83600	84100	84100	84100
621	P_1	75.3	64.4	47.2	34.6	23.3	17.0	10.3
	M_2	10400	12200	12500	12700	12700	12700	11300
	F_{R2}	63000	67900	77200	84400	95800	104000	104000
622	P_1	88.1	76.6	55.9	41.2	29.5	21.4	13.7
	M_2	12200	14500	14800	15000	16000	15900	15100
	F_{R2}	66600	72100	81200	89000	101000	110000	124000
623	P_1	113.0	104.0	71.4	51.7	37.6	27.3	15.7
	M_2	15700	19600	18900	18900	20400	20300	17200
	F_{R2}	83400	89000	101000	111000	125000	137000	155000
624	P_1	132.0	132.0	97.5	70.6	47.6	34.7	20.7
	M_2	18300	24900	25800	25800	25800	25800	22600
	F_{R2}	92600	98800	112000	123000	139000	152000	173000
625	P_1	151.0	151.0	117.0	88.9	61.5	44.9	28.3
	M_2	20900	28500	31000	32500	33300	33400	31000
	F_{R2}	114000	122000	136000	151000	170000	187000	211000
626	P_1	175.0	175.0	172.0	126.0	84.9	61.9	40.2
	M_2	24200	33000	45400	46000	46000	46000	44000
	F_{R2}	140000	149000	166000	184000	208000	228000	257000



SINGLE STAGE REDUCER SELECTION - 980rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	89.1	65.3	46.7	33.8	22.8	16.6	11.3
	Ratio	**11**	**15**	**21**	**29**	**43**	**59**	**87**
620	P_1	59.7	59.7	47.7	34.4	23.4	17.0	10.9
	M_2	6080	8290	9270	9230	9300	9300	8760
	F_{R2}	57700	61800	69400	76000	84100	84100	84100
621	P_1	75.3	75.3	64.3	47.1	31.8	23.2	14.0
	M_2	7670	10500	12500	12700	12700	12700	11300
	F_{R2}	58000	62000	70100	76600	87100	95100	104000
622	P_1	99.5	99.5	76.1	56.0	40.2	29.1	18.7
	M_2	10100	13800	14800	15000	16000	15900	15100
	F_{R2}	61000	65500	73700	80800	91700	100000	113000
623	P_1	113.0	113.0	97.2	70.4	47.6	34.6	21.3
	M_2	11500	15700	18900	18900	18900	18900	17200
	F_{R2}	76700	81700	91900	101000	114000	125000	141000
624	P_1	132.0	132.0	120.0	94.2	64.8	47.2	28.1
	M_2	13400	18300	23300	25300	25800	25800	22600
	F_{R2}	85200	91100	102000	112000	126000	138000	157000
625	P_1	151.0	151.0	151.0	118.0	77.9	56.8	38.5
	M_2	15300	20900	29300	31800	31000	31000	31000
	F_{R2}	104000	112000	124000	137000	155000	170000	192000
626	P_1	175.0	175.0	172.0	159.0	113.0	84.2	53.4
	M_2	17800	24300	33400	42700	45000	46000	43000
	F_{R2}	128000	137000	152000	168000	189000	207000	234000

SINGLE STAGE REDUCER SELECTION - 1450rpm Input

Size	n_2	131.8	96.7	69.0	50.0	33.7	24.6	16.7
	Ratio	**11**	**15**	**21**	**29**	**43**	**59**	**87**
620	P_1	59.7	59.7	59.2	45.7	31.8	22.6	15.9
	M_2	4110	5600	7780	8280	8550	8340	8650
	F_{R2}	51700	55400	61800	67500	76500	83500	84100
621	P_1	75.3	75.3	75.3	58.5	45.2	33.9	19.7
	M_2	5190	7070	9900	10600	12200	12500	10700
	F_{R2}	52000	55700	62600	68300	77200	84200	95400
622	P_1	99.5	99.5	94.2	75.3	56.5	39.3	26.7
	M_2	6850	9330	12400	13700	15200	14500	14600
	F_{R2}	54800	59000	65700	71800	81300	89000	100000
623	P_1	-	-	-	-	-	-	-
	M_2	-	-	-	-	-	-	-
	F_{R2}	-	-	-	-	-	-	-
624	P_1	-	-	-	-	-	-	-
	M_2	-	-	-	-	-	-	-
	F_{R2}	-	-	-	-	-	-	-
625	P_1	-	-	-	-	-	-	-
	M_2	-	-	-	-	-	-	-
	F_{R2}	-	-	-	-	-	-	-
626	P_1	-	-	-	-	-	-	-
	M_2	-	-	-	-	-	-	-
	F_{R2}	-	-	-	-	-	-	-

TWO STAGE REDUCER SELECTION - 720rpm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	5.95	4.36	3.69	3.12	2.64	2.26	2.02	1.91	1.52	1.29	1.11	0.985
	Ratio	**121**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**473**	**559**	**649**	**731**
620DB	P_1	5.97	4.71	3.98	3.36	2.85	2.42	2.18	2.05	1.65	1.39	1.20	1.09
	M_2	8620	9270	9270	9270	9270	9230	9270	9230	9300	9300	9300	9300
	F_{R2}	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100
621DA	P_1	7.16	6.18	5.23	4.53	3.84	3.32	2.93	2.81	2.24	1.90	1.63	1.45
	M_2	10300	12200	12200	12500	12500	12700	12500	12700	12700	12700	12700	12700
	F_{R2}	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000
622DB	P_1	9.32	7.35	6.22	5.37	4.54	3.95	3.47	3.34	2.83	2.40	2.05	1.83
	M_2	13500	14500	14500	14800	14800	15000	14800	15000	16000	16000	15900	16000
	F_{R2}	140000	145000	145000	145000	145000	145000	145000	145000	145000	145000	145000	145000
623DA	P_1	13.0	9.96	8.42	6.85	5.80	4.96	4.43	4.20	3.63	3.07	2.65	2.35
	M_2	18700	19600	19600	18900	18900	18900	18900	18900	20500	20500	20500	20500
	F_{R2}	174000	179000	179000	179000	179000	179000	179000	179000	179000	179000	179000	179000
624DA	P_1	14.2	13.3	11.3	9.36	7.92	6.78	6.05	5.73	4.57	3.87	3.33	2.96
	M_2	20500	26200	26200	25800	25800	25800	25800	25800	25800	25800	25800	25800
	F_{R2}	194000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000
625DA	P_1	19.0	15.8	13.4	11.2	9.51	8.53	7.27	7.22	6.11	5.17	4.45	3.95
	M_2	27500	31200	31200	31000	31000	32500	31000	32500	34500	34500	34500	34500
	F_{R2}	237000	255000	258000	258000	258000	258000	258000	258000	258000	258000	258000	258000
626DA	P_1	21.7	22.2	18.8	16.7	14.1	12.1	10.8	10.2	8.15	6.89	5.94	5.27
	M_2	31300	43700	43700	46000	46000	46000	46000	46000	46000	46000	46000	46000
	F_{R2}	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000

TWO STAGE REDUCER SELECTION - 980rpm Input

Size	n_2	8.10	5.94	5.03	4.24	3.59	3.07	2.75	2.60	2.07	1.75	1.51	1.34
	Ratio	**121**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**473**	**559**	**649**	**731**
620DB	P_1	8.12	6.41	5.42	4.58	3.87	3.30	2.96	2.79	2.24	1.90	1.63	1.49
	M_2	8620	9270	9270	9270	9270	9230	9270	9230	9300	9300	9300	9300
	F_{R2}	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100
621DA	P_1	9.70	8.40	7.10	6.20	5.20	4.50	4.00	3.80	3.10	2.60	2.20	2.00
	M_2	10300	12200	12200	12500	12500	12700	12500	12700	12700	12700	12700	12700
	F_{R2}	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000
622DB	P_1	12.7	10.0	8.50	7.30	6.20	5.40	4.70	4.60	3.90	3.30	2.80	2.50
	M_2	13500	14500	14500	14800	14800	15000	14800	15000	16000	16000	15900	16000
	F_{R2}	127000	138000	145000	145000	145000	145000	145000	145000	145000	145000	145000	145000
623DA	P_1	17.6	13.6	11.5	9.30	7.90	6.80	6.00	5.70	4.90	4.20	3.60	3.20
	M_2	18700	19600	19600	18900	18900	18900	18900	18900	20500	20500	20500	20500
	F_{R2}	159000	171000	179000	179000	179000	179000	179000	179000	179000	179000	179000	179000
624DA	P_1	19.4	18.1	15.3	12.7	10.8	9.20	8.20	7.80	6.20	5.30	4.50	4.00
	M_2	20500	26200	26200	25800	25800	25800	25800	25800	25800	25800	25800	25800
	F_{R2}	176000	189000	199000	208000	208000	208000	208000	208000	208000	208000	208000	208000
625DA	P_1	25.9	21.5	18.2	15.3	12.9	11.6	9.90	9.82	8.32	7.04	6.06	5.38
	M_2	27500	31200	31200	31000	31000	32500	31000	32500	34500	34500	34500	34500
	F_{R2}	215000	232000	244000	258000	258000	258000	258000	258000	258000	258000	258000	258000
626DA	P_1	29.5	30.2	25.6	22.7	19.2	16.4	14.7	13.9	11.1	9.40	8.10	7.20
	M_2	31300	43700	43700	46000	46000	46000	46000	46000	46000	46000	46000	46000
	F_{R2}	264000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000



TWO STAGE REDUCER SELECTION - 1450pm Input

These rating tables are based on a service factor of 1.0 - suitable for 10hrs/day at Uniform Load.

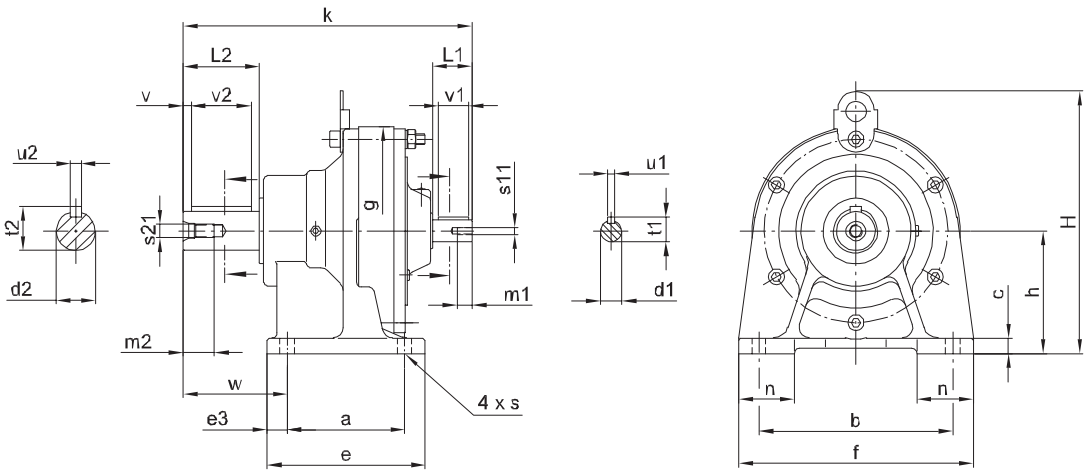
M_2 = Allowable output torque (Nm)
F_{R2} = Allowable Radial load applied to middle of shaft (N)
P_1 = Allowable Input Power (kW)
n_2 = Output Speed (rpm)

Size	n_2	12.0	8.79	7.44	6.28	5.31	4.55	4.06	3.85	3.41	3.07	2.76	2.59
	Ratio	**121**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**425**	**473**	**525**	**559**
620DB	P_1	11.9	9.48	8.02	6.77	5.73	4.88	4.38	4.13	3.32	2.81	2.42	2.20
	M_2	8560	9270	9270	9270	9270	9230	9270	9230	9300	9300	9300	9300
	F_{R2}	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100
621DA	P_1	11.9	11.9	10.5	9.13	7.72	6.69	5.91	5.66	4.51	3.82	3.29	2.92
	M_2	8560	11700	12200	12500	12500	12700	12500	12700	12700	12700	12700	12700
	F_{R2}	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000	104000
622DB	P_1	18.8	14.8	12.5	10.8	9.15	7.95	6.99	6.73	5.71	4.83	4.13	3.69
	M_2	13500	14500	14500	14800	14800	15000	14800	15000	16000	16000	15900	16000
	F_{R2}	113000	122000	129000	137000	145000	145000	145000	145000	145000	145000	145000	145000
623DA	P_1	25.4	20.0	17.0	13.8	11.7	10.0	8.93	8.46	7.31	6.19	5.33	4.73
	M_2	18200	19600	19600	18900	18900	18900	18900	18900	20500	20500	20500	20500
	F_{R2}	141000	151000	159000	171000	179000	179000	179000	179000	179000	179000	179000	179000
624DA	P_1	25.4	25.4	22.7	18.8	15.9	13.6	12.2	11.5	9.20	7.79	6.71	5.95
	M_2	18200	24800	26200	25800	25800	25800	25800	25800	25800	25800	25800	25800
	F_{R2}	157000	168000	177000	189000	199000	208000	208000	208000	208000	208000	208000	208000
625DA	P_1	31.8	31.8	27.0	22.6	19.2	17.2	14.6	14.5	12.3	10.4	8.97	7.96
	M_2	22800	31100	31200	31000	31000	32500	31000	32500	34500	34500	34500	34500
	F_{R2}	192000	206000	216000	231000	243000	255000	258000	258000	258000	258000	258000	258000
626DA	P_1	43.7	44.7	37.8	33.6	28.4	24.3	21.7	20.6	16.4	13.9	12.0	10.6
	M_2	31300	43700	43700	46000	46000	46000	46000	46000	46000	46000	46000	46000
	F_{R2}	234000	250000	263000	276000	276000	276000	276000	276000	276000	276000	276000	276000

TWO STAGE REDUCER SELECTION - 2900rpm Input

Size	n_2	24.0	17.6	14.9	12.6	10.6	9.09	8.12	7.69	6.13	5.19	4.47	3.97
	Ratio	**121**	**165**	**195**	**231**	**273**	**319**	**357**	**377**	**473**	**559**	**649**	**731**
620DB	P_1	24.0	19.0	16.0	13.5	11.5	9.76	8.77	8.26	6.63	5.61	4.83	-
	M_2	8620	9270	9270	9270	9270	9230	9270	9230	9300	9300	9300	-
	F_{R2}	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	84100	-
621DA	P_1	30.9	24.9	21.1	18.3	15.4	13.4	11.8	11.3	9.02	7.64	6.58	-
	M_2	11100	12200	12200	12500	12500	12700	12500	12700	12700	12700	12700	-
	F_{R2}	86100	92900	97800	104000	104000	104000	104000	104000	104000	104000	104000	-
622DB	P_1	-	-	-	-	-	-	-	-	-	-	-	-
	M_2	-	-	-	-	-	-	-	-	-	-	-	-
	F_{R2}	-	-	-	-	-	-	-	-	-	-	-	-
623DA	P_1	52.2	40.1	33.9	27.6	23.4	20.0	17.9	16.9	14.6	12.4	10.7	-
	M_2	18700	19600	19600	18900	18900	18900	18900	18900	20500	20500	20500	-
	F_{R2}	113000	122000	128000	138000	146000	152000	158000	160000	170000	179000	179000	-
624DA	P_1	57.3	53.7	45.4	37.7	31.9	27.3	24.4	23.1	18.4	15.6	13.4	-
	M_2	20500	26200	26200	25800	25800	25800	25800	25800	25800	25800	25800	-
	F_{R2}	126000	135000	142000	153000	161000	168000	175000	177000	190000	200000	208000	-
625DA	P_1	76.7	63.7	53.9	45.3	38.3	34.3	29.3	29.1	24.6	20.8	17.9	-
	M_2	27500	31200	31200	31000	31000	32500	31000	32500	34500	34500	34500	-
	F_{R2}	154000	166000	175000	186000	196000	206000	213000	217000	232000	244000	254000	-
626DA	P_1	87.4	89.4	75.7	67.2	56.9	48.7	43.5	41.2	32.8	27.8	23.9	-
	M_2	31300	43700	43700	46000	46000	46000	46000	46000	46000	46000	46000	-
	F_{R2}	189000	202000	212000	227000	239000	252000	259000	265000	276000	276000	276000	-

FOOT MOUNTING (TYPE G)



Unit Size	a	b	c	d1 HS	d2 LS	e	e3	f	Øg	h	H	k	L1	L2	m1	m2	n	s	s11	s21	t1	t2	u1	u2	v	v1	v2	w	kg
606	60	120	10	12	14	84	12	144	110	80	-	150	25	30	8	12	48	9	M4	M5	13.5	16	4	5	2.5	22	25	46	2.5
607	60	120	10	12	20	84	12	144	110	80	-	161	25	40	8	15	48	9	M4	M6	13.5	22.5	4	6	4	22	32	57	2.5
608	75	120	13	12	25	99	12	144	134	90	-	193	25	50	8	22	49	9	M4	M10	13.5	28	4	8	3.5	22	40	67	8
609	90	150	12	14	25	135	15	180	150	100	-	217	25	50	10	22	65	11	M5	M10	16	28	5	8	3.5	21	40	75	9
610	90	150	12	14	30	135	15	180	150	100	-	233	25	60	10	22	40	11	M5	M10	16	33	5	8	3.5	21	50	85	13
611	90	150	12	14	35	135	15	180	162	120	-	243	25	70	10	28	45	11	M5	M12	16	38	5	10	7	21	56	95	15
612	115	190	15	19	35	155	20	230	204	120	257	274	35	70	12	28	55	14	M5	M12	21.5	38	6	10	7	27	56	97	24
613	145	290	22	22	50	195	25	330	230	150	300	351	40	100	16	36	65	18	M8	M16	24.5	53.5	6	14	10	34	80	130	43
614	145	290	22	22	50	195	25	330	230	150	300	351	40	100	16	36	65	18	M8	M16	24.5	53.5	6	14	10	34	80	130	44
616	150	370	25	30	60	238	44	410	318	160	367	413	45	90	16	18	75	18	M8	M10	33	64	8	18	0	45	80	139	84
617	275	380	30	35	70	335	30	430	362	200	429	477	55	90	16	24	80	22	M8	M12	38	74.5	10	20	0	50	80	125	125
618	320	420	30	40	80	380	30	470	390	220	467	527	65	110	18	24	85	22	M10	M12	43	85	12	22	0	63	100	145	163
619	380	480	35	45	95	440	30	530	451	250	538	620	70	135	18	34	90	26	M10	M20	48.5	100	14	25	0	70	125	170	240
620	360	440	35	45	100	440	40	530	471	250	530	678	82	165	18	34	100	26	M10	M20	48.5	106	14	28	0	82	165	215	255
621	395	480	40	50	110	475	40	580	507	265	575	708	82	165	18	34	110	26	M10	M20	53.5	116	14	28	0	82	165	210	336
622	420	540	40	55	120	520	50	620	549	280	610	752	82	165	18	34	115	33	M10	M20	59	127	16	32	0	82	165	230	409
623	460	580	45	60	130	560	50	670	591	300	667	839	105	200	18	41	120	33	M10	M24	64	137	18	32	0	105	200	260	503
624	480	630	45	65	140	580	50	720	637	335	729	877	105	200	24	41	128	39	M12	M24	69	148	18	36	0	105	200	263	614
625	520	670	50	80	160	630	55	780	703	375	815	1040	130	240	24	49	140	39	M12	M30	85	169	22	40	0	130	240	320	957
626	590	770	55	80	170	700	55	880	772	400	874	1150	130	300	24	49	160	45	M12	M30	85	179	22	40	0	130	300	390	1190
627	420	1050	60	90	180	1040	100	1160	986	540	1161	1462	150	330	24	52	200	45	M16	M30	95	190	25	45	0	140	330	485	2460

All dimensions are in mm

TECHNICAL NOTES

Keys and keyways acc. to DIN 6885-1

Tolerances according to DIN ISO 286-2

Output Shaft Tolerances are k6 up to and including Ø35mm and h6 from Ø50mm and above. Input shafts of Ø22mm and below have a k6 tolerance and from Ø30mm and above have a h6 tolerance.

MOUNTING POSTIONS

Foot mounted and Flange mounted units from size 606 - 612 are grease lubricated for life and suitable for any mounting position.

Units from size 613 - 625 are oil lubricated for Horizontal and vertical mounting.

For unit sizes 616 and above there is an additional oil circulating pump system required for vertical mounting positions - please consult your local Authorised Distributor.

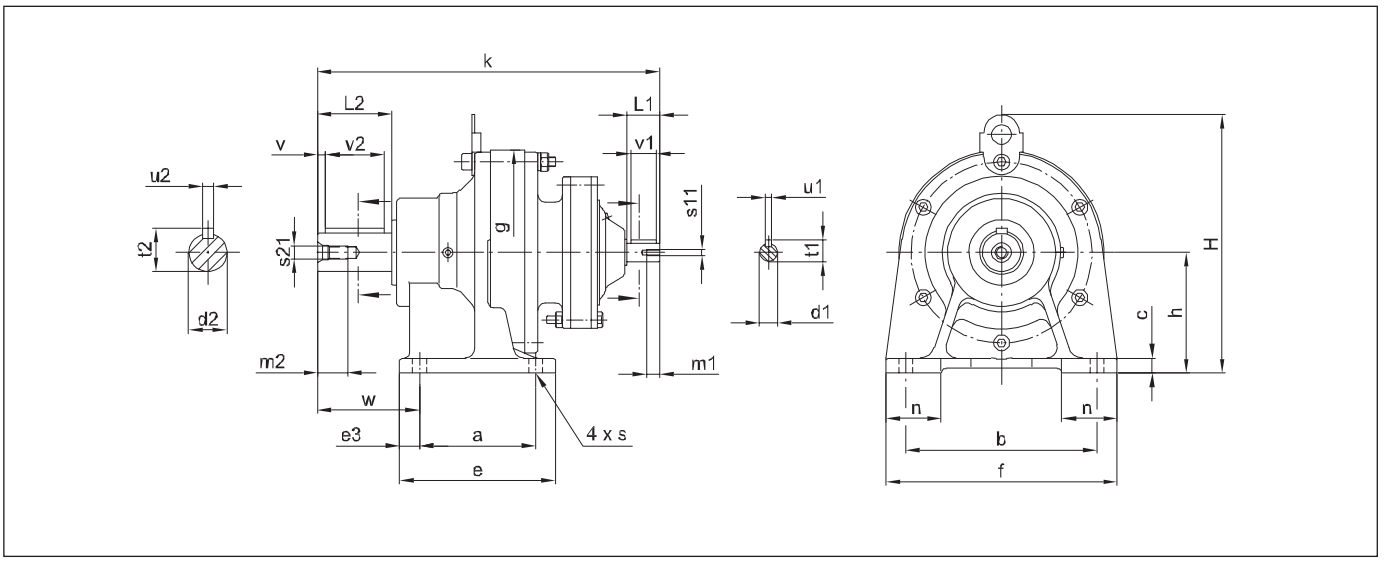
All speed reducers are also available as flange mounted or face mounted, for additional dimensions please see page 345.

