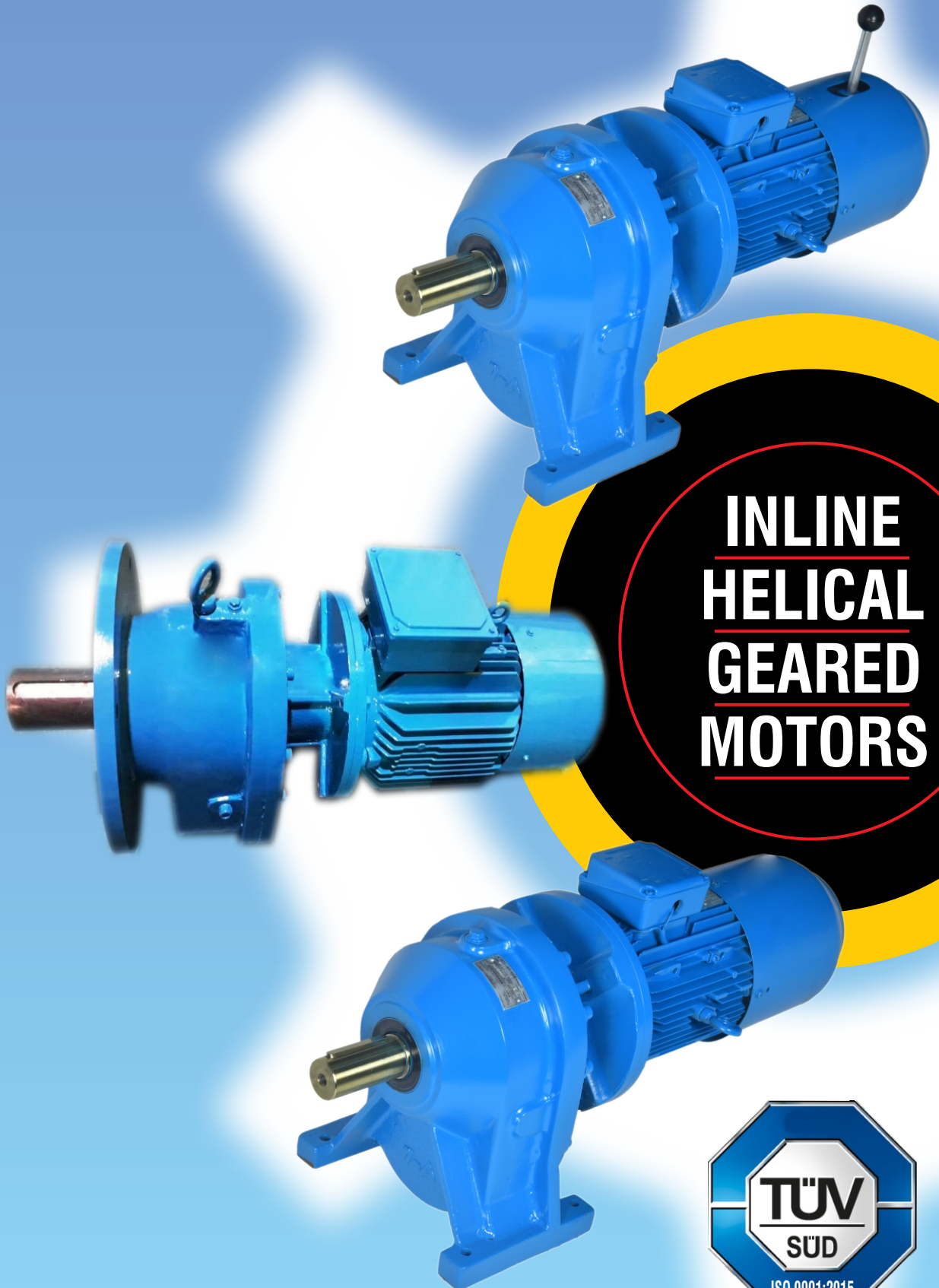




SUDARSHAN GEARS

The Power Behind Power Transmission



**INLINE
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 protection 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 squariness. 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 ZKL / 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 :

Attached Motors are of IE2 efficiency class 'F' winding and protection class of IP55 is Standard. 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				
		5h	8h	12 h	16 h	24 h
I	Easy starting, smooth operation, small masses to be accelerated. e.g. small 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 crane 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 plate shears presses, heavy mixers, rollers, crushing mills, centrifuges heavy winches, elevators and large size crane traveling gears and slewing gears, concrete mixers.	1.15	1.3	1.6	1.8	2.0

