



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**

**Lubrication Change Period**

Sizes 880 and 881 are lubricated for life, all other sizes of the Series F will require oil changes. Mineral oils @ 10,000 hours and synthetic oils at 20,000 hours.

Sizes 880 & 881 are pre-filled for mounting position B3 with lubricant. Other mounting positions **must be specified** on order. Sizes 882 to 885 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.

**LUBRICANT QUANTITY (LITRES)**

Mounting Position	880		881		882		883		884		885	
	Double reduction	Triple reduction	Double reduction	Triple reduction	Double reduction	Triple reduction	Double reduction	Triple reduction	Double reduction	Triple reduction	Double reduction	Triple reduction
1	1.7	2.0	4.7	4.8	8.0	8.2	10.9	10.9	19.0	18.0	34.0	34.0
2	1.0	1.2	2.5	3.4	4.2	5.6	8.6	8.7	13.0	14.5	22.0	23.0
3	1.4	1.8	3.9	4.7	7.0	7.7	10.0	9.4	17.0	16.0	28.0	28.0
4	1.1	1.3	2.5	2.7	4.4	4.8	9.4	9.0	15.0	16.0	26.5	27.5
5	1.8	2.6	3.9	6.5	7.0	11.9	14.0	14.0	24.0	24.0	43.0	43.0
6	2.1	2.6	5.0	5.8	8.8	10.9	15.3	15.3	25.0	25.0	43.0	43.0

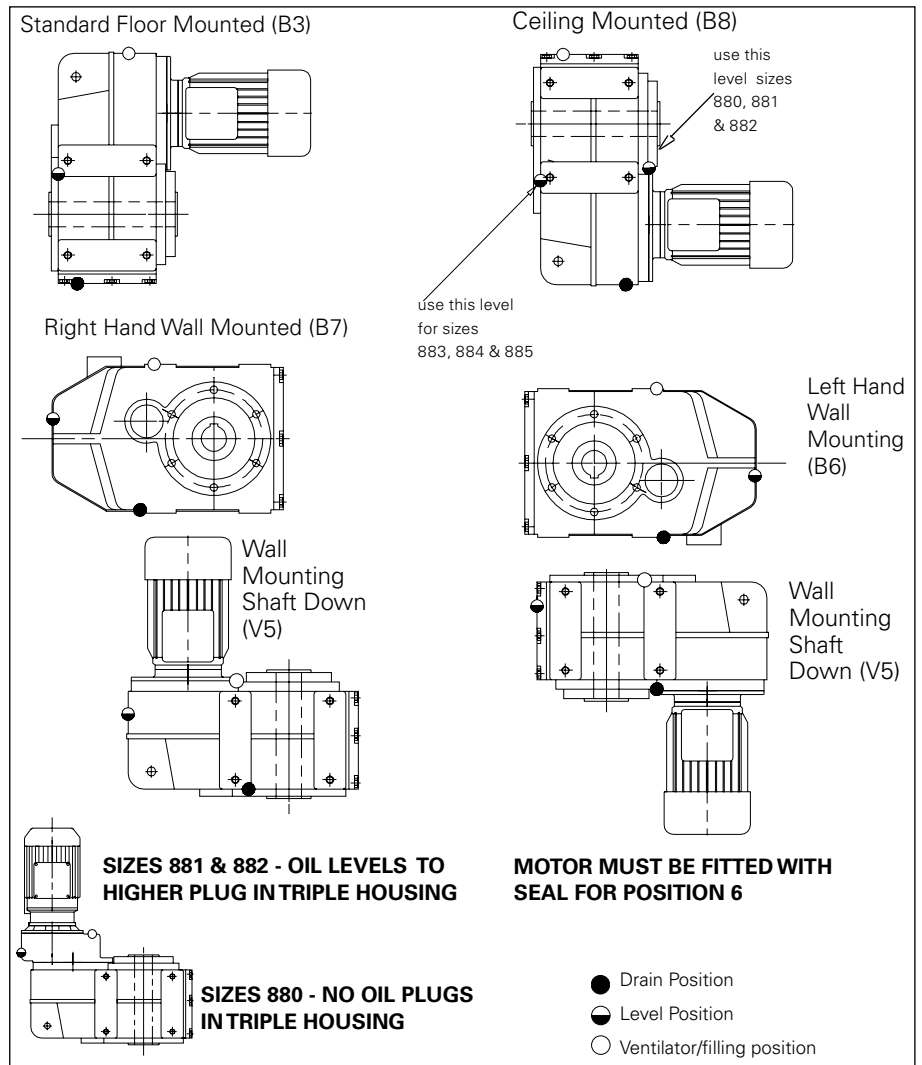
**RECOMMENDED OIL GRADES**

Supplier	Mineral Oils Containing EP Additives	Synthetic Lubricants Polyalphaolefin based
BP	Energol GR-XP	Energol EXP
Castrol	Alpha SP	Alphasyn EP or T
Esso	Spartan EP	Spartan Synthetic EP
Fuchs	Renogear V	Renogear SG
Mobil	Mobilgear 600	Mobilgear SHC
Shell	Omala	Omala HD
Texaco	Meropa	Pinnacle EP
Total	Caretr EP	Carter SP
Rocol	Saphire Hi-Torque	

**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	-	220	220	320

**MOUNTING POSITIONS**



**BREATHERS/MOUNTING POSITIONS**

Sizes 880 & 881 are supplied for operation without breathers.

Sizes 882 to 885 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.



**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).

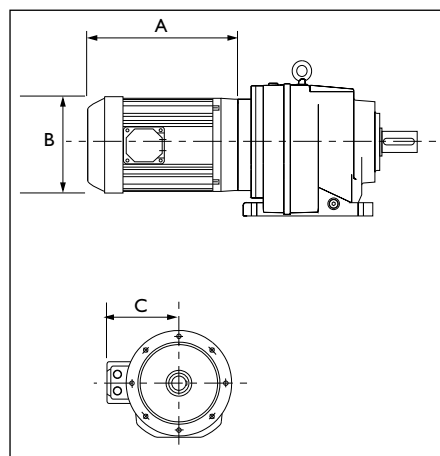
**Protection**

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		Speed rev/min	Dimensions (mm)			Mass kg
		kW	h.p.		A	B	C	
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		Speed rev/min	Dimensions (mm)			Mass kg
		kW	h.p.		A	B	C	
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

**6 POLE - 1000 REV/MIN**

Motor Code *	Frame Size	Output		Speed rev/min	Dimensions (mm)			Mass kg
		kW	h/p		A	B	C	
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.