

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

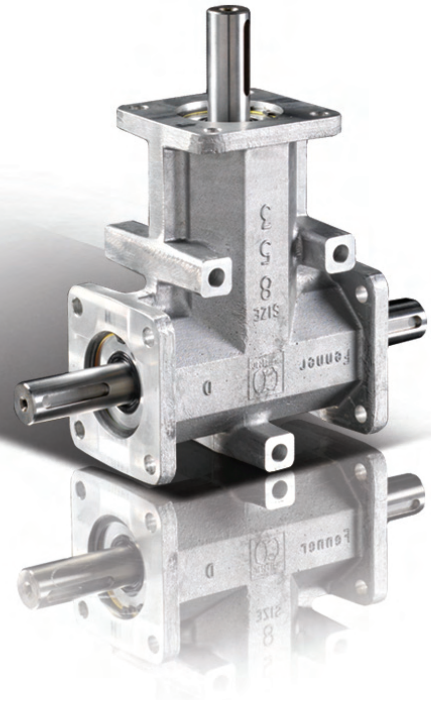
BP	Energrease FG00-EP
DARMEX	Darmex 00
MOBIL	Mobilplex 45
SHELL	Simnia 0
TEXACO	Marfak 0

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:

<u>920</u>	<u>A</u>	<u>2</u>	<u>100</u>
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
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.

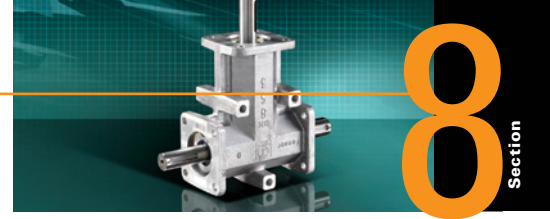
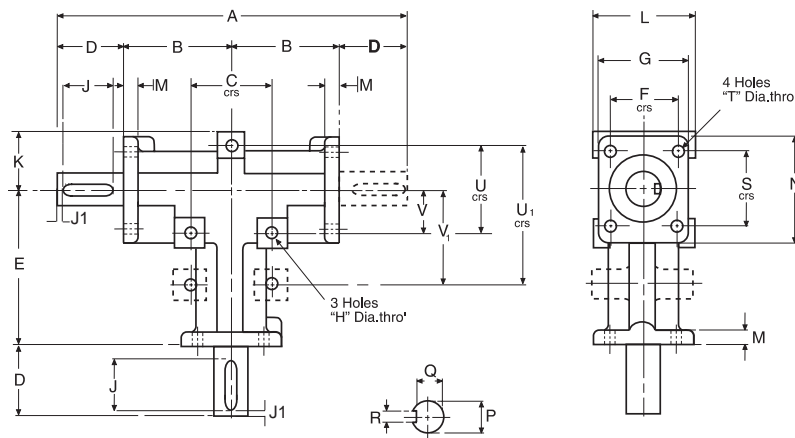


TABLE 2 – POWER RATINGS

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

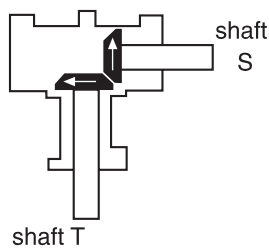


DIMENSIONS

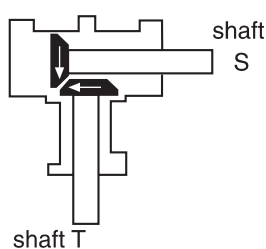
Unit Size	A	B	C	D	E	F	G	H	J	J1	K	L	M	N	P	Q	R	S	T	U	U ₁	V	V ₁	Approx* Mass kg
A	110	35.3	33.4	20	55.0	22.3	31	5.5	-	-	22	32	5	39	9j6	-	-	30.1	5	33.4	-	16.7	-	0.4
B	188	54.0	47.5	40	82.5	35.0	49	7	32	4	30	51	6	62	16j6	13	5	47.5	7	47.5	-	23.75	-	1.8
C	232	76.3	76.0	40	127.0	57.2	75	9	32	4	47	76	8	95	19j6	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 ----)