Please note that the above table is only an indication and point of reference. The actual service factors and conditions can be determined 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	3-63	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	1.4
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	1.4
C		20-30	5-80	1.4
D		30-60	S1-71	1.4
E		60-100	S1-71	1.6
F		100-400	S1-71	1.8
G		60-400	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	7-90	1.4
D		20-30	6-90L	1.2
E		30-40	6-80	1.4
F		30-40	5-80	1.2
G		40-60	6-80	1.6
H		40-60	5-80	1.4
I		60-90	5-80	1.5
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	7-90	1.4
D		20-30	6-90L	1.2
E		30-40	6-80	1.4
F		30-40	5-80	1.2
G		40-60	6-80	1.6
H		40-60	5-80	1.4
I		60-90	5-80	1.4
J		100-200	5-80	1.6
K		100-200	S1-80	1.4
L		200-500	S1-80	1.5
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	1.4
E		20-30	7A-90 S	1.4
F		20-30	7-90 L	1.2
G		30-40	7A-90 S	1.6
H		30-40	7-90 L	1.4
I		40-60	7-90 S	1.4
J		40-60	6-90	1.2
K		60-90	7-90 S	1.6
L		60-90	6-90 S	1.4
M		100-200	6-90 S	1.4
N		100-200	5-90 S	1.2
O		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		16-20	7A-100	1.2
E		20-30	7A-90	1.4
F		30-40	7-90	1.2
G		30-40	7A-90L	1.6

NOTES :

- 1) Service factors mentioned to be considered for lowest RPM in range, Service factor increase 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

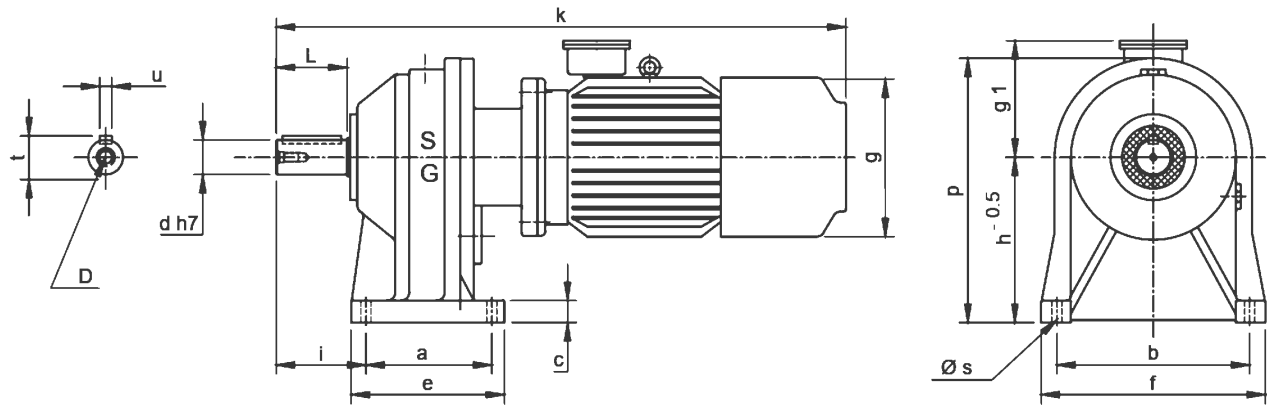
	HP	RPM	MODEL	S.F.
H	2.00	40-60	7-90 S	1.4
I		60-80	7-90 S	1.5
J		60-80	6-90 S	1.2
K		80-100	6-90 S	1.4
L		80-100	5-90 S	1.2
M		100-200	6-90 S	1.6
N		100-200	5-90 S	1.2
O		200-500	5-90 S	1.4
A	3.00	5-10	9-6-100	1.2
B		10-16	9-6-100	1.4
C		10-16	8-6-100	1.2
D		16-20	7A-112	1.2
E		20-30	8-112 S	1.4
F		20-30	7A-100	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	8-112	1.4
F		30-40	7A-112	1.2
G		40-60	8-112	1.6
H		40-60	7A-112	1.4
I		60-90	7A-112	1.6
J		100-150	7-112	1.4
A	7.50	10-20	10-7A-132	1.4
B		30-40	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		200-200	8-132 M	1.5
A	12.50	20-30	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	1.6
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	1.2
D		100-200	9-160 M	1.4
E		100-200	8-160 M	1.2
F		200-500	8-160 M	1.4
A	20.00	40-100	10-180 L	1.3
B		100-500	9-180 L	1.4
C		200-500	8-100 L	1.4

