

## 919D SERIES 35mm SINGLE RATIO METAL GEARBOX

(RE540/1 Motor)



Plastic gearbox cover & metal bracket included with this series.

## RATIOS NOW AVAILABLE AS EX-STOCK ITEMS. Fitted with RE540/1 (4.5v - 15v) Motor:

919D2.51	Ratio	2.5:1
919D61	Ratio	6:1
919D111	Ratio	11:1
919D301	Ratio	30:1
919D501	Ratio	50:1
919D1001	Ratio	100:1
919D1481	Ratio	148:1
919D5001	Ratio	500:1
919D8101	Ratio	810:1
919D3000	1 Ratio	3000:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality, three pole motor with sintered bronze bearings. The metal gearbox incorporates sleeved bearings, enabling the high torque transfer from the motor to be transmitted through the gearbox. The unit is mounted on a 1mm thick plated steel bracket.

## MOTOR DATA. (RE540/1)

	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL	
MODEL	OPERATING	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQU	JE	OUTPUT	EFF	TOR	QUE
	RANGE		R.P.M.	Α	R.P.M.	Α	oz-in	g-cm	W	%	oz-in	g-cm
RE540/1	4.5 - 15	6v Constant	7500	0.45	6180	2.1	1.64	118.2	7.49	59.4	9.31	670
RE540/1	4.5 - 15	12v Constant	14500	0.7	12048	2.81	2.22	160	19.8	62.71	14.29	1029

Stall Current: RE540/1 at 6v = 8.24A Stall Current: RE540/1 at 1.5v = 2.41AA

### GEARBOX DATA.

PART NO	RATIO	REDUCTION TABLE RPM (No Load)°					WEIGHT	TORQUE RATING AT:		
		4.5v	6v	9v	12v	15v		12v (g.cm)^		
919D2.51	2.5:1	2175	2900	4350	5800	7250	240g	309		
919D61	6:1	906	1209	1813	2417	3021	234g	741		
919D111	11:1	494	659	989	1318	1648	238g	1000		
919D301	30:1	181	242	362	483	604	249g	2000		
919D501	50:1	109	145	218	290	363	255g	3000		
919D1001	100:1	54	73	109	143	181	255g	6000		
919D1481	148:1	37	49	74	98	123	255g	6000		
919D5001	500:1	11	15	22	29	36	260g	6000		
919D8101	810:1	7	9	14	18	23	255g	6000		
919D30001	3000:1	1.8	2.4	3.6	4.8	6	262g	6000		

NOTES: \* Motor speeds may vary by + or - 12.5%

24 volt versions are available for this range of motor-gearboxes. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders. When ordering please use 12v version part number suffixed with 24V. I.E. 919D111 will be 919D11124V

#### IMPORTANT NOTICES:

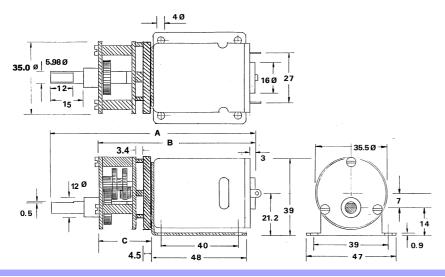
At very low ratios the torque produced by this geared motor combination may exceed the maximum permissible torque of the gearbox. In this situation the unit must not be allowed to stall as this may damage the gears. Due to the wide range of applications for this product it is the users responsibility to establish the products suitability for their individual purpose(s).



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<sup>^</sup> Geared Motor Torque Ratings at Maximum Efficiency. To establish Torque Rating in Nm, divide g.cm by 10197.0

#### 919D SERIES TECHNICAL DRAWING



<b>RATIO</b>	Α	В	С
2.5:1	98.7	73.7	21.7
6:1	98.2	73.2	21.2
11:1	98.2	73.2	21.2
30:1	100.7	75.7	23.7
50:1	103.2	78.2	26.2
100:1	103.2	78.2	26.2
148:1	105.7	80.7	28.7
500:1	108.2	83.2	31.2
810:1	108.2	83.2	31.2
3000:1	110.7	85.7	33.7

NOTE: All diameters in mm

919D SERIES	
No Load Backlash	Max 2 deg.
Max Radial Load	1000gf.
(10mm from flange)	
Shaft Axial Load	700gf.

# TIMING PULLEYS & TIMING BELTS. FOR FURTHER DETAILS SEE TIMING PULLEYS & TIMING BELTS PAGE ON MFACOMODRILLS.COM







## **ACCESSORIES FOR 919D SERIES GEARBOX**



M3 Anti vibration mount. 9g Part No: 1071

M4 Anti vibration mount. 30g
Part No: 1072



Universal Couplings. 12.5mm dia. 44mm length.

Part No: 1105/60

6mm - 6mm. See Universal Couplings Page for full range of combinations



"O" Ring 70mm x 5mm Dia. 5g Part No: 917D2515



In-Line Coupling. 6mm - 6mm. (Dia. 12.67mm x 24.8mm). 23g **Part No: 919D1** 



In-line Coupling.6mm-8swg (Meccano) Dia. 10mm x 20mm. 23g Part No: 919D1/2



In-line Coupling.8mm-8mm. Dia. 12.67mm x 24.8mm. 23g Part No: 919D1/8



Voltage Regulator.(6-15v DC Input. 4v-12v output). 26mm x 31mm x 15.5mm. 30g Part No: 919D2



Pulley. 25mm dia. (Aluminium). 10g Part No: 919D4



Pulley. 16mm dia. (Aluminium). 4g Part No: 919D5



Bevel Gearbox. (Right Angle). 42g Part No: 919D24



Nylon Bevel Gears 1:1. OD30.7mm ID 6mm. Module 1.0. 6g Part No: 919D25



Stainless Steel Shaft 5mm OD x 150mm. 23g Part No: 919D26

Stainless Steel Shaft 6mm OD x 150mm. 36g
Part No: 919D26/1

Stainless Steel Shaft 8mm OD x 150mm. 59g Part No: 919D26/2



Gear Adapter.6mm bore. M10 threa

Part No: 919D27



Bearing Blocks 5mm l.D. (19.06 x 19.0mm x 10mm) 32g Part No: 919D30

6mm I.D. (20 x 20mm x 12.5mm) 32g Part No: 919D30/1

8mm I.D. (19.0 x 19.0mm x 13.0mm) 32g Part No: 919D30/2

Subject to minimum order quantities of 250 units, the following ratios are also available with a six week lead-time. The physical dimensions of these other gearboxes may vary from the data as illustrated above. Details of individual gearboxes are available upon request.

GEARBOX 10:1 with 540/1 motor GEARBOX 18:1 with 540/1 motor GEARBOX 60:1 with 540/1 motor GEARBOX 70:1 with 540/1 motor GEARBOX 75:1 with 540/1 motor GEARBOX 90:1 with 540/1 motor GEARBOX 120:1 with 540/1 motor GEARBOX 180:1 with 540/1 motor GEARBOX 200:1 with 540/1 motor GEARBOX 250:1 with 540/1 motor GEARBOX 300:1 with 540/1 motor GEARBOX 350:1 with 540/1 motor GEARBOX 400:1 with 540/1 motor GEARBOX 450:1 with 540/1 motor GEARBOX 600:1 with 540/1 motor GEARBOX 700:1 with 540/1 motor GEARBOX 750:1 with 540/1 motor GEARBOX 900:1 with 540/1 motor GEARBOX 1000:1 with 540/1 motor GEARBOX 1500:1 with 540/1 motor



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