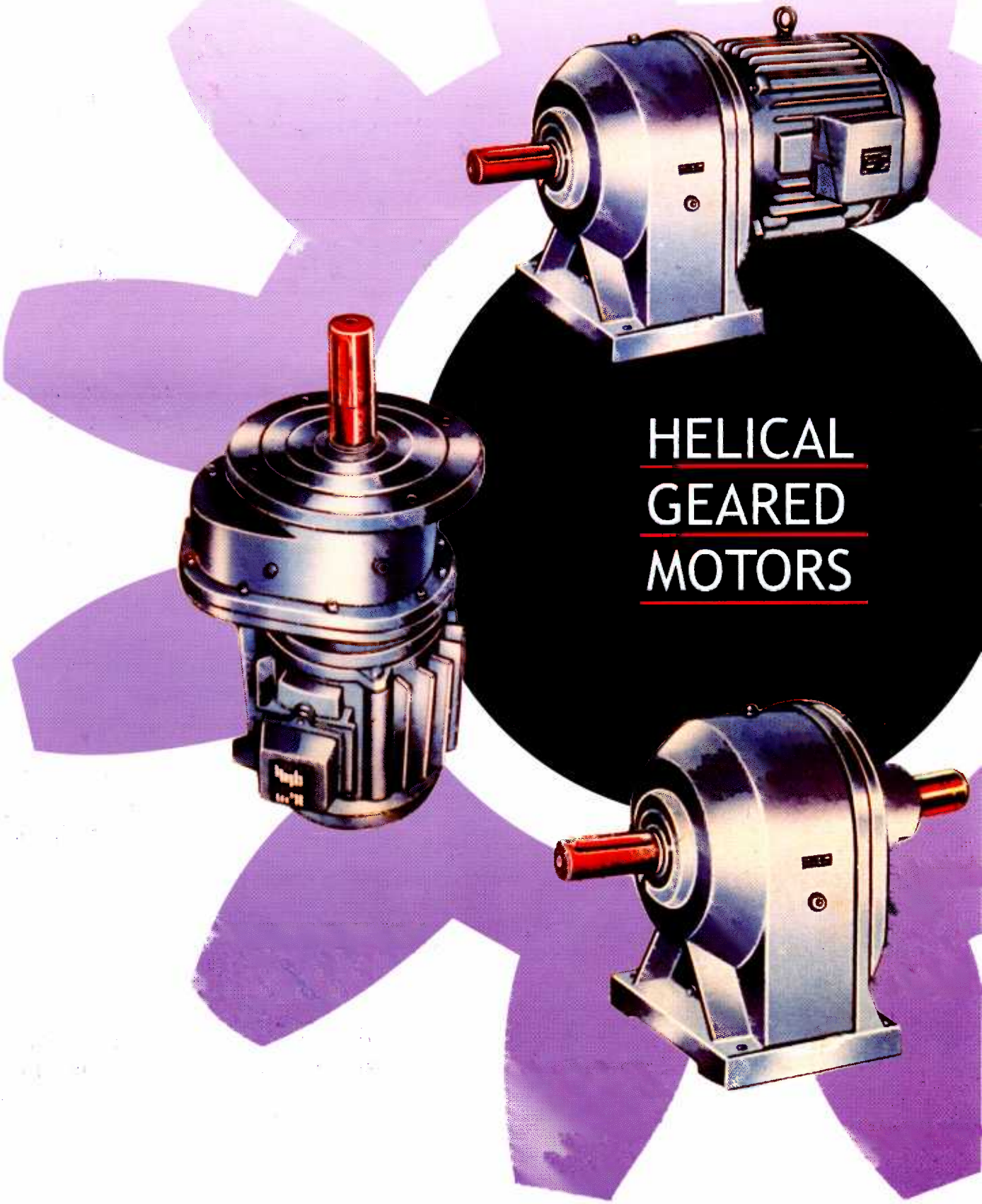
ISO 9001

SUDARSHAN GEARS



HELICAL GEARED MOTORS

Sudarshan Gears has been manufacturing Geared Motors since the last 15 Years. Over the years we have developed a very compact but robust design for the entire range of geared Motors. All the components of the geared motors are made from the best quality raw materials available suitable for the application. The geared motors are available in both foot and flange mountings. The stand alone helical inline gear boxes are available either to run with a coupling i.e. with a solid input shaft or with a hollow input to suit a B-5, Flange Mounted Motor.