LUBRICANT QUANTITIES

Size	Oil Qty*
613	0.7
614	0.7
616	1.4
617	1.9
618	2.5
619	4.0
620	5.5
621	8.5
622	10.0
623	15.0
624	16.0
625	21.0
626	29.0
627	56.0

* For foot mounted horizontal units this quantity is an approximate figure only - the actual fill quantity should be determined by means of the oil level gauge.

FOOT MOUNTING (TYPE DAG / DBG / DCG)



Unit Size	a	b	c	d1 HS	d2 LS	e	e3	f	Øg	h	H	k	L1	L2	m1	m2	n	s	s11	s21	t1	t2	u1	u2	v	v1	v2	w	kg
606DA	60	120	10	12	14	84	12	144	110	80	-	178	25	30	8	12	48	9	M4	M5	13.5	16	4	5	2.5	22	25	46	4
607DA	60	120	10	12	20	84	12	144	110	80	-	194	25	40	8	15	48	9	M4	M6	13.5	22.5	4	6	4	22	32	57	5
609DA	90	150	12	12	25	135	15	180	150	100	-	258	25	50	8	22	65	11	M4	M10	13.5	28	4	8	3.5	22	40	75	12
610DA	90	150	12	12	30	135	15	180	150	100	-	283	25	60	8	22	40	11	M4	M10	13.5	33	4	8	3.5	22	50	85	15
612DA	115	190	15	12	35	155	20	230	204	120	257	308	25	70	8	28	55	14	M4	M12	13.5	38	4	10	3.5	22	56	97	26
612DB	115	190	15	14	35	155	20	230	204	120	257	327	25	70	10	28	55	14	M5	M12	16	38	5	10	7	21	56	97	30
613DB	145	290	22	14	50	195	25	330	230	150	300	394	25	100	10	36	65	18	M5	M16	16	53.5	5	14	10	21	80	130	45
613DC	145	290	22	14	50	195	25	330	230	150	300	400	25	100	10	36	65	18	M5	M16	16	53.5	5	14	10	21	80	130	46
614DC	145	290	22	14	50	195	25	330	230	150	300	400	25	100	10	36	65	18	M5	M16	16	53.5	5	14	10	21	80	130	46
616DB	150	370	25	14	60	238	44	410	300	160	353	440	25	90	10	18	75	18	M5	M10	16	64	5	18	0	21	80	139	87
616DC	150	370	25	19	60	238	44	410	300	160	353	463	35	90	12	18	75	18	M6	M10	21.5	64	6	18	0	27	80	139	94
617DC	275	380	30	19	70	335	30	430	340	200	418	510	35	90	12	24	80	22	M6	M12	21.5	74.5	6	20	0	27	80	125	128
618DB	320	420	30	22	80	380	30	470	370	220	451	577	40	110	16	24	85	22	M8	M12	24.5	85	6	22	0	34	100	145	183
619DA	380	480	35	19	95	440	30	530	430	250	531	629	35	135	12	34	90	26	M8	M20	21.5	100	6	25	0	27	125	170	241
619DB	380	480	35	22	95	440	30	530	430	250	531	653	40	135	16	34	90	26	M8	M20	24.5	100	6	25	0	34	125	170	250
620DB	360	440	35	22	100	440	40	530	448	250	530	705	40	165	16	34	100	26	M8	M20	24.5	106	6	28	0	34	165	215	273
621DA	395	480	40	22	110	475	40	580	485	265	575	731	40	165	16	34	110	26	M8	M20	24.5	116	6	28	0	34	165	210	354
622DA	420	540	40	22	120	520	50	620	526	280	610	773	40	165	16	34	115	33	M8	M20	24.5	127	6	32	0	34	165	230	429
622DB	420	540	40	35	120	520	50	620	526	280	610	860	55	165	16	34	115	33	M8	M20	38	127	10	32	0	50	165	230	476
623DA	460	580	45	30	130	560	50	670	562	300	667	883	45	200	16	41	120	33	M8	M24	33	137	8	32	0	45	200	260	548
624DA	480	630	45	30	140	580	50	720	614	335	729	921	45	200	16	41	128	39	M8	M24	33	148	8	36	0	45	200	263	656
625DA	520	670	50	35	160	630	55	780	670	375	815	1081	55	240	16	49	140	39	M8	M30	38	169	10	40	0	50	240	320	1010
626DA	590	770	55	45	170	700	55	880	736	400	874	1243	70	300	18	49	160	45	M10	M30	48.5	179	14	40	0	70	300	390	1340
627DA	420	1050	60	45	180	1040	100	1160	950	540	1161	1505	70	330	18	52	200	45	M10	M30	48.5	190	14	45	0	70	330	485	2480

All dimensions are in mm

TECHNICAL NOTES

Keys and keyways acc. to DIN 6885-1

Tolerances according to DIN ISO 286-2

Output Shaft Tolerances are k6 up to and including Ø35mm and h6 from Ø50mm and above. Input shafts of Ø22mm and below have a k6 tolerance and from Ø30mm and above have a h6 tolerance.

MOUNTING POSTIONS

Size 606DA - 616DB are Grease lubricated for all mounting positions.

Size 616DC - 627DA are oil lubricated for Horizontal mounting and grease lubricated for vertical mounting positions.

All speed reducers are also available as flange mounted or face mounted, for additional dimensions see page 345.

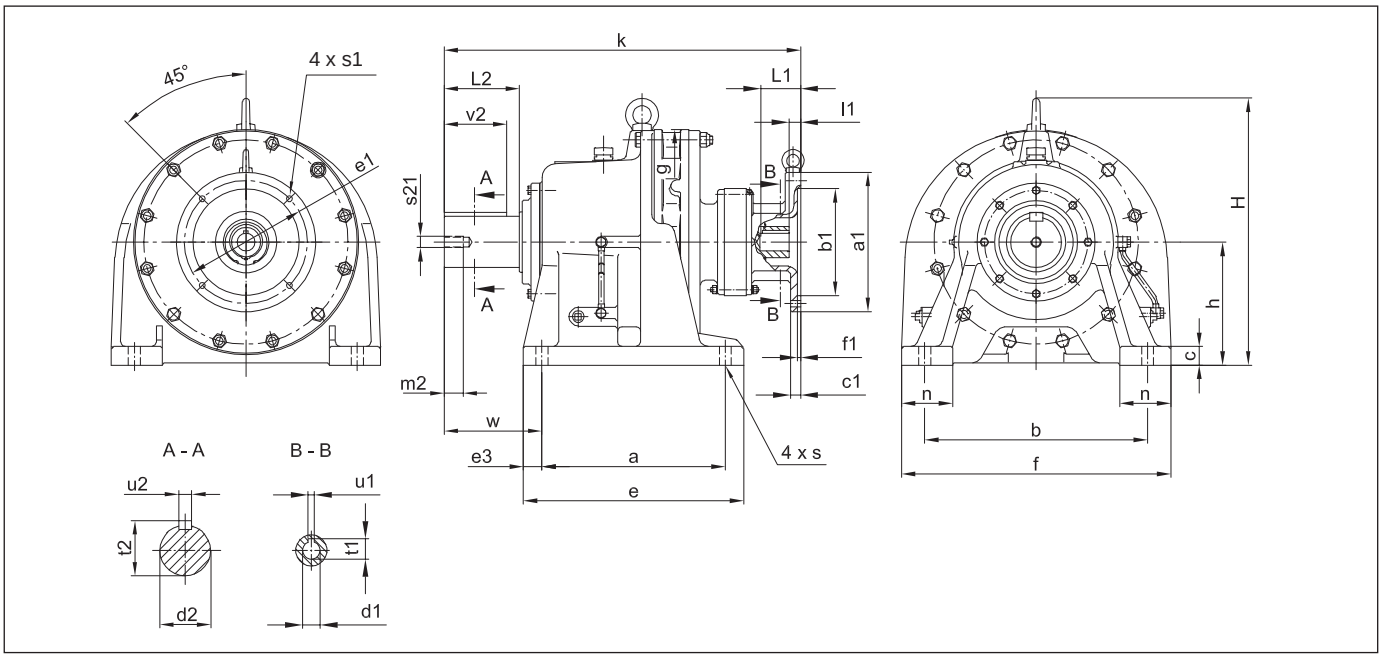
LUBRICANT QUANTITIES

Size	Oil Qty*
616DC	1.5
617DC	2.4
618DB	3.5
619DA	5.8
619DB	6.0
620DB	6.0
621DA	10.0
622DA	11.0
622DB	11.0
623DA	17.0
624DA	18.0
625DA	23.0
626DA	32.0
627DA	70.0

* For foot mounted horizontal units this quantity is an approximate figure only - the actual fill quantity should be determined by means of the oil level gauge.

Dimensions Motor-ready (IEC) Foot Mounted

FOOT MOUNTED (TYPE DAD / DBD)



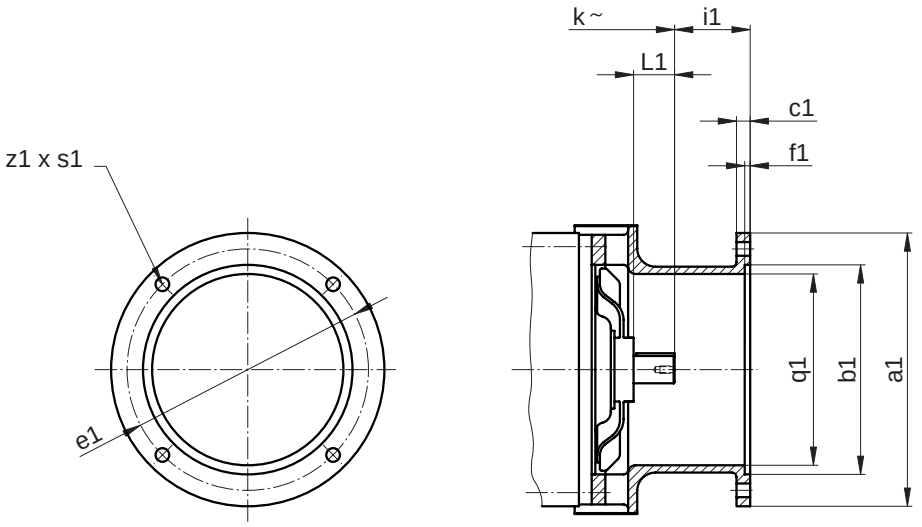
Size	a	b	c	Ø d2	e	e3	f	Ø g	h	H	L2	m2	n	Ø s	s21	t2	u2	v2	w
620DB	360	440	35	100 h6	440	40	530	448	250	530	165	34	100	26	M20	106	28	165	215
621DA	395	480	40	110 h6	475	40	580	485	265	575	165	34	110	26	M20	116	28	165	210
622DA	420	540	40	120 h6	520	50	620	526	280	610	165	34	115	33	M20	127	32	165	230
623DA	460	580	45	130 h6	560	50	670	562	300	667	200	41	120	33	M24	137	32	200	260
624DA	480	630	45	140 h6	580	50	720	614	335	729	200	41	128	39	M24	148	36	200	263

All dimensions are in mm

Size	Frame	Ø a1	Ø b1	c1	Ø e1	f1	k	Ø s1	Ø d1	l1	L1	u1	t1	kg
620DB	90	200	130 H8	11	165	4.5	705	11	24 F7	14	50	8 Js9	27.3	276
	100/112	250	180 H8	13	215	5	715	14	28 F7	18	60	8 Js9	31.3	278
	132	300	230 H8	17	265	5	741	14	38 F7	23	80	10 Js9	41.3	283
621DA	90	200	130 H8	11	165	4.5	732	11	24 F7	14	50	8 Js9	27.3	357
	100/112	250	180 H8	13	215	5	742	14	28 F7	18	60	8 Js9	31.3	359
	132	300	230 H8	17	265	5	768	14	38 F7	23	80	10 Js9	41.3	364
622DA	90	200	130 H8	11	165	4.5	773	11	24 F7	14	50	8 Js9	27.3	432
	100/112	250	180 H8	13	215	5	783	14	28 F7	18	60	8 Js9	31.3	434
	132	300	230 H8	17	265	5	809	14	38 F7	23	80	10 Js9	41.3	439
623DA	100/112	250	180 H8	14	215	5	864	14	28 F7	18	60	8 Js9	31.3	552
	132	300	230 H8	16	265	5	876	14	38 F7	23	80	10 Js9	41.3	557
	160	350	250 H8	16	300	6	922	18	42 F7	47	110	12 Js9	45.3	562
624DA	100/112	250	180 H8	14	215	5	902	14	28 F7	18	60	8 Js9	31.3	660
	132	300	230 H8	16	265	5	924	14	38 F7	23	80	10 Js9	41.3	665
	160	350	250 H8	16	300	6	960	18	42 F7	47	110	12 Js9	45.3	670

For two stage units larger than this size, use speed reducerss (page 367) and IEC motor adaptor and coupling (page 369)

IEC MOTOR ADAPTER



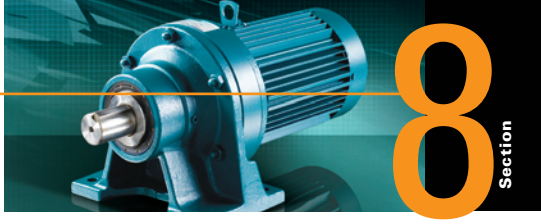
Size	Frame	a1	b1	c1	e1	f1	i1	L1	s1	z1	q1	Input Coupling	Motor Shaft	Gearbox Shaft	Weight kg *
	100/112	250	180h8	15	215	6	63	55	14	4	150	HRC90	28	35	20.8
617	132	300	230 H8	15	265	6	83	55	14	4	190	HRC110	38	35	25.0
	160	350	250 H8	20	300	7	113	55	18	4	200	HRC110	42	35	33.0
	180	350	250 H8	20	300	7	113	55	18	4	200	HRC130	48	35	33.5
	100/112	250	180h8	15	215	6	63	65	14	4	160	HRC110	28	40	28.0
	132	300	230 H8	15	265	7	83	65	15	4	190	HRC130	38	40	30.5
618	160	350	250 H8	20	300	7	113	65	18	4	200	HRC130	42	40	33.5
	180	350	250 H8	20	300	7	113	65	18	4	200	HRC130	48	40	35.5
	200	400	300 H8	19	350	7	114	65	18	4	220	HRC130	55	40	40.5
	225	450	350 H8	20	400	7	144	70	18	8	270	HRC150	60	40	50.2
	132	300	230 H8	16	265	6	83	70	15	4	190	HRC110	38	45	25.0
	160	350	250 H8	20	300	7	113	70	18	4	190	HRC130	42	45	38.5
619	180	350	250 H8	20	300	7	113	70	18	4	190	HRC130	48	45	38.5
	200	400	300 H8	20	350	7	114	70	18	4	220	HRC130	55	45	49.5
	225	450	350 H8	20	400	7	144	70	18	8	270	HRC150	60	45	50.2
	160	350	250 H8	20	300	7	113	82	18	4	200	HRC130	42	45	50.5
620	180	350	250 H8	20	300	7	113	82	18	4	200	HRC130	48	45	50.5
	200	400	300 H8	20	350	7	114	82	18	4	220	HRC130	55	45	52.5
	225#	450	350 H8	19	400	7	144	82	18	8	270	HRC150	60	45	69.2
	160	350	250 H8	20	300	7	113	82	18	4	200	HRC130	42	50	57.5
	180	350	250 H8	20	300	7	113	82	18	4	200	HRC130	48	50	57.5
621	200	400	300 H8	23	350	7	114	82	18	4	210	HRC130	55	50	65.5
	225	450	350 H8	23	400	7	144	82	18	8	270	HRC150	60	50	72.2
	250#	550	450 H8	22	500	7	144	82	18	8	290	HRC150	65	50	84.2
	180	350	250 H8	18	300	7	114	82	18	4	200	HRC130	48	55	72.5
622	200	400	300 H8	18	350	7	114	82	18	4	210	HRC130	55	55	75.5
	225	450	350 H8	22	400	7	144	82	18	8	270	HRC150	60	55	87.2
	250#	550	450 H8	22	500	7	144	82	18	8	290	HRC150	65	55	101.2
	200	400	300 H8	20	350	7	114	105	18	4	260	HRC150	55	60/65	84.2/102.2
623/	225	450	350 H8	22	400	7	144	105	18	8	270	HRC150	60	60/65	92.2/108.2
624	250	550	450 H8	22	500	7	144	105	18	8	300	HRC150	65	60/65	103.2/132.2
	280	550	450 H8	22	500	7	144	105	18	8	300	HRC180	75	60/65	112.6/141.6
	225	450	350 H8	22	400	7	144	130	19	8	280	HRC230	60	80	143
625	250	550	450 H8	22	500	7	144	130	18	8	350	HRC230	65	80	157
	280	550	450 H8	22	500	7	144	130	18	8	350	HRC230	75	80	157
626	250	550	450 H8	22	500	7	144	130	19	8	350	HRC230	65	80	181
	280	550	450 H8	22	500	7	144	130	19	8	350	HRC230	75	80	181

*The kg shown is an additional weight of couplings and adaptor to be added to the speed reducer weight on page 366
Larger frames are available on request - please contact your local authorised distributor
~ For k dimensions refer to page 366.

MINIMUM MOTOR POWER REQUIREMENTS

Two stage units require a minimum input power in order to provide a safe start under difficult conditions.
The gearheads are limited by their rated output torque.
Note: Operation with full motor power is not possible and we advise some method of torque limiting be installed.

Unit	841	1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569
Size	29 x 29	59 x 17	43 x 29	87 x 17	43 x 43	59 x 35	49 x 43	87 x 35	59 x 59	87 x 51	87 x 59	87 x 71	87 x 87
606DA	0.12	-	0.12	-	0.12	-	-	-	-	-	-	-	-
607DA	0.12	0.12	0.12	-	0.12	0.12	0.12	-	-	-	-	-	-
609DA	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	-	-
610DA	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	-	-
612DA	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.12
612DB	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
613DA	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
613DB	0.37	0.37	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
613DC	0.37	0.37	0.25	0.25	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
614DA	0.37	0.37	0.37	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
614DB	0.37	0.37	0.37	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
614DC	0.37	0.37	0.37	0.25	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
616DA	0.37	0.37	0.37	0.25	0.18	0.18	0.18	0.18	0.18	0.18	0.75	0.18	0.18
616DB	0.75	0.75	0.37	0.37	0.37	0.18	0.18	0.18	0.18	0.18	0.75	0.18	0.18
616DC	0.75	0.75	0.37	0.25	0.18	0.37	0.18	0.18	0.18	0.18	0.75	0.18	0.18
617DA	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
617DB	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
617DC	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.75	0.75	0.75
618DA	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
618DB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
619DA	1.5	1.5	1.5	1.5	1.5	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
619DB	1.5	1.5	1.5	1.5	1.5	1.1	1.1	1.1	1.1	1.1	1.1	0.75	0.75
620DA	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.1	1.1
620DB	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.1	1.1
621DA	4.0	4.0	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
621DB	4.0	4.0	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
622DA	4.0	4.0	4.0	4.0	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
622DB	5.5	4.0	4.0	2.2	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5
623DA	5.5	4.0	4.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
623DB	5.5	4.0	4.0	3.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
624DA	5.5	5.5	5.5	4.0	4.0	4.0	4.0	2.2	4.0	2.2	4.0	2.2	2.2
624DB	5.5	5.5	5.5	4.0	4.0	4.0	4.0	2.2	4.0	2.2	4.0	2.2	2.2
625DA	5.5.	5.5.	5.5.	5.5	5.5	5.5	5.5	4.0	5.5	4.0	5.5	4.0	4.0
625DB	7.5	7.5	7.5	5.5	5.5	5.5	5.5	4.0	5.5	5.5	5.5	4.0	4.0
626DA	11.0	11.0	7.5	7.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
627DA	15.0	15.0	11.0	11.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5



MINIMUM INPUT POWER REQUIREMENTS

A minimum input power is necessary to accelerate the reducer to its rated input speed under its worst operating conditions within the thermal available time.
The values shown give the necessary power per 100rpm at the input shaft.
The output torque during operation may not exceed the maximum allowable torque.