NOTES :

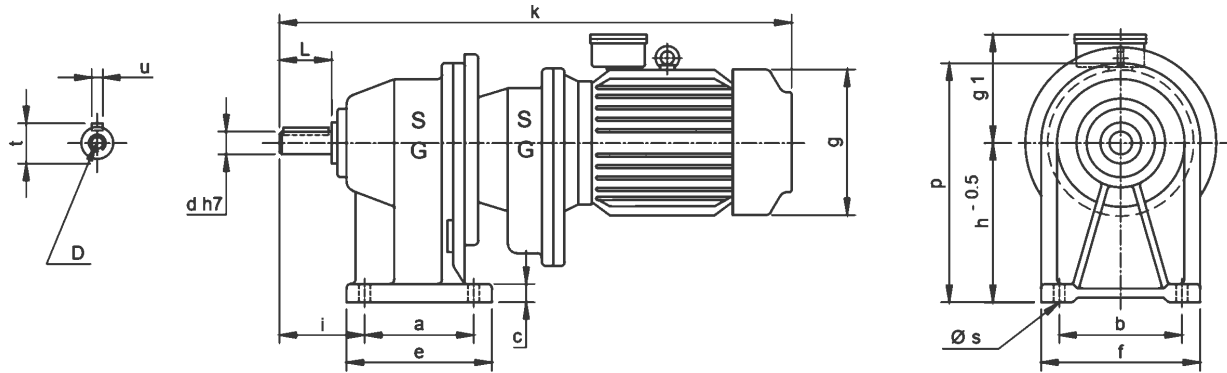
- 1) Service factors mentioned to be considered for lowest RPM in range, Service factor increase as RPM increases in a given range.
- 2) RPM in given ranges available in steps of 3 RPM upto 80 RPM in steps of 5 RPM above 80 RPM and in step of 8 RPM above 200 RPM.
- 3) For service factors and RPM other 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	$\varnothing s$	g	g1	h	i	k	p	d h7	L	t	u	D
2 - 63	75	98	12	95	120	8.5	121	79	100	68	390	160	17	45	19	5	M 5
3 - 63	85	105	15	110	135	8.5	124	100	112	75	382	182	20	50	22.5	6	M 6
3 - 71	85	105	16	110	140	9.5	140	84	112	75	435	180	20	50	22.5	6	M 6
S1 - 71	90	132	12	130	165	10.5	140	84	112	83	460	186	24	50	27	8	M 8
S1 - 80	90	132	12	130	165	10.5	158	107	112	83	508	186	24	50	27	8	M 8
5 - 71	100	150	16	140	190	12	140	84	135	92	480	215	25	59	28	8	M 8
5 - 80	100	150	16	140	190	12	158	107	135	92	514	215	25	59	28	8	M 8
5 - 90 S	100	150	16	140	190	12	176	135	135	92	573	215	25	59	28	8	M 8
6 - 71	120	170	20	150	210	12	140	84	160	97	530	260	30	67	33	8	M 8
6 - 80	120	170	20	150	210	12	158	107	160	97	562	260	30	67	33	8	M 8
6 - 90 S	120	170	20	150	210	12	176	135	160	97	605	260	30	67	33	8	M 8
6 - 90 L	120	170	20	150	210	12	176	135	160	97	630	260	30	67	33	8	M 8
6 - 100 L	120	170	20	150	210	12	195	185	160	97	675	260	30	67	33	8	M 8
7 - 90 S	134	175	24	165	215	13	176	135	180	122	641	285	40	83	43	12	M 12
7 - 90 L	134	175	24	165	215	13	176	135	180	122	666	285	40	83	43	12	M 12
7 - 100	134	175	24	165	215	13	195	180	180	122	705	285	40	83	43	12	M 12
7 - 112	134	175	24	165	215	13	220	172	180	120	733	285	40	83	43	12	M 12
7A - 90 S	160	245	28	195	285	13	176	135	210	114	645	335	44	90	47	12	M 12
7A - 90 L	160	245	28	195	285	13	176	135	210	114	670	335	44	90	47	12	M 12
7A - 100	160	245	28	195	285	13	195	180	210	114	710	335	44	90	47	12	M 12
7A - 112	160	245	28	195	285	13	220	172	210	114	740	335	44	90	47	12	M 12
7A - 132 S	160	245	28	195	285	13	262	182	210	114	810	335	44	90	47	12	M 12
8 - 100	170	235	32	210	270	18	195	180	225	160	805	360	48	110	51.5	14	M 12
8 - 112	170	235	32	210	270	18	220	172	225	160	835	360	48	110	51.5	14	M 12
8 - 132 S	170	235	32	210	270	18	262	182	225	160	900	360	48	110	51.5	14	M 12
8 - 132 M	170	235	32	210	270	18	262	182	225	160	940	360	48	110	51.5	14	M 12
8 - 160 M	170	235	32	210	270	18	305	210	225	160	1028	360	48	110	51.5	14	M 12
8 - 160 L	170	235	32	210	270	18	305	210	225	160	1072	360	48	110	51.5	14	M 12
9 - 132 S	230	290	34	285	355	18	262	182	255	200	955	418	60	140	64	18	M 12
9 - 132 M	230	290	34	285	355	18	262	182	255	200	990	418	60	140	64	18	M 12
9 - 160 M	230	290	34	285	355	18	305	210	255	200	1080	418	60	140	64	18	M 12
9 - 160 L	230	290	34	285	355	18	305	210	255	200	1125	418	60	140	64	18	M 12
10 - 160 M	320	340	55	383	415	20	305	210	370	233	1190	577	68	180	72.5	20	M 12
10 - 160 L	320	340	55	383	415	20	305	210	370	233	1234	577	68	180	72.5	20	M 12
10 - 180 M	320	340	55	383	415	20	348	233	370	233	1292	577	68	180	72.5	20	M 12
10 - 180 L	320	340	55	383	415	20	348	233	370	233	1292	577	68	180	72.5	20	M 12