GEAR CASE :
Our gear case is made of high quality grey cast iron. Thick walls and ribbed construction provide rigid casings and good resistance to distortion while cutting down vibrations.

FINISH :
The casting surfaces are finished Meticulously by removing all dirt and casting sand Metal Primers for rust protaction and quick Drying High Lustre synthetic Enamel paint is used for finishing giving a superior look to the products.

GEARS :
The gears are made from case Hardened steel. The gear blanks are made on precision CNC Machines to give perfect squarness. The gear teeth are cut on Hobbing Machines and are designed for long Life operations.

SHAFTS :
The shafts are made from High Carbon steel for toughness and are ground to high precision for perfect fits as per requirements.

BEARINGS :
Only Tata / SKF Bearings are used for the Geared Motors. These bearings are procured directly from the factory to avoid any duplicate bearings.

LUBRICATION :
Our gear boxes and geared motors are filled at the factory with precisely the quantity of oil required for splash Lubrication. This oil filling ensures maintenance free running for the gear boxes for three years minimum. Synthetic lubricant of Grade 320 eg. Servo 320 , Enklo 320, Renolin (CLP 320) to be used for the first change.

KEYS :
Precise ground tight fit Keys made out of EN 8 are used.

ELECTRIC MOTORS :
Attatched Motors are of class 'F' winding and protection class of IP55 is atandard. The standard voltage is 3 ph 415 V 50 Hz. Non standard voltages are available as per requirement.

Available Specialities as per Customer Requirements

1) Special Shafts as per customer requirements.
2) Special Mountings.
3) Reinforced output Bearings for high axial loads.
4) AC/DC Brakes
5) Epoxy Paint
6) Special Supply Voltages
7) Clutch Brake Combinations.

DRIVE SELECTION :

In order to simplify drive selection. the RPM ranges are given for each HP/KW Rating of the Motor. Please select the appropriate geared Motor according to motor power. output speed, but always after determining the essential service factor. Comparison of acceptable output speeds combined with the required service factor will enable you to select the optimum geared Motor for your needs.

FOR SERVICE FACTOR CONSULT THE FOLLOWING TABLE.

Load classification	Type of load	Average operating hours per day				
		5 h	8 h	12 h	16 h	24 h
I	Easy starting, smooth operation, small masses to be accelerated. e.g. samll conveyor belts, ventilators, assembly lines, centrifugal pumps, small elevators, filling machines, stirrers and mixers for materials with little viscosity.	Service factors f_B				
		0.8	1.0	1.15	1.3	1.6
II	Starting with moderate loads, uneven operating conditions, medium size masses to be accelerated. e. g. gear pumps and rotary pumps, medium size stirrers and mixers, heavy conveyor belts, winches, mechanical gates crene slewing gears crane travelling gears, printing machines.	1.0	1.15	1.3	1.6	1.8
III	Uneven operation, heavy loads, larger masses to be accelerated. e. g. press-brakes, punching plateshears presses, heavy mixers, rollers, crushing mills, centrifuges heavy whiches, elevators and large size crane travelling gears and slewing gears, concrete mixers.	1.15	1.3	1.6	1.4	2.0

Please note that the above table is only an indication and point of reference. The actual service factors and conditions can be determied practically only by trial and error.

