



PBL HELICAL GEARED MOTORS



Power Build Limited has established its name as the most trusted and accepted name for its geared motors and inline gear reducers in all the industries since last more than thirty years. Originally started under technical collaboration from renowned German manufacturer Rudolf Muchna KG, Power Build has made a lot of improvements not only in the manufacturing process but also in materials and design technology. As a result of continuous research and development in the field of mechanical power transmission equipment, understanding individual application and working out the most suitable and economical solution, PBL continues to maintain leadership in the market. Power Build is happy to release this new catalogue incorporating in it, the essence of its long experience and expertise in the field. This catalogue supersedes all its earlier catalogues for Helical Geared Motors.

Power Build helical geared motors and inline gear reducers are available with single, double and triple reduction design. For extremely low output speeds, geared motors and gear reducers are also manufactured with 4, 5, 6 and even more reduction stages. They are available in FOOT, FLANGE, FOOT-cum-FLANGE design and also HUB type design for agitator applications.

GEAR CASE

The reduction gear trains are housed in a sturdy gear case of one-piece construction cast integral with its pedestal and internal partition wall which serves as both reinforcement and bearing housing. Gear case is manufactured from close grained cast iron and has ample surface area for heat dissipation.

GEAR AND PINION

All gear components used are helical and manufactured from selected special alloy steel. Gears are generated on precise hobbing machines, heat treated and ground to achieve the best performance and efficiency.

OUTPUT SHAFTS

Output shafts of both geared motors and gear reducers and input shaft of inline gear reducers are manufactured from best quality medium carbon steel for high overhung load carrying capacities. For special applications, these shafts can also be heat treated.

LUBRICATION

The lubrication of gears and bearings is fool-proof, being achieved automatically by splash of oil. Thus, no special care is required except occasional topping up of the oil to required level. A large oil filler-cum-breather, oil level indicator and drain plug are provided on the gear box.

ELECTRICALS

Electric motor provided with geared motor is TEFC squirrel cage induction motor suitable for operation on 415V, 3-phase, 50 C/s AC supply as per IS : 325. All motors are provided in IP 55 enclosure and F/B class insulation.

Geared motor fitted with electric motor of special design like flame-proof, crane duty, extended shaft on NDE, brake etc., can also be offered.

MANUFACTURING STANDARDS

All output shafts are manufactured as per DIN 42948. Tolerance for shaft diameters may vary as per IS, k6 upto 50mm and m6 above 50mm. Keyways and keys are as per

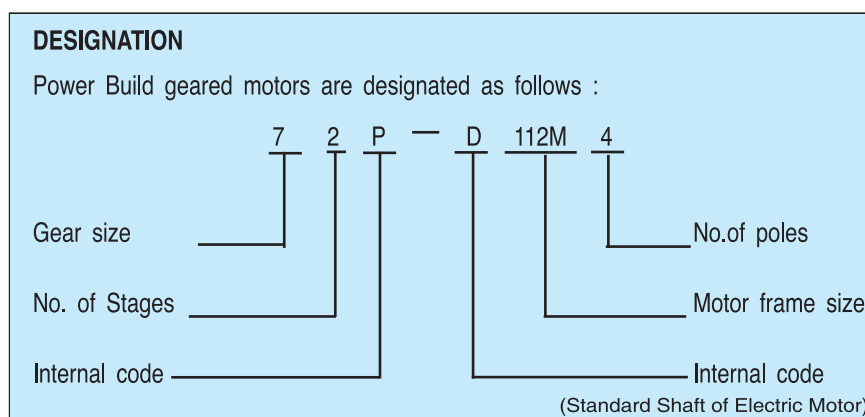
DIN 6885 with keyway tolerance P9. Key steel DIN 6880. Threading on output shafts is as per DIN 332/1943. Output speed tolerance is $\pm 3\%$

TESTING

All components are thoroughly inspected at various stages and assembled unit is tested on 'no load' for noise level, oil leakage, output speed and temperature rise.

SELECTION PROCEDURE

1. Compute required output RPM and actual horse power consumption of driven machine.
2. Determine appropriate service factor by referring to Table No. 1 and 2.
3. Select suitable geared motor corresponding to HP and output RPM requirement from rating tables depending upon the service factor.



GEAR CODE

	Geared Motor	Helical Gear Reducer	Motor Mount
Foot mounting	73 P	73 PII	73 PMM
Flange mounting	73.1P	73.1PII	73.1PMM
Foot-cum-flange mounting	73.2P	73.2PII	73.2PMM
Hub-type construction	73.3P	73.3PII	73.3PMM
Composite gear box with foot mounting	73C-32.1P	73C-32.1PII	73C-32.1PMM
Composite gear box with flange mounting	73.1C-32.1P	73.1C-32.1PII	73.1C-32.1PMM

TABLE NO. 1 : LOAD CHARACTERISTIC

Agitator and mixers :		Conveyors :			
Liquids, semi-liquids	— U	Uniformly loaded	— U		
Liquids, variable density	— M	Rough or non-uniform drive	— M	Screens :	
		Reciprocating & shaker	— M	Air washing	— U
				Rotary (stone/gravel)	— M
Blowers :		Crane hoists :	— M		
Centrifugal, vane	— U			Sugar industry :	
Lobe	— M	Crushers :	— H	Cane knives	— M*
				Crushers	— M*
Brewing & Distilling :		Elevators :		Mills	— M*
Bottle machinery	— U	Bucket, Uniform load	— U		
Brew kettle	— U	Bucket, Heavy load	— M	Oil industry :	
Cookers, scale hopper	— M	Bucket, Cont. load	— U	Chillers	— M
(frequent start)		Centrifugal discharge	— U	Rotary kilns	— M
Cane knives	— M	Gravity discharge	— U		
Clarifiers	— U			Paper mills :	
		Fans :		Bleacher conveyor	
Clay working machinery :		Centrifugal	— U	press, winder	— U
Brick press, briquette machine	— H	Induced draft	— M	Calenders, agitators,	
Pug mill, clay working machinery	— M	Large (mine, industrial, etc.)	— M	beater & pulper	— M
		Light (small diameter)	— U		
		Feeders :		Pumps :	
Compressors :		Apron	— M	Centrifugal	— U
Centrifugal	— U	Belt	— M	Reciprocating (3 or more cylinders)	— M
Lobe	— M	Disc	— U		
Reciprocating, multi-cylinder	— M	Reciprocating	— H	Textile industry :	
Reciprocating, single cylinder	— H			Batchers	— M
		Rubber & plastic industry :		Calenders	— M
Food industry :		Crackers	— H*	Dyeing machinery	— M
Beet slicer	— M	Fixing mills	— H*	Spinners	— M
Cereal cooker	— U	Laboratory equipment	— M	Washers	— M
		Refiners	— M*	Winders	— M
Laundry machines :		Sheeters	— M*	Wire-drawing machinery	— M
Washers, tumblers	— M	Tubers & strainers	— M*		
Line shaft mills	— U	Warming mills	— M*		
Hammers	— H				
Balls kiln, pebbles	— M				
Rod tumbling barrels	— H				

U = Uniform load
H = Heavy shock load
M = Medium shock load

*Marked thus should be selected on the basis of 24 hours/day service only.

TABLE NO. 2 : SERVICE FACTORS

Prime mover	Duration of service	Uniform	Moderate shock	Heavy shock
		U	M	H
Electric motor	2 hours/day	0.75	0.80	1.25
	4 hours/day	0.80	1.0	1.30
	8 hours/day	0.90	1.1	1.45
	12 hours/day	1.10	1.25	1.55
	24 hours/day	1.25	1.5	1.75

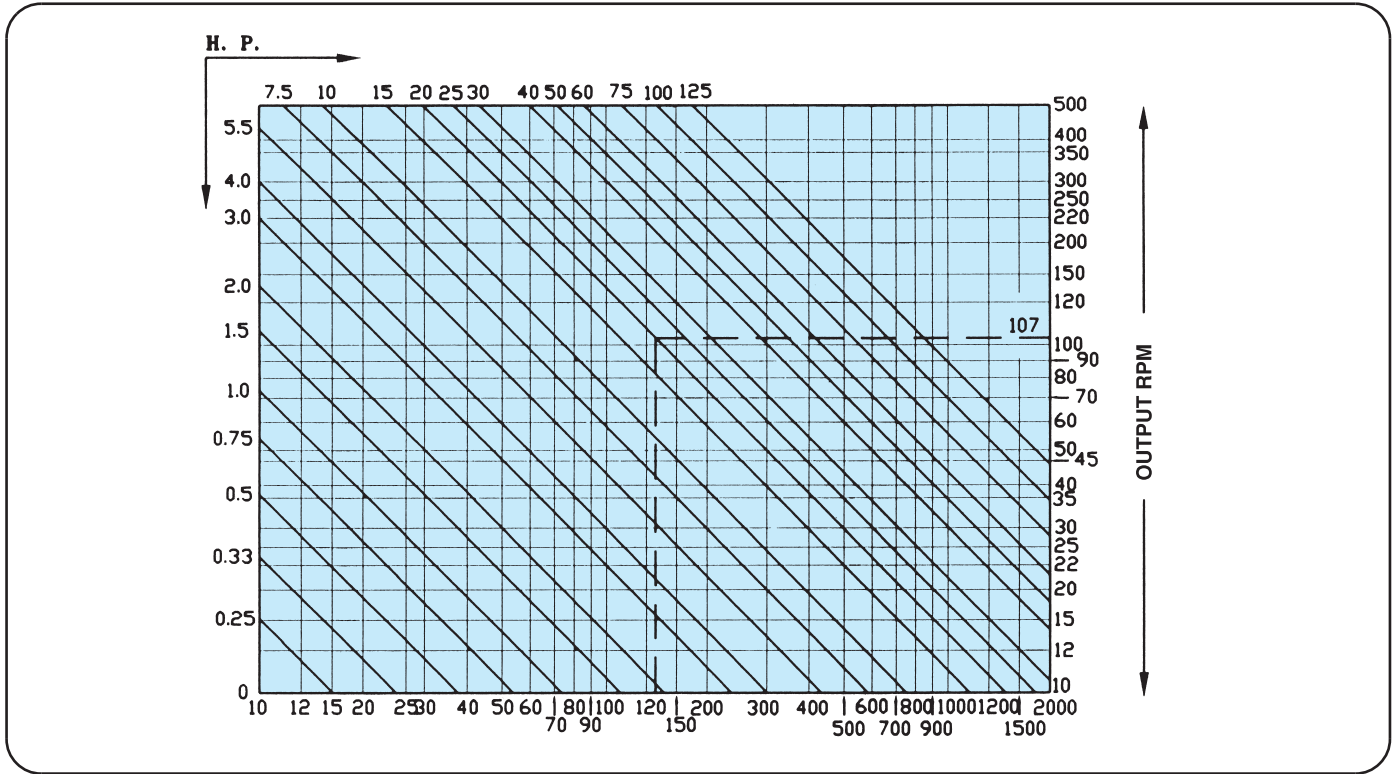
1. For drive from diesel or petrol engine, multiply above factor by 1.2
2. When the number of starts and stops per hour is more than twenty, consult us.

Radial (overhung) Load on output shaft

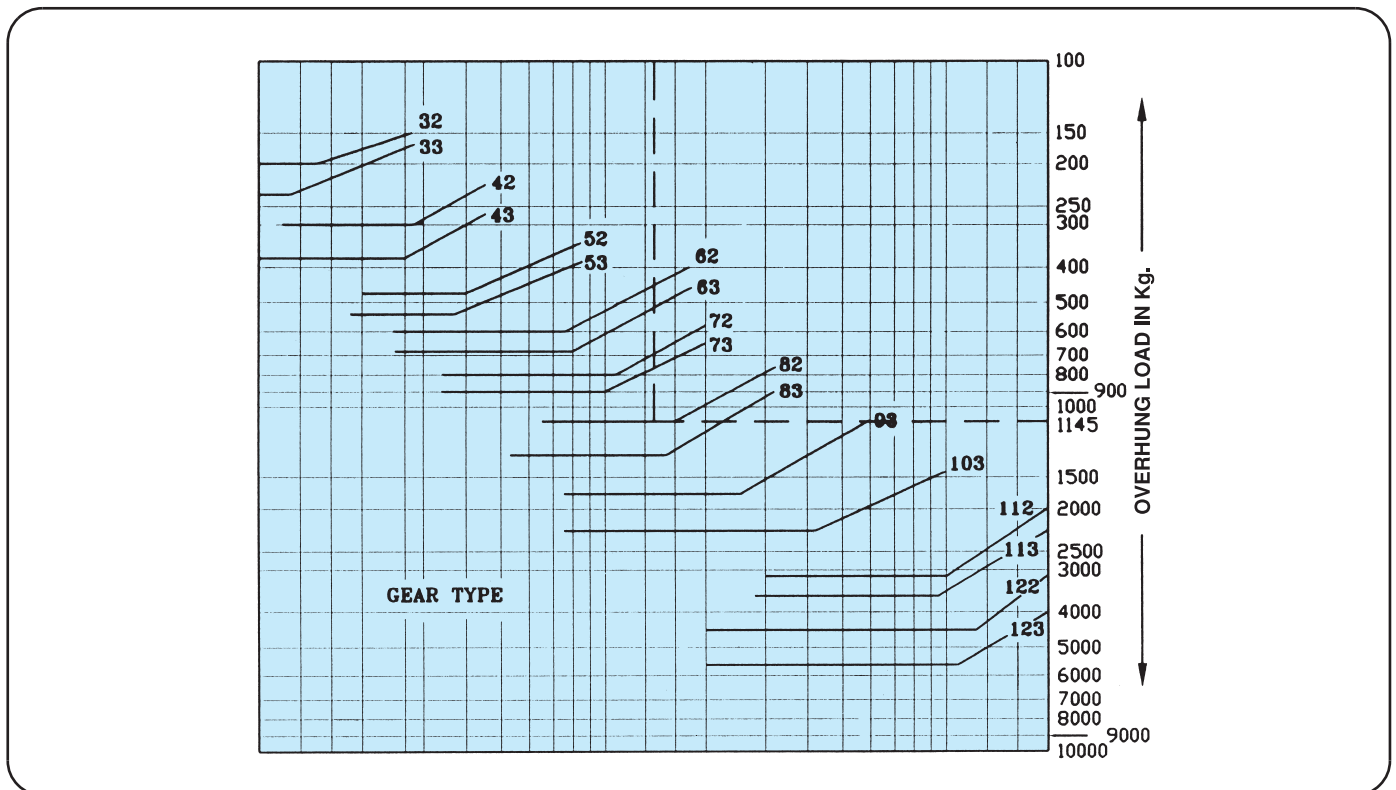
Normally the geared motors are directly coupled with the driven equipment. Hence there would not be any radial loads on the output shaft. In case where machine is driven by chain drive, pulley drive or a gear wheel, the output shaft

of geared motor will be radially loaded. Following diagram may be referred to for finding out the overhung load which is acting at the MIDDLE OF STANDARD SHAFT EXTENSION. For overhung load acting at other points, please refer to us.

Permissible Radial Loads on output Shaft



← OUTPUT TORQUE IN Kg. m. →



A dotted line is shown to find out the maximum permissible overhung load acting at middle of standard shaft length of 20 HP 107 rpm geared motor Type 72P-160 L4 with 60 mm output shaft dia and 140 mm shaft extension. From the graph, it is noticed that maximum permissible overhung load at 70 mm i.e. at midpoint of 140 mm, shaft length, is 700 kg. Similarly, permissible overhung load for 82P gear box for same output rpm and motor HP is 1145 kg.