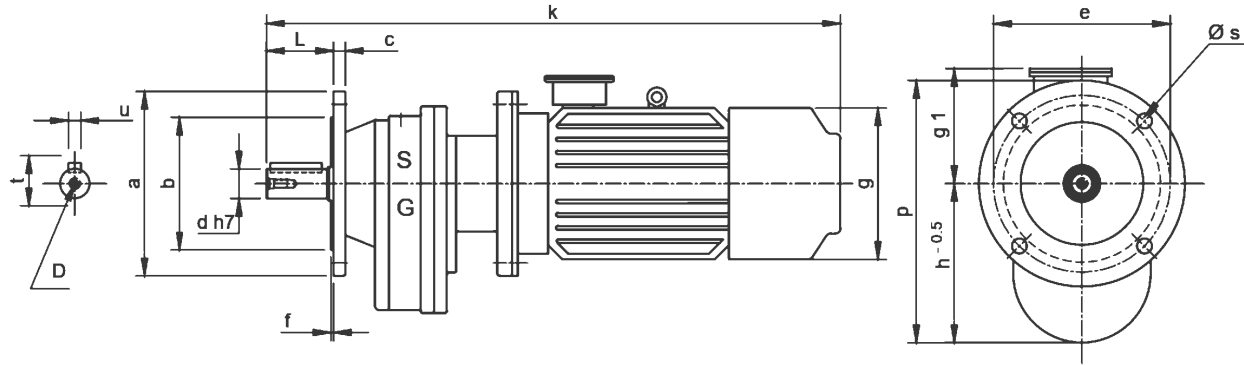
DIMENSIONS OF HORIZONTAL FOOT MOUNTED HELICAL GEARED MOTOR (B-3) 4 STAGE REDUCTION (TWO GEAR BOX)