Size	Combination	Input Power (kW/100rpm)
606DA	606+606	0.0067
607DA	607+606	0.0067
609DA	609+607	0.0067
610DA	610+607	0.0067
612DA	612+607	0.0067
612DB	612+609	0.0067
613DA	613+607	0.0133
613DB	613+609	0.0133
613DC	613+610	0.0133
614DA	614+607	0.0133
614DB	614+609	0.0133
614DC	614+610	0.0133
616DA	616+609	0.0133
616DB	616+610	0.0133
616DC	616+612	0.0267
617DA	617+609	0.0267
617DB	617+610	0.0267
617DC	617+612	0.0500

Size	Combination	Input Power (kW/100rpm)
618DA	618+610	0.0500
618DB	618+613	0.1000
619DA	619+612	0.1000
619DB	619+613	0.1000
620DA	620+612	0.1000
620DB	620+613	0.1000
621DA	621+613	0.1000
621DB	621+616	0.1000
622DA	622+613	0.1000
622DB	622+617	0.2467
623DA	623+616	0.1467
623DB	623+618	0.3067
624DA	624+616	0.2467
624DB	624+618	0.3067
625DA	625+617	0.2467
625DB	625+619	0.3667
626DA	626+619	0.3667
626DA	626+619	0.3667

BREAKAWAY TORQUE

The Breakaway Torques shown below are obtained with standard lubrication and do not include any dynamic torques or external loads. The ambient temperature is taken as 20°C
These values are average values and a deviation of ±50% has to be considered.
The **BOLD** figure is for speed increasers (driving the output shaft) and the other figure is for standard speed reducers (driving the input shaft).

To determine breakaway torque (T_B) for units with more than one stage, use the following formulae:

Slow speed $T_B = T_{B1} + T_{B2} / i_1$

High speed $T_B = T_{B1} + T_{B2} \times i_2$

$\mathbf{T_{B1}}$ =1st stage T_B $\mathbf{T_{B2}}$ = 2nd stage T_B $\mathbf{i_1}$ = Ratio 1st stage
$\mathbf{i_2}$ = Ratio 2nd stage

	Breakaway Torque Required at Ratio (Nm)															
SIZE	**6**	**8**	**11**	**13**	**15**	**17**	**21**	**25**	**29**	**35**	**43**	**51**	**59**	**71**	**87**	**119**
606	**0.53**	**0.70**	**0.95**	**1.10**	**1.30**	**1.50**	**1.80**	**2.20**	**2.50**	**3.00**	**3.70**	-	-	-	-	-
	0.088	0.088	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087	-	-	-	-	-
607	**0.53**	**0.70**	**0.97**	**1.10**	**1.30**	**1.50**	**1.80**	**2.20**	**2.50**	**3.10**	**3.80**	**4.50**	**5.20**	-	-	-
	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	-	-	-
608	**1.30**	**1.40**	**1.60**	**1.60**	**1.80**	**2.10**	**2.60**	**2.60**	**3.00**	**3.60**	**4.40**	**5.30**	**6.10**	**7.30**	**9.00**	-
	0.220	0.180	0.150	0.120	0.120	0.120	0.120	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	-
609	**1.90**	**2.50**	**2.70**	**2.90**	**3.40**	**3.80**	**4.70**	**6.10**	**7.10**	**11.0**	**12.0**	**11.0**	**13.0**	**16.0**	**22.0**	**29.2**
	0.310	0.310	0.250	0.230	0.230	0.230	0.230	0.230	0.250	0.230	0.200	0.150	0.150	0.130	0.130	0.120
610	**2.20**	**2.70**	**2.70**	**3.20**	**3.70**	**4.20**	**5.20**	**8.30**	**9.60**	**12.0**	**14.0**	**13.0**	**15.0**	**18.0**	**25.0**	**34.0**
	0.360	0.330	0.250	0.250	0.250	0.250	0.250	0.260	0.260	0.250	0.230	0.170	0.170	0.140	0.140	0.140
611	**2.80**	**3.30**	**4.00**	**4.20**	**4.60**	**4.50**	**5.60**	**8.60**	**10.0**	**12.0**	**15.0**	**17.0**	**17.0**	**18.0**	**26.0**	-
	0.460	0.410	0.360	0.330	0.300	0.260	0.260	0.270	0.270	0.250	0.250	0.230	0.200	0.150	0.150	-
612	**3.10**	**3.50**	**4.10**	**4.50**	**4.90**	**5.30**	**6.20**	**7.40**	**11.0**	**13.0**	**17.0**	**23.0**	**28.0**	**34.0**	**42.0**	-
	0.510	0.440	0.370	0.340	0.330	0.310	0.290	0.290	0.290	0.270	0.270	0.290	0.310	0.270	0.270	-
613	**1.90**	**2.40**	**3.20**	**3.60**	**4.00**	**4.50**	**6.20**	**7.40**	**8.50**	**9.30**	**11.0**	**10.0**	**11.0**	**12.0**	**19.0**	-
	0.310	0.290	0.290	0.270	0.260	0.260	0.290	0.290	0.290	0.260	0.250	0.190	0.190	0.170	0.220	-
614	**2.10**	**2.60**	**3.60**	**4.00**	**4.40**	**5.00**	**6.80**	**8.10**	**9.40**	**10.0**	**11.0**	**11.0**	**13.0**	**14.0**	**17.0**	-
	0.340	0.320	0.320	0.300	0.290	0.290	0.320	0.320	0.320	0.290	0.260	0.220	0.220	0.200	0.200	-
616	**5.40**	**6.60**	**8.40**	**9.40**	**10.0**	**12.0**	**13.9**	**16.6**	**20.0**	**25.0**	**32.0**	**21.0**	**25.0**	**32.0**	**36.0**	-
	0.700	0.640	0.590	0.560	0.530	0.530	0.510	0.510	0.530	0.550	0.570	0.320	0.320	0.340	0.340	-
617	**10.0**	**12.0**	**16.0**	**17.0**	**20.0**	**22.0**	**27.0**	**31.0**	**36.0**	**45.0**	**55.0**	**68.0**	**78.0**	**60.0**	**74.0**	-
	1.080	0.980	0.900	0.830	0.830	0.800	0.800	0.780	0.780	0.810	0.810	0.840	0.840	0.540	0.540	-
618	**-**	**-**	**16.0**	**18.0**	**21.0**	**24.0**	**30.0**	**35.0**	**42.0**	**51.0**	**59.0**	**70.0**	**81.0**	**65.0**	**75.0**	-
	-	-	0.930	0.910	0.910	0.910	0.910	0.910	0.930	0.930	0.880	0.880	0.880	0.590	0.560	-
619	**-**	**-**	**21.0**	**23.0**	**25.0**	**28.0**	**35.0**	**41.0**	**48.0**	**58.0**	**67.0**	**80.0**	**73.0**	**82.0**	**88.0**	-
	-	-	1.100	1.000	1.000	1.000	1.000	1.000	0.980	0.980	0.930	0.930	0.740	0.690	0.590	-
620	**-**	**-**	**42.0**	**-**	**32.0**	**-**	**36.0**	**-**	**43.0**	**-**	**51.0**	**-**	**75.0**	**-**	**61.0**	-
	-	-	0.980	-	0.980	-	0.980	-	1.000	-	0.980	-	0.980	-	0.590	-
621	**-**	**-**	**48.0**	**-**	**40.0**	**-**	**43.0**	**-**	**51.0**	**-**	**61.0**	**-**	**90.0**	**-**	**78.0**	-
	-	-	1.200	-	1.200	-	1.200	-	1.200	-	1.200	-	1.200	-	0.690	-
622	**-**	**-**	**54.0**	**-**	**45.0**	**-**	**46.0**	**-**	**60.0**	**-**	**61.0**	**-**	**105**	**-**	**89.0**	-
	-	-	1.400	-	1.400	-	1.400	-	1.400	-	1.200	-	1.400	-	0.780	-
623	**-**	**-**	**33.0**	**-**	**45.0**	**-**	**59.0**	**-**	**65.0**	**-**	**91.0**	**-**	**135**	**-**	**180**	-
	-	-	1.800	-	1.800	-	1.800	-	1.800	-	1.800	-	1.800	-	1.800	-
624	**-**	**-**	**36.0**	**-**	**50.0**	**-**	**66.0**	**-**	**80.0**	**-**	**101**	**-**	**150**	**-**	**222**	-
	-	-	2.000	-	2.000	-	2.000	-	2.000	-	2.000	-	2.000	-	2.000	-
625	**-**	**-**	**54.0**	**-**	**74.0**	**-**	**99.0**	**-**	**119**	**-**	**152**	**-**	**226**	**-**	**333**	-
	-	-	2.900	-	2.900	-	2.900	-	2.900	-	2.900	-	2.900	-	2.900	-
626	**-**	**-**	**82.0**	**-**	**110**	**-**	**132**	**-**	**168**	**-**	**202**	**-**	**301**	**-**	**444**	-
	-	-	3.900	-	3.900	-	3.900	-	3.900	-	3.900	-	2.900	-	2.900	-
627	-	-	-	-	-	-	-	-	-	-	**329**	-	**451**	-	-	-
	-	-	-	-	-	-	-	-	-	-	5.900	-	5.900	-	-	-

Output Torque Ratings - 1450rpm

SINGLE STAGE UNITS

Ratio Code	Exact Ratio	606	607	608	609	610	611	612	613	614	616
01 *	3.00	-	-	-	-	67.0	-	110	199	267	413
02 *	5.00	-	-	-	-	94.0	-	183	332	445	689
03	6.00	10.7	15.3	29.2	56.9	119	147	261	424	569	903
04	8.00	14.3	20.4	38.9	75.8	159	196	348	566	758	1200
05	11.00	19.7	28.0	53.5	104	219	270	407	778	1040	1660
06	13.00	23.3	33.1	63.3	123	259	317	482	832	1230	1840
07	15.00	26.9	38.2	73.0	142	298	366	556	842	1360	2100
08	17.00	30.0	43.3	82.7	161	261	415	602	882	1280	2000
09	21.00	30.0	53.5	72.3	198	300	409	630	883	1250	2100
10	25.00	25.9	46.0	74.3	136	262	348	619	900	1240	2100
11	29.00	30.0	52.0	84.8	142	288	403	630	886	1370	2070
12	35.00	30.0	59.6	90.2	166	262	396	630	900	1370	2100
13	43.00	30.0	60.0	79.1	162	292	408	630	900	1260	2100
14	51.00	-	45.7	76.9	130	248	355	630	813	1180	2100
15	59.00	-	50.1	86.2	124	251	373	598	900	1170	2100
16	71.00	-	-	89.7	124	225	337	506	900	1160	2100
17	87.00	-	-	66.0	143	274	412	559	900	1170	2050
18	119.00	-	-	-	108	213	-	-	-	-	-

Special order items - please consult your local authorised distributor

TWO STAGE UNITS

Ratio Code	Exact Ratio	606DA	607DA	609DA	610DA	612DA	612DB	613DB	613DC	614DC	616DB	616DC	617DC	618DB	619DA	619DB
19	102.00	30	60	181	265	265	630	940	940	1370	1760	2100	3150	4900	4520	7350
20	104.00	30	60	181	265	265	630	940	940	1370	1760	2100	3150	4900	4520	7350
21	121.00	30	51	160	308	308	622	940	940	1290	1760	2100	3150	4810	4480	7580
22	143.00	30	60	183	300	364	630	940	940	1370	1760	2100	3150	4900	5300	7630
23	165.00	30	60	200	300	420	630	940	940	1360	1760	2100	3150	4920	6110	7910
24	174.00	30	60	200	300	420	630	940	940	1360	1760	2100	3150	4920	6110	7910
25	187.00	30	60	200	300	420	630	940	940	1360	1760	2100	3150	4920	6110	7910
26	195.00	30	60	200	300	496	630	940	940	1360	1760	2100	3150	4920	6500	7910
27	210.00	30	60	200	300	496	630	940	940	1360	1760	2100	3150	4920	6500	7910
28	231.00	30	60	200	300	588	630	940	940	1340	1760	2100	3150	5000	7960	7960
29	258.00	30	60	200	300	588	630	940	940	1340	1760	2100	3150	5000	7960	7960
30	273.00	30	60	200	300	630	630	940	940	1340	1760	2100	3150	5000	7960	7960
31	289.00	30	60	200	300	630	630	940	940	1340	1760	2100	3150	5000	7960	7960
32	319.00	30	60	200	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
33	354.00	-	-	200	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
34	357.00	30	60	200	300	630	630	940	940	1340	1760	2100	3150	5000	7960	7960
35	377.00	30	60	200	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
36	385.00	30	60	200	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
37	425.00	30	60	195	300	630	630	900	900	1370	1760	2100	3150	5000	7960	7960
38	435.00	30	60	195	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
39	473.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
40	493.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
41	522.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
42	525.00	30	60	195	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
43	559.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
44	595.00	30	60	200	300	630	630	940	940	1370	1760	2100	3150	5000	7960	7960
45	649.00	-	57	146	296	630	630	1050	1050	1370	1760	2100	3150	5000	7960	7960
46	731.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
47	841.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
48	957.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
49	1,003.00	-	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
50	1,131.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
51	1,225.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
52	1,247.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
53	1,479.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
54	1,505.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
55	1,711.00	-	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
56	1,849.00	30	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
57	2,065.00	-	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
58	2,193.00	-	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
59	2,537.00	-	60	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
60	3,045.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
61	3,481.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
62	3,741.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
63	4,437.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
64	5,133.00	-	-	200	300	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
65	6,177.00	-	-	-	-	630	630	940	940	1370	1740	2100	3150	5000	7960	7960
66	7,569.00	-	-	-	-	630	630	940	940	1370	1740	2100	3150	5000	7960	7960

THREE STAGE UNITS

Ratio Code	Exact Ratio	606TA	607TA	609TA	610TA	612TA 612TB	613TA 613TB	614TA 614TB	616TA 616TD	617TA 617TD	618TA 618TC	619TA	619TB
67	9,251.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	-	7960
68	10,933.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	-	7960
69	13,629.00	-	57.4	146	300	630	1050	1370	2100	3150	5000	-	7960
70	16,211.00	30.0	60.0	200	296	630	940	1370	2100	3150	5000	-	7960
71	20,339.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	7960	-
72	24,037.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	7960	-
73	27,907.00	-	57.4	146	296	630	1050	1370	2100	3150	5000	7960	-
74	31,433.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	7960	-
75	38,291.00	-	-	146	296	630	1050	1370	2100	3150	5000	7960	-
76	43,129.00	-	57.4	146	296	630	1050	1370	2100	3150	5000	7960	-
77	53,621.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	7960	-
78	59,177.00	-	-	146	296	630	1050	1370	2100	3150	5000	7960	-
79	73,573.00	-	57.4	146	296	630	1050	1370	2100	3150	5000	7960	-
80	79,507.00	30.0	60.0	200	300	630	940	1370	2100	3150	5000	7960	-
81	109,091.00	-	57.4	146	296	630	1050	1370	2100	3150	5000	7960	-
82	149,683.00	-	-	146	296	630	1050	1370	2100	3150	5000	7960	-
83	446,571.00	-	-	-	-	630	979	1250	2050	3150	5000	7960	-
84	658,503.00	-	-	-	-	-	-	-	2050	3150	5000	-	7960



These codes should be included on all enquiries, correspondences and orders.

FIRST THREE DIGITS:

Unit Size

Select from the tables on pages 338-341 for motorised units.
Single stage units use just the size code e.g. **606**
Multistage units use the size with letters e.g. **606DA/606TA**

FOURTH DIGIT:

Mounting Type

- **X**: Foot Mounted - standard IEC motor
- **Y**: Flange Mounted - standard IEC motor
- **Z**: Face Mounted - standard IEC motor
- **A**: Foot Mounted - alternative integrated motor
- **B**: Flange Mounted - alternative integrated motor
- **C**: Face Mounted - alternative integrated motor
- **D**: Foot Mounted Motor ready to suit IEC motor
- **E**: Flange Mounted Motorready to suit IEC motor
- **F**: Face Mounted Motor ready to suit IEC motor
- **G**: Foot Mounted - Speed Reducer
- **H**: Flange Mounted - Speed Reducer
- **J**: Face Mounted - Speed Reducer

FIFTH AND SIXTH DIGIT:

Ratio Code.

The two digit code can be obtained from the Ratio Codes table opposite.

SEVENTH AND EIGHTH DIGITS:

Input Code

Motorised units use a unique motor code obtained from the selection tables.

Speed reducers are given a code of **00**

Motor ready units use the frame size code of the motor input required taken from the table below.

Code	Frame	Flange	ØShaft	Flange
63C	63	B14	11	90
63D	63	B5	11	140
71C	71	B14	14	105
71D	71	B5	14	160
80C	80	B14	19	120
80D	80	B5	19	200
90C	90	B14	24	140
90D	90	B5	24	200
10C	100/112	B14	28	160
10D	100/112	B5	28	250
13D	132	B5	38	300
16D	160	B5	42	350

NINTH DIGIT:

Type of motor variant

Additional motor features as below:

Code	Motor Type
A	Fitted with A/C heaters (specify voltage 110/230v)
B	Fitted with motoriseed backstop module (specify rotation)
N	Fitted with brake & Hand Release (specify voltage)
P	Fitted with premium efficiency EFF1 motor
S	Fitted with Single Phase motor
T	Fitted with Thermistors
Q	Special - refer to serial number records
Z	Fitted with Force Vent Unit

MOTOR CODES

2 POLE MOTORS

Code	kW	Speed	Frame	kg
47	0.12	2820	63	4.0
01	0.18	2730	63	4.0
03	0.25	2780	63	4.0
09	0.37	2815	71	7.5
10	0.55	2800	71	8.5
19	0.75	2800	80	11.5
20	1.1	2800	80	12.0
26	1.5	2870	90	17.0
29	2.2	2840	90	18.5
39	3.0	2890	100	26.0
44	4.0	2900	112	33.0
52	5.5	2935	132	56.0
58	7.5	2920	132	60.5
63	11.0	2910	160	106.0
64	15.0	2930	160	116.0
69	18.5	2930	160	129.0
77	22.0	2950	180	180.0

4 POLE MOTORS

Code	kW	Speed	Frame	kg
48	0.12	1370	63	4.0
02	0.18	1400	63	5.0
06	0.25	1400	71	8.5
08	0.37	1390	71	9.0
16	0.55	1440	80	11.5
18	0.75	1415	80	12.0
24	1.1	1440	90	16.0
28	1.5	1410	90	19.0
36	2.2	1410	100	25.5
38	3.0	1410	100	28.0
46	4.0	1420	112	32.0
54	5.5	1470	132	57.0
56	7.5	1470	132	62.5
66	11.0	1470	160	105.0
68	15.0	1460	160	121.0
76	18.5	1475	180	160.0
78	22.0	1470	180	183.0
88	30.0	1475	200	233.0
94	37.0	1480	225	350.0
95	45.0	1475	225	382.0
96	55.0	1475	250	460.0
98	75.0	1485	280	735.0
99	90.0	1485	280	802.0

6 POLE MOTORS

Code	kW	Speed	Frame	kg
13	0.12	915	63	5.0
05	0.18	890	71	8.5
07	0.25	890	71	9.5
12	0.37	925	80	10.5
17	0.55	920	80	12.5
23	0.75	910	90	15.0
27	1.1	920	90	19.0
37	1.5	940	100	25.5
45	2.2	930	112	28.0
53	3.0	950	132	57.5
55	4.0	940	132	58.0
57	5.5	945	132	66.0
65	7.5	965	160	121.0
67	11.0	970	160	134.0
74	15.0	965	180	181.0
75	18.5	975	200	219.0
84	22.0	975	200	228.0
91	30.0	985	225	366.0
92	37.0	980	250	440.0
93	45.0	985	280	610.0
97	55.0	985	280	655.0

RATIO CODES

Single Stage

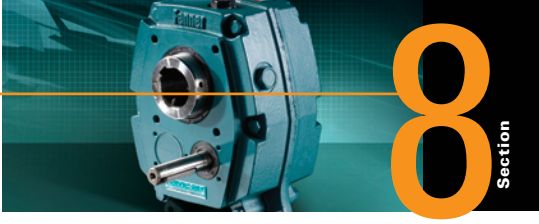
Code	Exact Ratio	1
01 *	3.0	P
02 *	5.0	P
03	6.0	6
04	8.0	8
05	11.0	11
06	13.0	13
07	15.0	15
08	17.0	17
09	21.0	21
10	25.0	25
11	29.0	29
12	35.0	35
13	43.0	43
14	51.0	51
15	59.0	59
16	71.0	71
17	87.0	87
18	119.0	119

Two Stage

Code	Exact Ratio	2	1
19	102.0	17	6
20	104.0	13	8
21	121.0	11	11
22	143.0	13	11
23	165.0	15	11
24	174.0	29	6
25	187.0	17	11
26	195.0	15	13
27	210.0	35	6
28	231.0	21	11
29	258.0	43	6
30	273.0	21	13
31	289.0	17	17
32	319.0	29	11
33	354.0	59	6
34	357.0	21	17
35	377.0	29	13
36	385.0	35	11
37	425.0	25	17
38	435.0	29	15
39	473.0	43	11
40	493.0	29	17
41	522.0	87	6
42	525.0	25	21
43	559.0	43	13
44	595.0	35	17
45	649.0	59	11
46	731.0	43	17
47	841.0	29	29
48	957.0	87	11
49	1003.0	59	17
50	1131.0	87	13
51	1225.0	35	35
52	1247.0	43	29
53	1479.0	87	17
54	1505.0	43	35
55	1711.0	59	29
56	1849.0	43	43
57	2065.0	59	35
58	2193.0	51	43
59	2537.0	59	43
60	3045.0	87	35
61	3481.0	59	59
62	3741.0	87	43
63	4437.0	87	51
64	5133.0	87	59
65	6177.0	87	71
66	7569.0	87	87

Three Stage

Code	Exact Ratio	3	2	1
67	9,251	29	29	11
68	10,933	29	29	13
69	13,629	59	21	11
70	16,211	43	29	13
71	20,339	43	43	11
72	24,037	43	43	13
73	27,907	59	43	11
74	31,433	43	43	17
75	38,291	59	59	11
76	43,129	59	43	17
77	53,621	43	43	29
78	59,177	59	59	17
79	73,573	59	43	29
80	79,507	43	43	43
81	109,091	59	43	43
82	149,683	59	59	43
83	446,571	87	87	59
84	658,503	87	87	87



Fenner®

SMSR

The Fenner® SMSR PowerPLUS offers a rugged design and a 50% increase in the power to weight ratio over older versions. The powerPLUS range is more compact for easier handling and features an increased range of bore sizes.