Overhung Load : If a sprocket, pulley or spur gear (pinion) is mounted on the output shaft of a geared motor, overhung load is imposed on the shaft. The equivalent overhung load in kg is calculated as under :

$$P = \frac{A \times 975000 \times K}{N \times R}$$

Where

P = Equivalent overhung load in Kg.

A = Actual power available at input to gear box in kW.

K = Load factor

N = Output rpm; and

R = Pitch radius at sprocket, pulley or spur pinion in mm.

The load factors are as under :

Overhung member	K
Sprocket	1.00
Spur pinion	1.25
V-belt sheave	1.50
Flat belt pulley	3.00

The calculated overhung load should be less than the maximum permissible overhung loads on geared motor.

TABLE NO. 3 : PERMISSIBLE AXIAL LOAD ON OUTPUT SHAFT

Type of Gear Box	Axial load for Foot/Flange mounted geared motor in kg.	Axial load for Agitator type geared motor in kg.
32-33	160	450
42-43	190	630
52-53	224	770
62-63	330	1260
72-73	390	1400
82-83	615	2500
93	770	3260
103	950	4100
112-113	1050	4550
122-123	1150	5500

RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.0

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			
			Foot	Flange	Agitator				Foot	Flange	Agitator	
0.33 (0.25)	0.4, 0.63	93C-43.1P-D71K4	337	336	500	0.75 (0.55)	9.5	53P-D80L6	70	62	93	
	0.8	83C-32.1P-D71K4	215	218	297		10.4	43P-80L6	49	47	64	
	1.1	73C-32.1P-D71K4	155	140	192		12.2, 13.0, 15.0	43P-80K4	46	44	61	
	1.6, 2.0, 2.5	63C-32.1P-D71K4	106	98	142		16.5, 18.5	43P-D80K4	46	44	61	
	3.2, 3.6	53C-32.1P-D71K4	80	72	102		21.0, 26.0	33P-80K4	35	34	45	
	5.0	53P-90S8	70	61	86		24.5, 27.5, 30, 31, 33, 34.5, 37, 38, 42, 43, 45.5, 48.5, 51, 54, 57, 66, 74	33P-D80K4	35	34	45	
	6.0	43P-90S8	48	46	63		75, 84, 95, 103, 106	32P-D80L6	35	34	45	
	8.0	43P-D71K6	45	43	60		116, 130, 146, 159, 163, 183, 200, 204, 224, 257, 287	32P-D80K4	35	34	45	
	9.2, 10.7	33P-90S8	39	38	49		291, 294, 315, 318, 325, 365, 400, 448, 513, 573	32P-D71L2	31	30	41	
	11.0, 12.0, 14.0	33P-D71K6	34	33	44							
	15, 16.5, 18.5, 20.5, 22.5, 24, 25, 28, 30, 31.5, 33, 36, 40, 41, 44, 47, 50, 53	33P-D71K4	30	29	40							
	58, 60.5, 65, 75, 84	32P-D71K6	31	30	41							
	87, 90, 97, 112, 119, 125, 142, 152, 154, 158, 176, 194, 196, 216, 248, 277	32P-D71K4	27	26	37		1.0 (0.75)	1.1	103C-42.1P-D80L4	458	447	624
					1.42, 2.0	93C-42.1P-D80L4		346	345	509		
					2.24, 2.8	83C-32.1P-D80L4		232	236	304		
					3.6, 4.5, 5.6	73C-32.1P-D80L4		170	157	199		
					6.0	73P-100L8		154	141	194		
					6.6	73P-D100L8		154	141	194		
					7.0	63P-90S6		101	90	133		
					7.9	63P-90S6		*	*	133		
					8.8	63P-80L4		98	87	130		
					10.0, 10.9, 12.3	53P-80L4		*	*	92		
					13.3	53P-80L4		69	61	92		
					15, 16	43P-80L4		*	*	63		
					18.2, 22.5	43P-D80L4		48	46	63		
					20.5	43P-D80L4		*	*	63		
					25.4, 26	33P-80L4		*	*	47		
					29, 30.6, 33.4	33P-D80L4		*	*	47		
					36, 38, 40, 42, 43, 45, 54, 57, 65	33P-D80L4		37	36	47		
					48, 51, 60, 73, 77, 82	33P-D80L4		*	*	47		
					83, 89, 93	32P-80L4		34	33	44		
					98	32P-80L4		*	*	44		
					115, 129, 162, 181, 200, 202, 223, 255	32P-D80L4		34	33	44		
					145, 158, 285	32P-D80L4		*	*	44		
					296	32P-D80K2		*	*	44		
					322, 330, 370, 406, 412, 454, 520, 581	32P-D80K2		34	33	44		
0.75 (0.55)	0.9	103C-42.1P-D80L6	456	455	622	1.5 (1.1)		1.8	103C-42.1P-90S4	460	449	626
	1.0	93C-42.1P-D80L6	341	340	504			2.24, 3.2	93C-42.1P-D90S4	348	347	511
	1.1	93C-42.1P-D80K4	338	337	501			3.6	83C-32.1P-D90S4	234	238	306
	1.6, 2.0	83C-32.1P-D80K4	231	234	302		4.5	83C-32.1P-90S4	234	238	306	
	2.5, 3.2, 4.0	73C-32.1P-D80K4	168	155	195		5.0, 5.6	73C-32.1P-D90S4	171	159	201	
	4.5	63C-32.1P-D80K4	114	103	147							
	5.8	63P-90L8	107	96	129							
6.6, 7.1, 8.0, 8.7	53P-80L6	70	62	93								

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.0

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
1.5 (1.1)	6.7	73P-D100L8	169	156	196	3.0 (2.2)	3.5	103C-42.1P-D100L4	475	464	641
	8.2	73P-D90L6	147	134	187		4.5	93C-42.1P-D100L4	363	362	526
	8.9, 9.8, 10.0, 10.9	63P-90S4	100	89	132		6.5	83C-32.1P-D100L4	252	255	323
	13.6, 14.8, 16.0, 18.0	53P-90S4	71	63	94		7.2, 8.0	83P-112M6	*	239	317
	19.0, 21.0	53P-D90S4	71	63	94		8.8	83P-D112M6	235	239	317
	23, 25.3, 26.6	43P-90S4	51	49	66		10.0	73P-112M6	*	157	210
	28, 29, 31.5, 33, 34.5, 36	43P-D90S4	51	49	66		11.3	73P-D112M6	*	157	210
	40.3, 42, 45, 47, 51.6, 55, 58, 61, 66, 74, 78	33P-D90S4	39	38	49		12.5	73P-100L4	155	143	196
	85, 90, 95, 101,116,124	32P-90S4	36	35	46		14	73P-D100L4	*	*	196
	131, 147, 164, 184, 202, 226, 259, 289	32P-D90S4	36	35	46		16.7	73P-D100L4	155	143	196
298, 324, 333, 373, 409, 415, 457, 524, 585	32P-D80L2	34	33	44	20.7	63P-100L4	115	104	147		
2.0 (1.5)	2.5	103C-42.1P-D90L4	464	453	630	17.1, 21, 23, 25	63P-D100L4	115	104	147	
	3.0, 4.0	93C-42.1P-D90L4	352	351	515	28.3, 34	53P-D100L4	*	*	109	
	5.4	83P-112M8	233	236	315	30.3, 33	53P-100L4	*	*	109	
	6.1	73P-112M8	168	155	208	37, 40.5, 42	53P-D100L4	86	78	109	
	6.8	73P-D112M8	168	155	208	45	43P-D100L4	65	63	80	
	7.5	73P-112M8	*	155	208	51.6, 57, 58, 60, 74, 105	43P-D100L4	*	*	80	
	8.1	73P-100L6	*	142	195	65, 67, 83	43P-D100L4	65	63	80	
	9.0	73P-D100L6	155	142	195	90, 112	42P-100L4	61	59	76	
	11.0	73P-D100L6	*	142	195	101	42P-100L4	*	*	76	
	12.3	73P-D90L4	*	*	195	118, 132, 162	32P-100L4	53	52	63	
	13.5, 16.5	63P-D90L4	104	93	136	149	32P-100L4	*	*	63	
	15	63P-D90L4	*	*	136	166, 186	32P-D100L4	53	52	63	
	17.6	53P-90L4	75	67	98	204, 207, 262	32P-100L4	53	52	63	
	18.8, 20.4, 21, 25, 29	53P-D90L4	*	*	98	228	32P-D100L4	53	52	63	
	23, 28	53P-D90L4	75	67	98	292	32P-D100L4	*	*	63	
	30	43P-90L4	*	*	70	298	32P-D90L2	*	*	61	
	32.5	43P-D90L4	*	*	70	333, 373, 409, 457, 524, 585	32P-D90L2	51	50	61	
	36.8	43P-D90L4	55	53	70	5.0 (3.7)	6.5, 7.1	103C-52.1P-D112M4	503	492	668
	38	43P-90L4	55	53	70		7.9	93P-160M8	414	413	577
	40, 42, 44, 46	43P-D90L4	55	53	70		9.6	93P-160M8	*	413	577
	55, 66	33P-D90L4	43	42	53		10.4	83P-132S6	*	256	335
	58, 61, 74, 78	33P-D90L4	*	*	53		11	83P-112M4	*	238	317
	84, 90, 94, 116, 124	32P-90L4	40	39	50		12.2	83P-112M4	235	238	317
	101	32P-90L4	*	*	50		13.5	83P-D112M4	235	238	317
	131	32P-D90L4	40	39	50		15.3, 19, 19.8	73P-112M4	*	157	210
	146	32P-D90L4	*	*	50		17.3	73P-D112M4	170	157	210
	164,184, 201, 225, 258	32P-D90L4	40	39	50		20.4	73P-D112M4	*	157	210
	288	32P-D90L4	*	*	50		22	73P-D112M4	170	157	210
	297	32P-D90S2	*	*	46		25	73P-D112M4	*	*	210
	331, 371, 408, 456, 522, 583	32P-D90S2	36	33	46		27.5	63P-D112M4	129	118	161
					30, 32.5		63P-112M4	*	*	161	
					33.4		63P-D112M4	*	*	161	
					36, 38		63P-D112M4	129	118	161	

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.0

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
5.0 (3.7)	41, 44.6	53P-112M4	100	92	123	10.0 (7.5)	19.5, 22.7	83P-D132M4	265	268	347
	46, 65.5, 67, 71	53P-D112M4	100	92	123		20.8	83P-132M4	265	268	347
	50, 52.5, 58, 60, 75	53P-D112M4	*	*	123		25, 28, 30	83P-D132M4	*	268	347
	80	52P-112M4	87	86	117		32	73P-132M4	*	189	242
	98	52P-112M4	*	*	117		36.4, 39.3	73P-132M4	202	189	242
	114, 127	52P-D112M4	87	86	117		41, 44	73P-D132M4	202	189	242
	139	42P-D112M4	80	78	94		47	73P-D132M4	*	189	242
	157	42P-D112M4	*	*	94		50	63P-132M4	*	153	196
	158	42P-112M4	*	*	94		55, 68	63P-D132M4	164	153	196
	170, 186	42P-D112M4	80	78	94		60, 72	63P-D132M4	164	153	196
	196, 200, 248	42P-112M4	80	78	94		91.5	53P-132M4	135	127	158
217, 255, 274, 276, 326, 348, 412	42P-D112M4	80	78	94	103	53P-D132M4	*	*	158		
7.5 (5.5)	7.8, 8.2	113P-132M6	937	912	1368	15.0 (11)	115, 128, 141	52P-132M4	122	114	145
	8.9	103P-160M8	536	525	702		156	52P-132M4	*	*	145
	10, 11	103P-D160M8	536	525	702		161, 197, 257	52P-D132M4	122	114	145
	11.6	93P-D160M8	423	422	568		173, 183, 204, 225, 248, 276	52P-132M4	122	114	145
	12.8	93P-132M6	375	374	538		305	52P-132M4	*	*	145
	13.9	93P-D132M6	375	374	538		324, 361, 400	52P-132M4	122	114	145
	15, 15.8	83P-132S4	*	256	335		348, 455	52P-D132M4	122	114	145
	19.5	83P-D132S4	*	256	335		9.1	123P-160L6	997	972	1428
	20.3	83P-132S4	*	256	335		10	123P-D160L6	997	972	1428
	21.6, 23	83P-D132S4	253	256	335		12.5	113P-160M4	979	954	1410
	25.4, 28, 29, 32.3	73P-132S4	*	177	230		13.8, 15.8, 17.2	113P-D160M4	979	954	1410
	34.5	73P-D132S4	*	177	230	18.3	103P-160M4	535	524	701	
	35.6	73P-D132S4	190	177	230	19.5, 21	93P-160M4	423	422	586	
	41.8, 45.6, 55.5	63P-D132S4	152	141	184	23.6	93P-D160M4	423	422	586	
	49.6	63P-132S4	*	141	184	30.3	83P-160M4	318	315	400	
	60	63P-D132S4	*	141	184	28.5, 33, 39.5, 46, 47	83P-D160M4	318	315	400	
	68	53P-132S4	123	115	146	53.6	73P-160M4	255	242	295	
	72, 76, 103	53P-D132S4	*	*	146	50.4, 59.4, 62, 65, 80.5	73P-D160M4	255	242	295	
	82, 92	53P-132S4	123	115	146	73, 79	73P-D160M4	*	242	295	
	115, 128, 141, 142	52P-132S4	110	102	133	94, 107	72P-160M4	*	228	281	
	157	52P-132S4	*	*	133	118, 134	72P-160M4	236	228	281	
162, 198, 257	52P-D132S4	110	102	133	126	72P-D160M4	236	228	281		
174, 184, 204, 226, 249, 276	52P-132S4	110	102	133	155, 158, 291	72P-D160M4	*	228	281		
306	52P-132S4	*	*	133	194, 229, 282, 358	72P-D160M4	236	228	281		
325, 362, 401	52P-132S4	110	102	133	11.5, 12.6, 14.2	123P-D180L6	1066	1041	1497		
349, 456	52P-D132S4	110	102	133	15.7, 17.1, 19.3	113P-D160L4	1002	977	1433		
10.0 (7.5)	8.2	113P-160M6	972	947	1403	20.3, 22.4, 25	103P-D160L4	558	547	724	
	9, 10.4	113P-D160M6	972	947	1403	28.4, 33, 37	93P-D160L4	446	445	609	
	11	103P-D160L8	558	547	724	30.5, 40	93P-160L4	446	445	609	
	12	103P-160M6	528	517	694	42.5, 44.3	83P-160L4	341	344	423	
	13.9	93P-160M6	423	422	586	45.8, 52, 53.4, 57.5, 71.4	83P-D160L4	341	344	423	
	16	93P-132M4	375	374	538						