GEARED MOTORS RATING CHART

	HP	RPM	MODEL	S. F.
A	0.25	5-10	6-2-63	1.4
B		10-20	5-2-63	1.4
C		20-30	5-71	1.6
D		30-60	3-71	1.4
E		60-500	2-63	1.3
A	0.33	5-10	7-3-71	1.4
B		10.20	6-3-71	1.2 / 1.6
C		20-30	5.80	1.4
D		30-60	S1-71	1.4
E		60-100	S1-71	1.6
F		60-500	3.71	1.4
A	0.50	5-10	7-3-71	1.2
B		10-20	6-3-71	1.2
C		20-30	6-90 S	1.4
D		30-60	S1-71	1.3
R		60-100	S1-71	1.6
F		100-220	S1-71	1.8
G		60-500	3.71	1.4
A	0.75	5-10	7A-5-80	1.3
B		10-20	7-5-80	1.4
C		20-30	6-90 L	1.2
D		30-40	6-90 S	1.4
E		30-40	5-90 S	1.2
F		40-60	6-80	1.6
G		40-60	5-80	1.4
I		60-90	5-80	1.4
J		100-500	S1-80	1.4

	HP	RPM	MODEL	S. F.
A	1.00	5-10	7A-5-80	1.2
B		10-20	7-5-80	1.2
C		20-30	6-100 L	1.2
D		30-40	6-90 S	1.4
E		30-40	5-90S	1.1
F		40-60	6-80	1.6
G		40-60	5-80	1.2
H		60-90	5.80	1.4
I		100-200	5-80	1.4
J		100-200	S1-80	1.2
K		200-500	S1-80	
A	1.50	5-10	9-6-90 S	1.4
B		5-10	8-6-90 S	1.2
C		10-16	8-6-90 S	1.6
D		16-20	7A-90 L	1.3
E		20-30	7A-90 S	1.4
F		30-40	7A-90 S	1.6
G		30-40	7-90 L	1.2
H		40-60	7-90 S	1.4
I		60-90	7-90 S	1.6
J		60-90	6-90 S	1.2
K		100-200	6-90 S	1.4
L		100-200	5-90 S	1.2
M		200-500	5-90 S	1.4
A	2.00	5-10	9-6-90	1.3
B		10-16	8-6-90	1.4
C		10-16	7A-6-90	1.2
D		16-30	7A-100	1.4
E		30-40	7.100	1.2
F		30-40	7A-90 L	1.6

NOTES :

1) Service factors mentioned to be considered for lowest RPM in range, Service factor increases as RPM increases in a given range.
2) RPM in given ranges available in steps of 3 rpm upto 80 rpm in steps of 5 rpm above 80 rpm and in step of 8 rpm above 200 rpm.
3) For service factors and RPM other than mentioned in the chart please refer to our factory for details.