- 13 sizes in the range.
- Three standard bore options
- Bore sizes range from 20mm to 190mm
- Torque capacity up to 45,000Nm
- Taper-Grip bush for easy removal and fitting
- Ratios up to 200:1 with a simple belt drive

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available, any special motor features required (brake, clutch, flameproof etc.)
- **If non-motorised:** type of prime mover, rotational speed of prime mover, power rating of prime mover, is an input shaft coupling required? if so, prime mover shaft dia.
- **Shaft mounting or foot mounted?** if shaft mounted, machine shaft diameter/length, if foot mounted, is an output shaft coupling required?
- **Orientation of input/output** parallel or right angle?
- **Type of driven machine**
- **Rotational speed of driven machine** constant or variable over what range?
- **Power absorbed by driven machine** (or required output torque)
- **Hours/day duty & start/stop frequency**

SMSR	Page
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SMSR Power Plus Dimensions	380
Exact Ratios	381
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SPIRAL - T	
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GEARBOX SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the service factor applicable to the drive.

(b) Design Power

Multiply the absorbed power (or motor power if absorbed power not known) by the service factor chosen in step (a).

NOTE:

Gear units are momentarily capable of transmitting twice (2x) the rated capacity on start or during operation.

(c) Unit Selection

Using the value from step (b) refer to the power rating tables on page 276 and select the correct size of unit.

The choice of single or double reduction gearbox will be determined by the output speed required. The normal operating speeds for each of the gearboxes may be observed in the power rating and belt drive tables.

For other speeds consult your local Authorised Distributor.

BELT DRIVE SELECTION

Selection of associated belt drive for 1440 rev/min. electric motors

(d1) Output Speed

Refer to the Drive Selection Tables (pages 283 to 286 and under the appropriate gearbox size and ratio read down the column headed 'Output Speed' until an Output Speed equal or near to that required is found.

The suggested ratio is given in the first column.

(e1) Pulley Diameters

Read across from the chosen output speed to obtain both driving and driven pulley pitch diameters, groove section and the appropriate number of belts.

NOTE:

In many instances one belt is recommended, being adequate for power transmission purposes; where customer preference is for multi-belt drives consult your local Authorised Distributor.

(f1) Centre Distance

Belt length and centre distance can be found by referring to pages 40-51.

(g1) Hub Bore Size

Refer to the output hub dimensions table on page 277 for the range of bore sizes available.

Selection of associated belt drive for driving speeds other than 1440 rev/min.

(d2) Gearbox Input Shaft Speed

Multiply the gearbox output speed by the exact gear ratio (found in the table on page 279) to obtain the gearbox input shaft speed.

(e2) Selection of 'V'-Drive

The correct belt drive can now be selected by referring to page 38.

NOTE:

Wedge belt drives shown on pages 283 to 286 have been selected to give the most economical total drive package for the speed required. If it is necessary to design a special drive it is advisable to consult your local Authorised Distributor.

Torque arm should preferably be in tension when unit is in operation. See page 287.

If in any doubt consult your local Authorised Distributor.

TABLE 1—SERVICE FACTORS

Types of Driven Machine	Operational Hours Per Day		
	Under 10	10 to 16	Over 16
Uniform Agitators and Mixers - liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	1.00	1.12	1.25
Moderate Shock Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes. travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Piston Pumps – with 3 or more cylinders Pulp and Paper making machines Rubber Mixers and Calenders Rotary Screens Textile Machinery	1.25	1.40	1.60
Heavy Shock Brick presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Piston Pumps – 1 or 2 cylinders Rubber Masticators Vibrating Machines	1.60	1.80	2.00

EXAMPLE

A Shaft Mounted Speed Reducer is required for a uniformly loaded elevator which absorbs 3.6 kW at 50 rev/min. The prime mover is a 4 kW 1440 rev/min. direct on line start electric motor. A belt drive is required between the motor and gearbox at approximately 700 mm centres running for up to 24 hours/day.

SOLUTION

Selection Procedure

(a) Service factor

From Table 1 the service factor is 1.25.

(b) Design Power

Using the elevator absorbed power of 3.6 kW.

Design Power = 1.25 x 3.6 = 4.5 kW.

(c) Unit Selection

Using 4.5 kW as the basis for selection reference to the power rating tables (page 276) indicates that an E13 or E20 gear unit will transmit 6.48 kW at 50 rev/min.

Selection of associated belt drive

(d) Output Speed

A more economic belt drive will be obtained if the 20:1 ratio gearbox is selected, and by reference to page 284 in the gearbox drive tables 50 rev/min. is obtainable.

(e) Pulley Diameters

On the line giving the output speed of 50 rev/min read across and note the driving and driven pulley pitch diameters together with the numbers of belts required, which for this case is 106 mm and 150 mm, using 2 XPA Wedge Belts.

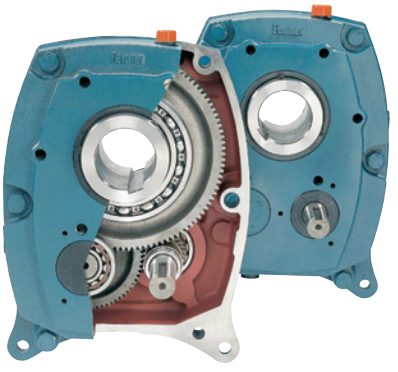
(f) Belt Selection

By reference to page 44 it can be seen that XPA 1800 belts give 699 mm centres.

(e) Available Bores

By refering to the output hub bore dimensions table on page 277, it can be seen that the size E is available with a range of bore sizes in both parallel bore and Taper Grip bush.

Parallel bore sizes are 55, 50 and 65mm whilst Taper Grip is available in 42mm and 55mm.



POWER RATINGS (KW) 5:1 UNITS (SINGLE REDUCTION)

Output rev/min	B	C	D	E	F	G	H	J	S	T
100	2.68	4.62	7.24	11.36	16.64	28.80	41.3	63.5	86.4	113.7
110	2.87	4.84	7.58	11.89	17.42	30.14	43.3	66.5	90.4	119.0
120	3.13	5.05	7.91	12.42	18.20	31.48	45.2	69.5	94.5	124.3
130	3.36	5.27	8.25	12.95	18.97	32.83	47.1	72.4	98.5	129.7
140	3.56	5.49	8.59	13.48	19.75	34.17	49.1	75.4	102.5	135.0
150	3.62	5.70	8.93	14.01	20.53	35.52	51.0	78.4	106.5	140.3
160	3.73	5.92	9.27	14.54	21.30	36.86	52.9	81.3	110.6	145.6
170	3.83	6.13	9.60	15.07	22.08	38.20	54.9	84.3	114.6	150.9
180	3.94	6.35	9.94	15.60	22.86	39.55	56.8	87.3	118.6	156.2
190	4.04	6.57	10.28	16.13	23.63	40.89	58.7	90.2	122.7	161.5
200	4.20	6.78	10.62	16.66	24.41	42.24	60.6	93.2	126.7	166.8
210	4.31	7.00	10.95	17.19	25.19	43.58	62.6	96.2	130.7	172.1
220	4.41	7.21	11.29	17.72	25.96	44.92	64.5	99.1	134.8	177.4
230	4.53	7.43	11.63	18.25	26.74	46.27	66.4	102.1	138.8	182.7
240	4.66	7.64	11.97	18.78	27.52	47.61	68.4	105.0	142.8	188.0
250	4.78	7.86	12.31	19.31	28.29	48.95	70.3	108.0	146.9	193.3
260	4.89	8.08	12.64	19.84	29.07	50.30	72.2	111.0	150.9	195.5
270	5.04	8.29	12.98	20.37	29.85	51.64	74.1	113.9	154.9	
280	5.20	8.51	13.32	20.90	30.62	52.99	76.1	115.9	159.0	
290	5.36	8.72	13.66	21.43	31.40	54.33	78.0		160.2	
300	5.46	8.94	13.99	21.96	32.18	55.67	79.9			
310	5.62	9.15	14.33	22.49	32.95	57.02	81.9			
320	5.78	9.37	14.67	23.02	33.73	58.36	83.8			
330	5.88	9.59	15.01	23.55	34.51	59.70				
340	6.09	9.80	15.35	24.08	35.29	61.05		CONSULT YOUR LOCAL		
350	6.30	10.02	15.68	24.61	36.06	62.39		AUTHORISED DISTRIBUTOR		
360	6.41	10.23	16.02	25.14	36.84	63.74				
370	6.62	10.45	16.36	25.67	37.62	65.08				
380	6.72	10.66	16.70	26.20	38.39					
390	6.93	10.88	17.04	26.73	39.17					
400	7.14	11.10	17.37	27.26	39.95					
Torque at 100 rev/min Nm	256	442	691	1085	1589	2750	3949	6068	8250	10862

POWER RATINGS (KW) 13:1. 20:1 AND 25:1 UNITS (DOUBLE REDUCTION)

Output rev/min	B	C	D	E	F	G	H	J	S	T	K	L	M
10	0.29	0.54	0.85	1.34	1.96	3.39	4.86	7.5	10.2	13.4	19.0	26.4	46.1
12	0.36	0.67	1.04	1.64	2.40	4.16	5.97	9.2	12.5	16.4	22.5	31.4	54.9
14	0.42	0.79	1.24	1.94	2.84	4.92	7.07	10.9	14.8	19.4	25.9	36.3	63.5
16	0.47	0.91	1.43	2.24	3.29	5.69	8.17	12.6	17.1	22.5	29.3	41.3	72.1
18	0.53	1.04	1.62	2.55	3.73	6.46	9.27	14.2	19.4	25.5	32.6	46.1	80.5
20	0.59	1.16	1.82	2.85	4.18	7.22	10.37	15.9	21.7	28.5	35.9	51.0	88.9
22	0.63	1.28	2.01	3.15	4.62	7.99	11.47	17.6	24.0	31.6	39.2	55.7	97.1
24	0.69	1.41	2.20	3.46	5.06	8.76	12.57	19.3	26.3	34.6	42.3	60.4	105.3
26	0.75	1.53	2.39	3.76	5.51	9.53	13.68	21.0	28.6	37.6	45.6	65.1	113.0
28	0.81	1.65	2.59	4.06	5.95	10.29	14.78	22.7	30.9	40.7	48.7	69.7	120.6
30	0.86	1.78	2.78	4.36	6.39	11.06	15.88	24.4	33.2	43.7	51.7	74.4	128.0
32	0.92	1.90	2.97	4.67	6.84	11.83	16.98	26.1	35.5	46.7	54.9	78.8	135.2
34	0.98	2.02	3.17	4.97	7.28	12.59	18.08	27.8	37.8	49.7	57.9	83.4	142.5
38	1.10	2.15	3.36	5.27	7.72	13.36	19.18	29.5	40.1	52.8	63.7	92.5	157.0
40	1.16	2.27	3.55	5.57	8.17	14.13	20.29	31.2	42.4	55.8	66.6	96.8	164.2
42	1.20	2.39	3.74	5.88	8.61	14.90	21.39	32.9	44.7	58.8	69.2	101.1	171.5
46	1.30	2.51	3.94	6.18	9.05	15.66	22.49	34.6	47.0	61.9	74.3	109.4	186.0
50	1.42	2.64	4.13	6.48	9.50	16.43	23.59	36.3	49.3	64.9	79.0	117.5	199.2
52	1.47	2.76	4.32	6.78	9.94	17.20	24.69	37.9	51.6	67.9	81.5	120.8	206.5
54	1.52	2.88	4.52	7.09	10.38	17.96	25.79	39.6	53.9	71.0	83.8	125.6	213.7
58	1.64	3.01	4.71	7.39	10.83	18.73	26.89	41.3	56.2	74.0	88.5	132.8	225.8
62	1.76	3.13	4.90	7.69	11.27	19.50	28.00	43.0	58.5	77.0	93.0	140.1	237.9
66	1.86	3.25	5.09	7.99	11.71	20.27	29.10	44.7	60.8	80.0	97.5	147.3	248.7
70	1.96	3.38	5.29	8.30	12.16	21.03	30.20	46.4	63.1	83.1	102.0	154.6	259.6
74	2.06	3.50	5.48	8.60	12.60	21.80	31.30	48.1	65.4	86.1	104.1	157.0	270.5
78	2.15	3.72	5.83	9.15	13.41	23.20	33.31	51.2	69.6	91.6	110.4	167.8	280.1
80	2.23	3.95	6.18	9.70	14.22	24.60	35.32	54.3	73.8	97.2	112.6		
85	2.34	4.17	6.54	10.26	15.03	26.00	37.33	57.4	78.0	102.7	CONSULT YOUR LOCAL		
90	2.48	4.40	6.89	10.81	15.84	27.40	39.34	60.5	82.2	108.2			
95	2.61	4.62	7.24	11.36	16.64	28.80	41.35	63.5	86.4	113.6	AUTHORISED DISTRIBUTOR		
100	2.73	4.62	7.24	11.36	16.64	28.80	41.35		86.4				
Torque at 10 rpm (Nm)	277	519	812	1276	1870	3235	4645	7139	9706	12778	18120	25254	44051

The dotted line shows the limit of recommended output speed for reducers with 20:1 and 25:1 ratios.
For higher speeds use a 13:1 or 5:1 reducer.



OUTPUT HUB DIMENSIONS ('B' SEE PAGE 284)

Reducer Size	Standard Hub Bore (1)	Standard Hub Bush bores	Alternative Hub Bore †	Alternative Hub Bush Bores	Taper-Grip Standard Hub Bore	Taper-Grip Alternative Hub Bore
B	30	25 1" 20 3/4"	40	35 1 1/4" 32	30	25
C	40	35 1 1/4" 32 30	50	42 45 1 3/4" 38	40	30
D	50	45 1 3/4" 42 1 1/2" 40 1 1/4" 38	55	2"	50	38
E	55	50 2" 45 1 3/4" 42 1 1/2"	65	60 2 1/4"	55	42
F	65	60 2 1/4" 55 2" 50	75	70 2 3/4" 2 1/2"	65	50
G	75	70 2 3/4" 65 2 1/2" 60 2 1/4"	85	80 3"	75	60
H	85	80 3" 75 2 3/4" 70 2 1/2"	100	85 95 3 1/2" 90	85	65
J	100	95 3 1/2" 90	120	110 4 1/2" 4"	100	80
S	120	110 4 1/2" 100 4" 90 3 1/2"	125	110 4 1/2" 100 4" 90 3 1/2"	120	90
T	125	110 4 1/2" 100 4" 90 3 1/2"	135		125	100
K	125	110 4 1/2" 100 4" 90 3 1/2"	-		125	100
L	150	130 5 1/2" 125 5" 100 4 1/2"	-		150	130
M	190*		-		190	130

All dimensions in millimetres unless otherwise stated.

(1) STANDARD HUB BORES

Metric hubs are bored to F7 limits, Inch hubs are bored to H7 limits.

A shaft tolerance grade h7 is recommended.

Shaft keyways must be appropriate standard dimensions, i.e. to BS 4235 for "metric" shafts and BS 46 for "inch" shafts.

* Max Hub bore size M reducer is 190mm, smaller bores are available to customer requirements — consult your local Authorised Distributor

† The alternative hub bore is the maximum bore available in each unit size.

(2) TAPER-GRIP™ HUB BORES

Shaft with tolerances up to h11 can be accommodated.

AGMA output hubs conforming to North American standards are available. Consult your local Authorised Distributor.

STANDARD HUB KEYWAYS

Keyways for the standard Output Hubs and Bushes are machined in accordance with BS 4235 for metric shafts and BS 46 for "inch" shafts.

Keys are supplied with reduction bushes, but not where the output hub directly fits the shaft.

Reduction bushes may be supplied with two separate keys for hub and shaft or a single stepped key, depending on the bush wall thickness.

The shaft keyway should be machined to suit the standard key size shown below, regardless of the hub bore diameter.

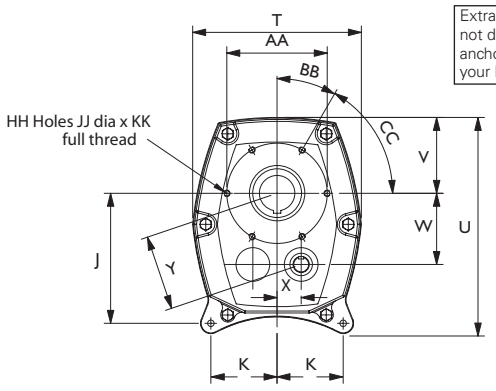
Shaft Diameter (mm)	Key size
20	6 x 6
25	8 x 7
30	8 x 7
32	10 x 8
35	10 x 8
38	10 x 8
40	12 x 8
42	12 x 8
45	14 x 9
50	14 x 9
55	16 x 10
60	18 x 11
65	18 x 11
70	20 x 12
75	20 x 12
80	22 x 14
85	22 x 14
90	25 x 14
95	25 x 14
100	28 x 16
110	28 x 16
120	32 x 18
125	32 x 18
130	32 x 18
140	36 x 20
150	36 x 20
190	45 x 25

Shaft Diameter (inches)	Key size
3/4"	3/16" x 3/16"
1"	1/4" x 1/4"
1 1/4"	5/16" x 1/4"
1 1/2"	3/8" x 1/4"
1 3/4"	7/16" x 5/16"
2"	1/2" x 5/16"
2 1/4"	5/8" x 7/16"
2 1/2"	5/8" x 7/16"
2 3/4"	3/4" x 1/2"
3"	3/4" x 1/2"
3 1/2"	7/8" x 5/8"
4"	1 x 3/4"
4 1/2"	1 1/4" x 7/8"
5"	1 1/4" x 7/8"
5 1/2"	1 1/2" x 1"

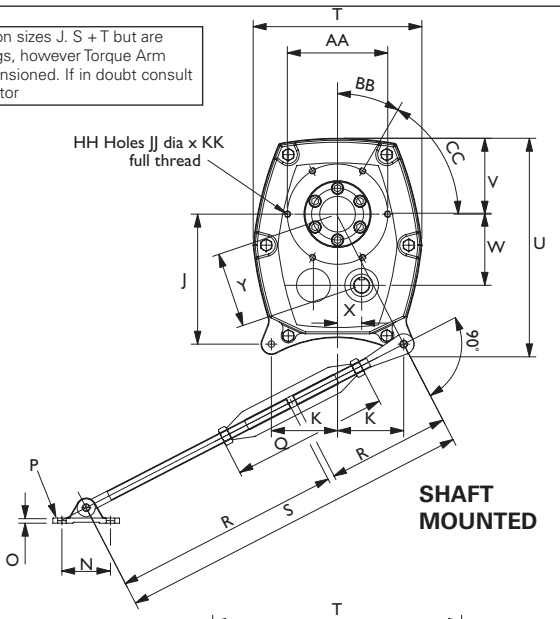
DIMENSIONS—SHAFT AND FLANGE MOUNTING

B - T

Extra case bolts are present on sizes J. S + T but are not detailed on these drawings, however Torque Arm anchorage points are as dimensioned. If in doubt consult your local Authorised Distributor