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.0

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
20.0 (15)	61, 64	83P-160L4	341	344	423	40.0 (30)	94	83P-200L4	415	412	490
	79.5	82P-160L4	316	313	391		100, 110, 125, 144, 153, 162, 178, 179, 191, 199, 222, 232, 248, 289	82P-200L4	390	387	465
	82.5, 85.7	73P-D160L4	273	265	318		-	-	-	-	-
	94, 107, 117, 133,170	72P-160L4	259	251	304						
	125, 154, 157, 193, 227, 280, 289, 356	72P-D160L4	259	251	304	50.0 (37)	21.5, 24, 28.6	123P-D225S4	1175	1150	1606
25.0 (18.5)	12.6, 14.3	123P-D200L6	1087	1062	1518		30.6, 33, 35.7, 37, 41.4, 44, 45, 48.5, 51.7	113P-D225S4	1175	1150	1606
	15.2	123P-180M4	1024	999	1455		56.4, 64, 71, 72.4, 78.4, 82	103P-D225S4	730	719	896
	17.2, 19.4, 21.7	113P-D180M4	1024	999	1455		84, 91, 95, 102, 107, 115, 116, 129, 130, 143, 162, 182, 205	93P-D225S4	627	626	790
	24.8	103P-180M4	580	569	746	60.0 (45)	21.5, 24, 28.6	123P-D225M4	1215	1190	1646
	28.5, 31	103P-D180M4	580	569	746		30.6, 33, 35.7, 37, 41.4, 44, 45, 48.5, 51.6, 56.7, 60.3	113P-D225M4	1215	1190	1646
37, 41	93P-180M4	468	467	631	64, 72.4, 78.4, 82		103P-D225M4	770	759	936	
33.5, 44.4, 47, 52.5	93P-D180M4	468	467	631	84, 91, 95, 102, 107, 115, 116, 129, 130, 143, 162, 182, 205		93P-D225M4	667	666	830	
53.7, 57.5, 72, 84, 94	83P-D180M4	363	366	445	75.0 (55)	29, 32, 34, 39.5	123P-D250M4	1365	1340	1796	
99, 109	82P-180M4	338	335	413		36.4	123P-250M4	1365	1340	1796	
129, 143, 161, 178, 198, 230, 247, 287	82P-D180M4	338	335	413		41.5, 44, 45.3, 48.6, 52, 57, 60.5, 70, 76.5	113P-D250M4	1365	1340	1796	
30.0 (22)	15.2	123P-180L4	1055	1030		1486	99, 117, 141, 157, 174, 181, 196, 226, 247	112P-D250M4	1215	1190	1646
	17.4	123P-D180L4	1055	1030	1486	100.0 (75)	37.3, 39.5, 46, 48.6, 50	123P-D280S4	1555	1530	1986
	19.4, 21.7, 25.8, 26.7, 29, 30.4	113P-D180L4	1055	1030	1486		52, 57, 61, 70.4, 77	113P-D280S4	1555	1530	1986
	32.4	103P-180L4	611	600	777		99.5	112P-280S4	1405	1380	1836
	31, 35, 39.5	103P-D180L4	611	600	777		117, 141, 157	112P-D280S4	1405	1380	1836
41	93P-180L4	499	498	662	125.0 (90)	175	112P-280S4	1405	1380	1836	
44.5, 47, 52.5, 57.5, 60	93P-D180L4	499	498	662		181, 197, 227, 248	112P-D280S4	1405	1380	1836	
61.5, 64	83P-180L4	394	398	476		48.6, 50, 53.6, 57, 63, 67, 77.4, 84.4	123P-D280M4	1975	1950	2406	
72, 84, 94	83P-D180L4	394	398	476		109	122P-280M4	1825	1800	2256	
99, 109, 124,	82P-180L4	369	366	444	40.0 (30)	129, 155, 172, 200, 216, 246, 272	122P-D280M4	1825	1800	2256	
129, 143, 161, 178,198, 231, 247, 288	82P-D180L4	369	366	444							
40.0 (30)	17.5	123P-200L4	1076	1051		1507					
	19, 21.5	123P-D200L4	1076	1051		1507					
	22, 26, 28.7, 30.6, 33, 35.7, 37, 41.4	113P-D200L4	1076	1051	1507						
	42, 46.4	103P-200L4	629	628	795						
	44.7, 45.6, 49, 56.4	103P-D200L4	629	628	795						
	64.5	93P-200L4	517	516	680						
	57.7, 68, 74, 84	93P-D200L4	517	516	680						

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.4

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			
			Foot	Flange	Agitator				Foot	Flange	Agitator	
0.33 (0.25)	0.63, 0.8	93C-43.1P-D71K4	337	336	500	0.75 (0.55)	11.0, 12.4, 13.5	53P-80K4	67	59	89	
	1.1	83C-32.1P-D71K4	215	218	297		14.7, 16.0	53P-D80K4	67	59	89	
	1.6, 2.0, 2.5	73C-32.1P-D71K4	155	140	192		18.5, 20.5, 22.8, 25.0, 26.5, 28.0	43P-D80K4	46	44	61	
	3.2, 3.6	63C-32.1P-D71K4	106	98	142		30, 31, 33, 34.5, 37, 38, 42, 43, 45.5, 48.5, 51, 54, 57, 66, 74	33P-D80K4	35	34	45	
	5.3, 6.0	53P-90S8	70	61	86		75, 84, 95, 103, 106	32P-D80L6	32	31	42	
	8.0, 9.3, 10.2	43P-D71K6	45	43	60		116, 130, 146, 159, 163, 183, 200, 204, 224, 257, 287	32P-D80K4	32	31	42	
	11.8, 12.6	43P-D71K4	40	38	55		291, 294, 315, 318, 325, 365, 400, 448, 513, 573	32P-D71L2	31	30	41	
	13.8	33P-D71K6	30	29	40		1.0 (0.75)	1.4	103C-42.1P-D80L4	458	447	624
	15, 16.5, 18.5, 20.5, 22.5, 24, 25, 28, 30, 31.5, 33, 36, 40, 41, 44, 47, 50, 53	33P-D71K4	30	29	40			2.0, 2.24	93C-42.1P-D80L4	346	345	509
	58, 60.5, 65, 75, 84	32P-D71K6	31	30	41			2.8, 3.6, 4.5	83C-32.1P-D80L4	232	236	304
87, 90, 97, 112, 119, 125, 142, 152, 154, 158, 176, 194, 196, 216, 248, 277	32P-D71K4	27	26	27	5.3, 5.8	83P-100L8		218	222	300		
0.5 (0.37)	0.63, 0.9	103C-43.1P-D71L4	455	444	618	6.6		73P-D100L8	154	141	194	
	1.1, 1.6	93C-42.1P-D71L4	334	333	497	8.2, 9.0		73P-D90S6	141	128	189	
	1.8, 2.24, 2.5	83C-32.1P-D71L4	215	218	297	9.8, 10.8		63P-80L4	*	*	130	
	3.2, 3.6, 4.0	73C-32.1P-D71L4	155	140	192	12.0, 15.0		63P-D80L4	*	*	130	
	5.5, 6.0	63P-80K6	96	85	128	13.4, 16.3		63P-D80L4	98	87	130	
	6.3	53P-80K6	67	59	90	18.5, 23.2		53P-D80L4	69	61	92	
	6.9, 7.8, 8.4	53P-80K6	*	*	90	19.3, 20.0	53P-D80L4	*	*	92		
	9.2	53P-D80K6	67	59	90	25.0	43P-80L4	*	*	63		
	10.4, 11.4	43P-D80K6	*	*	61	28, 36, 39.5	43P-D80L4	48	46	63		
	12, 13	43P-D71L4	41	39	56	26.3, 29, 31, 32.5, 33.6, 34.2	43P-D80L4	*	*	63		
	14, 15	43P-D71L4	*	*	56	42, 43, 54, 65	33P-D80L4	37	36	47		
	16.6, 18.5, 23, 27, 36, 37, 39, 41, 42, 44, 46, 56, 60, 64	33P-D71L4	30	29	40	48, 51, 57, 60, 73, 77, 82	33P-D80L4	*	*	47		
	21, 24, 25, 29, 30, 32, 33, 34, 48.5, 50, 53, 72, 76	33P-D71L4	*	*	40	83, 89, 93	32P-80L4	34	33	44		
	82, 88, 92, 113, 121, 128, 160, 180, 197, 200, 220, 252, 282	32P-D71L4	27	26	37	98	32P-80L4	*	*	44		
	99, 144, 155	32P-D71L4	*	*	37	115, 129, 162, 181, 200, 202, 223, 255	32P-D80L4	34	33	44		
	290, 313	32P-D71K2	*	*	37	145, 158, 285	32P-D80L4	*	*	44		
	316, 324, 325, 363, 400, 445, 510, 570	32P-D71K2	27	26	37	296	32P-D80K2	*	*	44		
	0.75 (0.55)	1.1	103C-42.1P-D80K4	456	445	622	1.5 (1.1)	2.24	103C-42.1P-90S4	460	449	626
		1.6, 2.0	93C-42.1P-D80K4	338	337	501		3.2	103C-42.1P-D90S4	460	449	626
		2.5, 3.2, 4.0	83C-32.1P-D80K4	231	234	302		3.6	93C-42.1P-D90S4	348	347	511
4.5		73C-32.1P-D80K4	168	155	195	4.5		93C-42.1P-90S4	348	347	511	
6.0, 6.7		73P-D90L8	147	134	187	5.0, 5.6		83C-32.1P-D90S4	234	238	306	
7.0, 8.0		63P-80L6	99	88	132	6.5, 7.2		83P-D100L8	221	224	303	
8.9, 9.7		63P-80K4	97	86	130	8.0		83P-90L6	208	211	290	
						9.0, 10.0,		73P-D90L6	144	131	184	
						12.4		73P-D90S4	144	131	184	

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.4

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			
			Foot	Flange	Agitator				Foot	Flange	Agitator	
1.5 (1.1)	13.4, 14.7, 16.0	63P-90S4	100	89	132	3.0 (2.2)	11.0	83P-100L4	*	224	303	
	15.3, 17.0, 18.5, 20.8	63P-D90S4	100	89	132		12.2	83P-100L4	221	224	303	
	23, 25, 25.8, 28, 30, 32.6, 33.5, 36.4	53P-D90S4	71	63	94		14	73P-D100L4	*	*	196	
	41.8	43P-90S4	51	49	66		16.7, 17.3	73P-D100L4	156	143	196	
	40, 44, 46.4, 51, 56.3, 58, 64	43P-D90S4	51	49	66		21, 25, 29.4, 30.7, 34.5	63P-D100L4	*	*	147	
	66, 74, 78	33P-D90S4	39	38	49		23, 28, 36, 37.7, 41	63P-D100L4	115	104	147	
	85, 90, 95, 101, 116, 124	32P-90S4	36	35	46		42, 46, 52.6, 65.5, 71	53P-D100L4	86	78	109	
	131, 147, 164, 184, 202, 226, 259, 289	32P-D90S4	36	35	46		48.4, 50	53P-D100L4	*	*	109	
	298, 324, 333, 373, 409, 415, 457, 524, 585	32P-D80L2	34	33	44		60	53P-100L4	*	*	109	
2.0 (1.5)	3.0	103C-42.1P-D90L4	464	453	630	3.0 (2.2)	74, 105	43P-D100L4	*	*	80	
	4.0, 5.4	93C-42.1P-D90L4	352	351	515		83	43P-D100L4	65	63	80	
	6.0, 7.0	83P-112M8	233	236	315		90, 112	42P-100L4	61	59	76	
	7.9	83P-100L6	*	224	303		101	42P-100L4	*	*	76	
	9.2	83P-100L6	221	224	303		124, 138	42P-D100L4	61	59	76	
	10.2	83P-D100L6	*	*	303		154	42P-100L4	*	*	76	
	10.9, 12.0	83P-90L4	*	*	282		162, 204, 207, 262	32P-100L4	53	52	63	
	13.6, 16.4, 17.0	73P-D90L4	144	131	184		166, 186, 228	32P-D100L4	53	52	63	
	15.0	73P-D90L4	*	*	184		292	32P-D100L4	*	*	63	
	17.8	63P-90L4	104	93	136		298	32P-D90L2	*	*	61	
	18.7, 22.4, 27	63P-D90L4	104	93	136		5.0 (3.7)	333, 373, 409, 457, 524, 585	32P-D90L2	51	50	61
	20.4, 24.5, 29	63P-D90L4	*	*	136			6.5, 7.1	103C-52.1P-D112M4	503	492	668
	30, 32.5, 33.4, 49	53P-D90L4	*	*	98			9.0	103P-160M8	526	515	692
	36.3, 40, 44, 46.4	53P-D90L4	75	67	98			9.6	93P-160M8	*	413	577
	51	43P-D90L4	*	*	70			10.4	93P-132S6	*	372	536
	56, 57, 64, 66	43P-D90L4	55	53	70	12.6		93P-132S6	373	372	536	
	59.6	43P-90L4	*	*	70	13.7		93P-D132S6	373	372	536	
	70, 78.3, 90	42P-90L4	50	48	65	15.7		93P-D112M4	*	342	516	
	73.5, 96, 100	42P-90L4	*	*	65	17.0		83P-112M4	235	238	317	
	110	42P-D90L4	50	48	65	18.2, 21.4, 22.5		83P-D112M4	235	238	317	
	116, 124	32P-90L4	40	39	50	19.4, 20		83P-D112M4	*	238	317	
	131, 164, 184, 201, 225, 258	32P-D90L4	40	39	50	25		83P-D112M4	*	*	317	
	146, 288	32P-D90L4	*	*	50	29	73P-112M4	*	*	210		
	297	32P-D90S2	*	*	46	30, 32	73P-D112M4	*	*	210		
	331, 371, 408, 456, 522, 583	32P-D90S2	36	33	46	35.3	73P-112M4	170	157	210		
	3.0 (2.2)	4.5	103C-42.1P-D100L4	475	464	641	37, 40	73P-D112M4	170	157	210	
		6.5	93C-42.1P-D100L4	363	362	526	43, 45, 54.8, 67, 71	63P-D112M4	129	118	161	
7.8		93P-132S8	*	357	521	49, 59	63P-D112M4	*	*	161		
8.0		83P-112M6	*	239	317	75, 96	53P-D112M4	*	*	123		
8.8		83P-D112M6	235	239	317	81	53P-112M4	100	92	123		
10.2		83P-D112M6	*	239	317	91	53P-D112M4	100	92	123		
					98	52P-112M4	*	*	117			
					114, 127, 140	52P-D112M4	87	86	117			
					155	52P-D112M4	*	*	117			