GEARED MOTORS RATING CHART

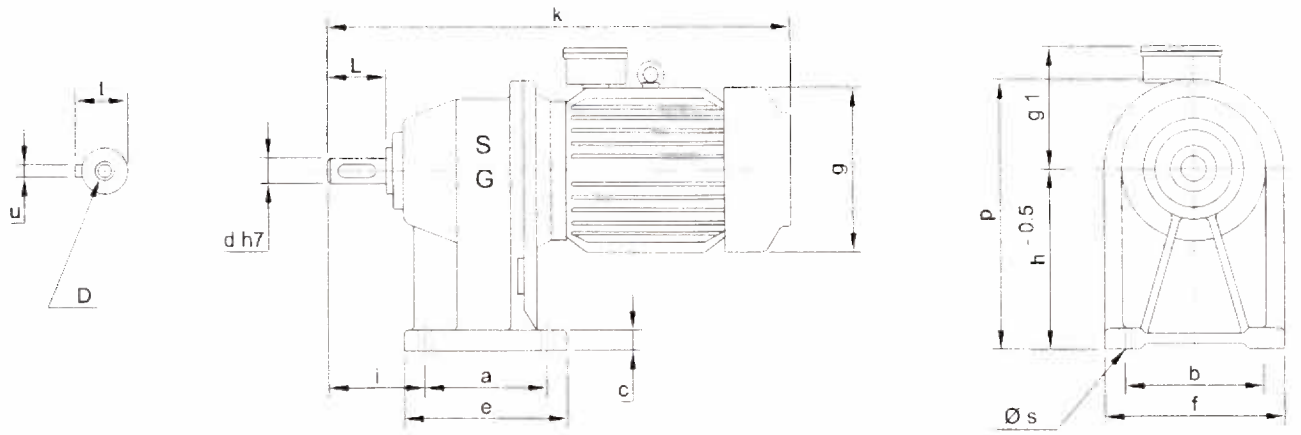
	HP	RPM	MODEL	S. F.
F	2.00	40-60	7.90 S	1.4
G		60-80	7-90 S	1.4
H		60-80	6-90 S	1.2
I		80-100	6-90 S	1.4
J		80-100	5-90 S	1.1
K		100-200	6-90 S	1.6
L		100-200	5-90 S	1.2
M		200-500	5-90 S	1.4
A	3.00	5-10	9-6-100	1.2
B		10-16	9-6-100	1.4
C		10-16	8-6-100	1.2
D		16-20	8-132 S	1.3
E		20-30	8-132 S	1.4
F		20-30	7A-112	1.2
G		30-40	7A-100	1.4
H		40-60	7A-100	1.6
I		60-80	7-100	1.4
J		80-100	7-100	1.6
K		80-100	6-100 L	1.4
L		100-500	6-100 L	1.4
A	5.00	5-10	10-9-112	1.3
B		10-20	10-7-112	1.4
C		10-20	9-7-112	1.2
D		20-30	9-132 M	1.4
E		30-40	8-132 S	1.4
F		30-40	7A-112	1.2
G		40-60	8-112	1.4
H		40-60	7A-112	1.2
I		60-90	7A-112	1.6
J		100-500	7-112	1.4
A	7.50	10-20	10-7A-132	1.4
B		20-30	10-160 M	1.6

	HP	RPM	MODEL	S. F.
C		20-30	9-160 M	1.3
D		30-40	9-132 M	1.4
E		40-60	8-132 S	1.2
F		60-90	8-132 S	1.4
G		100-200	8-132 S	1.4
H		100-200	7A-132 S	1.2
I		200-500	7A-132 S	1.4
A	10.00	20-30	10-160 L	1.2
B		30-40	10-160 M	1.4
C		30-40	9-160 M	1.2
D		40-60	9-132 M	1.4
E		60-90	9-132 M	1.6
F		60-90	8-132 M	1.2
G		100-200	9-132 M	1.8
H		100-200	8-132 M	1.4
I		200-500	8-132 M	1.5
A	12.50	20-30	10-180 M	1.2
B		30-40	10-160 L	1.3
C		40-90	9-160 M	1.3
D		100-200	9-160 M	1.6
E		100-200	8-160 M	1.4
F		200-500	8-160 M	1.3
A	15.00	25-30	10-180 L	1.2
B		30-40	10-160 L	1.3
C		40-90	9-160 M	1.3
D		100-200	9-160 M	1.4
E		100-200	8-160 M	1.2
F		200-500	8-160 M	1.5
A	20.00	40-100	10-160 L	1.3
B		100-500	9-160 L	1.4
C		200-500	8-160 L	1.4

NOTES :

1) Service factors mentioned to be considered for lowest RPM in range, Service factor increases as RPM increases in a given range.
2) RPM in given ranges available in steps of 3 rpm upto 80 rpm in steps of 5 rpm above 80 rpm and in step of 8 rpm above 200 rpm.
3) For service factors and RPM other than mentioned in the chart please refer to our factory for details.