Model	a	b	c	e	f	Ø s	g	g 1	h	i	k	p	d h7	L	t	u	D
5 - 2 - 63	100	150	16	140	190	12	121	79	132	92	470	216	25	59	28	8	M 8
6 - 2 - 63	120	170	20	150	210	12	121	79	255	97	504	255	30	67	33	8	M 8
6 - 3 - 71	120	170	20	150	210	12	140	84	255	97	546	255	30	67	33	8	M 8
7 - 3 - 71	134	175	25	165	215	13	140	84	180	122	575	285	40	83	43	12	M 12
7 - 5 - 80	134	175	25	165	215	13	158	107	180	122	631	285	40	83	43	12	M 12
7A - 5 - 80	160	245	28	195	285	13	158	107	210	114	638	335	44	90	47	12	M 12
7A - 6 - 90 S	160	245	28	195	285	13	176	135	210	114	676	335	44	90	47	12	M 12
8 - 6 - 90 S	170	235	30	210	268	18	176	135	225	160	757	360	48	110	51.5	14	M 12
8 - 6 - 100	170	235	30	210	268	18	195	160	225	160	859	360	48	110	51.5	14	M 12
9 - 6 - 90 S	230	290	32	285	355	18	176	135	255	200	827	430	60	140	64	18	M 12
9 - 6 - 100	230	290	32	285	355	18	195	160	255	200	950	430	60	140	64	18	M 12
9 - 7 - 100	230	290	32	285	355	18	195	160	255	200	963	430	60	140	64	18	M 12
9 - 7 - 112	230	290	32	285	355	18	220	172	255	200	986	430	60	140	64	18	M 12
10 - 7 - 112	320	340	55	383	415	20	220	172	370	156	1060	572	68	180	72.5	20	M 12
10 - 7A - 132 S	320	340	55	383	415	20	262	182	370	156	1107	572	68	180	72.5	20	M 12
10 - 8 - 112	320	340	55	383	415	20	220	172	370	156	1108	572	68	180	72.5	20	M 12
10 - 8 - 132 S	320	340	55	383	415	20	262	182	370	156	1153	572	68	180	72.5	20	M 12
10 - 9 - 132 S	320	340	55	383	415	20	262	182	370	156	1176	572	68	180	72.5	20	M 12

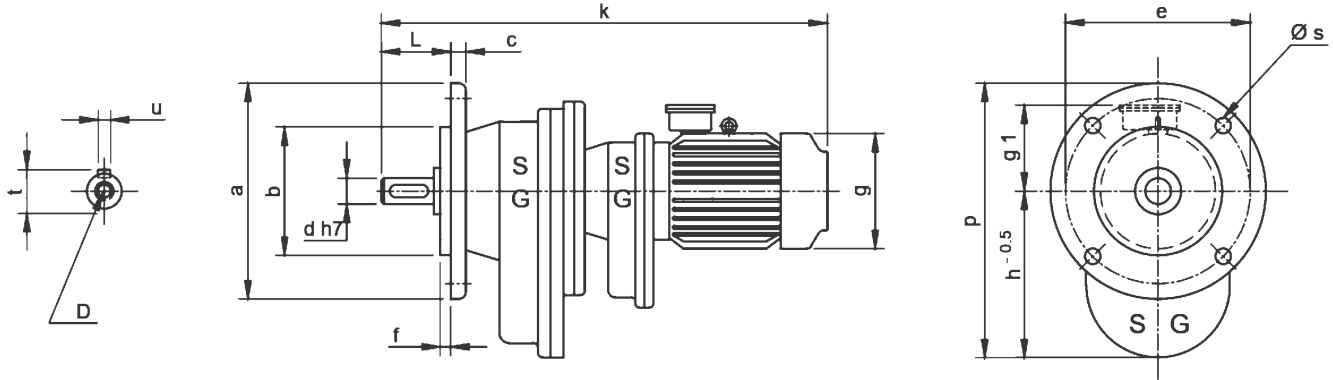
NOTE : DUE TO CONTINUOUS IMPROVEMENTS IN DESIGN, DIMENSIONS ARE SUBJECT TO CHANGES WITHOUT PRIOR NOTICE. PLEASE CONFIRM DIMENSIONS WITH OUR FACTORY AT THE TIME OF PLACING THE ORDER.

DIMENSIONS OF FLANGE MOUNTED HELICAL GEARED MOTOR (B-5) 2 STAGE REDUCTION (SINGLE GEAR BOX)