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.4

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
5.0 (3.7)	158, 196, 200, 248	42P-112M4	80	78	94	10.0 (7.5)	111, 120	62P-132M4	148	141	184
	170, 186, 217, 255, 274, 276, 326, 348, 412	42P-D112M4	80	78	94		122, 132	62P-D132M4	148	141	184
7.5 (5.5)	7.8, 8.2	113P-132M6	937	912	1368		148, 152	62P-D132M4	*	*	184
	9.1, 10.4	113P-D132M6	937	912	1368		167, 177, 182, 187, 196	62P-D132M4	148	141	184
	11	103P-D160M8	536	525	702		204, 225, 248, 276	52P-132M4	122	114	145
	12, 13.4	103P-D132M6	493	485	659		257	52P-D132M4	122	114	145
	14.8	103P-D132M6	*	485	659		305	52P-132M4	*	*	145
	15.9	93P-132S4	363	362	526		324, 361, 400	52P-132M4	122	114	145
	19.2	93P-132S4	*	362	526	348, 455	52P-D132M4	122	114	145	
	21	93P-D132S4	*	362	526	15.0 (11.0)	9.1	123P-160L6	997	972	1428
	21.6, 23, 28.2, 35.5, 39	83P-D132S4	253	256	335		10	123P-D160L6	997	972	1428
	25, 30, 32.8	83P-D132S4	*	256	335		12.5	113P-160M4	979	954	1410
	41	73P-D132S4	190	177	230		13.8, 15.8, 17.2, 19.4	113P-D160M4	979	954	1410
	44	73P-132S4	190	177	230		18.1	113P-160M4	979	954	1410
	48	73P-132S4	*	177	230		20.3, 22.5, 25	103P-D160M4	535	524	701
	50, 52	73P-D132S4	*	177	230		28.6, 33.5, 37	93P-D160M4	423	422	586
	53	73P-132S4	190	177	230		39.5, 46, 47, 52, 53.7, 58	83P-D160M4	318	315	400
	59, 61.5	73P-D132S4	190	177	230		61.5, 64	83P-160M4	318	315	400
	68, 81.4, 87	63P-D132S4	152	141	184		72	83P-D160M4	*	315	400
	71.6, 76.5	63P-D132S4	*	*	184		79	73P-D160M4	*	242	295
100	62P-132S4	*	*	172	80.5		73P-D160M4	255	242	295	
90.5, 111, 120,	62P-132S4	136	129	172	94		72P-160M4	*	228	281	
133, 137	62P-D132S4	136	129	172	107, 118, 134		72P-160M4	236	228	281	
149, 153	62P-D132S4	*	*	172	126		72P-D160M4	236	228	281	
157	52P-132S4	*	*	133	155		72P-D160M4	*	228	281	
162, 198, 257	52P-D132S4	110	102	133	158, 194, 229, 282, 291, 358		72P-D160M4	236	228	281	
174, 184, 204, 226, 249, 276	52P-132S4	110	102	133	20.0 (15.0)		11.5, 12.6, 14.2	123P-D180L6	1066	1041	1497
306	52P-132S4	*	*	133		15.7, 17.1, 19.3, 21.5, 23.2, 25.7, 26.5	113P-D160L4	1002	977	1433	
325, 362, 401	52P-132S4	110	102	133		28.3, 31, 32.2	103P-D160L4	558	547	724	
349, 456	52P-D132S4	110	102	133		33, 37, 45, 47, 52	93P-D160L4	446	445	609	
10.0 (7.5)	8.2	113P-160M6	972	947		1403	40	93P-160L4	446	445	609
	9, 10.4	113P-D160M6	972	947		1403	53.4, 57.5, 71.4, 83.2, 93	83P-D160L4	341	344	423
	10.6, 11.8	113P-132M4	937	912		1368	61, 64	83P-160L4	341	344	423
	13.4, 14.8, 16.3	103P-D160M6	528	517		694	98, 108	82P-160L4	316	313	391
	19	93P-132M4	375	374	538	128	82P-D160L4	316	313	391	
	21, 23.4, 28.2	93P-D132M4	375	374	538	133,170	72P-160L4	259	251	304	
	30, 32.7, 34.8	83P-D132M4	*	268	347	154, 157, 193, 227, 280, 289, 356	72P-D160L4	259	251	304	
	35.4, 39, 40.5, 45.4	83P-D132M4	265	268	347	25.0 (18.5)	14.3	123P-D200L6	1087	1062	1518
	50	73P-D132M4	*	189	242		15.2	123P-180M4	1024	999	1455
	53	73P-132M4	202	189	242		17.2, 19.4, 21.7, 25.8, 28.5, 30.4, 32.7, 35.5, 36.6	113P-D180M4	1024	999	1455
	61, 64.4, 82, 85	73P-D132M4	202	189	242						
	78	73P-D132M4	*	189	242						
101	73P-D132M4	*	*	242							

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.4

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
25.0 (18.5)	39.5, 44.4, 45.3, 49, 56	103P-D180M4	580	569	746	50.0 (37.0)	24, 28.6, 31.6, 33.7, 36.3, 39.3	123P-D225S4	1175	1150	1606
	41.6, 46	103P-180M4	580	569	746		41.4, 44, 45, 48.5, 51.7, 56.7, 60.3, 70	113P-D225S4	1175	1150	1606
	57.3, 60, 64, 67.5, 70	93P-D180M4	468	467	631		71, 72.4, 78.4, 82, 91.4, 101	103P-D225S4	730	719	896
	72, 84, 94	83P-D180M4	363	366	445		115, 116, 129, 130, 143, 162, 182, 205	93P-D225S4	627	626	790
	99, 109	82P-180M4	338	335	413						
	129, 143, 161, 178, 198, 230, 247, 287	82P-D180M4	338	335	413						
30.0 (22.0)	17.4	123P-D180L4	1055	1030	1486	60.0 (45.0)	31.6, 33.7, 36.3, 37, 39.3, 40.5	123P-D225M4	1215	1190	1646
	19.4, 21.7, 25.8, 26.7, 29, 30.4, 32.7, 33.4, 35.5, 36.6, 41	113P-D180L4	1055	1030	1486		44, 45, 48.5, 51.6, 56.7, 60.3, 70, 76	113P-D225M4	1215	1190	1646
	46	103P-180L4	611	600	777		99	112P-D225M4	1065	1040	1496
	44.4, 45.3, 49, 56, 58.2, 63	103P-D180L4	611	600	777		101	103P-D225M4	770	759	936
	64, 67.5, 70, 73, 74, 82	93P-D180L4	499	498	662		116, 129, 130, 143, 162, 182, 205	93P-D225M4	667	666	830
	84, 94	83P-D180L4	394	398	476	75.0 (55.0)	39.5, 40.7, 46, 48.5, 50, 53.5	123P-D250M4	1365	1340	1796
	99, 109, 124	82P-180L4	369	366	444		57, 60.5, 70, 76.5	113P-D250M4	1365	1340	1796
	129, 143, 161, 178, 198	82P-D180L4	369	366	444		99, 117, 141, 157, 174, 181, 196, 226, 247	112P-D250M4	1215	1190	1646
	231, 247, 288	82P-D180L4	369	366	444						
40.0 (30.0)	21.5, 24, 28.6	123P-D200L4	1076	1051	1057	100.0 (75.0)	57, 63, 67	123P-D280S4	1555	1530	1986
	30.6, 33, 35.7, 37, 41.4, 44, 45, 48.5, 51.7	113P-D200L4	1076	1051	1057		70.4, 77	113P-D280S4	1555	1530	1986
	56.4, 58.6, 63.5, 71, 72.4, 78.4, 82	103P-D200L4	629	618	795		99.5	112P-280S4	1405	1380	1836
	90.5, 91, 95, 102, 107, 115, 116, 129, 130, 143	93P-D200L4	517	516	680		117, 141, 157	112P-D280S4	1405	1380	1836
							175	112P-280S4	1405	1380	1836
							181, 197, 227, 248	112P-D280S4	1405	1380	1836
	144, 153, 162, 178, 179, 191, 199, 222, 232, 248, 289	82P-200L4	390	387	465	125.0 (90.0)	67, 77.4, 84.4	123P-D280M4	1975	1950	2406
							109	122P-280M4	1825	1800	2256
						129, 155, 172, 200, 216, 246, 272	122P-D280M4	1825	1800	2256	

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.65

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
0.33 (0.25)	0.63	103C-43.1P-D71K4	455	444	621	0.75 (0.55)	10.8, 12.0	63P-D80K4	97	86	130
	0.8	93C-43.1P-D71K4	330	329	493		12.4, 13.5	53P-80K4	67	59	89
	1.1, 1.6, 2.0	83C-32.1P-D71K4	215	218	297		14.7, 16, 18, 19.5, 21	53P-D80K4	67	59	89
	2.5, 3.2, 3.6	73C-32.1P-D71K4	155	140	192		22.8, 25.0, 26.5, 28.0 29.0, 31.3, 33.0, 36.0	43P-D80K4	46	44	61
	5.2	63P-90S8	100	89	132		37, 38, 42, 43, 45.5, 48.5, 51, 54, 57, 66, 74	33P-D80K4	35	34	45
	6.0, 6.5	53P-90S8	70	61	86		75, 84, 95, 103, 106	32P-D80L6	32	31	42
	8.0	53P-D71K6	63	65	85		116, 130, 146, 159, 163, 183, 200, 204, 224, 257, 287	32P-D80K4	32	31	42
	9.5, 10.4	43P-D71K6	45	43	60		291, 294, 315, 318, 325, 365, 400, 448, 513, 573	32P-D71L2	31	30	41
	11.8, 12.6, 14.0, 16.0	43P-D71K4	40	38	55						
	18.5, 20.5, 22.5, 24, 25, 28, 30, 31.5, 33, 36, 40, 41, 44, 47, 50, 53	33P-D71K4	30	29	40						
58, 60.5, 65, 75, 84	32P-D71K6	31	30	41							
87, 90, 97, 112, 119, 125, 142, 152, 154, 158, 176, 194, 196, 216, 248, 277	32P-D71K4	27	26	27	1.0 (0.75)	2.0	103C-42.1P-D80L4	458	447	624	
						2.24, 2.8	93C-42.1P-D80L4	346	345	509	
						3.6, 4.5	83C-32.1P-D80L4	232	236	304	
						5.3, 5.8	83P-100L8	218	222	300	
						6.6	73P-D100L8	154	141	194	
						8.2, 9.0	73P-D90S6	141	128	189	
						10.0	73P-D90S6	*	*	189	
						10.8	63P-80L4	98	87	130	
						12.0, 15.0	63P-D80L4	*	*	130	
						13.4, 16.3, 18.3	63P-D80L4	98	87	130	
0.5 (0.37)	0.9	103C-43.1P-D71L4	445	444	618	19.3, 20.0, 25.4, 29.6	53P-D80L4	*	*	92	
	1.1, 1.6	93C-42.1P-D71L4	334	333	497	23.2, 27.6	53P-D80L4	69	61	92	
	1.8, 2.24, 2.5, 3.2	83C-32.1P-D71L4	215	218	297	31, 32.5, 33.6, 34.2	43P-D80L4	*	*	63	
	3.6, 4.0	73C-32.1P-D71L4	155	140	192	36, 39.5, 41.2, 45.5	43P-D80L4	48	46	63	
	5.5, 6.0, 6.8	63P-80K6	96	85	128	48, 51, 57, 60, 73, 77, 82	33P-D80L4	*	*	47	
	7.5	63P-D80K6	*	*	128	54, 65	33P-D80L4	37	36	47	
	7.8	53P-80K6	*	*	90	83, 89, 93	32P-80L4	34	33	44	
	8.4	53P-80K6	67	59	90	98	32P-80L4	*	*	44	
	9.2	53P-D80K6	*	*	90	115, 129, 162, 181, 200, 202, 223, 255	32P-D80L4	34	33	44	
	10.8, 13.2	53P-D71L4	63	65	85	145, 158, 285	32P-D80L4	*	*	44	
12.2	53P-D71L4	*	*	85	296	32P-D80K2	*	*	44		
14, 16.5, 18, 22.2	43P-D71L4	41	39	56	322, 330, 370, 406, 412, 454, 520, 581	32P-D80K2	34	33	44		
15, 20	43P-D71L4	*	*	56	1.5 (1.1)	2.24	103C-42.1P-90S4	460	449	626	
23, 27, 36, 37, 39, 41, 42, 44, 46, 53, 56, 60, 64	33P-D71L4	30	29	40		3.2	103C-42.1P-D90S4	460	449	626	
24, 25, 29, 30, 32, 33, 34, 48.5, 50, 72, 76	33P-D71L4	*	*	40		3.6	93C-42.1P-D90S4	348	347	511	
99, 144, 155	32P-D71L4	*	*	37		4.5, 5.0	93C-42.1P-90S4	348	347	511	
82, 88, 92, 113, 121, 128, 160, 180, 197, 200, 220, 252, 282	32P-D71L4	27	26	37		5.6	83C-32.1P-D90S4	234	238	306	
290, 313	32P-D71K2	*	*	37		6.5, 7.2	83P-D100L8	221	224	303	
316, 324, 325, 363, 400, 445, 510, 570	32P-D71K2	27	26	37		8.0	83P-90L6	208	211	290	
						8.8, 10.2	83P-D90L6	208	211	290	
						12.4, 13.7	73P-D90S4	144	131	184	
0.75 (0.55)	1.1	103C-42.1P-D80K4	456	455	622						
	1.6, 2.0	93C-42.1P-D80K4	338	337	501						
	2.5, 3.2, 4.0, 4.5	83C-32.1P-D80K4	231	234	302						
	6.0, 6.7	73P-D90L8	147	134	187						
	7.0, 8.0	63P-80L6	99	88	132						
	8.9, 9.7	63P-80K4	97	86	130						

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MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			
			Foot	Flange	Agitator				Foot	Flange	Agitator	
1.5 (1.1)	14.7, 16.0	63P-90S4	100	89	132	3.0 (2.2)	12.2	83P-100L4	221	224	303	
	15.3, 17.0, 18.5, 20.8, 22.5, 24.8	63P-D90S4	100	89	132		13.5, 17.3	83P-D100L4	221	224	303	
	28, 30, 32.6, 33.5, 36.4, 40, 41.6, 45.4, 49.3	53P-D90S4	71	63	94		15.0, 19.4	83P-D100L4	*	*	303	
	51, 56.3, 58, 64	43P-D90S4	51	49	66		21, 25, 26.4, 30, 32	73P-D100L4	*	*	196	
	66, 70	42P-90S4	46	44	61		28	73P-D100L4	156	143	196	
	74, 78	33P-D90S4	39	38	49		34.5	63P-D100L4	*	*	147	
	85, 90, 95, 101, 116, 124	32P-90S4	36	35	46		36, 37.7, 41, 43, 45	63P-D100L4	115	104	147	
	131, 147, 164, 184, 202, 226, 259, 289	32P-D90S4	36	35	46		48, 49	63P-D100L4	*	*	147	
	298, 324, 333, 373, 409, 415, 457, 524, 585	32P-D80L2	34	33	44		50, 52.6, 58	53P-D100L4	*	*	109	
	2.0 (1.5)	3.0, 4.0	103C-42.1P-D90L4	464	453		630	60	53P-100L4	*	*	109
5.4, 6.0		93C-42.1P-D90L4	352	351	515	65.5, 71	53P-D100L4	86	78	109		
7.0		83P-112M8	233	236	315	73.5, 75	53P-D100L4	*	*	109		
7.9		83P-100L6	*	224	303	80	52P-100L4	73	72	113		
9.2		83P-100L6	221	224	303	98	52P-100L4	*	*	113		
10.2		83P-D100L6	*	*	303	101	42P-100L4	*	*	76		
10.9		83P-90L4	*	*	282	112	42P-100L4	61	59	76		
12.0		83P-90L4	200	203	282	124, 138	42P-D100L4	61	59	76		
13.3		83P-D90L4	200	203	282	154	42P-100L4	*	*	76		
14.7		83P-D90L4	*	*	282	170, 176, 186, 216	42P-D100L4	61	59	76		
16.4, 17.0, 21.6		73P-D90L4	144	131	184	200	42P-100L4	61	59	76		
20.0		73P-D90L4	*	*	184	228	32P-D100L4	53	52	63		
22.4, 27, 37		63P-D90L4	104	93	136	262	32P-100L4	53	52	63		
24.5, 29, 32, 34		63P-D90L4	*	*	136	292	32P-D100L4	*	*	63		
40, 44, 46.4		53P-D90L4	75	67	98	298	32P-D90L2	*	*	61		
49, 52, 57, 59, 63		53P-D90L4	*	*	98	333, 373, 409, 457, 524, 585	32P-D90L2	51	50	61		
66, 81		43P-D90L4	55	53	70	5.0 (3.7)	7.8	113P-D160M8	972	947	1403	
73		43P-D90L4	*	*	70		9.0	103P-160M8	526	515	692	
90		42P-90L4	50	48	65		10.0, 11.0	103P-D160M8	*	515	692	
96, 100		42P-90L4	*	*	65		13.7	93P-D132S6	373	372	536	
110, 122, 137		42P-D90L4	50	48	65		15.7, 19	93P-D112M4	*	342	516	
115		42P-90L4	50	48	65		19.4, 20	83P-D112M4	*	238	317	
146		32P-D90L4	*	*	50		21.4, 22.5, 28	83P-D112M4	235	238	317	
164, 184, 201, 225, 258		32P-D90L4	40	39	50		25, 29.7, 32.5	83P-D112M4	*	*	317	
288		32P-D90L4	*	*	50		35.3	73P-112M4	170	157	210	
297		32P-D90S2	*	*	46		37, 40, 44, 47, 54.3	73P-D112M4	170	157	210	
331, 371, 408, 456, 522, 583		32P-D90S2	36	33	46		50	73P-D112M4	*	*	210	
3.0 (2.2)		4.5, 6.5	103C-42.1P-D100L4	475	464		641	59, 71	63P-D112M4	*	*	161
		7.8, 9.5	93P-132S8	*	357		521	67	63P-D112M4	129	118	161
		11.0	83P-100L4	*	224		303	80, 90, 110, 121	62P-D112M4	118	112	154
							127, 140, 160, 172, 182	52P-D112M4	87	86	117	
							155	52P-D112M4	*	*	117	

