

## 942D SERIES 32mm (36mm motor) PLANETRY (EPICYCLIC) METAL GEARBOX

### RE-540/1 MOTOR



Part No. 727/1  
Geared motor bracket (90 degree)  
sold separately



RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.

942D51	(4.5v - 15v)	RATIO 5:1	942D1391	(4.5v - 15v)	RATIO 139:1
942D271	(4.5v - 15v)	RATIO 27:1	942D2641	(4.5v - 15v)	RATIO 264:1
942D511	(4.5v - 15v)	RATIO 51:1	942D5161	(4.5v - 15v)	RATIO 516:1
942D1001	(4.5v - 15v)	RATIO 100:1	942D7211	(4.5v - 15v)	RATIO 721:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality 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.

### MOTOR DATA. (RE-540/1)

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE		
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	TORQUE	
			R.P.M.	A	R.P.M.	A	oz-in	g-cm	W	%	oz-in	g-cm
RE-540/1	4.5 - 15	12v Constant	14500	0.7	12048	2.81	2.22	160	19.8	62.7	14.3	1029

Stall Current RE-540/1 at 6v = 8.24A

### REDUCTION TABLE. R.P.M. (NO LOAD)

SUPPLY VOLTAGE	4.5v	6v	9v	12v	15v
942D51	1088	1450	2175	2900	3625
942D271	201	269	403	537	671
942D511	107	142	213	284	355
942D1001	54	73	109	145	181
942D1391	39	52	78	104	130
942D2641	21	28	41	55	69
942D5161	11	14	21	28	35
942D7211	8	10	15	20	25

WEIGHT	
942D51	261g
942D271	281g
942D511	308g
942D1001	305g
942D1391	304g
942D2641	328g
942D5161	334g
942D7211	332g

Note: Motor speeds may vary by (+) or (-) 12.5%

### GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.

	At 12v (g.cm)
5:1	640
27:1	3024
51:1	4896
100:1	10000
139:1	10000
264:1	12000
516:1	12000
721:1	12000

919D SERIES	
No Load Backlash	≤ 2.5 deg.
Max Radial Load (10mm from flange)	3000kgf.
Shaft Axial Load	2500kgf.

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. 942D1001 will be 942D100124V

NOTE: To establish Torque Rating in Nm, divide g.cm by 10,197.0

### MOTOR DATA. (RE-540/1 24v)

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE		
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	TORQUE	
			R.P.M.	A	R.P.M.	A	oz-in	g-cm	W	%	oz-in	g-cm
RE-540/1 24v	12-24	24v Constant	15000	0.47	12077	1.70	2.75	198	24.6	61	14.4	1035

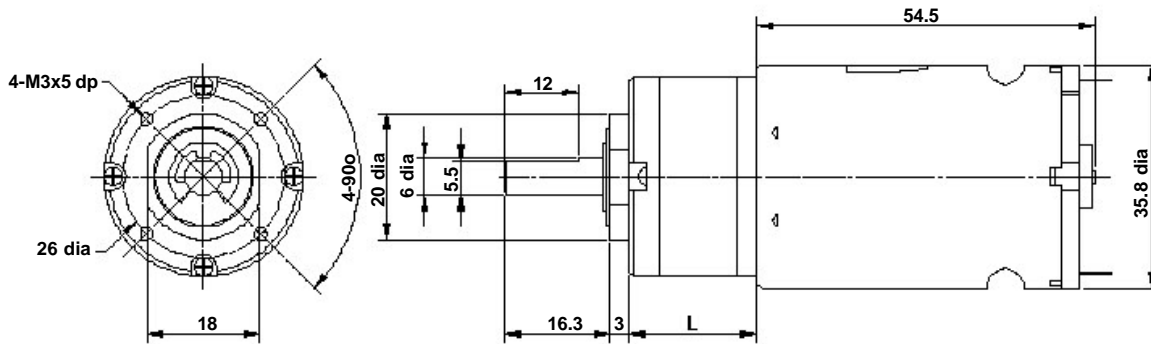
#### IMPORTANT NOTICE

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.

#### IMPORTANT NOTICE

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).

## 942D SERIES 32mm (36mm motor) PLANETRY (EPICYCLIC) METAL GEARBOX



RATIO	L
5:1	22.0
27:1	28.4
51:1	34.8
100:1	34.8
139:1	34.8
264:1	41.2
516:1	41.2
721:1	41.2

NOTE: all diameters in mm

FOR ACCESSORIES TO FIT THIS SERIES GEARBOX, REFER TO 919D SERIES PAGE.

ADVANTAGES OF PLANETARY GEARBOXES.	
<b>EFFICIENCY:</b>	Efficiencies of planetary gearboxes can be above 90% while some other types of transmission can be 50% or less. This allows the use of smaller motors.
<b>SIZE:</b>	Planetary gearboxes can be half the size of conventional boxes.
<b>WEIGHT:</b>	Weight savings can be as high as 60%, allowing smaller, lighter support structures.
<b>MAINTENANCE:</b>	Other than routine oil changes, no maintenance is required, eliminating the need to hold spares.
<b>REVERSIBLE:</b>	Planetary gears can be equally efficient in either direction. This is an advantage for use in running machinery in both clockwise and anti-clockwise directions.
<b>COAXIAL:</b>	The coaxial configuration of input and output shafts allows planetary gears to be installed in line with a motor and a machine.

Subject to minimum order quantities of 100 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 14:1 WITH 540/1 MOTOR  
GEARBOX 19:1 WITH 540/1 MOTOR

GEARBOX 35:1 WITH 540/1 MOTOR  
GEARBOX 71:1 WITH 540/1 MOTOR

GEARBOX 189:1 WITH 540/1 MOTOR  
GEARBOX 939:1 WITH 540/1 MOTOR