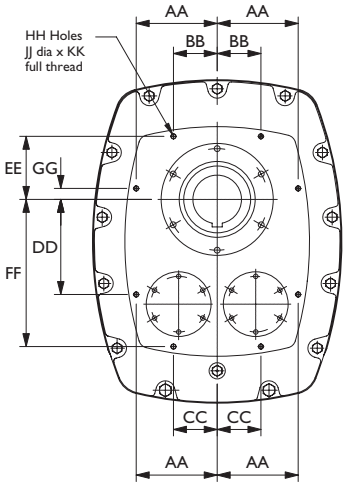


FLANGE MOUNTED

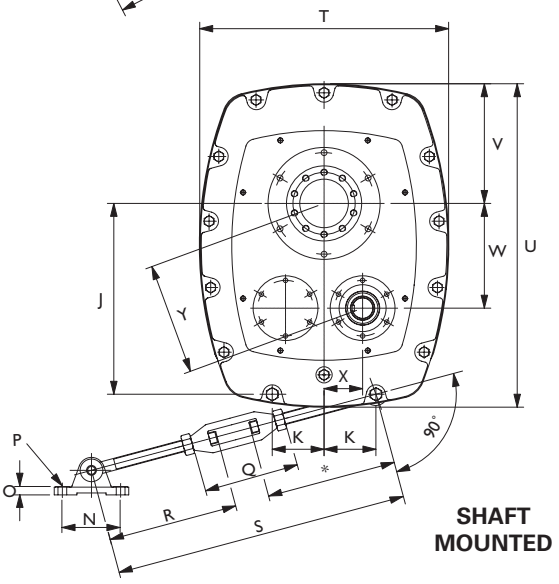


SHAFT MOUNTED

K - L - M

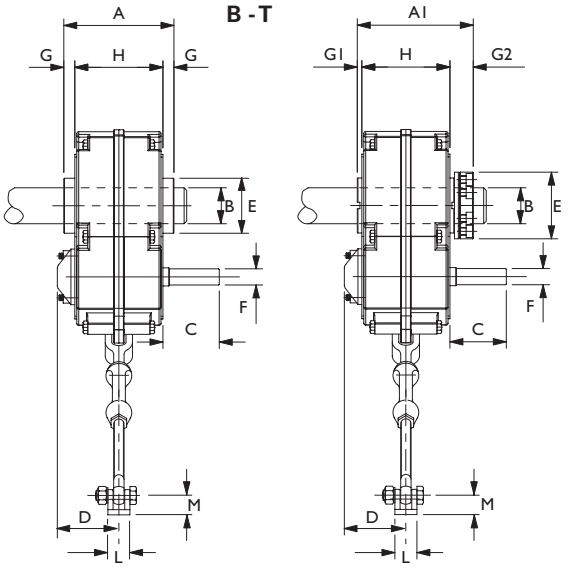


FLANGE MOUNTED



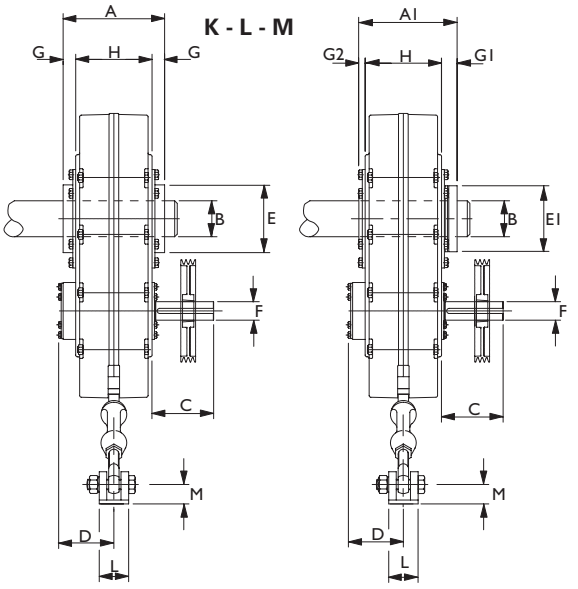
SHAFT MOUNTED

B - T



STANDARD HUB **TAPER-GRIP™ HUB**

K - L - M



STANDARD HUB **TAPER-GRIP™ HUB**

* On size L only this dimension is 375mm



DIMENSIONS—SHAFT AND FLANGE MOUNTING

Dimension	SMSR Size												
	B	C	D	E	F	G	H	J	S	T	K	L	M
A	117	152	161	173	195	214	255	275	290	312	310	356	406
A1	138	162	170	184	201	231	261	272	278	290	297	345	395
B	See Output Hub Dimensions Table on Page 277												
C	61	73	82	87	95	100	115	126	145	180	186	216	241
D	65	82	93	95	108	114	127	132	123	132	196	203	225
E	74	82	92	104	114	138	152	170	186	207	218	238	278
E1	55	65	75	85	100	110	130	150	160	180	207	232	276
F	19	19	22	25	28	32	42	48	55	60	60	65	85
G	11	17	17	19	20	20	26	30	35	44	44	44	44
G1	7	7	7	7	7	7	7	7	7	7	21	22	22
G2	36	37	36	42	39	50	51	50	51	59	54	55	55
H	95	118	127	135	155	174	203	215	220	224	222	268	318
J	144	137	169	201	238	261	294	353	456	519	513	590	677
K	63	75	84	102	121	133	152	145	157	160	102	160	190
L	24	24	28	28	34	34	70	70	70	70	70	110	110
M	20	20	24	24	30	30	50	50	50	50	51	76	76
N	65	65	75	75	100	100	120	120	120	120	120	180	180
O	5	5	8	8	12	12	18	18	18	18	18	26	26
P	10	10	13	13	17	17	16	16	16	16	M16	M24	M24
Q	200	200	216	216	216	216	222	222	222	222	222	265	265
R	300	300	350	350	375	375	375	375	375	375	375	400	400
S† Max.	600	600	700	700	750	750	750	750	750	750	750	775	800
Min.	750	750	850	850	900	900	900	900	900	900	900	925	950
T	160	186	218	258	278	317	365	434	542	568	643	770	880
U	208	234	282	330	385	421	477	570	734	814	841	1000	1140
V	72	81	96	117	129	143	162	195	254	281	298	370	410
W	66	75	90	110	125	141	156	189	255	267	280	324	373
X	24	25	31	37	43	50	56	62	75	92	100	119	133
Y	70	79	95	116	133	150	166	200	266	282	297	345	396
AA	106	120	135	155	175	212	255	280	280	320	208	250	315
BB	45°	45°	45°	30°	30°	30°	0°	0°	22.5°	22.5°	60	135	130
CC	90°	90°	90°	60°	60°	60°	60°	45°	45°	45°	60	135	130
DD	-	-	-	-	-	-	-	-	-	-	227	294	280
EE	-	-	-	-	-	-	-	-	-	-	176	195	215
FF	-	-	-	-	-	-	-	-	-	-	413	455	535
GG*	-	-	-	-	-	-	-	-	-	-	-19	34	-40
JJ	M8	M10	M10	M10	M12	M16	M20	M20	M20	M20	M16	M16	M16
HH	4	4	4	6	6	6	5	7	8	8	8	8	8
KK	15	15	15	15	18	24	30	30	30	30	27	27	27
Weight single	10	14	19	29	41	64	84	122	179	242			
(kg) double	11	15	21	31	45	69	92	133	197	268	385	545	740

All dimensions are in millimetres. Keyways are British Standard metric. * Measured in the direction of DD.

† Permits 150mm adjustment to tighten V-Belts. By cutting off threaded end of rods dimension 'S' may be reduced by up to 300mm sizes B & C. 350mm on sizes D & E, 395mm on sizes F, G, H, J & S, 300mm on size K, 330mm on size L, 335mm on size M.

EXACT GEAR RATIOS

Nominal ratio	B	C	D	E	F	G	H	J	S	T	K	L	M
5:1	5.091	4.941	5.300	5.047	5.047	5.047	5.047	5.047	5.047	4.684	-	-	-
13:1	13.315	13.410	14.268	13.587	13.587	13.395	13.587	13.587	13.587	13.644	13.270	13.260	12.850
20:1	20.095	20.421	21.481	20.455	20.455	20.455	20.455	20.455	20.455	20.113	19.970	19.580	19.330
25:1	-	23.544	25.600	25.235	25.235	25.235	25.235	25.235	25.235	23.654	24.000	24.733	22.601

NEW UP-RATED TAPER-GRIP™ LOCKING SYSTEM

Fenner Shaft Mounted Speed Reducers can be secured to the driven shaft by a unique bush locking system which overcomes the difficulties experienced with other methods of mounting, particularly in corrosive environments.

The new design includes cap head screws for higher tightening torques and a hardened steel thrust plate. These two new features are responsible for part of the significant torque increase.

UP-RATED TAPER-GRIP

- Transmits 300% more torque
- Accommodates shaft tolerances to h11
- Standard bores require no key
- Accessible locking arrangement
- Reversible bush assembly
- Resistant to fretting corrosion
- Even easier removal of gear unit

Assembly

After the bush is screwed into the hub the reducer can be conveniently positioned on the driven shaft. Locking is effected by sequential tightening of the screws which draw the bush axially against the opposing tapers in the hub thus generating the clamping force along the whole length of the bush in contact with the shaft.

Removal

The Taper-Grip system offers significant advantages when removing the reducer from the shaft.

There is a tendency for Shaft Mounted Reducers, subject to atmospheric or fretting corrosion, to seize solidly onto the shaft, making removal difficult and time-consuming.

The Taper-Grip system eliminates this problem, the bush is manufactured from spheroidal graphite iron which not only has similar mechanical properties to steel but has a natural resistance to corrosion and a degree of self-lubricity.

This combination of dissimilar materials in contact alleviates fretting corrosion and when the bush screws are loosened and the tapers released there is sufficient clearance within the assembly to permit easy removal.

Because the bush is screwed into the hub it is inherently safe. Even if the locking screws are completely removed it cannot inadvertently fall out during reducer handling.

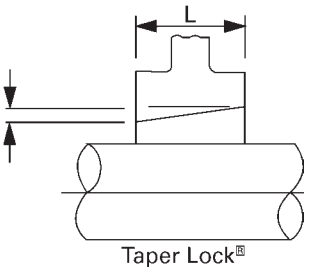
Use of smaller than standard bores on Taper-Grip bushes

For applications where it is desirable to fit Taper-Grip bushes with bores smaller than the standard catalogue sizes, depending on the size, the torque capacity of the bush may be below the quoted catalogue ratings. In these situations it is preferable to fit a key to the bush/shaft interface.

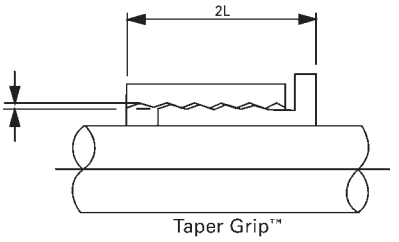
In these cases please consult your local Authorised Distributor.

TRANSMITS 300% MORE TORQUE





Taper Lock®



Taper Grip™



Ordering Instructions

GEARBOX CODING

The required unit is identified by an eight digit code as under:

First Three Digits:	Product Prefix	Constant 116
Fourth Digit:	Unit Size	B C D E F G H J ST K L M
Fifth and Sixth Digits:	Ratio Code	05. 13. 20 & 25
Seventh Digit:	Indicates Assembly	0 Shaft Mounted Speed Reducer
Eighth Digit:	Indicates Output Hub bore required	1 Standard Metric bore † 2 Upper Alternative Metric bore † 5 Taper-Grip Hub

† The hub bushes in the table opposite can be used in all three parallel hub bore options.

Example

Size G Unit 20:1 nominal Gear Ratio. shaft mounted with standard Metric Hub Bore (75mm) 116G2001.
If Backstop or Output Bushes are required, these should be ordered separately.
e.g. 116G2001 complete with Backstop and 60 mm Output Hub Bushes.

TAPER-GRIP CODING

Taper-Grip units are supplied without the Taper-Grip Bush. These should be ordered separately, see table below.

First Three Digits:	Product Prefix	012 Metric bores		013 Inch bores	
Fourth Digit:	Unit Size	B C D E F G H J ST K L M			
Fifth Digits:	Constant	1			
Sixth. Seventh and Eighth Digit:	Indicates Taper-Grip bore size in millimetres or inches	Metric Bore	Bore Code	Inch Bore	Bore Code
		25	025	1¼	104
		30	030	1½	108
		35	035	2	200
		40	040	2½	208
		45	045	3	300
		50	050		
		55	055		
		60	060		
		65	065		
		75	075		
		85	085		
		90	090		
		100	100		
		120	120		
		125	125		
		130	130		
		150	150		
		190	190		

Example

Size G Unit 20:1 nominal Gear Ratio. shaft mounted with Metric Taper-Grip Bore (75 mm). SMSR code is 116G2005.

Taper-Grip bush code is 012G1075.

BACKSTOP CODING

The required backstop size is identified by an eight digit code:

First Three Digits:	Product Prefix	044
Fourth Digit:	Unit Size	B, C, D, E, F, G, H, J, S, T, K, L, M
Fifth,Sixth. Seventh & Eight Digit:	Product Suffix	0003

Example: 044G0003 - Size G PowerPlus backstop

OPTIONAL EXTRAS

Backstops

Incorporated to prevent reversal of rotation. Quickly installed within the reducer, by simply removing a cover plate.

Flange Mounting

All gear cases now have drilled and tapped holes in the input drive face for bolting direct to a supporting framework. This flange mounting use of the reducer eliminates a bearing or pillow block. However the belt adjustment feature of shaft mounting is also lost, see page 287.

Reversing Duty

Shaft Mounted Speed Reducers suitable for reversing duty can be supplied to order.

Vertical Shafts

Units suitable for mounting on vertical shafts can be supplied at extra charge. When ordering, please specify whether input shaft is above or below.

AGMA Output Hubs

Bores conforming to North American standards are available.

Screw Conveyors

Screw conveyor adaptors conforming to CEMA mounting specifications are available.

SMSR PARALLEL HUB BUSHES

HUB. DIA	SMSR SIZE		SHAFT DIA.		BUSH CODE
mm	Alt.	Std.	inch	mm	
30	-	B	0.75	-	016A9106
30	-	B	-	20	016A9220
30	-	B	-	25	016A9225
30	-	B	1.00	-	016A9110
40	-	C	-	30	016C9230
40	B	C	1.25	-	016B9112
50	-	D	1.25	-	016D9112
40	B	C	-	32	016B9232
40	B	C	-	35	016B9235
50	C	D	-	38	016C9238
50	C	D	1.50	-	016C9114
55	-	E	1.50	-	016E9114
50	-	D	-	40	016D9240
50	C	D	-	42	016C9242
55	-	E	-	42	016E9242
50	C	D	1.75	-	016C9116
55	-	E	1.75	-	016E9116
50	C	D	-	45	016C9245
55	-	E	-	45	016E9245
55	-	E	-	50	016E9250
65	-	F	-	50	016F9250
55	D	E	2.00	-	016D9120
65	-	F	2.00	-	016F9120
65	-	F	-	55	016F9255
65	E	F	2.25	-	016E9122
75	-	G	2.25	-	016G9122
65	E	F	-	60	016E9260
75	-	G	-	60	016G9260
75	F	G	2.50	-	016F9124
85	-	H	2.50	-	016H9124
75	-	G	-	65	016G9265
75	F	G	2.75	-	016F9126
85	-	H	2.75	-	016H9126
75	F	G	-	70	016F9270
85	-	H	-	70	016H9270
85	-	H	-	75	016H9275
85	G	H	3.00	-	016G9130
85	G	H	-	80	016G9280
100	H	J	-	85	016H9285
100	H	J	3.50	-	016H9134
120	-	S	3.50	-	016S9134
125	-	T/K	3.50	-	016K9134
100	H	J	-	90	016H9290
120	-	S	-	90	016S9290
125	S	T/K	-	90	016K9290
100	H	J	-	95	016H9295
120	-	S	-	100	016S9200
125	S	T/K	-	100	016K9200
150	-	L	-	100	016L9200
120	J	S	4.00	-	016J9140
125	S	T/K	4.00	-	016K9140
120	J	S	-	110	016J9210
125	S	T/K	-	110	016K9210
120	J	S	4.50	-	016J9144
125	S	T/K	4.50	-	016K9144
150	-	L	4.50	-	016L9144
150	-	L	-	125	016L9225
150	-	L	5.00	-	016L9150
150	-	L	-	130	016L9230
150	-	L	5.50	-	016L9154

BELT DRIVES—1440 REV/MIN MOTORS

	UNIT SIZE **B**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	56	400	1XPZ
	12	5.97	67	400	1SPZ
	14	5.00	63	315	1SPZ
	16	4.44	71	315	1SPZ
	18	3.94	80	315	1SPZ
	20	3.57	56	200	1XPZ
	22	3.21	56	180	1XPZ
	24	2.86	63	180	1XPZ
	26	2.78	90	250	1SPZ
	28	2.54	63	160	1SPZ
	30	2.36	56	132	1XPZ
	32	2.22	63	140	1SPZ
	34	2.10	63	132	1SPZ
	38	1.87	67	125	1SPZ
	40	1.78	63	112	1XPZ
	42	1.70	56	95	2XPZ
	46	1.56	90	140	1SPZ
	50	1.43	112	160	1SPZ
	52	1.39	90	125	1SPZ
	54	1.33	75	100	1SPZ
	58	1.24	95	118	1SPZ
	62	1.16	140	160	1SPZ
	66	1.64	63	67	2SPZ
13:1	66	1.64	85	140	1SPZ
	70	1.55	85	132	1SPZ
	74	1.46	90	132	1SPZ
	78	1.39	90	125	1SPZ
	80	1.35	63	85	2XPZ
	85	1.28	125	160	1SPZ
	90	1.20	75	90	2SPZ
	100	1.08	90	100	1QXPA
5:1	100	2.83	112	315	1SPZ
	110	2.57	95	250	1XPA
	120	2.36	106	250	1XPZ
	130	2.18	112	250	1XPZ
	140	2.02	125	250	1SPZ
	150	1.88	85	160	2SPZ
	160	1.76	85	150	2XPA
	170	1.67	75	125	3SPZ
	180	1.57	75	118	3SPZ
	190	1.49	95	140	2SPZ
	200	1.42	106	150	1QXPA
	210	1.35	112	150	1QXPA
	220	1.29	140	180	1SPA
	230	1.23	132	160	1SPA
	240	1.18	95	112	2SPZ
	250	1.13	160	180	1XPZ
	260	1.09	140	150	1SPA
	270	1.05	95	100	2SPA
	280	1.01	112	112	2SPZ
	300	1.06	140	132	1XPA
	310	1.11	200	180	1XPZ
	320	1.14	150	132	1XPA
	330	1.18	100	85	3SPZ
	340	1.20	150	125	1QXPA
	350	1.24	118	95	2XPA
	360	1.27	400	315	1XPZ
	370	1.31	236*	180*	1SPB
	380	1.36	160	118	1QXPA
	390	1.39	250	180	1SPZ
	400	1.41	315	224	1SPA

	UNIT SIZE **C**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.04	71	500*	1SPZ
	12	5.63	71	400	1SPZ
	14	5.00	80	400	1SPZ
	15	4.44	71	315	1SPZ
	17	3.94	80	315	1SPZ
	20	3.50	90	315	1SPZ
	22	3.13	80	250	1SPZ
	24	2.94	85	250	1SPZ
	26	2.69	67	180	1SPZ
	28	2.40	75	180	1XPZ
	30	2.25	71	160	1XPZ
	32	2.13	75	160	1XPZ
	34	2.00	80	160	1XPZ
	38	1.80	100	180	1SPA
	40	1.70	106	180	1SPZ
	42	1.65	85	140	1XPZ
	46	1.50	100	150	1SPA
	50	1.36	118	160	1XPZ
	52	1.32	106	140	1XPZ
	54	1.29	140	180	1XPZ
	58	1.18	100	118	1XPA
	62	1.11	90	100	2SPZ
13:1	66	1.56	90	140	2SPZ
	70	1.47	85	125	2SPZ
	74	1.39	95	132	2SPZ
	78	1.32	106	140	1XPA
	80	1.28	125	160	1SPZ
	85	1.21	140	170	1XPZ
	90	1.14	140	160	2SPZ
	95	1.07	75	80	3XPZ
	100	1.00	100	100	2SPZ
5:1	101	2.86	140	400	1SPA
	114	2.52	125	315	1XPA
	121	2.39	132	315	1XPA
	129	2.23	112	250	2SPZ
	144	2.00	140	280	1XPA
	152	1.90	118	224	2SPA
	161	1.79	140	250	1XPA
	171	1.68	95	160	3SPZ
	183	1.58	200	315	1XPZ
	193	1.49	150	224	2SPA
	202	1.43	112	160	2SPZ
	211	1.36	132	180	2SPZ
	224	1.29	140	180	2SPZ
	230	1.25	160	200	2XPZ
	244	1.18	100	118	3XPZ
	252	1.14	140	160	2SPZ
	259	1.11	180	200	1SPA
	273	1.06	125	132	2SPZ
	288	1.00	140	140	2SPA
	303	1.05	100	95	2SPA
	310	1.08	140	130	3SPZ
	324	1.13	180	160	2SPZ
	329	1.14	140	160	3SPA
	339	1.18	200	170	2SPA
	349	1.21	160	132	2SPA
	360	1.25	140	112	3SPZ
	369	1.28	180	140	2XPZ
	380	1.32	150	112	2XPA
	391	1.36	180	132	2XPA
	400	1.39	140	100	3XPA

	UNIT SIZE **D**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	1.04	71	500	1XPZ
	12	5.63	71	400	1SPZ
	14	4.70	67	315	1SPZ
	16	4.20	75	315	1SPZ
	18	3.71	85	315	1SPZ
	20	3.29	85	280	1SPZ
	22	3.11	90	280	1SPA
	24	2.78	90	250	1SPZ
	26	2.54	63	160	2XPZ
	28	2.39	67	160	2SPZ
	30	2.24	100	224	1XPA
	32	2.11	95	200	1XPA
	34	1.97	160	315	1SPZ
	38	1.76	75	132	2XPZ
	40	1.68	95	160	2SPZ
	42	1.60	125	200	1XPZ
	46	1.47	90	132	2SPZ
	50	1.34	112	150	2SPA
	52	1.29	140	180	1XPZ
	54	1.24	95	118	2SPZ
	58	1.14	140	160	1SPA
	62	1.07	140	150	1XPA
13:1	66	1.52	132	200	1SPA
	71	1.43	112	160	2XPZ
	74	1.36	118	160	2SPZ
	78	1.29	140	180	1XPA
	80	1.25	112	140	2XPZ
	85	1.19	118	140	2SPZ
	90	1.12	125	140	2SPZ
	95	1.06	132	140	2SPZ
	100	1.00	125	125	2XPZ
5:1	108	2.52	125	315	2XPZ
	114	2.39	132	315	2SPZ
	120	2.25	140	315	2SPZ
	130	2.11	112	236	2XPB
	140	1.90	118	224	2XPA
	150	1.80	118	212	2XPB
	160	1.69	118	200	3XPZ
	170	1.60	125	200	3SPZ
	180	1.52	132	200	3SPZ
	190	1.43	140	200	3SPZ
	200	1.36	132	180	2XPA
	210	1.29	140	180	2SPA
	220	1.21	132	160	3SPZ
	230	1.18	112	132	4XPZ
	240	1.12	112	125	4XPZ
	250	1.07	140	150	3SPA
	260	1.05	112	118	4XPZ
	270	1.00	140	140	3XPZ
	285	1.05	100	95	4QXPA
	290	1.07	160	150	2XPA
	300	1.11	200	180	2QXPZ
	310	1.14	160	140	3SPZ
	320	1.18	132	112	4XPZ
	330	1.21	160	132	3SPA
	340	1.25	250	200	2XPZ
	350	1.29	180	140	3XPZ
	360	1.32	140	106	5SPZ
	370	1.36	190	140	2XPB
	380	1.40	140	100	4XPA
	390	1.44	180	125	3XPA
	400	1.47	250	170	2XPB

* Pulley only available in 2 groove.
For 25:1 reduction SMSR belt drives consult your local Authorised Distributor