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RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.65

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			
			Foot	Flange	Agitator				Foot	Flange	Agitator	
5.0 (3.7)	196, 200, 248	42P-112M4	80	78	94	10.0 (7.5)	276	52P-132M4	122	114	145	
	217, 255, 274, 276, 326, 348, 412	42P-D112M4	80	78	94		305	52P-132M4	*	*	145	
7.5 (5.5)	7.8, 8.2	113P-132M6	937	912	1368		15.0 (11.0)	324, 361, 400	52P-132M4	122	114	145
	9.1, 10.4, 11.3	113P-D132M6	937	912	1368			348, 455	52P-D132M4	122	114	145
	12, 13.4, 16.3	103P-D132M6	493	485	659	9.1		123P-160L6	997	972	1428	
	14.8	103P-D132M6	*	485	659	10		123P-D160L6	997	972	1428	
	19.2	93P-132S4	*	362	526	12.5, 18.1, 21.2		113P-160M4	979	954	1410	
	21, 25.4	93P-D132S4	*	362	526	13.8, 15.8, 17.2, 19.4 23.4		113P-D160M4	979	954	1410	
	23.4	93P-D132S4	363	362	526	25, 28.5		103P-D160M4	535	524	701	
	30, 32.8	83P-D132S4	*	256	335	31, 40.5		93P-160M4	423	422	586	
	28.2, 35.5, 39, 40.7, 45.6	83P-D132S4	253	256	335	33.5, 37, 45, 47, 52.5		93P-D160M4	423	422	586	
	48	73P-132S4	*	177	230	53.7, 58		83P-D160M4	318	315	400	
	50, 52	73P-D132S4	*	177	230	61.5, 64		83P-160M4	318	315	400	
	53	73P-132S4	190	177	230	72		83P-D160M4	*	315	400	
	59, 64	73P-D132S4	190	177	230	84, 94		83P-D160M4	318	315	400	
	61.5	73P-D132S4	*	177	230	99		82P-160M4	*	290	368	
	72.5	73P-D132S4	*	*	230	109		82P-160M4	293	290	368	
	76.5	63P-D132S4	*	*	184	118, 134		72P-160M4	236	228	281	
	81.4, 87	63P-D132S4	152	141	184	126		72P-D160M4	236	228	281	
	100	62P-132S4	*	*	172	155		72P-D160M4	*	228	281	
	111, 120	62P-132S4	136	129	172	158, 194, 229, 282,		72P-D160M4	236	228	281	
	133, 137	62P-D132S4	136	129	172	291		72P-D160M4	*	228	281	
	149, 153	62P-D132S4	*	*	172	358	72P-D160M4	236	228	281		
	168, 170, 178, 182, 187,196, 201, 209,219	62P-D132S4	136	129	172	20.0 (15.0)	12.6, 14.2	123P-D180L6	1066	1041	1497	
	226, 249	52P-132S4	110	102	133		15.7, 17.1, 19.3, 21.5, 23.2, 25.7, 26.5, 28.4, 30.2, 32.5, 35, 36.5	113P-D160L4	1002	977	1433	
	257	52P-D132S4	110	102	133		39.3, 41.3, 44, 45, 46, 48.5	103P-D160L4	558	547	724	
	306	52P-132S4	*	*	133		52, 57, 60, 63.6, 67, 70	93P-D160L4	446	445	609	
	276, 325, 362, 401	52P-132S4	110	102	133		71.4, 83.2, 93	83P-D160L4	341	344	423	
	349, 456	52P-D132S4	110	102	133		98, 108	82P-160L4	316	313	391	
	10.0 (7.5)	8.2	113P-160M6	972	947		1403	128, 142, 160	82P-D160L4	316	313	391
9, 10.4		113P-D160M6	972	947	1403		170	72P-160L4	259	251	304	
10.6, 11.8, 12.4		113P-132M4	937	912	1368		193, 227, 280, 289, 356	72P-D160L4	259	251	304	
13.6, 15.6, 17		113P-D132M4	937	912	1368		25.0 (18.5)	19, 21.3, 24	123P-D180M4	1024	999	1455
18, 20, 22.2, 24.5		103P-D132M4	493	485	659			28.5, 30.4, 32.7, 35.5, 36.6	113P-D180M4	1024	999	1455
28.2, 33, 36.6		93P-D132M4	375	374	538			41.6, 46	103P-180M4	580	569	746
39, 40.5, 45.4, 53, 57		83P-D132M4	265	268	347	44.4, 45.3, 49, 56, 58, 63		103P-D180M4	580	569	746	
51, 60.6		83P-D132M4	*	268	347	64, 67.5, 70, 73, 82, 84, 90.5		93P-D180M4	468	467	631	
64.4, 82, 85		73P-D132M4	202	189	242	94		83P-D180M4	363	366	445	
78, 101		73P-D132M4	*	189	242	99, 109		82P-180M4	338	335	413	
106, 125, 132		72P-D132M4	194	186	239							
148, 152		62P-D132M4	*	*	184							
167, 177, 182, 187, 196, 200, 208, 219, 224, 249, 269		62P-D132M4	148	141	184							

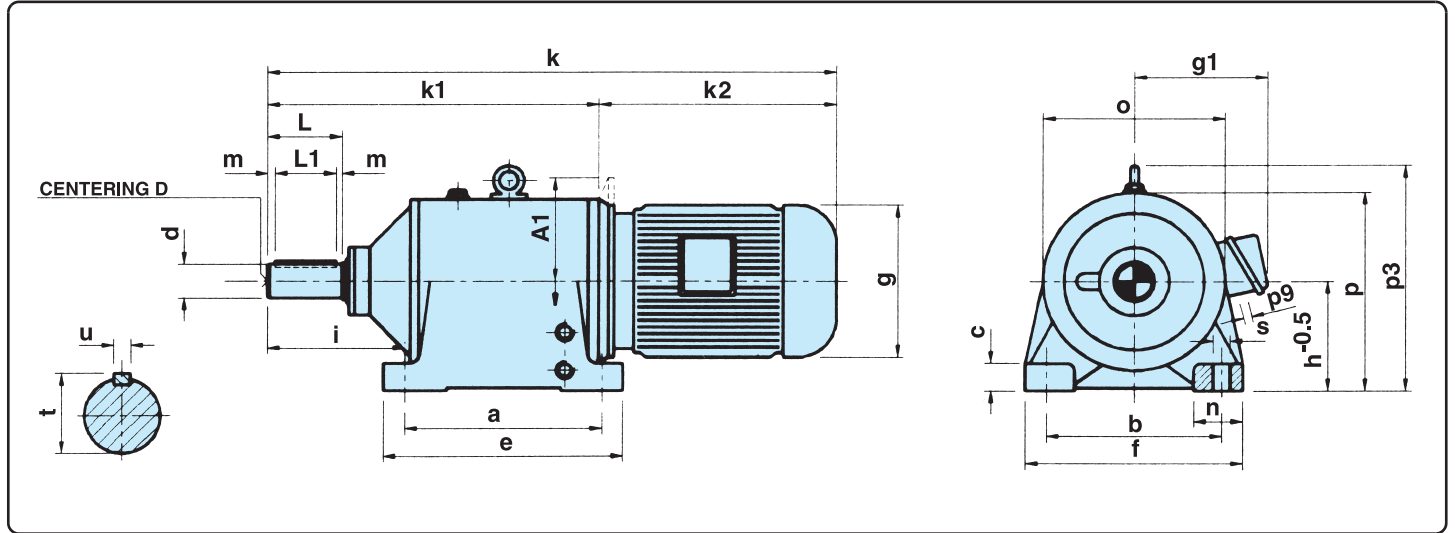
* FOR ITEMS MARKED *, PLEASE REFER TO WORKS.
ITEMS PRINTED IN BOLD ARE NON-STANDARD AND DELIVERY MAY BE ASCERTAINED.

RATING TABLE OF GEARED MOTOR SERVICE FACTOR 1.65

MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)			MOTOR HP/(KW)	Output Speed (R.P.M.)	Type	WEIGHT (Kg.)		
			Foot	Flange	Agitator				Foot	Flange	Agitator
25.0 (18.5)	129, 143, 161, 178, 198, 230, 247, 287	82P-D180M4	338	335	413	50.0 (37.0)	101, 116	103P-D225S4	730	719	896
							129, 130, 143, 162, 182, 205	93P-D225S4	627	626	790
30.0 (22.0)	19, 21.3, 24	123P-D180L4	1055	1030	1486	60.0 (45.0)	36.3, 37, 39.3, 40.5 45.5, 48.3	123P-D225M4	1215	1190	1646
	25.8, 26.7, 29, 30.4, 32.7, 33.4, 35.5, 36.6, 41, 44, 45, 48, 51.3	113P-D180L4	1055	1030	1486		51.6, 56.7, 60.3, 70,76	113P-D225M4	1215	1190	1646
	56, 58.2, 63, 71	103P-D180L4	611	600	777		99	112P-D225M4	1065	1040	1496
	73, 74, 82, 84, 90.5, 94.4, 102, 106, 115	93P-D180L4	499	498	662		101, 116	103P-D225M4	770	759	936
	129, 143, 161, 178, 198	82P-D180L4	369	366	444		162, 182, 205	93P-D225M4	667	666	830
	231, 247, 288	82P-D180L4	369	366	444		75.0 (55.0)	48.5, 50, 53.5, 57, 63, 66.5	123P-D250M4	1365	1340
	31.6, 32.2, 33.7	123P-D200L4	1076	1051	1057	70, 76.5		113P-D250M4	1365	1340	1796
40.0 (30.0)	35.7, 37, 41.4, 44, 45, 48.5, 51.7, 56.7, 60.3, 70	113P-D200L4	1076	1051	1057	100.0 (75.0)	99, 117, 141, 157, 174, 181, 196, 226, 247	112P-D250M4	1215	1190	1646
	71, 72.4, 78.4, 82, 91.3, 101	103P-D200L4	629	628	795		67, 77.4, 84.4	123P-D280S4	1555	1530	1986
	102, 107, 115, 116, 129,130,143, 162, 182	93P-D200L4	517	516	680		99.5	112P-280S4	1405	1380	1836
	191, 199, 222, 232, 248, 289	82P-200L4	390	387	465		117, 141, 157	112P-D280S4	1405	1380	1836
							175	112P-280S4	1405	1380	1836
							181, 197, 227, 248	112P-D280S4	1405	1380	1836
50.0 (37.0)	36.3, 37, 39.3, 40.5, 45.5, 48.3	123P-D225S4	1175	1150	1606	125.0 (90.0)	77.4, 84.4	123P-D280M4	1975	1950	2406
	51.7, 56.7,60.3, 70, 76	113P-D225S4	1175	1150	1606		109	122P-280M4	1825	1800	2256
	99	112P-D225S4	1025	1000	1456		129, 155, 172, 200, 216, 246, 272	122P-D280M4	1825	1800	2256

* FOR ITEMS MARKED *, PLEASE REFER TO WORKS.
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FOOT MOUNTED GEARED MOTORS



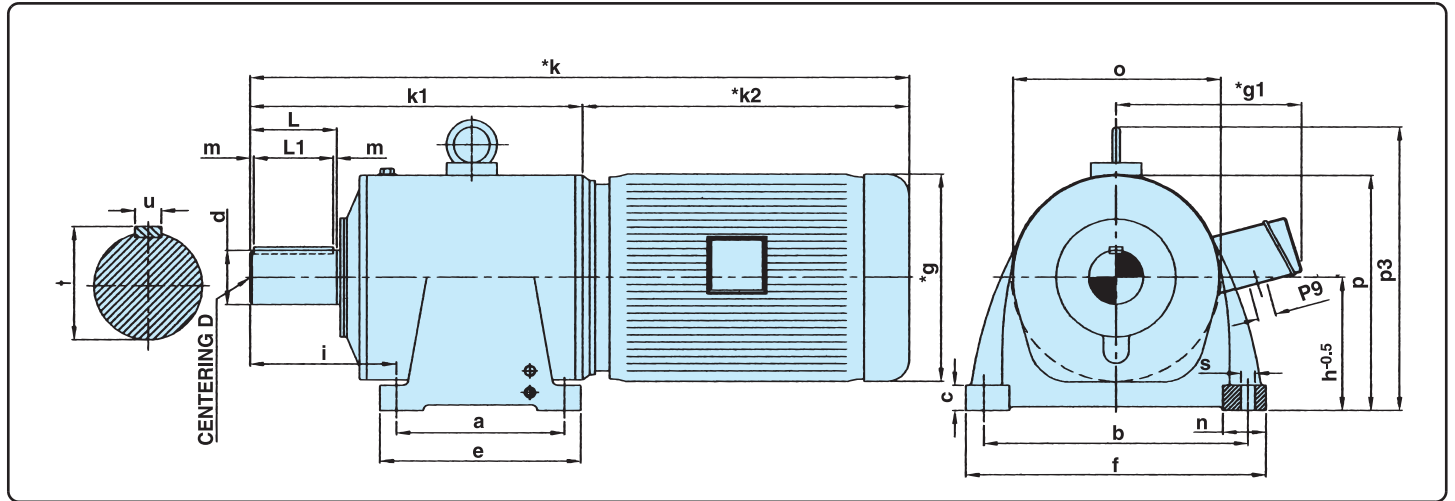
PRINCIPAL DIMENSIONS

TYPE	a	b	c	e	f	n	s	g	g1	h	i	k	k1	k2	o	p	p3	p9	A1	d	L	L1	m	t	u	D
32P—71								139	105			460		243					—							
80								157	112			484		267					—							
90S	140	140	22	170	180	40	11.5	181	148	100	88	499	217	282	160	180		13.5	—	25 ^{k6}	60	50	5	27.9	8	M8
90L								181	148			524		307					—							
100L								202	163			561		344					—							
33P—71								139	105			492		243					—							
80								157	112			516		267					—							
90S	170	140	22	200	180	40	11.5	181	148	100	88	531	249	282	160	180		13.5	—	25 ^{k6}	60	50	5	27.9	8	M8
90L								181	148			556		307					—							
100L								202	163			593		344					—							
42P—71								139	105			498		239					—							
80								157	112			521		262					—							
90S	165	180	28	200	220	50	14	181	148	112	110	536	259	277	190	207		13.5	—	32 ^{k6}	80	70	5	35.3	10	M12
90L								181	148			561		302					—							
100L								202	163			597		338					—							
112M								227	177			619		360					—							
43P—71								139	105			537		239					—							
80								157	112			560		262					—							
90S	200	180	28	235	220	50	14	181	148	112	110	575	298	277	190	207		13.5	—	32 ^{k6}	80	70	5	35.3	10	M12
90L								181	148			600		302					—							
100L								202	163			636		338					—							
112M								227	177			658		360					—							
52P—71								139	105			553		237					—							
80								157	112			573		257					—							
90S	200	205	30	240	250	56	18	181	148	132	142	588		272					—							
90L								181	148			613	316	297	220	242	285	13.5	—	40 ^{k6}	110	100	5	43.1	12	M16
100L								202	163			646.5		330.5					—							
112M								227	177			668.5		352.5					—							
132S								267	207			735		419					—							
132M								267	207			773		457					—							
53P—71								139	105			592		237					—							
80								157	112			612		257					—							
90S	240	205	30	280	250	56	18	181	148	132	142	627		272					—							
90L								181	148			652	355	297	220	242	285	13.5	—	40 ^{k6}	110	100	5	43.1	12	M16
100L								202	163			685.5		330.5					—							
112M								227	177			707.5		352.5					—							
132S								267	207			774		419					—							
132M								267	207			812		457					—							
62P—80								157	112			610		255					—							
90S								181	148			617		262					—							
90L								181	148			642		287					—							
100L	230	250	40	280	310	70	23	202	163	160	150	678.5	355	323.5	260	290	340	13.5	—	50 ^{k6}	110	100	5	53.5	14	M16
112M								227	177			700.5		345.5					—							
132S								267	207			762		407					—							
132M								267	207			800		445					—							
160M								324	225			903		548					—							
160L								318	255			951		596					—							