Model	a	b	e PCD	$\varnothing s$	c	f	g	g ₁	k	h	p	d h7	L	t	u	D
2 - 63	125	80	100	9	10	3.0	121	79	390	98	158	17	45	19	5	M 5
3 - 63	200	130	165	12	10	3.5	121	75	370	110	180	20	50	12.5	6	M6
3 - 71	200	130	165	12	10	3.5	140	84	435	110	210	20	50	22.5	6	M 6
S1 - 71	160	110	130	9.5	10	3.5	140	84	460	110	190	24	50	27	8	M 6
S1 - 80	160	110	130	9.5	10	3.5	158	107	508	110	210	24	50	31	8	M 6
5 - 71	200	130	165	12	16	3.5	140	84	480	130	230	25	59	28	8	M 8
5 - 80	200	130	165	12	16	3.5	158	107	514	130	230	25	59	28	8	M 8
5 - 90 S	200	130	165	12	16	3.5	180	135	573	130	230	25	59	28	8	M 8
6 - 71	200	180	215	12	15	4.0	140	84	530	158	358	30	67	33	8	M 8
6 - 80	200	180	215	12	15	4.0	158	107	562	158	358	30	67	33	8	M 8
6 - 90 S	250	180	215	14	15	4.0	176	135	605	158	283	30	67	33	8	M 8
6 - 90 L	250	180	215	14	15	4.0	176	135	630	158	283	30	67	33	8	M 8
6 - 100 L	250	180	215	14	15	4.0	195	180	675	158	303	30	67	33	8	M 8
7 - 90 S	250	180	215	14	16	3.8	176	135	641	178	303	40	83	43	12	M 12
7 - 90 L	250	180	215	14	16	3.8	176	135	666	178	303	40	83	43	12	M 12
7 - 100	250	180	215	14	16	3.8	195	180	705	178	303	40	83	43	12	M 12
7 - 112	250	180	215	14	16	3.8	220	172	733	178	303	40	83	43	12	M 12
7A - 90 S	300	230	265	14	20	4.0	176	135	645	208	358	44	90	47	12	M 12
7A - 90 L	300	230	265	14	20	4.0	176	135	670	208	358	44	90	47	12	M 12
7A - 100	300	230	265	14	20	4.0	195	180	710	208	358	44	90	47	12	M 12
7A - 112	300	230	265	14	20	4.0	220	172	740	208	358	44	90	47	12	M 12
7A - 132 S	300	230	265	14	20	4.0	262	182	810	208	358	44	90	47	12	M 12
8 - 100	300	230	265	14	20	4.0	195	180	805	223	373	48	110	51.5	14	M 12
8 - 112	300	230	265	14	20	4.0	220	172	835	223	373	48	110	51.5	14	M 12
8 - 132 S	300	230	265	14	20	4.0	262	182	900	223	373	48	110	51.5	14	M 12
8 - 132 M	300	230	265	14	20	4.0	262	182	940	223	373	48	110	51.5	14	M 12
8 - 160 M	350	250	300	20	20	4.5	305	210	1028	223	398	48	110	51.5	14	M 12
8 - 160 L	350	250	300	20	20	4.5	305	210	1072	223	398	48	110	51.5	14	M 12
9 - 132	350	250	300	20	25	4.0	262	182	955	253	428	60	140	64	18	M 12
9 - 132 M	300	230	265	20	25	4.0	262	182	990	253	428	60	140	64	18	M 12
9 - 160 M	350	250	300	20	25	4.0	305	210	1080	253	428	60	140	64	18	M 12
9 - 160 L	350	250	300	20	25	4.0	305	210	1125	253	428	60	140	64	18	M 12
10 - 160 M	350	250	300	19	30	5.0	305	210	1190	365	543	68	180	72.5	20	M 12
10 - 160 L	350	250	300	19	30	5.0	305	210	1234	365	543	68	180	72.5	20	M 12
10 - 180 M	350	250	300	19	30	5.0	348	233	1292	365	543	68	180	72.5	20	M 12
10 - 180 L	350	250	300	19	30	5.0	348	233	1292	365	543	68	180	72.5	20	M 12