FOR INSTALLATION AND OPERATION OF BELT DRIVES SEE PAGE 74 OF THIS CATALOGUE



BELT DRIVES—1440 REV/MIN MOTORS

	UNIT SIZE **E**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.04	71	500	2SPZ
	12	5.97	67	400	2SPZ
	14	5.00	80	400	2SPZ
	16	4.44	90	400	1XPZ
	18	4.00	100	400	2SPZ
	20	3.50	90	315	2SPZ
	22	3.15	100	315	2SPZ
	24	2.94	85	250	2XPZ
	26	2.67	75	200	2XPZ
	28	2.50	80	200	3SPZ
	30	2.35	85	200	2SPZ
	32	2.22	90	200	2XPZ
	34	2.09	67	140	4XPZ
	38	1.87	150	280	1SPA
	40	1.75	80	140	3XPZ
	42	1.68	95	160	3SPZ
	46	1.52	132	200	2SPZ
	50	1.42	106	150	2XPA
	52	1.36	118	160	3SPZ
	54	1.29	140	180	2XPZ
	58	1.21	132	160	2XPZ
	62	1.14	132	150	2SPA
13:1	66	1.61	112	180	3SPZ
	70	1.52	132	200	3XPZ
	74	1.43	112	160	3XPZ
	78	1.36	118	160	3SPZ
	80	1.32	100	132	3XPA
	85	1.25	100	125	4XPZ
	90	1.18	106	125	4XPZ
	95	1.11	106	118	4XPZ
	100	1.06	132	140	3XPZ
5:1	101	2.86	140	400	3SPZ
	114	2.52	125	315	4SPZ
	121	2.39	132	315	3XPZ
	129	2.23	112	250	5XPA
	144	2.00	125	250	3SPA
	152	1.90	118	224	4SPA
	161	1.79	140	250	3SPA
	171	1.69	140	236	2QXPB
	183	1.58	200	315	3XPZ
	193	1.49	150	224	3SPA
	202	1.43	112	160	4XPA
	211	1.36	132	180	4SPA
	224	1.29	140	180	3XPA
	230	1.25	200	250	2XPA
	244	1.18	190	224	2XPB
	252	1.14	140	160	4SPA
	259	1.11	180	200	2XPB
	273	1.06	125	132	5SPA
	288	1.00	160	160	3XPA
	303	1.05	200	190	2XPB
	310	1.08	140	132	4XPA
	324	1.13	180	160	3XPA
	329	1.14	160	140	4XPA
	342	1.19	140	118	5XPA
	349	1.21	160	132	4XPA
	360	1.25	140	112	6XPA
	370	1.29	180	140	4XPA
	386	1.34	150	112	6XPA
	393	1.36	180	132	5XPA
	403	1.40	224	160	3XPA

	UNIT SIZE **F**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.00	90	630*	1SPA
	12	5.97	67	400	2SPZ
	14	5.00	100	500*	1SPA
	16	4.44	90	400	2SPZ
	18	3.94	80	315	2SPZ
	20	3.57	112	400	1XPA
	22	3.20	125	400	1SPA
	24	2.94	85	250	3SPZ
	26	2.67	150	400	1SPA
	28	2.50	160	400	1SPA
	30	2.35	85	200	3XPZ
	32	2.22	90	200	3SPZ
	33	2.11	95	200	3SPZ
	37	1.88	85	160	4SPZ
	40	1.75	180	315	1XPA
	42	1.67	150	250	2SPA
	46	1.53	118	180	3SPZ
	48	1.47	95	140	4XPZ
	50	1.40	100	140	4SPZ
	52	1.36	118	160	3XPZ
	55	1.29	140	180	3SPZ
	63	1.12	112	125	4SPZ
	66	1.07	150	160	2XPA
13:1	70	1.52	132	200	4SPZ
	74	1.43	140	200	2XPB
	78	1.36	118	160	4SPA
	80	1.32	170	224	2SPB
	85	1.24	180	224	2SPA
	90	1.18	170	200	2SPB
	95	1.11	180	200	3SPZ
	100	1.06	132	140	5SPZ
5:1	102	2.81	160	450	2SPB
	109	2.63	190	500	2SPB
	121	2.39	132	315	5SPZ
	128	2.25	140	315	4SPA
	144	2.00	125	250	4SPA
	152	1.89	132	250	5XPZ
	161	1.79	140	250	5SPZ
	172	1.67	212	355	2SPB
	183	1.58	200	315	4SPZ
	193	1.49	150	224	4SPA
	202	1.43	140	200	4XPA
	212	1.36	140	190	4SPB
	224	1.29	140	180	4SPB
	231	1.24	180	224	3XPA
	243	1.19	236	280	2XPB
	252	1.14	140	160	5XPA
	259	1.11	180	200	3SPB
	272	1.06	236	250	2XPB
	288	1.00	315	315	2XPA
	303	1.05	200	190	3XPB
	309	1.07	150	140	5XPA
	323	1.12	224	200	3XPA
	329	1.14	160	140	5XPA
	342	1.19	280	236	2XPB
	358	1.24	236	190	3SPB
	365	1.27	355	280	2XPB
	384	1.33	315	236	2XPB
	405	1.41	315	224	3XPA

	UNIT SIZE **G**				
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.00	90	630	2SPA
	12	5.94	106	630	2SPA
	14	5.00	100	500	2SPA
	16	4.44	90	400	3SPZ
	18	4.00	100	400	2XPA
	20	3.57	112	400	2SPA
	22	3.20	125	400	2SPA
	24	2.94	85	250	4XPZ
	26	2.67	118	315	3SPZ
	28	2.50	160	400	2XPZ
	30	2.36	106	250	3XPA
	32	2.23	112	250	3SPA
	34	2.10	150	315	2SPA
	38	1.87	150	280	2XPA
	40	1.75	160	280	2XPA
	42	1.67	150	250	3SPA
	46	1.52	132	200	4XPZ
	48	1.48	160	236	2XPB
	50	1.40	200	280	2XPA
	52	1.36	118	160	4XPA
	55	1.29	140	180	4SPA
	63	1.11	180	200	4XPZ
	66	1.07	150	160	4XPA
13:1	70	1.52	132	200	5SPA
	74	1.43	140	200	4SPA
	78	1.36	140	190	4SPB
	80	1.32	212	280	2SPB
	85	1.24	180	224	3SPB
	90	1.18	180	212	3XPB
	95	1.11	180	200	3XPB
	100	1.06	200	212	3XPB
5:1	102	2.81	160	450	4SPB
	109	2.63	190	500	3SPB
	122	2.37	190	450	3SPB
	130	2.22	160	355	4SPB
	144	2.00	200	400	5XPZ
	153	1.89	212	400	3SPB
	162	1.78	200	355	3XPB
	172	1.67	212	355	3SPB
	183	1.58	200	315	4SPA
	191	1.50	236	355	3XPB
	202	1.43	280	400	3XPA
	212	1.36	140	190	6XPB
	220	1.31	180	236	5SPB
	230	1.25	224	280	4XPA
	243	1.19	236	280	3XPB
	256	1.13	280	315	3XPB
	259	1.11	450	500	2XPB
	273	1.06	212	224	4XPB
	288	1.00	315	315	3XPA
	303	1.05	236	224	4XPB
	309	1.07	300	280	2QXPC
	323	1.12	224	200	4XPB
	326	1.13	300	265	3QXPC
	340	1.18	236	200	4XPB
	358	1.24	236	190	5SPB

* Pulley only available in 2 groove.

For 25:1 reduction SMSR belt drives consult your local Authorised Distributor

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BELT DRIVES—1440 REV/MIN MOTORS

UNIT SIZE H					
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.00	90	630	3SPA
	12	5.94	106	630	3SPA
	14	5.04	125	630	2SPA
	16	4.44	90	400	4SPZ
	18	4.00	100	400	3SPA
	20	3.57	140	500	2XPA
	22	3.20	125	400	2XPB
	24	2.97	106	315	4SPA
	26	2.67	150	400	2XPA
	28	2.50	160	400	2XPA
	30	2.35	170	400	2SPB
	32	2.23	112	250	4XPA
	34	2.10	150	315	3SPA
	38	1.85	170	315	2XPB
	40	1.75	160	280	3SPA
	42	1.67	150	250	4SPA
	46	1.52	132	200	5SPA
	48	1.48	160	236	3SPB
	50	1.40	200	280	3XPA
	52	1.36	118	160	6XPA
	55	1.29	140	180	5SPA
	60	1.18	180	212	3XPB
	63	1.12	200	224	3XPA
	66	1.06	200	212	3XPB
13:1	70	1.50	236	355	2XPB
	74	1.43	280	400	3XPA
	78	1.36	140	190	6SPB
	80	1.32	212	280	3SPB
	85	1.24	180	224	5SPA
	90	1.18	190	224	4SPB
	95	1.11	212	236	3XPB
	100	1.06	200	212	4XPB
5:1	101	2.81	224	630	3SPB
	108	2.63	190	500	4SPB
	120	2.37	190	450	4XPB
	128	2.23	224	500	4XPA
	143	2.00	200	400	5SPA
	151	1.89	212	400	4SPB
	160	1.79	224	400	5SPA
	172	1.66	190	315	5SPB
	180	1.58	224	355	4SPB
	190	1.50	236	355	4XPB
	200	1.43	280	400	3XPB
	213	1.34	224	300	4SPC
	218	1.31	180	236	6SPB
	228	1.25	224	280	6SPA
	240	1.19	236	280	5XPB
	253	1.13	315	355	3XPB
	257	1.11	450	500	3XPB
	269	1.06	236	250	5XPB
	285	1.00	280	280	4XPB
	301	1.05	236	224	6XPB
	306	1.07	300	280	3QXPC
	321	1.13	315	280	4XPB
	323	1.13	425	375	3QXPC
	339	1.19	280	236	5XPB

For 25:1 reduction SMSR belt drives consult your local Authorised Distributor

UNIT SIZE J					
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.00	90	630	4SPA
	12	5.94	106	630	3SPA
	14	5.00	100	500	4SPA
	16	4.50	140	630	2SPB
	18	3.94	160	630	2SPA
	20	3.57	140	500	3SPA
	22	3.20	125	400	4SPA
	24	2.95	190	560	2SPB
	26	2.67	150	400	3XPA
	28	2.50	160	400	3XPA
	30	2.36	212	500	2SPB
	32	2.22	180	400	3SPA
	34	2.10	150	315	4XPA
	38	1.87	190	355	3SPB
	40	1.75	180	315	4SPA
	42	1.66	190	315	3SPB
	46	1.50	200	300	3SPC
	50	1.41	224	315	3XPA
	52	1.33	236	315	3SPB
	54	1.31	180	236	4SPB
	58	1.21	140	170	6XPB
	62	1.13	315	355	2SPB
	67	1.06	212	224	4SPB
13:1	67	1.58	200	315	5SPA
	70	1.50	236	355	3SPB
	74	1.43	280	400	3XPA
	78	1.35	315	425	3SPC
	80	1.32	212	280	4SPB
	85	1.24	190	236	6SPB
	90	1.18	212	250	4XPB
	95	1.12	224	250	5XPA
	100	1.06	236	250	4SPB
5:1	100	2.86	280	800	3QXPB
	110	2.63	190	500	6SPB
	120	2.38	265	630	3SPC
	130	2.22	450	1000	2QXPB
	140	2.01	236	475	4SPC
	150	1.91	236	450	5SPB
	160	1.79	280	500	5SPA
	170	1.68	315	530	3SPC
	180	1.59	315	500	5SPA
	190	1.50	250	375	5SPC
	200	1.43	280	400	6SPA
	210	1.35	315	425	3SPC
	220	1.32	190	250	8XPB
	230	1.24	190	236	8XPB
	240	1.19	315	375	4SPC
	250	1.13	375	425	3SPC
	260	1.11	180	200	8QXPB
	270	1.06	212	224	8XPB
	290	1.00	400	400	5SPA
	300	1.05	236	224	8XPB
	310	1.07	300	280	5SPC
	320	1.12	265	236	6SPC
	330	1.18	212	180	8XPB
	340	1.19	315	265	4SPC
	350	1.24	236	190	8SPB
	360	1.26	315	250	6SPA
	370	1.31	236	180	8SPB
	380	1.33	315	236	5SPB
	390	1.39	250	180	6XPB
	400	1.41	315	224	6XPA

UNIT SIZE S					
	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	112	800	3XPB
	12	5.94	106	630	4SPA
	14	5.00	160	800	3SPB
	16	4.50	140	630	3SPA
	18	3.94	160	630	3SPA
	20	3.57	140	500	3XPB
	22	3.20	125	400	5SPA
	24	2.97	212	630	2SPB
	26	2.67	150	400	4XPA
	28	2.50	160	400	4SPB
	30	2.36	212	500	3SPB
	32	2.22	180	400	4SPA
	34	2.09	170	355	5SPB
	38	1.87	190	355	4SPB
	40	1.75	180	315	5SPA
	42	1.67	212	355	4SPB
	46	1.50	236	355	3SPC
	50	1.41	224	315	4XPA
	52	1.32	212	280	4XPB
	54	1.31	180	236	5XPB
	58	1.20	250	300	3SPC
	63	1.13	265	300	3SPC
	67	1.06	212	224	5SPB
13:1	67	1.58	200	315	5SPB
	70	1.50	236	355	4XPB
	74	1.43	280	400	5XPA
	78	1.35	315	425	3SPC
	80	1.32	212	280	5XPB
	85	1.24	190	236	8SPB
	90	1.19	236	280	5SPB
	95	1.12	250	280	6XPA
	100	1.06	236	250	5XPB
5:1	100	2.86	280	800	5SPB
	110	2.63	190	500	8SPB
	120	2.38	265	630	4SPC
	130	2.22	450	1000	3SPB
	140	2.01	236	475	4QXPC
	150	1.91	236	450	6XPB
	160	1.79	280	500	6SPB
	170	1.68	375	630	3SPC
	180	1.59	315	500	5SPB
	190	1.50	300	450	5SPC
	200	1.43	280	400	6XPB
	210	1.35	315	425	5SPC
	220	1.32	425	560	3SPC
	230	1.25	425	530	3SPC
	240	1.19	315	375	5SPC
	250	1.13	375	425	4SPC
	260	1.11	450	500	4QXPB
	270	1.06	265	280	8SPC
	290	1.00	355	355	6XPB
	300	1.06	375	355	4QXPC
	310	1.07	400	375	4SPC
	320	1.12	375	335	5SPC
	330	1.18	500	425	3QXPC
	340	1.19	375	315	5SPC
	350	1.24	236	190	8QXPB
	360	1.26	315	250	6SPC
	370	1.31	236	180	8QXPB
	380	1.33	315	236	6XPB
	390	1.35	425	315	3QXPC
	400	1.40	280	200	8SPB

FOR INSTALLATION AND OPERATION OF BELT DRIVES SEE PAGE 74 OF THIS CATALOGUE



BELT DRIVES—1440 REV/MIN MOTORS

UNIT SIZE **T**

	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	140	1000	3SPB
	12	5.71	140	800	3SPB
	14	5.04	125	630	4SPA
	16	4.50	140	630	4SPA
	18	3.94	160	630	3SPB
	20	3.50	180	630	3SPB
	22	3.15	200	630	4SPA
	24	2.97	212	630	3SPB
	26	2.67	236	630	3SPB
	28	2.50	200	500	3XPB
	30	2.36	212	500	3XPB
	32	2.22	180	400	5XPA
	34	2.09	170	355	6SPB
	38	1.87	190	355	5SPB
	40	1.79	224	400	5SPA
	42	1.67	212	355	4XPB
	46	1.52	280	425	3SPC
	50	1.41	224	315	6SPA
	52	1.33	236	315	5XPB
	54	1.31	180	236	6QXPB
	58	1.24	190	236	6XPB
	63	1.13	265	300	4SPC
	67	1.06	236	250	5XPB
13:1	67	1.58	200	315	6XPB
	70	1.50	236	355	5XPB
	74	1.43	280	400	6XPA
	78	1.35	315	425	3QXPC
	80	1.32	425	560	3SPC
	84	1.25	400	500	5SPA
	90	1.18	425	500	3SPC
	95	1.11	212	236	8XPB
	100	1.06	355	375	3SPC
5:1	100	3.11	180	560	8QXPB
	110	2.81	224	630	8SPB
	120	2.54	315	800	5QXPB
	130	2.37	236	560	8SPB
	140	2.22	450	1000	4QXPB
	150	2.01	236	475	5QXPC
	160	1.91	236	450	8QXPB
	170	1.78	450	800	5SPB
	180	1.68	375	630	4SPC
	190	1.61	280	450	8SPB
	200	1.51	315	475	4QXPC
	210	1.48	425	630	4SPC
	220	1.42	335	475	5SPC
	230	1.33	375	500	5SPC
	240	1.27	315	400	8SPB
	250	1.24	450	560	5QXPB
	260	1.18	475	560	3QXPC
	270	1.13	375	425	5SPC
	280	1.11	450	500	3QXPC
	290	1.06	335	355	6SPC
	310	1.00	355	355	6XPB
	320	1.05	315	300	6SPC
	330	1.07	400	375	4SPC
	340	1.11	500	450	4QXPB
	350	1.13	425	375	3QXPC
	360	1.18	250	212	8QXPB
	370	1.20	450	375	3QXPC
	380	1.24	236	190	8QXPB
	390	1.27	355	280	6XPB
	400	1.32	250	190	8QXPB

For 25:1 reduction SMSR belt drives consult your local Authorised Distributor

UNIT SIZE **K**

	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	140	1000	4SPB
	12	6.06	132	800	4XPB
	14	5.00	160	800	3SPB
	16	4.44	180	800	3SPB
	18	3.94	160	630	4SPB
	20	3.57	224	800	3SPB
	22	3.29	170	560	4SPB
	24	2.94	170	500	4XPB
	26	2.81	224	630	3SPB
	28	2.52	250	630	3SPB
	30	2.36	212	500	4SPB
	32	2.23	224	500	5SPA
	34	2.12	236	500	4SPB
	38	1.89	212	400	5SPB
	40	1.79	224	400	6SPA
	42	1.69	236	400	4XPB
	46	1.58	300	475	3SPC
	50	1.50	250	375	4SPC
	52	1.40	400	560	3SPB
	54	1.33	236	315	5XPB
	58	1.25	400	500	3SPB
13:1	62	1.75	180	315	8SPB
	65	1.67	300	500	4SPC
	70	1.56	180	280	8QXPB
	74	1.47	190	280	8SPB
	78	1.40	400	560	4SPB
	80	1.35	315	425	4SPC
	85	1.27	236	300	6SPC
	90	1.20	250	300	5SPC
	95	1.13	265	300	4SPC
	100	1.07	280	300	4SPC

UNIT SIZE **L**

	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	140	1000	5SPB
	12	6.25	160	1000	4SPB
	14	5.26	190	1000	4SPB
	16	4.46	224	1000	3SPB
	18	4.00	200	800	4SPB
	20	3.77	212	800	4SPB
	22	3.32	190	630	5SPB
	24	3.02	265	800	3SPC
	26	2.81	224	630	6SPA
	28	2.64	212	560	5SPB
	30	2.50	224	560	5SPB
	32	2.25	355	800	3SPB
	34	2.13	375	800	3SPC
	38	1.91	236	450	5SPC
	40	1.87	300	560	4SPC
	42	1.77	300	530	4SPC
	46	1.60	250	400	6SPB
	50	1.48	425	630	3SPC
	52	1.42	265	375	4QXPC
	54	1.35	315	425	4SPC
13:1	58	1.87	300	560	5SPC
	62	1.77	300	530	5SPC
	65	1.67	300	500	5SPC
	70	1.58	400	630	5SPB
	74	1.48	425	630	3QXPC
	78	1.40	450	630	5SPB
	80	1.35	315	425	5SPC
	85	1.27	315	400	6SPB
	90	1.20	250	300	6SPC
	95	1.13	375	425	3SPC
	100	1.07	280	300	5SPC

UNIT SIZE **M**

	Nominal Output Speed	Pulley Ratio	Pulley Pitch diameters		Number of belts
			Motor	Gearbox	
20:1	10	7.14	140	1000	6QXPB
	12	6.25	200	1250	5SPC
	14	5.30	236	1250	4SPC
	16	4.72	212	1000	6SPB
	18	4.24	236	1000	6SPB
	20	3.77	265	1000	4SPC
	22	3.39	236	800	6SPC
	24	3.17	315	1000	5SPB
	26	2.86	280	800	6SPB
	28	2.54	315	800	6SPB
	30	2.52	250	630	6SPC
	32	2.35	425	1000	3SPC
	34	2.25	280	630	4QXPC
	38	2.00	315	630	5SPC
	40	1.88	335	630	5SPC
	42	1.78	450	800	5SPB
	46	1.60	500	800	5SPB
	50	1.49	335	500	6SPC
	52	1.42	335	475	6SPC
13:1	54	2.11	475	1000	4SPC
	58	1.91	250	475	8QXPC
	62	1.79	265	475	8QXPC
	65	1.68	475	800	5SPC
	70	1.60	500	800	5SPC
	74	1.51	530	800	4QXPC
	78	1.42	335	475	8SPC
	80	1.40	400	560	8SPB
	85	1.27	355	450	8SPB
	90	1.24	450	560	4SPC
	95	1.18	475	560	4SPC
	100	1.12	500	560	5SPB

FOR INSTALLATION AND OPERATION OF BELT DRIVES SEE PAGE 74 OF THIS CATALOGUE

GEARBOX INSTALLATION

Satisfactory performance depends on proper installation, lubrication and maintenance. Therefore it is important that the instructions in the Installation and Maintenance leaflet, supplied with each gearbox, are followed carefully. Some of the important aspects of belt and torque-arm installation are listed below.

1. Install pulley on gearbox input shaft as close to the reducer as possible. See fig. 1. Failure to do this will cause excess loads in the input shaft bearings and could cause their premature failure.
2. Install motor and wedge belt drive with the belt pull at approximately 90° to the centre line between driven and input shafts. See fig. 2. This will permit tensioning of the wedge belt drive with the torque-arm which should preferably be in tension. If output hub runs anti-clockwise the torque arm should be positioned to the right. See fig. 3.
3. Install torque-arm fulcrum on a rigid support so that the torque-arm will be at approximately right angles to the centre line through the driven shaft and the torque arm case bolt. See fig. 4. Make sure there is sufficient take up in the turn-buckle for belt tension adjustment.