TYPE	a	b	c	e	f	n	s	g	g1	h	i	k	k1	k2	o	p	p3	p9	A1	d	L	L1	m	t	u	D																					
63P--80	280	250	40	330	310	70	23	157	112	160	150	660	405	255	260	290	340	13.5	—	50 ^{m6}	110	100	5	53.5	14	M16																					
90S								181	148			667		262					—																												
90L								181	148			692		287					—																												
100L								202	163			728.5		323.5					—																												
112M								227	177			750.5		345.5					—																												
132S								267	207			812		407					—																												
132M								267	207			850		445					21																												
160M								324	225			953		548					29																												
160L								318	255			1001		596					29																												
72P--90S	260	280	45	320	350	80	27	181	148	180	189	679	422	257	300	330	392	13.5	—	60 ^{m6}	140	125	7.5	64.2	18	M20																					
90L								181	148			704		282					—																												
100L								202	163			742.5		320.5					—																												
112M								227	177			764.5		342.5					—																												
132S								267	207			820		398					21																												
132M								267	207			858		436					29																												
160M								324	225			956		534					29																												
160L								318	255			1004		582					29																												
73P--90S								310	280			45		370					350								80	27	181	148	180	189	735	478	257	300	330	392	13.5	—	60 ^{m6}	140	125	7.5	64.2	18	M20
90L	181	148	760	282	—																																										
100L	202	163	798.5	320.5	—																																										
112M	227	177	820.5	342.5	—																																										
132S	267	207	876	398	21																																										
132M	267	207	914	436	29																																										
160M	324	225	1012	534	29																																										
160L	318	255	1060	582	29																																										
82P--90S	320	300	55	390	400	100	27			181	148		225		196	736	482	254		365	408	479	13.5	—	70 ^{m6}	140			125	7.5			74.6		20					M20							
90L								181	148	761	279	—																																			
100L								202	163	798	316	—																																			
112M								227	177	820	338	—																																			
132S								267	207	870	388	21																																			
132M								267	207	908	426	29																																			
160M								324	225	1007	525	29																																			
160L								318	255	1055	573	36																																			
180M								360	275	1077	595	36																																			
180L								360	275	1115	633	36																																			
200L								408	316	1163	681	36																																			
83P--90S								380	300	55	450	400		100		27		181	148					225			196	804			550	254		365		408	479	13.5	—		70 ^{m6}	140	125	7.5	74.6	20	M20
90L																		181	148									829				279							—								
100L	202	163	866	316	—																																										
112M	227	177	888	338	—																																										
132S	267	207	938	388	21																																										
132M	267	207	976	426	29																																										
160M	324	225	1075	525	29																																										
160L	318	255	1123	573	36																																										
180M	360	275	1145	595	36																																										
180L	360	275	1183	633	36																																										
200L	408	316	1231	681	36																																										
93P--112M	440	390	55	530	490	110	33						227		177		250	236	972	644	328	420	460		531	21		—	90 ^{m6}	180		160	10		95.3				25	M24							
132S													267		207				1027		383							—																			
132M								267	207	1065	421	—																																			
160M								324	225	1164	520	—																																			
160L								318	255	1212	568	—																																			
180M								360	275	1234	590	—																																			
180L								360	275	1272	628	—																																			
200L								408	316	1320	676	—																																			
225S								456	335	1347	703	36																																			
225M								456	335	1372	728	36																																			
103P--132S								480	425	65	580	540	125	35	267	207			280		270			1100			719	381			460			510		600	21	—			100 ^{m6}	210	200	5	106.1	28	M24
132M	267	207	1138	419	—																																										
160M	324	225	1236	517	—																																										
160L	318	255	1284	565	—																																										
180M	360	275	1306	587	—																																										
180L	360	275	1344	625	—																																										
200L	408	316	1390	671	—																																										
225S	456	335	1418	699	—																																										
225M	456	335	1443	724	—																																										

Note : Dimensions given above are for gears without holdback and brake.
Dimensions g, g1, k and k2 may vary as per make of the motor.

FOOT MOUNTED GEARED MOTORS

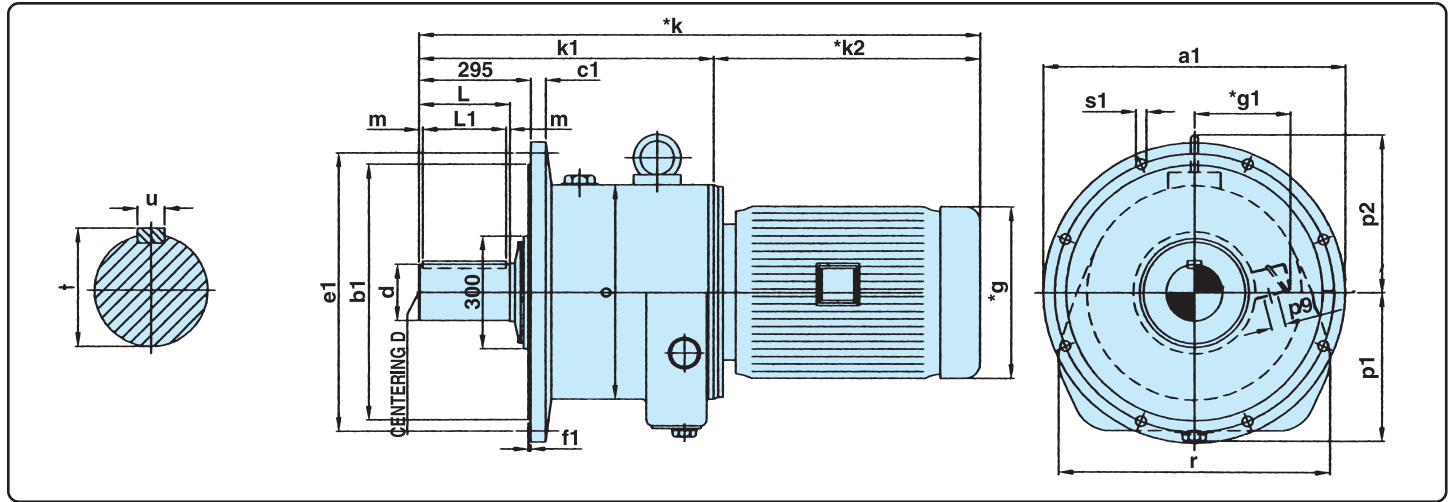


PRINCIPAL DIMENSIONS

TYPE	a	b	c	e	f	n	s	g	g1	h	i	k	k1	k2	o	p	p3	p9	d	L	L1	m	t	u	D
112P—132M								267	207			1187		407				21							
160M								324	225			1269		489				29							
160L								318	255			1317		537				29							
180M								360	275			1339		559				36							
180L								360	275			1377		597				36							
200L	325	730	70	415	830	120	39	408	316	370	405	1425	780	645	570	655	790	36	130 ^{m6}	240	220	10	136.9	32	M24
225S								456	335			1481		701				36							
225M								456	335			1506		726				36							
250M								518	428			1606		826				42							
280S								578	513			1685		905				42							
280M								578	513			1735		955				42							
113P—132M								267	207			1327		407				21							
160M								324	225			1409		489				29							
160L								318	255			1457		537				29							
180M								360	275			1479		559				36							
180L								360	275			1517		597				36							
200L	465	730	70	555	830	120	39	408	316	370	405	1565	920	645	570	655	790	36	130 ^{m6}	240	220	10	136.9	32	M24
225S								456	335			1621		701				36							
225M								456	335			1646		726				36							
250M								518	428			1746		826				42							
280S								578	513			1825		905				42							
280M								578	513			1875		955				42							
122P—132M								267	207			1187		407				21							
160M								324	225			1269		489				29							
160L								318	255			1317		537				29							
180M								360	275			1339		559				36							
180L								360	275			1377		597				36							
200L	325	730	70	415	830	120	39	408	316	370	405	1425	780	645	570	655	790	36	150 ^{m6}	240	220	10	157.7	36	M30
225S								456	335			1481		701				36							
225M								456	335			1506		726				36							
250M								518	428			1606		826				42							
280S								578	513			1685		905				42							
280M								578	513			1735		955				42							
123P—132M								267	207			1327		407				21							
160M								324	225			1409		489				29							
160L								318	255			1457		537				29							
180M								360	275			1479		559				36							
180L								360	275			1517		597				36							
200L	465	730	70	555	830	120	39	408	316	370	405	1565	920	645	570	655	790	36	150 ^{m6}	240	220	10	157.7	36	M30
225S								456	335			1621		701				36							
225M								456	335			1646		726				36							
250M								518	428			1746		826				42							
280S								578	513			1825		905				42							
280M								578	513			1875		955				42							

Note : Dimensions given above are for gears without holdback and brake.
 Dimensions g, g1, k and k2 may vary as per make of the motor.

FLANGE MOUNTED GEARED MOTORS

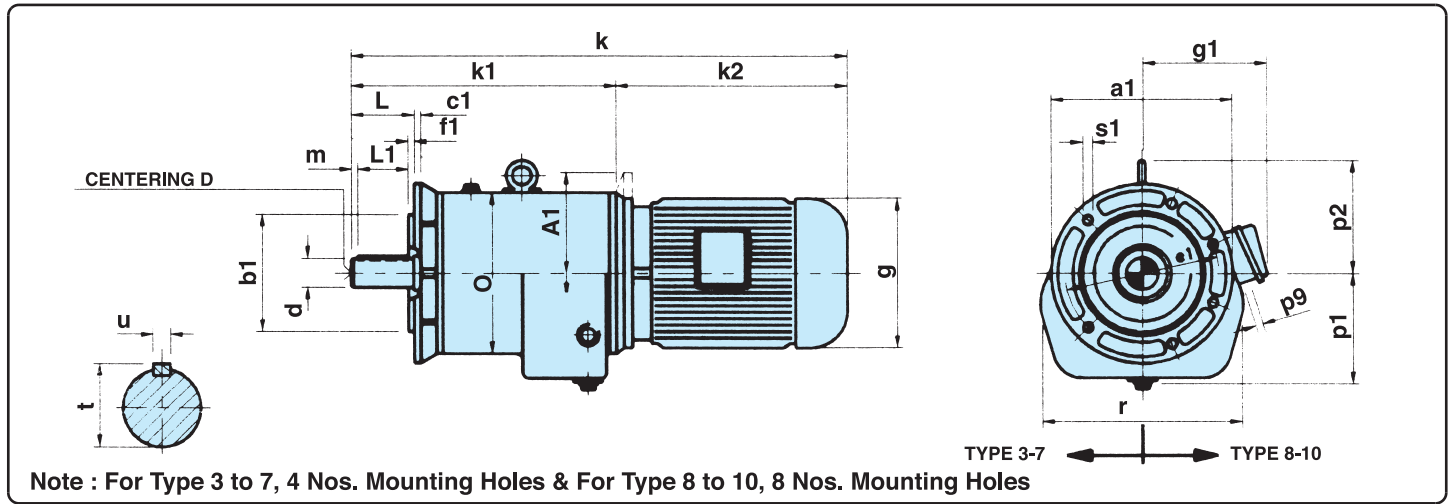


PRINCIPAL DIMENSIONS

TYPE	a1	b1	e1	s1	c1	f1	g	g1	k	k1	k2	o	p1	p2	r	p9	d	L	L1	m	t	u	D
112.1P—132M	800	680 ^{h6}	740	28	40	6	267	207	1187	780	407	570	395	420	720	21	130 ^{m6}	240	220	10	136.9	32	M24
160M							324	225	1269		489					29							
160L							318	255	1317		537					29							
180M							360	275	1339		559					36							
180L							360	275	1377		597					36							
200L							408	316	1425		645					36							
225S							456	335	1481		701					36							
225M							456	335	1506		726					36							
250M							518	428	1606		826					42							
280S							578	513	1685		905					42							
280M							578	513	1735		955					42							
113.1P—132M	800	680 ^{h6}	740	28	40	6	267	207	1327	920	407	570	395	420	720	21	130 ^{m6}	240	220	10	136.9	32	M24
160M							324	225	1409		489					29							
160L							318	255	1457		537					29							
180M							360	275	1479		559					36							
180L							360	275	1517		597					36							
200L							408	316	1565		645					36							
225S							456	335	1621		701					36							
225M							456	335	1646		726					36							
250M							518	428	1746		826					42							
280S							578	513	1825		905					42							
280M							578	513	1875		955					42							
122.1P—132M	800	680 ^{h6}	740	28	40	6	267	207	1187	780	407	570	395	420	720	21	150 ^{m6}	240	220	10	157.7	36	M30
160M							324	225	1269		489					29							
160L							318	255	1317		537					29							
180M							360	275	1339		559					36							
180L							360	275	1377		597					36							
200L							408	316	1425		645					36							
225S							456	335	1481		701					36							
225M							456	335	1506		726					36							
250M							518	428	1606		826					42							
280S							578	513	1685		905					42							
280M							578	513	1735		955					42							
123.1P—132M	800	680 ^{h6}	740	28	40	6	267	207	1327	920	407	570	395	420	720	21	150 ^{m6}	240	220	10	157.7	36	M30
160M							324	225	1409		489					29							
160L							318	255	1457		537					29							
180M							360	275	1479		559					36							
180L							360	275	1517		597					36							
200L							408	316	1565		645					36							
225S							456	335	1621		701					36							
225M							456	335	1646		726					36							
250M							518	428	1746		826					42							
280S							578	513	1825		905					42							
280M							578	513	1875		955					42							

Note : Dimensions given above are for gears without holdback and brake.
Dimensions g, g1, k and k2 may vary as per make of the motor.

