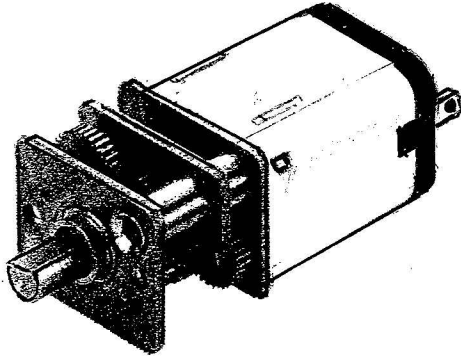
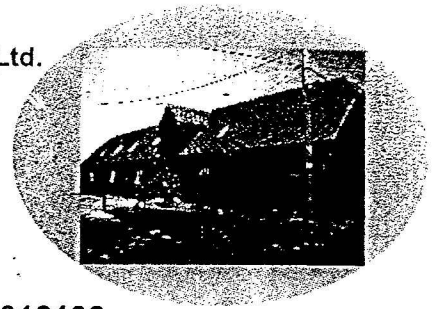


# MFA/COMO DRILLS



MFA/Como Drills Ltd.  
Felderland Lane,  
Worth,  
Deal.  
Kent.  
CT14 0BT.  
U.K.



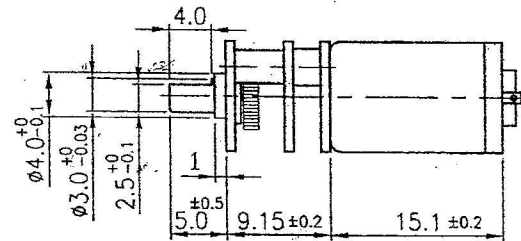
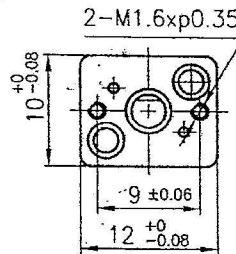
Tel: (44) 01304 612132  
Fax: (44) 01304 614696

Web: [www.mfacomodrills.com](http://www.mfacomodrills.com)  
E-Mail: [info@mfacomod.com](mailto:info@mfacomod.com)

## 951D Series 12mm dia Spur Geared Motor

GEARBOX REF.	A (mm)
951D10:1 (10:1)	9.15
951D60:1 (60:1)	9.15
951D102:1 (102:1)	9.15
951D298:1 (298:1)	9.15

Housing material	Backlash, at no-load	$\leq 1.5^\circ$
Bearing at output		bronze
Radial load (10mm from flange)		$\leq 0.4$ kgf
Shaft axial load		$\leq 0.2$ kgf
Shaft press fit force, max.		$\leq 2$ kgf
Radial play of shaft		$\leq 0.05$ mm
Thrust play of shaft		$\leq 0.3$ mm



Operating relative humidity: 20% ~ 85%RH

Operating temperature range: -10 C. +60 C

### Gearbox data

Reduction ratio	Exact reduction ratio	Rated tolerance torque	Max momentary tolerance torque	Efficiency	H	Weight (g)
1/10	9 25/26	0.3 kgf-cm Max.	0.9 kgf-cm	81%	2.5	4.0
1/19	19 79/360	0.4 kgf-cm Max.	1.2 kgf-cm	73%	2.1	4.0
1/29	29 13/106	0.5 kgf-cm Max.	1.5 kgf-cm	73%	2.1	4.0
1/60	59 53/76	0.6 kgf-cm Max.	1.8 kgf-cm	66%	2.5	4.0
1/76	75 46/85	0.6 kgf-cm Max.	1.8 kgf-cm	66%	2.5	4.0
1/102	101 309/338	0.8 kgf-cm Max.	2.4 kgf-cm	66%	2.5	4.0
1/134	134 5741/12480	0.8 kgf-cm Max.	2.4 kgf-cm	59%	2.1	4.0
1/197	196 2947/4880	1.0 kgf-cm Max.	3.0 kgf-cm	59%	2.1	4.0
1/235	234 7159/8424	1.0 kgf-cm Max.	3.0 kgf-cm	59%	2.1	4.0
1/298	297 1297/1404	1.0 kgf-cm Max.	3.0 kgf-cm	59%	2.1	4.0

### MOTOR DATA

Rated volt (V)	Rated torque (g-cm)	Rated speed (rpm)	Rated current (mA)	No load speed (rpm)	No load current (mA)	Rated output (W)	Weight (g)
3	4.0	13800	$\leq 230$	16000	$\leq 80$	0.56	5.5
6	4.0	15000	$\leq 130$	18000	$\leq 50$	0.61	5.5

### MOTOR CHARACTERISTICS