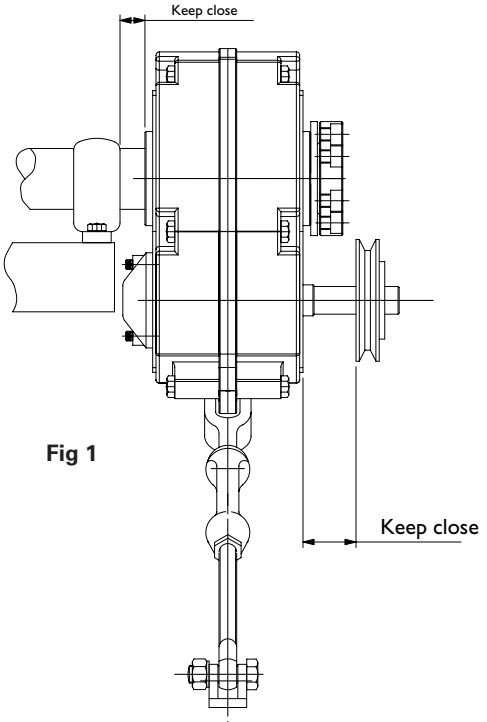


Fig 1

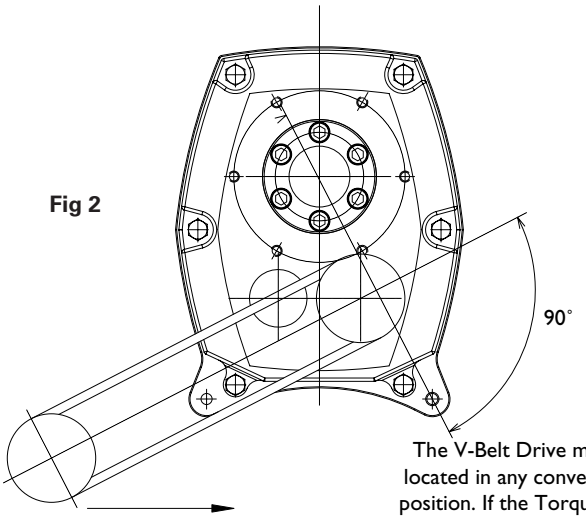


Fig 2

V-Belt drive may be located to the right if desired

The V-Belt Drive may be located in any convenient position. If the Torque-Arm is to be used to tighten the belts, the drive should be at about 90° to a line between the input and output shafts

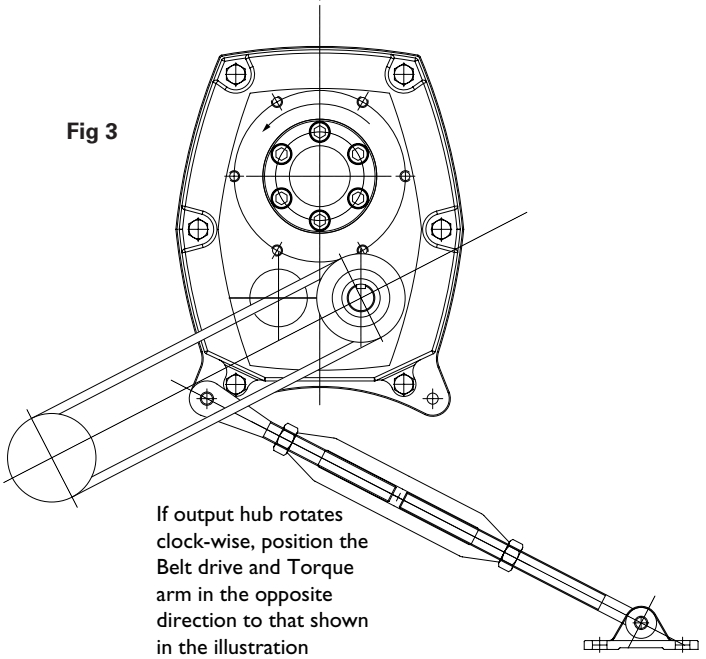


Fig 3

If output hub rotates clock-wise, position the Belt drive and Torque arm in the opposite direction to that shown in the illustration

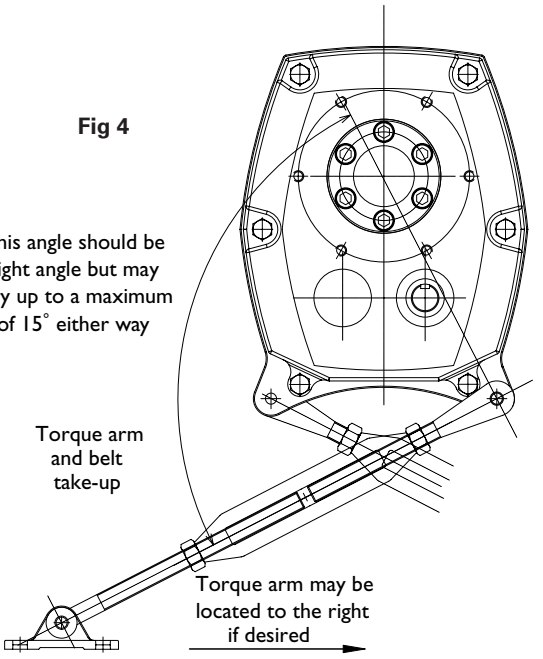


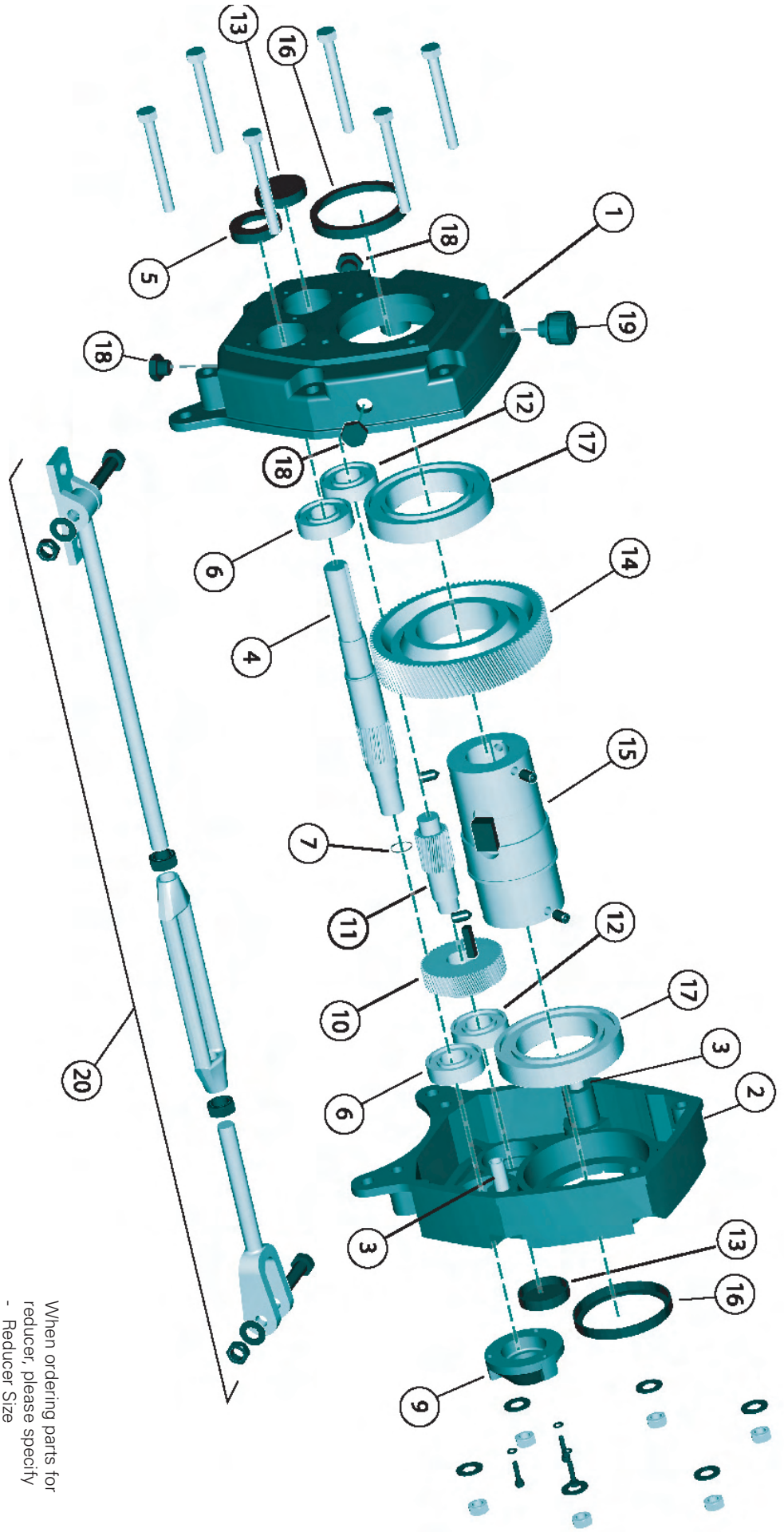
Fig 4

This angle should be a right angle but may vary up to a maximum of 15° either way

Torque arm and belt take-up

Torque arm may be located to the right if desired

FOR INSTALLATION AND OPERATION OF BELT DRIVES SEE PAGE 74 OF THIS CATALOGUE



When ordering parts for reducer, please specify
- Reducer Size
- Reducer Serial No.
- Part Name
- Code number
- Quantity required

REPLACEMENT PARTS CODE LIST

Part No.	Description	No. Req'd	Unit Size									
			B	C	D	E	F	G	H	J	S	T
1	Case IPS	1	116B6001	116C6001	116D6001	116E6001	116F6001	116G6001	116H6001	116J6001	116S6001	116T6001
2	Case BSS	1	116B6002	116C6002	116D6002	116E6002	116F6002	116G6002	116H6002	116J6002	116S6002	116T6002
3	Hollow dowel	2	016A7004	016A7004	016C7004	016C7004	016E7004	016F7004	016F7004	016H7004	016H7004	016K7004
4	Input shaft 5:1	1	116B6005	116C6005	116D6005	116E6005	116F6005	116G6005	116H6005	116J6005	116S6005	116T6005
	Input shaft 13:1		116B6013	116C6013	116D6013	116E6013	116F6013	116G6013	116H6013	116J6013	116S6013	116T6013
	Input shaft 20:1		116B6020	116C6020	116D6020	116E6020	116F6020	116G6020	116H6020	116J6020	116S6020	116T6020
	Input shaft 25:1		116B6025	116C6025	116D6025	116E6025	116F6025	116G6025	116H6025	116J6025	116S6025	116T6025
5	Input shaft oilseal	1	G946040	G946030	G946031	G946032	G946033	G946034	G946035	G946036	G946037	G946038
6	Input shaft bearing	2	G941000	G941801	G941802	G941803	G941804	G941805	G941806	G941807	G941808	G941809
7	Input shaft retaining ring (20:1)	1	116X4180	116X4180	116X4181	116X4196	-	-	116X4184	116X4185	116X4186	-
	Input shaft retaining ring (25:1)	1	-	116X4180	-	-	116X4196	116X4182	116H6004	116J6004	116S6004	116X4188
9	Backstop cover	1	116B6600	116C6600	116D6600	116E6600	116F6600	116G6600	116H6600	116J6600	116S6600	116T6600
10	1st. Reduction 13:1	1	116B6113	116C6113	116D6113	116E6113	116F6113	116G6113	116H6113	116J6113	116S6113	116T6113
	1st. Reduction Gear 20:1	1	116B6120	116C6120	116D6120	116E6120	116F6120	116G6120	116H6120	116J6120	116S6120	116T6120
	1st. Reduction Gear 25:1	1	116B6125	116C6125	116D6125	116E6125	116F6125	116G6125	116H6125	116J6125	116S6125	116T6125
11	Intermediate pinion	1	116B6205	116C6205	116D6205	116E6205	116F6205	116G6205	116H6205	116J6205	116S6205	116T6205
12	Intermediate bearing	2	G941000	G941801	G941802	G941803	G941804	G941805	G941806	G941807	G941808	G941809
13	Intermediate cover	2	016A7025	016B7025	016C7025	016D7025	016E7025	016F7025	116H6285	116J6285	016J7025	016T7025
14	2nd. Reduction gear	1	116B6305	116C6305	116D6305	116E6305	116F6305	116G6305	116H6305	116J6305	116S6305	116T6305
15	Output hub (Standard Bore)	1	116B6030	116C6040	116D6050	116E6055	116F6065	116G6075	116H6085	116J6100	116S7120	116T6125
	Output hub (Upper Alt Bore)		116B6040	116C6050	116D6055	116DE065	116F6075	116G6085	116H6100	116J7120	116S6125	116T6135
	Output hub (Lower Alt Bore)		-	116C6030	116D6040	116E6050	116F6055	116G6065	116H6075	116J6085	116S6100	116T7120
	Output hub (Taper Grip)		116B6000	116C6000	116D6000	116E6000	116F6000	116G6000	116H6000	116J6000	116S6000	116T6000
16	Output hub oilseal	2	G946041	G946023	G946024	G946025	G946026	G946016	G946027	G946028	G946029	G946315
17	Output hub Bearing	2	G941350	G941351	G941352	G941353	G941354	G941355	G941356	G941357	G941358	G941050
18	Pipe plug	3	016X2395	016X2395	016X2395	016X2395	016X2392	016X2392	016X2392	016X2392	016X2392	016X2392
19	Breather plug	1	016X6097	016X6097	016X6097	016X6097	016X6098	016X6098	016X6098	016X6098	016X6098	016X6098
20	Torque arm assembly	1	116C0101	116C0101	116E0101	116E0101	116G0101	116G0101	116T0101	116T0101	116T0101	116T0101



LUBRICATION – QUANTITIES & RECOMMENDED GRADES

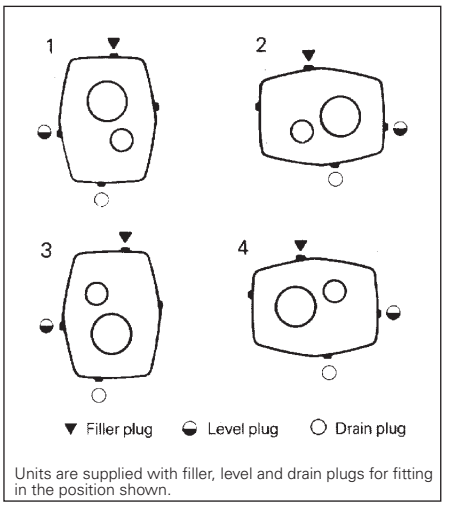
Fenner Power Plus Shaft Mounted Speed Reducers are dispatched without oil. Before running they should be filled with an appropriate amount of lubricant as shown in the tables, dependent on the mounting position. Fill to level plug when reducer is not running. Drain, flush and refill as directed in the installtion leaflet supplied with every gearbox, check oil level regularly.

Positions of filler, breather and drain plug for different mounting positions are shown in fig. 1. **CAUTION**. Too much oil will cause over-heating. Too little oil will cause gear and bearing failure.

Normal operating positions are shown in fig 1. Note that the reducer is supplied with four plugs. After the reducer has been mounted in its running position the plugs must be located as shown in fig 1 for the appropriate mounting position.

If the reducer is not within 20 degrees of one of the positions shown, the oil level plug cannot be safely used to check the oil level. This can be overcome by disconnecting the torque-arm and swinging the reducer around to one of the positions shown. Because of the many positions of fitting the reducer it may be necessary or desirable to make special adaptions using the plug holes in the reducer with standard pipe fittings standpipes or oil level gauges, consult your local Authorised Distributor.

FIG. 1 MOUNTING POSITIONS



Units are supplied with filler, level and drain plugs for fitting in the position shown.

OIL QUANTITIES (LITRES)

Unit Size	Approximate Capacity - Litres							
	5:1				13:1, 20:1 and 25:1			
Mounting Position	1	2	3	4	1	2	3	4
B	0.3	0.3	0.3	0.4	0.25	0.4	0.3	0.4
C	0.5	0.5	0.5	0.6	0.4	0.6	0.5	0.6
D	0.8	0.9	0.8	1.0	0.7	0.9	0.8	0.9
E	1.2	1.7	1.4	1.8	1.0	1.8	1.4	1.6
F	2.5	2.6	2.4	2.5	2.3	2.6	2.4	2.2
G	3.3	3.2	3.2	3.3	3.0	3.2	3.2	3.2
H	4.1	5.3	4.1	5.8	3.8	5.5	4.2	5.1
J	5.7	8.6	5.9	8.6	5.4	8.5	5.9	8.3
S	10.9	18.4	13.6	18.4	9.1	16.4	12.6	15.4
T	15.2	21.7	25.2	20.7	12.7	21.7	15.7	19.2
K					12.5	13.5	24.0	11.5
L					22.5	34.0	52.0	27.0
M					36.0	50.0	79.0	45.0

MINERAL OIL

	Ambient Temp	5:1 RATIO GEARBOX				13:1 AND 35:1 RATIO GEARBOXES						
		0–100 rev/min	101–200 rev/min	201–400 rev/min		0–20 rev/min	21–50 rev/min		51–120 rev/min		0 to 50 rev/min	51 to 80 rev/min
	°C	BCDEFGHJST	BCDEFGHJST	BCD	EFGHJST	BCDEFGHJST	BCDE	FGHJST	BCDE	FGHJST	KLM	
I.S.O. Viscosity Grade	–10 to +5	100	100	100	68	150	150	150	100	100	100	100
	6 to 25	460	320	320	220	680	680	460	460	320	320	220
	26 to 40	800	680	680	460	800	800	800	680	460	460	320

MANUFACTURERS AND TYPES

B.P. ENERGOL GR–XP	CASTROL ALPHA ZN OR SP	MOBIL MOBILGEAR & SHC	SHELL OMALA	TEXACO MEROPA

NOTE: Do not use E.P. mineral oils other than those recommended when using a backstop.

Spiral-T Gear Units

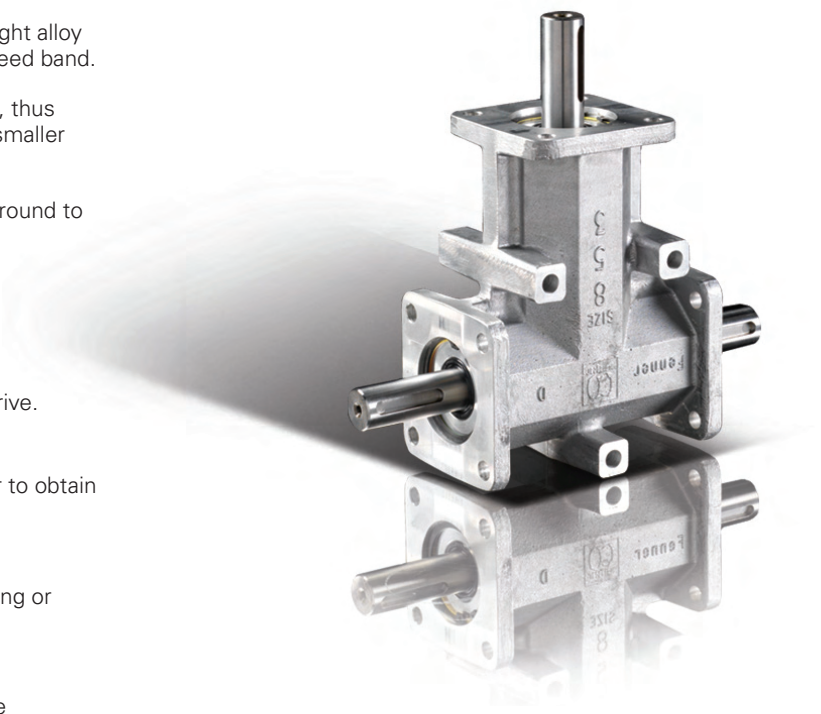
These compact right angle gearboxes excel because of their high efficiency and universal mounting facilities.

By the utilisation of spiral bevel gears within the lightweight alloy casing, low noise emission is assured throughout the speed band.

All units are factory filled with longlife synthetic lubricant, thus eliminating regular maintenance requirements. The two smaller sizes in the range are lubricated for life.

All shafts are manufactured from high quality steel and ground to B.S. 4500:1969, j6 limits.

Keyways are in accordance with B.S. 4235 Part 1: 1972



SELECTION PROCEDURE

(a) Service Factor

From Table 1 select the service factor applicable to the drive.

(b) Design Power

Multiply the power or output torque by the service factor to obtain the Design Power or Design Torque.

(c) Gear Ratio

Determine the Gear Ratio and whether it is speed reducing or increasing.

(d) Unit Selection

Refer to the power ratings (Table 2 overleaf) and from the required ratio, trace to the right along the input speed line until a power or torque in excess of the figure determined in step (b) is found. At the head of the column, note the size of unit required.

N.B. For input speeds between those listed, it is sufficiently accurate to interpolate. For speeds below 100 rev/min, assume a constant torque output capacity.

(e) Rotation

Note the required rotation shown opposite.

Overloads

Bevel geared units are designed to withstand momentary overloads of 100%.

Overhung loads

For permissible overhung loads for each application consult FPT.

Recommended Lubricants

BP	Energrease FG00-EP
DARMEX	Darmex 00
MOBIL	Mobilplex 45
SHELL	Simnia 0
TEXACO	Marfak 0

Quantities

Size	A	B	C	D
Kg	–	–	0.11	0.18

TABLE 1 – SERVICE FACTORS

Driven machines characteristics	Hours per day duty		
	under 3	3 to 12	over 12
Uniform Loads	0.8	1.0	1.25
Moderate Shock Loads	1.0	1.25	1.5
Heavy Shock Loads	1.5	1.75	2.0

ORDERING INSTRUCTIONS

Unit code number derived as follows:

920	A	2	100
1	2	3	4

1. Product prefix is constant at 920

2. Unit size – see selection procedure

3. Rotation – see opposite

4. Gear Ratio – see Table 2

The above code would designate an A size unit rotation 2 with 1 : 1 gear ratio.