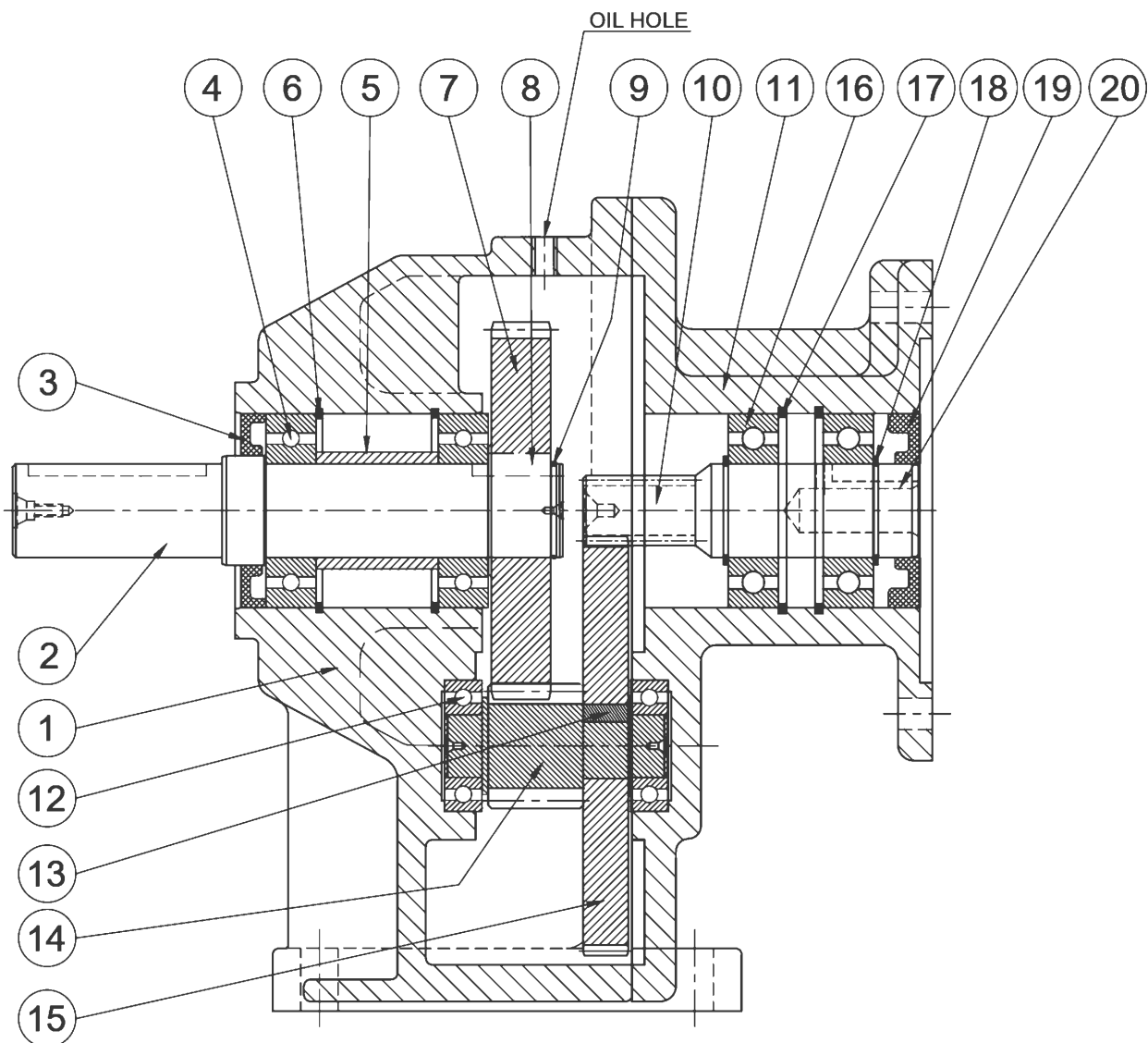
DIMENSIONS OF FLANGE MOUNTED HELICAL GEARED MOTOR (B-5) 4 STAGE REDUCTION (TWO GEAR BOX)



Model	a	b	e PCD	Ø s	c	f	g	g 1	k	h	p	d h7	L	t	u	D
5 - 2 - 63	200	130	165	12	15	3.8	121	79	470	130	230	25	59	28	8	M 8
6 - 2 - 63	200	130	165	12	15	3.8	121	79	504	158	258	30	67	33	8	M 8
6 - 3 - 71	200	130	165	12	15	3.8	140	84	546	158	258	30	67	33	8	M 8
7 - 3 - 71	250	180	215	12	16	3.8	140	84	575	178	303	40	83	43	12	M 12
7 - 5 - 80	250	180	215	12	16	3.8	158	107	631	178	303	40	83	43	12	M 12
7A - 5 - 80	300	230	265	14	18	3.8	158	107	638	208	358	44	90	47	12	M 12
7A - 6 - 90 S	300	230	265	14	18	3.8	176	135	676	208	358	44	90	47	12	M 12
8 - 6 - 90 S	300	230	265	18	20	4.0	176	135	757	223	373	48	110	51.5	14	M 12
8 - 6 - 100	300	230	265	18	20	4.0	195	160	859	223	373	48	110	51.5	14	M 12
9 - 6 - 90	350	250	300	20	22	4.5	176	135	827	253	428	60	140	64	18	M 12
9 - 6 - 100	350	250	300	20	22	4.5	195	160	950	253	428	60	140	64	18	M 12
9 - 7 - 100	350	250	300	20	22	4.5	195	160	963	253	428	60	140	64	18	M 12
9 - 7 - 112	350	250	300	20	22	4.5	220	172	986	253	428	60	140	72.5	20	M 12
10 - 7 - 112	350	250	300	22	28	4.5	220	172	1060	365	595	68	180	72.5	20	M 12
10 - 7A - 132 S	350	250	300	22	28	4.5	262	182	1107	365	595	68	180	72.5	20	M 12
10 - 9 - 112	350	250	300	22	28	4.5	220	172	1108	365	595	68	180	72.5	20	M 12
10 - 8 - 132 S	350	250	300	22	28	4.5	262	182	1153	365	595	68	180	72.5	20	M 12
10 - 9 - 132 S	350	250	300	22	28	4.5	262	182	1176	365	595	68	180	72.5	20	M 12