FLANGE MOUNTED GEARED MOTORS



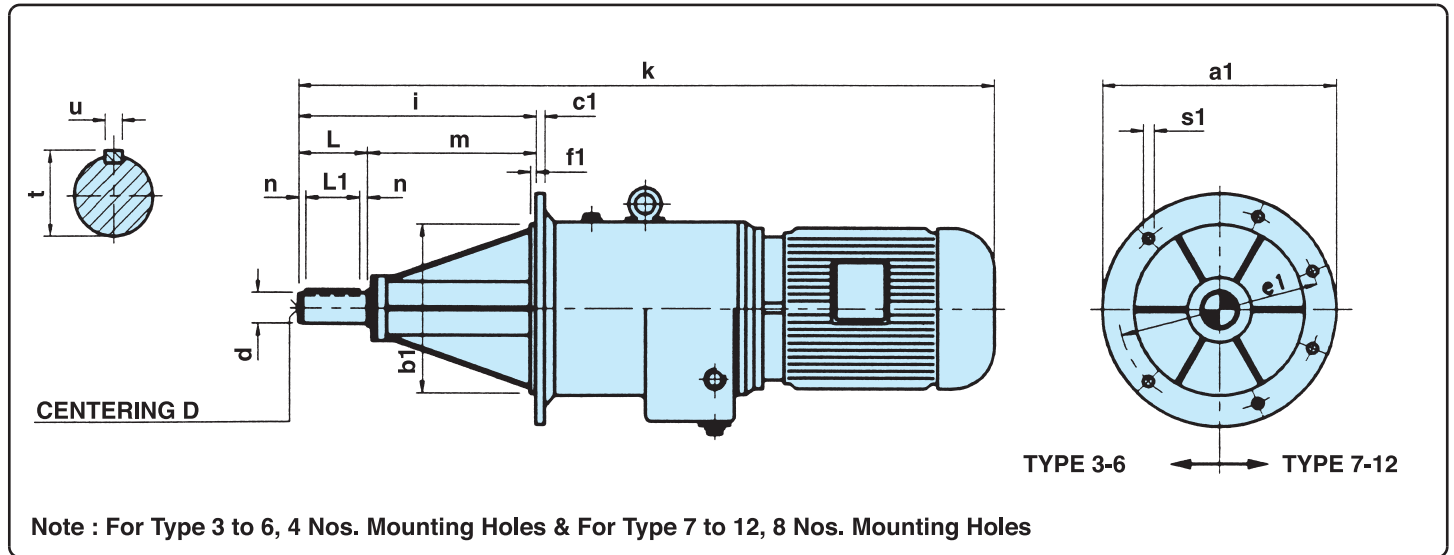
PRINCIPAL DIMENSIONS

TYPE	a1	b1	e1	s1	c1	f1	g	g1	k	k1	k2	o	p1	p2	r	p9	A1	d	L	L1	m	t	u	D
32.1P—71	160 or 200	110 ^{h6}	130	9.5	10	4	139	105	460	217	243	160	109	NO EYE BOLT	170	13.5	—	25 ^{k6}	60	50	5	27.9	8	M8
80		157	112	484	267																			
90S		181	148	499	282																			
90L		202	163	524	307																			
100L		202	163	561	344																			
33.1P—71	160 or 200	110 ^{h6}	130	9.5	10	4	139	105	492	249	243	160	109	NO EYE BOLT	170	13.5	—	25 ^{k6}	60	50	5	27.9	8	M8
80		157	112	516	267																			
90S		181	148	531	282																			
90L		202	163	556	307																			
100L		202	163	593	344																			
42.1P—71	200 or 250	130 ^{h6}	165	11.5	10	4	139	105	498	259	239	190	123	NO EYE BOLT	215	13.5	—	32 ^{k6}	80	70	5	35.3	10	M12
80		157	112	521	262																			
90S		181	148	536	277																			
90L		202	163	561	302																			
100L		227	177	597	338																			
112M	227	177	619	360																				
43.1P—71	200 or 250	130 ^{h6}	165	11.5	10	4	139	105	537	298	239	190	123	NO EYE BOLT	215	13.5	—	32 ^{k6}	80	70	5	35.3	10	M12
80		157	112	560	262																			
90S		181	148	575	277																			
90L		202	163	600	302																			
100L		227	177	636	338																			
112M	227	177	658	360																				
52.1P—71	250	180 ^{h6}	215	14	12	5	139	105	553	316	237	220	146	153	230	13.5	—	40 ^{k6}	110	100	5	43.1	12	M16
80							157	112	573		257													
90S							181	148	588		272													
90L							202	163	613		297													
100L							227	177	646.5		330.5													
112M							227	177	668.5		352.5													
132S							267	207	735		419													
132M	267	207	773	457																				
53.1P—71	250	180 ^{h6}	215	14	12	5	139	105	592	355	237	220	146	153	230	13.5	—	40 ^{k6}	110	100	5	43.1	12	M16
80							157	112	612		257													
90S							181	148	627		272													
90L							202	163	652		297													
100L							227	177	685.5		330.5													
112M							227	177	707.5		352.5													
132S							267	207	774		419													
132M	267	207	812	457																				
62.1P—80	250 or 300	180 ^{h6}	215	14	15	5	157	112	610	355	255	260	172	169	273	13.5	—	50 ^{k6}	110	100	5	53.5	14	M16
90S		181	148	617	262																			
90L		202	163	642	287																			
100L		227	177	678.5	323.5																			
112M		227	177	700.5	345.5																			
132S		267	207	762	407																			
132M		267	207	800	445																			
160M		324	225	903	548																			
160L		318	255	951	596																			

TYPE	a1	b1	e1	s1	c1	f1	g	g1	k	k1	k2	o	p1	p2	r	p9	A1	d	L	L1	m	t	u	D
63.1P—80 90S 90L 100L 112M 132S 132M 160M 160L	250 	180 ⁱ⁶ 	215 	14 	15 	5 	157 181 181 202 227 267 267 324 318	112 148 148 163 177 207 207 225 255	660 667 692 728.5 750.5 812 850 953 1001	405	255 262 287 323.5 345.5 407 445 548 596	260	172	169	273	13.5 	— — — — — — — — —	50 ^{k6}	110	100	5	53.5	14	M16
72.1P—90S 90L 100L 112M 132S 132M 160M 160L	350 	250 ^{h6} 	300 	18 	16 	6 	181 181 202 227 267 267 324 318	148 148 163 177 207 207 225 255	679 704 742.5 764.5 820 858 956 1004	422	257 282 320.5 342.5 398 436 534 582	300	194	212	315	13.5 	— — — — — — — — —	60 ^{m6}	140	125	7.5	64.2	18	M20
73.1P - 90S 90L 100L 112M 132S 132M 160M 160L	350 	250 ^{h6} 	300 	18 	16 	6 	181 181 202 227 267 267 324 318	148 148 163 177 207 207 225 255	735 760 798.5 820.5 876 914 1012 1060	478	257 282 320.5 342.5 398 436 534 582	300	194	212	315	13.5 	— — — — — — — — —	60 ^{m6}	140	125	7.5	64.2	18	M20
82.1P- 90S 90L 100L 112M 132S 132M 160M 160L 180M 180L 200L	450 	350 ^{h6} 	400 	18 	23 	6 	181 181 202 227 267 267 324 318 360 360 408	148 148 163 177 207 207 225 255 275 275 316	736 761 798 820 870 908 1007 1055 1077 1115 1163	482	254 279 316 338 388 426 525 573 595 633 681	365	239	254	390	13.5 	— — — — — — — — — — — 400	70 ^{m6}	140	125	7.5	74.6	20	M20
83.1P- 90S 90L 100L 112M 132S 132M 160M 160L 180M 180L 200L	450 	350 ^{h6} 	400 	18 	23 	6 	181 181 202 227 267 267 324 318 360 360 408	148 148 163 177 207 207 225 255 275 275 316	804 829 866 888 938 976 1075 1123 1145 1183 1231	550	254 279 316 338 388 426 525 573 595 633 681	365	239	254	390	13.5 	— — — — — — — — — — — 400	70 ^{m6}	140	125	7.5	74.6	20	M20
93.1P-112M 132S 132M 160M 160L 180M 180L 200L 225S 225M	450 	350 ^{h6} 	400 	18 	23 	6 	227 267 267 324 318 360 408 456 456	177 207 207 225 255 275 316 335 335	972 1027 1065 1164 1212 1234 1272 1320 1347 1372	644	328 383 421 520 568 590 628 676 703 728	420	267	281	450	21 	— — — — — — — — — — — 450 450	90 ^{m6}	180	160	10	95.3	25	M24
103.1P-132S 132M 160M 160L 180M 180L 200L 225S 225M	550 	450 ^{h6} 	500 	18 	28 	6 	267 267 324 318 360 408 456 456	207 207 225 255 275 316 335 335	1100 1138 1236 1284 1306 1344 1390 1418 1443	719	381 419 517 565 587 625 671 699 724	460	297	320	490	21 	— — — — — — — — — — — — —	100 ^{m6}	210	200	5	106.1	28	M24

Note : Dimensions given above are for gears without holdback and brake.
Dimensions g, g1, k and k2 may vary as per make of the motor.

AGITATOR TYPE GEARED MOTORS



PRINCIPAL DIMENSIONS

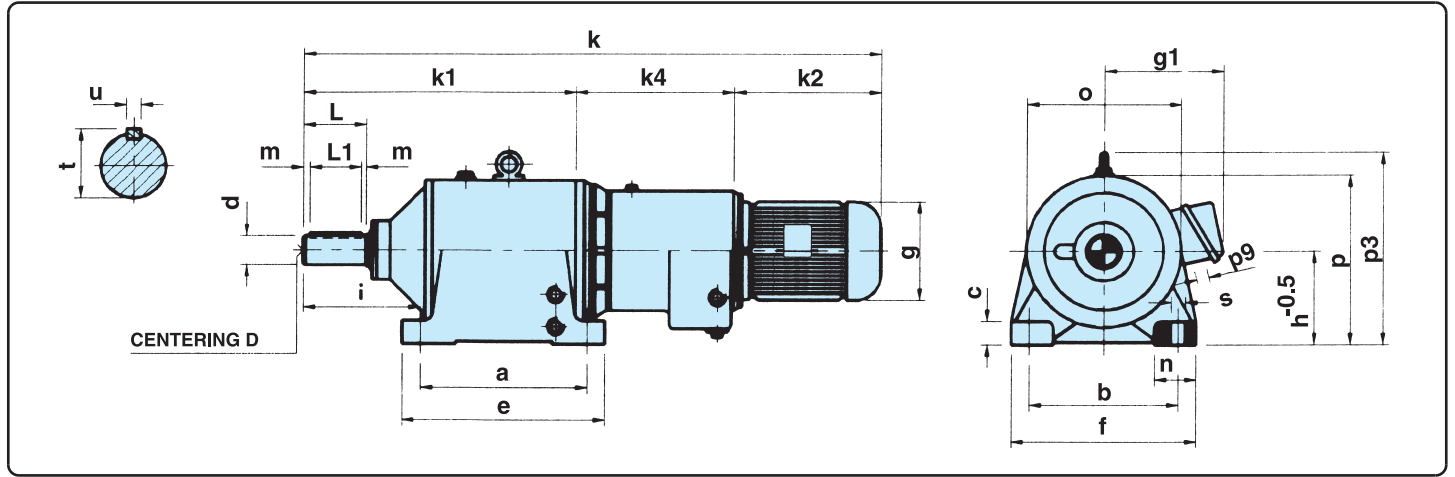
Type	a1	b1	e1	s1	c1	f1	m	i	k	d	L	L1	n	t	u	D
32,3P-71	250	180 ^{j6}	215	14	12	4	200	260	635	25 ^{k6}	60	50	5	27.9	8	M8
80									659							
90S									674							
90L									699							
100L									736							
33,3P-71	250	180 ^{j6}	215	14	12	4	200	260	667	25 ^{k6}	60	50	5	27.9	8	M8
80									691							
90S									706							
90L									731							
100L									768							
42,3P-71	300	230 ^{j6}	265	14	15	4	245	325	716	32 ^{k6}	80	70	5	35.3	10	M12
80									739							
90S									754							
90L									779							
100L									815							
112M	837															
43,3P-71	300	230 ^{j6}	265	14	15	4	245	325	755	32 ^{k6}	80	70	5	35.3	10	M12
80									778							
90S									793							
90L									818							
100L									854							
112M	876															
52,3P-71	350	250 ^{h6}	300	18	18	5	265	375	788.5	40 ^{k6}	110	100	5	43.1	12	M16
80									808.5							
90S									823.5							
90L									848.5							
100L									882							
112M									904							
132S									970.5							
132M	1008.5															
53,3P-71	350	250 ^{h6}	300	18	18	5	265	375	827.5	40 ^{k6}	110	100	5	43.1	12	M16
80									847.5							
90S									862.5							
90L									887.5							
100L									921							
112M									943							
132S									1009.5							
132M	1047.5															
62,3P-80	400	300 ^{h6}	350	18	20	5	290	400	865	50 ^{k6}	110	100	5	53.5	14	M16
90S									872							
90L									897							
100L									933.5							
112M									955.5							
132S									1017							
132M									1055							
160M									1158							
160L	1206															

Type	a1	b1	e1	s1	c1	f1	m	i	k	d	L	L1	n	t	u	D	
63.3P-80 90S 90L 100L 112M 132S 132M 160M 160L	400	300 ^{h6}	350	18	20	5	290	400	915 922 947 983.5 1005.5 1067 1105 1208 1256	50 ^{k6}	110	100	5	53.5	14	M16	
72.3P-90S 90L 100L 112M 132S 132M 160M 160L	450	350 ^{h6}	400	18	22	5	315	455	950 975 1013.5 1035.5 1091 1129 1227 1275	60 ^{m6}	140	125	7.5	64.2	18	M20	
73.3P-90S 90L 100L 112M 132S 132M 160M 160L	450	350 ^{h6}	400	18	22	5	315	455	1006 1031 1069.5 1091.5 1147 1185 1283 1331	60 ^{m6}	140	125	7.5	64.2	18	M20	
82.3P- 90S 90L 100L 112M 132S 132M 160M 160L 180M 180L 200L	550	450 ^{h6}	500	18	25	5	350	490	1104 1129 1093 1115 1165 1203 1302 1350 1372 1410 1458	70 ^{m6}	140	125	7.5	74.6	20	M20	
83.3P- 90S 90L 100L 112M 132S 132M 160M 160L 180M 180L 200L	550	450 ^{h6}	500	18	25	5	350	490	1104 1129 1161 1183 1233 1271 1370 1418 1440 1478 1526	70 ^{m6}	140	125	7.5	74.6	20	M20	
93.3P-112M 132S 132M 160M 160L 180M 180L 200L 225S 225M	660	550 ^{h6}	600	22	28	6	400	580	1314 1369 1407 1506 1554 1576 1614 1662 1689 1714	90 ^{m6}	180	160	10	95.3	25	M24	
103.3P-132S 132M 160M 160L 180M 180L 200L 225S 225M	660	550 ^{h6}	600	22	32	6	450	660	1492 1530 1628 1676 1698 1736 1782 1810 1835	100 ^{m6}	210	200	5	106.1	28	M24	
113.3P/123.3P-132M 160M 160L 180M 180L 200L 225S 225M 250M 280S 280M	800	680 ^{h6}	740	28	40	6	800	1040	2062 2144 2192 2214 2252 2300 2356 2381 2481 2560 2610	150 ^{m6} 130 ^{m6}	240 240		220 220	10 10	157.7 136.9	36 32	M30 M24

Note: Dimension k may vary depending on the make of the motor. All dimensions are in mm.

* For 112.3P/122.3P dimension 'k' is to be reduced by 140 mm.