RATIOS AND ROTATIONS

Input Shaft	Available ratios	
S	1 : 1	1 : 2
T	1 : 1	2 : 1

Speed Increasing Duty

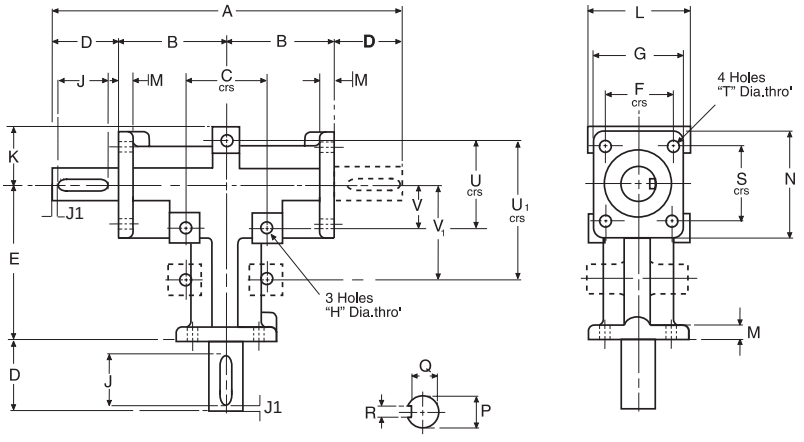
When used for speed increase SHAFT 'S' must be the input or drive shaft.

Speed Reducing Duty

When used for speed reducing SHAFT 'T' must be the input or drive shaft.

TABLE 2 – POWER RATINGS

Ratio	Input Speed rev/min	Output Speed rev/min	Power kW				Output Torque Nm			
			A	B	C	D	A	B	C	D
2 : 1 Gear Code 200	100	50	0.01	0.06	0.17	0.36	2.48	10.20	31.9	65.7
	350	175	0.04	0.16	0.51	1.08	1.93	8.41	26.8	57.0
	750	375	0.07	0.31	0.96	1.92	1.82	7.72	23.5	48.3
	1000	500	0.09	0.37	1.19	2.45	1.74	6.89	22.0	45.1
	1200	600	0.11	0.44	1.45	2.82	1.71	6.71	21.9	43.4
	1500	750	0.13	0.53	1.72	3.25	1.60	6.54	21.2	40.0
	1800	900	0.15	0.60	1.95	3.87	1.52	6.21	20.0	39.7
1 : 1 Gear Code 100	100	100	0.04	0.14	0.40	0.84	3.92	12.50	37.2	77.9
	350	350	0.12	0.37	1.15	2.35	2.95	9.65	30.2	62.1
	750	750	0.22	0.73	2.07	4.36	2.73	8.98	25.5	53.5
	1000	1000	0.28	0.93	2.60	5.45	2.55	8.53	23.9	50.3
	1200	1200	0.32	1.08	3.06	6.46	2.46	8.30	23.4	49.6
	1500	1500	0.38	1.28	3.66	7.61	2.35	7.83	22.5	46.8
	1800	1800	0.44	1.46	4.10	8.64	2.27	7.50	21.1	44.2
1 : 2 Gear Code 200	100	200	0.02	0.10	0.32	0.59	1.11	4.65	14.9	27.2
	350	700	0.07	0.28	0.90	1.82	0.91	3.76	11.8	23.9
	750	1500	0.13	0.53	1.66	3.36	0.80	3.28	10.2	20.6
	900	1800	0.15	0.61	1.92	3.41	0.80	3.24	10.2	20.7

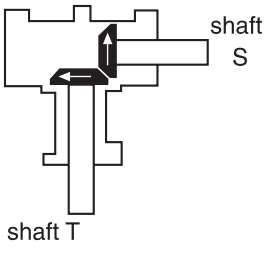


DIMENSIONS

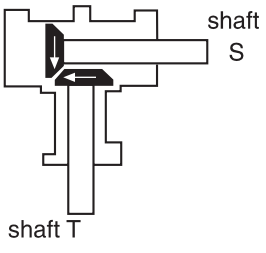
Unit Size	A	B	C	D	E	F	G	H	J	J1	K	L	M	N	P	Q	R	S	T	U	U_1	V	V_1	Approx* Mass kg
A	110	35.3	33.4	20	55.0	22.3	31	5.5	–	-	22	32	5	39	9j6	–	–	30.1	5	33.4	–	16.7	–	0.4
B	188	54.0	47.5	40	82.5	35.0	49	7	32	4	30	51	6	62	16j6	13	5	47.5	7	47.5	–	23.75	–	1.8
C	232	76.3	76.0	40	127.0	57.2	75	9	32	4	47	76	8	95	19j6	15.5	6	76.0	9	76.0	–	38	–	3.6
D	285	82.5	89.0	60	152.5	76.0	98	11	45	5	55.1	102	13	102	25j6	21	8	76.0	11	–	114.5	–	70	6.3

*Figures given are for 1 : 1 ratio units having one input and one output shaft. All dimensions in millimetres

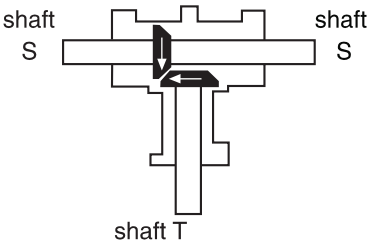
Rotation 1
(code - - - - 1 - - -)



Rotation 2
(code - - - - 2 - - -)



Rotation 3
(code - - - - 3 - - -)



Fenner® GT

The Fenner® GT is a simple, cost effective integrated motor fitted to any one of a wide range of gearheads. Operation is simple; the large calibrated control knob provides precise speed control.



- 15 power outputs between 0.25 to 11kW
- IP 65 protection
- 200% starting torque capability
- Rapid screwless fixing
- Universal mounting positions

Geared Drives Design Data Required

- **Motorised (integral motor) or non-motorised?**
- **If motorised:** electrical supply available
  any special motor features required (brake, clutch, flameproof etc.)
- **If non-motorised:** type of prime mover
  rotational speed of prime mover
  power rating of prime mover
  is an input shaft coupling required?
  if so, prime mover shaft dia.
- **Shaft mounting or foot mounted?**
  if shaft mounted, machine shaft diameter/length
  if foot mounted, is an output shaft coupling required?
- **Orientation of input/output**
  parallel or right angle?
- **Type of driven machine**
- **Rotational speed of driven machine**
  constant or variable over what range?
- **Power absorbed by driven machine**
  (or required output torque)
- **Hours/day duty & start/stop frequency**

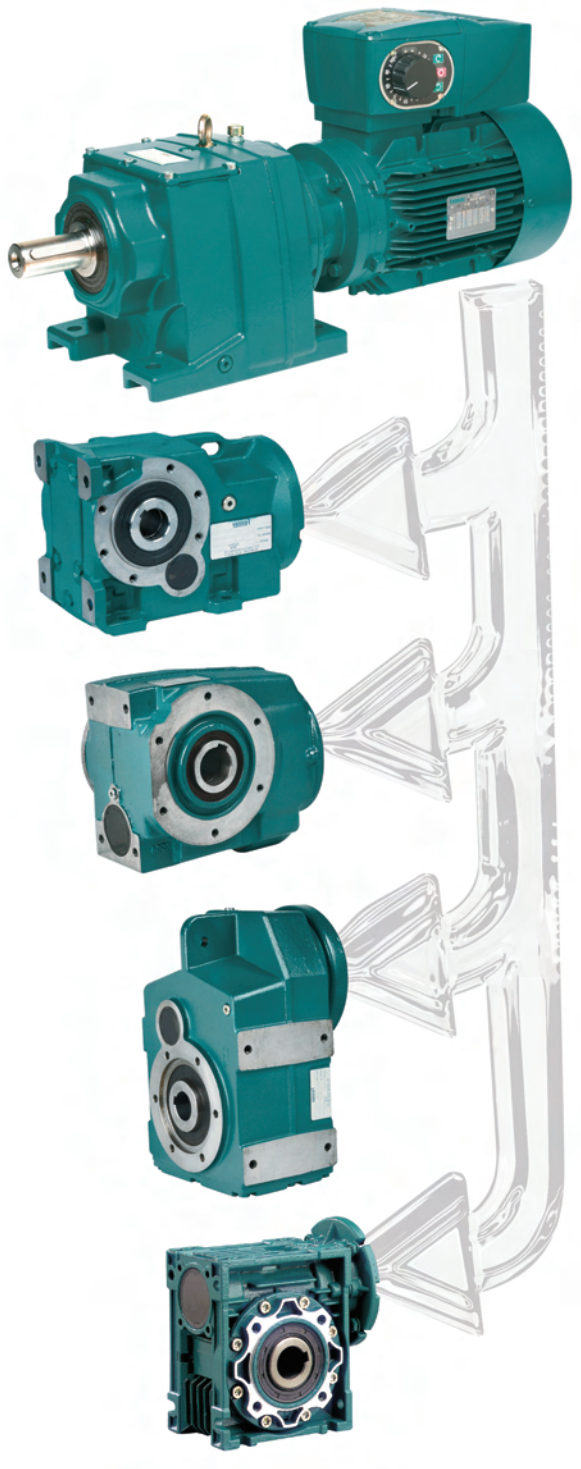
FENNER GT

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The Fenner® GT is a simple, cost effective integrated motor fitted to any one of a wide range of gearheads. Operation is simple; the large calibrated control knob provides precise speed control.

Start, stop and reverse button options are available. The electronics are moulded in resin to eliminate vibration and humidity damage.

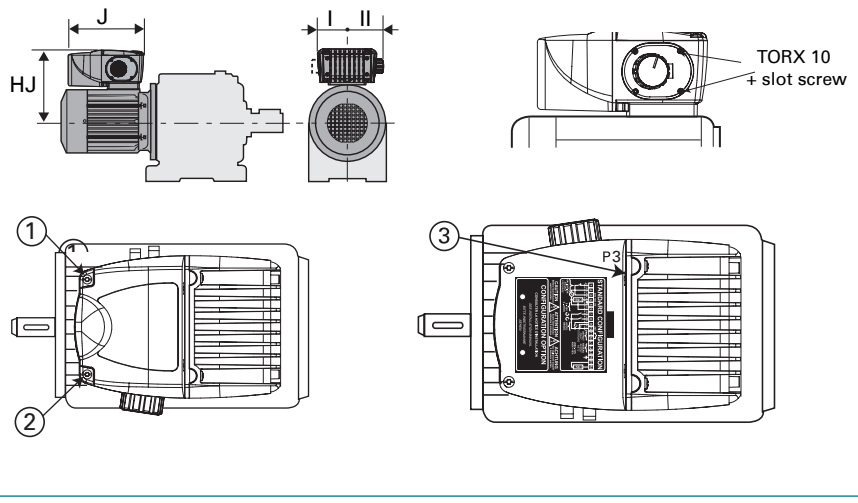
Other options including remote control, parameter setting console, brake resistors, brakes and various field bus protocols can be supplied, please ask your local Authorised Distributor.



- The NEW addition to the range of Fenner® Motorised Gear units is the Fenner® GT, an ideal solution for the replacement of those troublesome mechanical variators which are becoming harder to maintain and repair.
- Available with the full range of Fenner® gearheads and covering the input power range of 0.25kW through to 11kW.
- This variable speed integrated motor provides an easy to install replacement drive with the minimum of disruption to the existing layout.
- Enclosed to IP65 and delivered ready to run.

SERIES M	MAX TORQUE	4,500 Nm	SPEED RANGE 3 TO 786 REV/MIN
SERIES C	MAX TORQUE	4,000 Nm	SPEED RANGE 3 TO 360 REV/MIN
SERIES F	MAX TORQUE	6,400 Nm	SPEED RANGE 2 TO 448 REV/MIN
SERIES K	MAX TORQUE	5,000 Nm	SPEED RANGE 1 TO 285 REV/MIN
SERIES W	MAX TORQUE	1,400 Nm	SPEED RANGE 5 TO 400 REV/MIN

Fenner GT Dimensions



FENNER GT30 INTEGRAL INVERTER MOTORS

kW	Frame Size	400/480 volt 3 phase Reference	mm HJ	mm J	mm I	mm II	Weight kg
0.25	71L	31T-025	181	216	75	94	4.2
0.37	71L	31T-037	181	216	75	94	4.2
0.55	71L	31T-055	181	216	75	94	4.2
0.75	80L	31T-075	191	216	75	94	4.2
1.10	90S	31T-110	201	216	75	94	4.2
1.50	90L	32T-150	201	230	75	94	4.2
2.20	100L	32T-220	206	230	75	94	4.2
3.00	100L	32T-300	206	230	75	94	4.2
4.00	112L	32T-400	215	230	75	94	4.2
5.50	100L/112M	33T-550	270	336	115	141	8.1
7.50	112MG/132S	33T-750	280	336	115	141	8.1
9.00	132M	34T-900	300	336	115	141	8.1
11.00	160MR	34T-111	311	336	115	141	8.1

PRODUCT CODE DESCRIPTION

TYPICAL REFERENCE **VMA32T150-B14-90L-4P**

VMA31 SHORT CASE UNIT
VMA32 LONG CASE UNIT

M Single phase power supply 200 to 240 volts +/- 10%; 50/60Hz +/- 10%
TL Three phase power supply 200 to 240 volts +/- 10%; 50/60Hz +/- 10%
T Three phase power supply 400 to 480 volts +/- 10%; 50/60Hz +/- 10%

025 Kilowatt rating - 0.25kW
150 Kilowatt rating - 1.50kW

B3 Foot Mounted
B35 Foot and Flange Mounting
B5 Flange Mounting Large Flange
B14 Flange Mounting Small Flange

90L Motor Frame size
112L Motor Frame size

4P Number of poles in motor



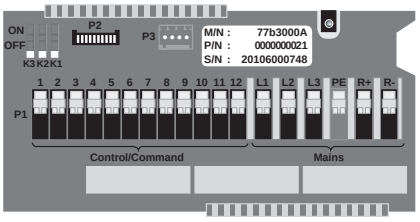
INSTALLATION

The following notes are an indication of the Installation procedures, see full instruction manual when carrying out any installations.

The Fenner GT is fitted to any machine like a standard motor or gear motor with either foot or flange mounting.

The positions of the potentiometer/cable gland supports are specified at time of ordering. However they may be reversed.

TERMINAL BLOCK



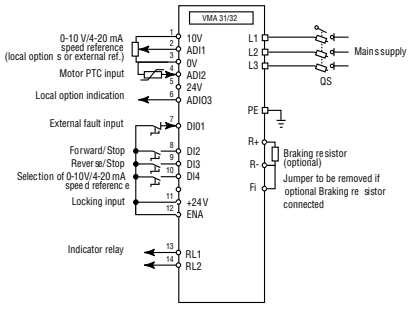
Standard configuration

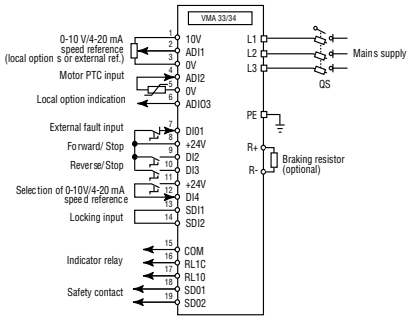
Marking	Functions - Characteristics Connection of protected mains supply phases
L1, L2 L1, L2, L3 PE	200V to 240V ± 10 %, 50-60Hz in single-phase 200V to 480V ± 10%, 50-60Hz in 3-phase Earth connection
R1, R2	Connection of the braking resistor Min. resistance value = 180 Ohms

P2 Connector
This is used to connect the Fenner GT operating options

P3 Connector RS232 serial link
This is used to connect the Parameter setting and PC programming software options.

Fenner GT Standard Connection Diagrams





Note: For single-phase versions, the power supply is connected to terminals L and N.

ENVIRONMENTAL CHARACTERISTICS

Protection Index	IP65
Storage temperature	-40 to + 70°C (IEC 68.2.3)
Transport temperature	-40 to + 70°
Operating temperature	-20 to +40°C (+50°C with derating)
Altitude	= 1000 m without derating
Ambient humidity	95% non condensing
Vibration	IEC 68-2-34 (acceleration 0.01 g2/Hz)
Shocks	IEC 68-2-29 (peak acceleration 15g)
Immunity	Conforming to EN 61000-6-2
Radiated conducted emissions	Conforming to EN 50081-2 with internal filter
UL standard	Conforming to FILE E211799

FENNER GT30 OPERATING OPTIONS

VMA-B-4429850	Fenner GT31/32 Speed Control Knob With run and trip LED's
VMA-BMA-4429849	Fenner GT31/32 Speed Control Knob with Integral Run/Stop option and LED's
VMA-BMAVAR-4429851	Fenner GT31/32 Speed Control Knob with Integral For/Rev/Stop option and LED's
VMA-Plate-4073165	Fenner GT30 Series Blanking Plate
VMA-CVIVMA31-32-44298522	Fenner GT31/32 Internal Set Speed Control option Giving Max/Min and Set speed setting by potentiometer with run and trip LED's
VMA-CDCVMA30-4438305	Fenner GT30 Series Parameter Setting Console c/w interconnecting cable (L=3m)
VMA-B30-44277672	Fenner GT33/34 Speed Control Knob With run and trip LED's
VMA-BMA30-4277673	Fenner GT33/34 Speed Control Knob with Integral Run/Stop option and LED's
VMA-BMAVAR30-4277674	Fenner GT33/34 Speed Control Knob with Integral For/Rev/Stop option and LED's
VMA-CVIVMA30-4277671	Fenner GT33/34 Internal Set Speed Control option Giving Max/Min and Set speed setting by potentiometer with run and trip LED's

Save up to 20% On Energy Consumption

Selecting the correct product for the application will help ensure you maximise the potential for energy savings at your site, a few important considerations are highlighted below.

The selection of drive systems and their associated motors are most commonly made on the basis that the motor will be Direct on Line Started for the lower power ranges and Star/Delta started for the remainder.

The DOL and Star/Delta start both produce a shock load, irrespective of the driven machine and therefore cause stress within the overall drive train as well as the machine being driven which adversely affects the service factor.

Additionally, where the frequency of start/stop is high, there is a further requirement to increase in the overall size of the gear unit and associated transmission equipment being selected adding significantly to the overall cost of the drive.



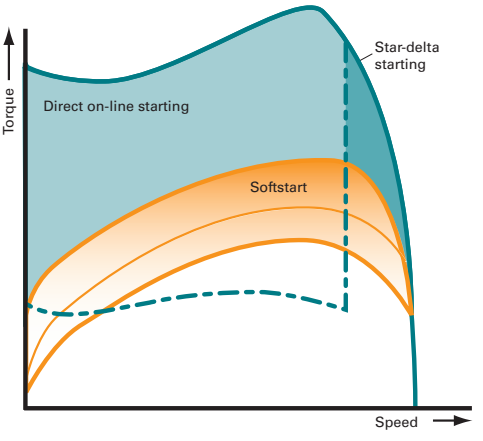
SERVICE FACTOR IMPROVEMENT

With the ever decreasing cost of electronic control systems, their selection for use in conjunction with electro-mechanical drive systems has many advantages.

Soft starters provide a low cost solution to reducing the stresses of starting and most types of unit can also provide a soft stop function, ideal for use in pumping applications.

The reduction in starting/stopping shock loads enables a lower service factor to be applied in the selection calculations, which in some cases will result in a much lower cost selection, without prejudice to the overall expected life of the transmission train.

REDUCING THE MOTOR TORQUE LOAD

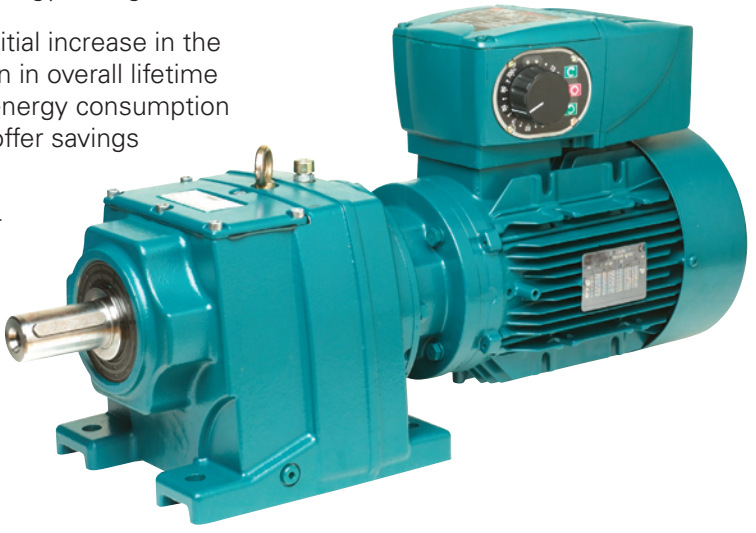


ENERGY SAVING

The selection and use can be further enhanced by providing the control via an inverter, which in addition to the controlled start and stop of a machine, can provide the added advantage of speed variation to provide optimum performance and ensure the maximum amount of energy saving.

The use of inverters and softstarts may require an initial increase in the installation and commissioning cost but the reduction in overall lifetime costs and in the case of the inverter, the savings in energy consumption deliver a quick payback period and then continue to offer savings throughout the life of the installation.

This enables Fenner® Authorised Distributors to offer extended warranty periods in many instances where a softstart/inverter and geared drive solution is purchased.





TRANSMISSÕES DE CORREIA POR FRICÇÃO



ACOPLAMENTOS DE VEIOS



CORRENTES E CARRETOS



TRANSMISSÕES POR CORREIAS SÍNCRONAS



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