DIMENSIONS OF HORIZONTAL FOOT MOUNTED HELICAL GEARED MOTOR (B-3)
2 STAGE REDUCTION (SINGLE GEAR BOX)



Model	a	b	c	e	f	Ø s	g	g 1	h	i	k	p	d h7	L	t	u	D
2 - 63	75	98	12	95	118	8.5	124	100	100	68	320	157	17	45	19	5	M 5
3 - 71	85	105	15	110	135	8.5	140	105	112	75	365	182	20	50	22.5	6	M 6
S1 - 71	90	132	12	130	165	9.5	140	105	112	83	385	190	24	50	27	8	M 6
S1 - 80	90	132	12	130	165	9.5	158	122	112	83	435	190	24	50	31	8	M 6
5 - 71	100	150	16	140	190	10.5	140	105	132	92	405	216	25	59	28	8	M 8
5 - 80	100	150	16	140	190	10.5	158	122	132	92	435	216	25	59	28	8	M 8
5 - 90 S	100	150	16	140	190	10.5	180	129	132	92	452	216	25	59	28	8	M 8
6 - 71	120	170	20	150	210	12	140	105	160	97	425	255	30	67	33	8	M 8
6 - 80	120	170	20	150	210	12	158	122	160	97	458	255	30	67	33	8	M 8
6 - 90 S	120	170	20	150	210	12	180	129	160	97	458	255	30	67	33	8	M 8
6 - 90 L	120	170	20	150	210	12	180	129	160	97	550	255	30	67	33	8	M 8
6 - 100 L	120	170	20	150	210	12	198	152	160	97	608	255	30	67	33	8	M 8
7 - 90 S	134	175	25	165	215	13	180	129	180	122	508	285	40	83	43	12	M 12
7 - 90 L	134	175	25	165	215	13	180	129	180	122	533	285	40	83	43	12	M 12
7 - 100	134	175	25	165	215	13	198	152	180	122	577	285	40	83	43	12	M 12
7 - 112	134	175	25	165	215	13	222	165	180	120	600	285	40	83	43	12	M 12
7A - 90 S	160	245	28	195	285	13	180	129	210	114	515	335	44	90	47	12	M 12
7A - 90 L	160	245	28	195	285	13	180	129	210	114	540	335	44	90	47	12	M 12
7A - 100	160	245	28	195	285	13	198	152	210	114	584	335	44	90	47	12	M 12
7A - 112	160	245	28	195	285	13	222	165	210	114	607	335	44	90	47	12	M 12
7A - 132 S	160	245	28	195	285	13	262	185	210	114	665	335	44	90	47	12	M 12
8 - 100	170	235	30	210	268	18	198	152	225	160	710	360	48	110	51.5	14	M 12
8 - 112	170	235	30	210	268	18	222	165	225	160	676	360	48	110	51.5	14	M 12
8 - 132 S	170	235	30	210	268	18	262	185	225	160	723	360	48	110	51.5	14	M 12
8 - 132 M	170	235	30	210	268	18	262	185	225	160	761	360	48	110	51.5	14	M 12
8 - 160 M	170	235	30	210	268	18	311	211	225	160	862	360	48	110	51.5	14	M 12
8 - 160 L	170	235	30	210	268	18	311	211	225	160	906	360	48	110	51.5	14	M 12
9 - 132 S	230	290	32	285	355	18	262	185	255	200	774	430	60	140	64	18	M 12
9 - 132 M	230	290	32	285	355	18	262	185	255	200	812	430	60	140	64	18	M 12
9 - 160 M	230	290	32	285	355	18	311	211	255	200	913	430	60	140	64	18	M 12
9 - 160 L	230	290	32	285	355	18	311	211	255	200	957	430	60	140	64	18	M 12
10 - 160 M	320	340	55	383	415	20	311	211	370	230	1011	572	68	180	72.5	20	M 12
10 - 160 L	320	340	55	383	415	20	311	211	370	230	1055	572	68	180	72.5	20	M 12
10 - 180 M	320	340	55	383	415	20	336	233	370	230	1078	572	68	180	72.5	20	M 12
10 - 180 L	320	340	55	383	415	20	336	233	370	230	1116	572	68	180	72.5	20	M 12