NOTE : DUE TO CONTINUOUS IMPROVEMENTS IN DESIGN, DIMENSIONS ARE SUBJECT TO CHANGES WITHOUT PRIOR NOTICE. PLEASE CONFIRM DIMENSIONS WITH OUR FACTORY AT THE TIME OF PLACING THE ORDER.

SECTIONAL VIEW OF GEAR BOX (SINGLE)

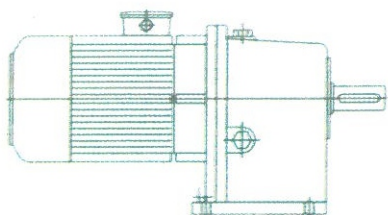


10	1 st STAGE PINION	1	CA. HRD. STEEL	20	KEY ON MOTOR SHAFT	1	STD
9	EXT. CIRCLIP	1	STD	19	OIL SEAL	1	STD
8	KEY ON 2 nd STAGE GEAR	1	STD	18	EXT. CIRCLIP	2	STD
7	2 nd STAGE GEAR	1	CA. HRD. STEEL	17	INT. CIRCLIP	2	STD
6	INT. CIRCLIP	2	STD	16	BALL BEARING	2	STD
5	SPACER	1	MS / CI	15	1 st STAGE GEAR	1	CA. HRD. STEEL
4	BALL BEARING	2	SKF	14	2 nd STAGE PINION	1	CA. HRD. STEEL
3	OIL SEAL	1	STD	13	KEY ON 1 st STAGE GEAR	1	STD
2	OUTPUT SHAFT	1	EN 8	12	BALL BEARING	2	SKF
1	HOUSING	1	C. I.	11	ADAPTOR COVER	1	C. I.
ITEM	DESCRIPTION	QTY	MATERIAL	ITEM	DESCRIPTION	QTY	MATERIAL

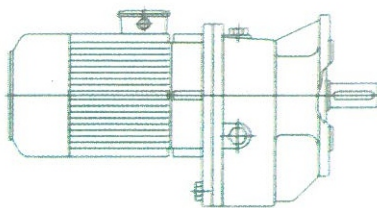
B I L L O F M A T E R I A L

MOUNTING POSITIONS

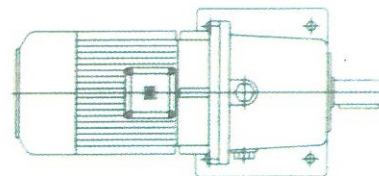
B3



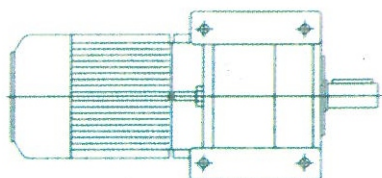
B5



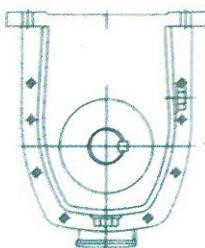
B6



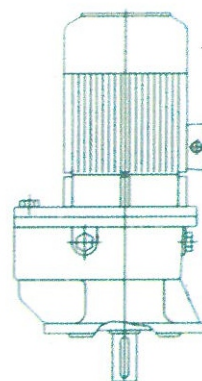
B7



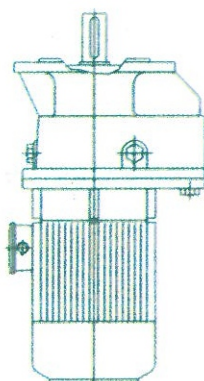
B8



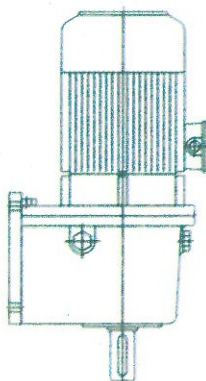
V1



V3



V5



V6