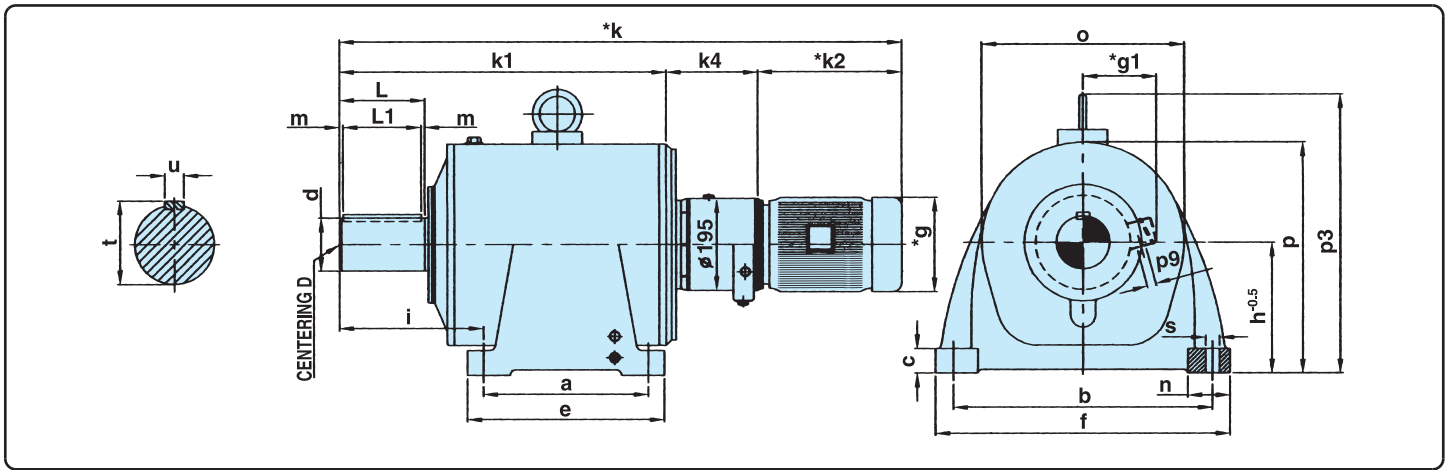
FOOT MOUNTED DOUBLE GEARED MOTORS



PRINCIPAL DIMENSIONS

TYPE	a	b	c	e	f	n	s	g	g1	h	i	k	k1	k2	k4	o	p	p3	p9	d	L	L1	m	t	u	D
43C-32.1P- 71	200	180	28	235	220	50	14			112	110	728	298		187	190	207	-		32 ^{k6}	80	70	5	35.3	10	M12
43C-33.1P- 71												760			219											
53C-32.1P- 71	240	205	30	280	250	56	18	139	105	132	142	782	355	243	184	220	242	-	13.5	40 ^{k6}	110	100	5	43.1	12	M16
53C-33.1P- 71												814			216											
63C-32.1P- 71	280	250	40	330	310	70	23			160	150	825	405		177	260	290	340		50 ^{k6}	110	100	5	53.5	14	M16
63C-33.1P- 71												857			209											
73C-32.1P- 71												890			169											
80								157	112			914		267						60 ^{m6}	140	125	7.5	64.2	18	M20
73C-33.1P- 71	310	280	45	370	350	80	27	139	105	180	189	922	478	243		300	330	392								
80								157	112			946		267	201				13.5							
83C-32.1P- 71								139	105			952		243												
80								157	112			976		267	159				13.5							
90S								181	148			991		282												
90L								181	148	225	196	1016		307		365	408	479		70 ^{m6}	140	125	7.5	74.6	20	M20
83C-33.1P- 71	380	300	55	450	400	100	27	139	105			984	550	243												
80								157	112			1008		267	191				13.5							
90S								181	148			1023		282												
90L								181	148			1048		307												
93C-42.1P- 71								139	105			1082		239												
80								157	112			1105		262												
90S								181	148			1120		277	199				13.5							
90L								181	148			1145		302												
100L								202	163	250	236	1181		338		420	460	531		90 ^{m6}	180	160	10	95.3	25	M24
93C-43.1P- 71	440	390	55	530	490	110	33	139	105			1121	644	239												
80								157	112			1144		262												
90S								181	148			1159		277	238				13.5							
90L								181	148			1184		302												
100L								202	163			1220		338												
103C-42.1P- 71								139	105			1149		239												
80								157	112			1172		262												
90S								181	148			1187		277	191				13.5							
90L								181	148			1212		302												
100L								202	163	280	270	1248		338		460	510	600		100 ^{m6}	210	200	5	106.1	28	M24
103C-43.1P- 71	480	425	65	580	540	125	35	139	105			1188	719	239												
80								157	112			1211		262												
90S								181	148			1226		277	230				13.5							
90L								181	148			1251		302												
100L								202	163			1287		338												
103C-52.1P- 112								227	177			1320		352.5	248.5				21							

Note : Dimensions given above are for gears without holdback and brake.
Dimensions g, g1, k and k2 may vary as per make of the motor.

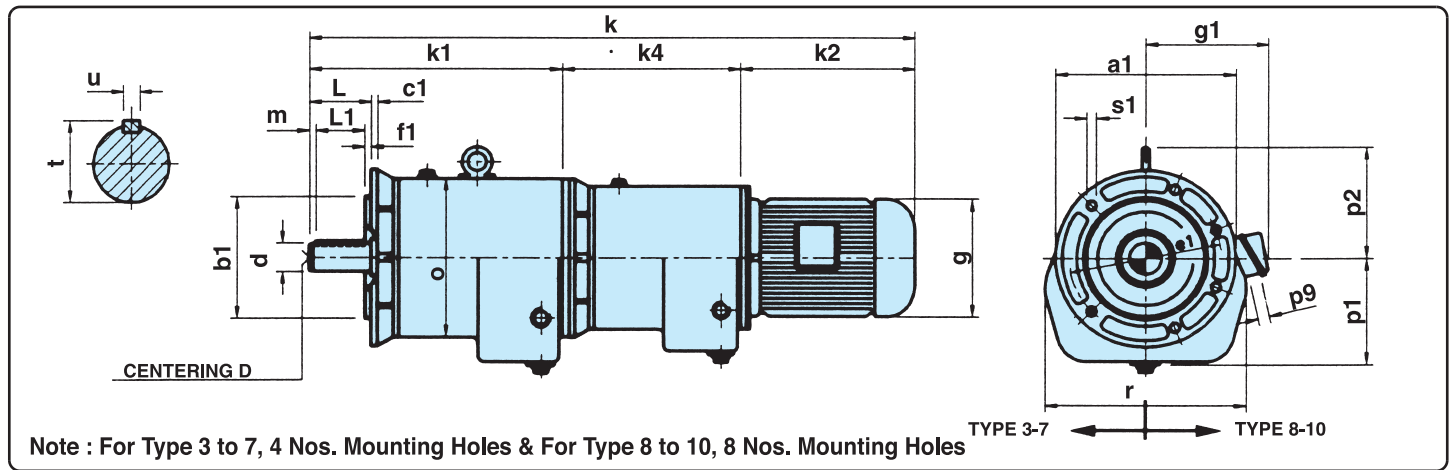


PRINCIPAL DIMENSIONS

TYPE	a	b	c	e	f	n	s	g	g1	h	l	k	k1	k2	k4	o	p	p3	p9	d	L	L1	m	t	u	D
113C-62.1P—71K								139	105			1416		237					11							
71L								139	105			1416		237					11							
80K								157	112			1434		255					11							
80L								157	112			1434		255					11							
90S	465	730	70	555	830	120	39	181	148	370	405	1441	920	262	259	570	655	790	13.5	130m6	240	220	10	136.9	32	M24
90L								181	148			1466		287					13.5							
100L								202	163			1502.5		323.50					16							
112M								227	177			1524.5		345.50					16							
132S								267	207			1586		407					21							
132M								267	207			1624		445					21							
113C-63.1P—71K								139	105			1466		237					11							
71L								139	105			1466		237					11							
80K								157	112			1484		255					11							
80L								157	112			1484		255					11							
90S	465	730	70	555	830	120	39	181	148	370	405	1491	920	262	309	570	655	790	13.5	130m6	240	220	10	136.9	32	M24
90L								181	148			1516		287					13.5							
100L								202	163			1552.5		323.50					16							
112M								227	177			1574.5		345.50					16							
132S								267	207			1636		407					21							
132M								267	207			1674		445					21							
123C-62.1P—71K								139	105			1416		237					11							
71L								139	105			1416		237					11							
80K								157	112			1434		255					11							
80L								157	112			1434		255					11							
90S	465	730	70	555	830	120	39	181	148	370	405	1441	920	262	259	570	655	790	13.5	150m6	240	220	10	157.7	36	M30
90L								181	148			1466		287					13.5							
100L								202	163			1502.5		323.50					16							
112M								227	177			1524.5		345.50					16							
132S								267	207			1586		407					21							
132M								267	207			1624		445					21							
123C-63.1P—71K								139	105			1466		237					11							
71L								139	105			1466		237					11							
80K								157	112			1484		255					11							
80L								157	112			1484		255					11							
90S	465	730	70	555	830	120	39	181	148	370	405	1491	920	262	309	570	655	790	13.5	150m6	240	220	10	157.7	36	M30
90L								181	148			1516		287					13.5							
100L								202	163			1552.5		323.50					16							
112M								227	177			1574.5		345.50					16							
132S								267	207			1636		407					21							
132M								267	207			1674		445					21							

Note : Dimensions given above are for gears without holdback and brake.
 Dimensions g, g1, k and k2 may vary as per make of the motor.

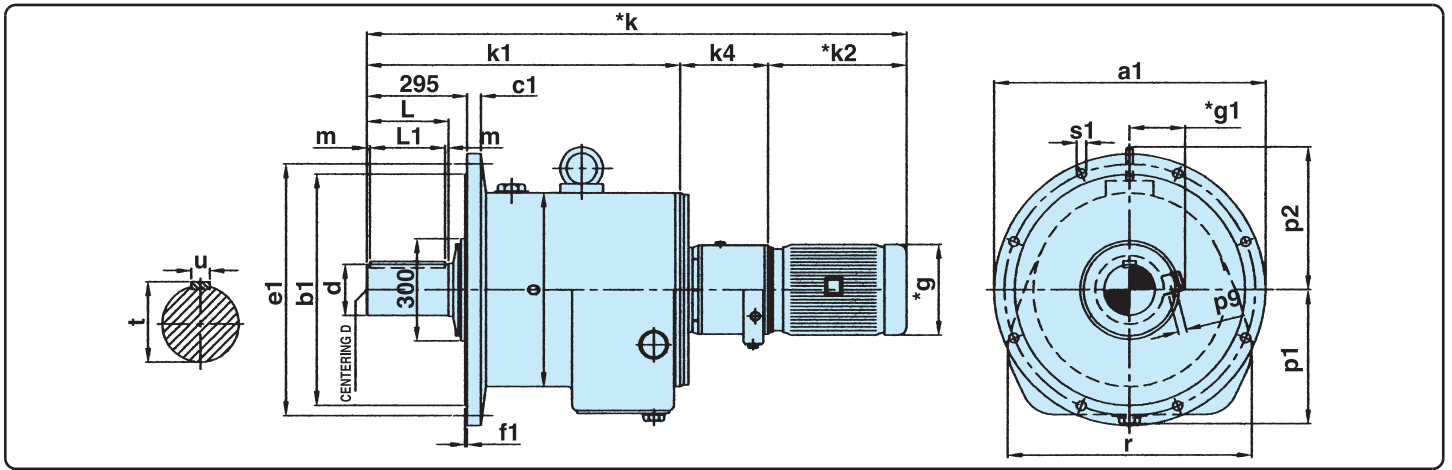
FLANGE MOUNTED DOUBLE GEARED MOTORS



PRINCIPAL DIMENSIONS

TYPE	a1	b1	e1	S1	c1	f1	g	g1	k	k1	k2	k4	o	p1	p2	r	p9	d	L	L1	m	t	u	D	
43.1C-32.1P- 71	200	130 ^{h6}	165	11.5	10	4			728			187													
43.1C-33.1P- 71	250	180 ^{h6}	215	14	10	4			760	298		219	190	123	-	215		32 ^{k6}	80	70	5	35.3	10	M12	
53.1C-32.1P- 71									782			184													
53.1C-33.1P- 71	250	180 ^{h6}	215	14	12	5	139	105	814	355	243	216	220	146	-	230	13.5	40 ^{k6}	110	100	5	43.1	12	M16	
63.1C-32.1P- 71	300	230 ^{h6}	265	14	15	5			825			177													
63.1C-33.1P- 71	250	180 ^{h6}	215	14	15	5			857	405		209	260	172	169	273		50 ^{k6}	110	100	5	53.5	14	M16	
73.1C-32.1P- 71									890																
80							157	112	914			267	169												
73.1C-33.1P- 71	350	250 ^{h6}	300	18	16	6	139	105	922	478		243	300	194	212	315	13.5	60 ^{m6}	140	125	7.5	64.2	18	M20	
80							157	112	946			267	201												
83.1C-32.1P- 71							139	105	952			243													
80							157	112	976			267													
90S							181	148	991			282	159				13.5								
90L							181	148	1016			307													
83.1C-33.1P- 71	450	350 ^{h6}	400	18	23	6	139	105	984	550		243		365	239	254	390		70 ^{m6}	140	125	7.5	74.6	20	M20
80							157	112	1008			267													
90S							181	148	1023			282	191				13.5								
90L							181	148	1048			307													
93.1C-42.1P- 71							139	105	1082			239													
80							157	112	1105			262													
90S							181	148	1120			277	199				13.5								
90L							181	148	1145			302													
100L							202	163	1181			338													
93.1C-43.1P- 71							139	105	1121	644		239		420	267	281	450		90 ^{m6}	180	160	10	95.3	25	M24
80							157	112	1144			262													
90S							181	148	1159			277	238				13.5								
90L							181	148	1184			302													
100L							202	163	1220			338													
103.1C-42.1P- 71							139	105	1149			239													
80							157	112	1172			262													
90S							181	148	1187			277	191				13.5								
90L							181	148	1212			302													
100L							202	163	1248			338													
103.1C-43.1P- 71							139	105	1188	719		239		460	297	320	490		100 ^{m6}	210	200	5	106.1	28	M24
80							157	112	1211			262													
90S							181	148	1226			277	230				13.5								
90L							181	148	1251			302													
100L							202	163	1287			338													
103.1C-52.1P- 112							227	177	1320			352.5	248.5					21							

Note : Dimensions given above are for gears without holdback and brake.
Dimensions g, g1, k and k2 may vary as per make of the motor.



PRINCIPAL DIMENSIONS

TYPE	a1	b1	e1	s1	c1	f1	g	g1	k	k1	k2	k4	o	p1	p2	r	p9	d	L	L1	m	t	u	D
113.1C-62.1P—71K	800	680 ^{h6}	740	28	40	6	139	105	1416	920	237	259	570	395	420	720	11	130 ^{m6}	240	220	10	136.9	32	M24
71L							139	105	1416		237						11							
80K							157	112	1434		255						11							
80L							157	112	1434		255						11							
90S							181	148	1441		262						13.5							
90L							181	148	1466		287						13.5							
100L							202	163	1502.5		323.50						16							
112M							227	177	1524.5		345.50						16							
132S							267	207	1586		407						21							
132M							267	207	1624		445						21							
113.1C-63.1P—71K							800	680 ^{h6}	740		28						40							
71L	139	105	1466	237	11																			
80K	157	112	1484	255	11																			
80L	157	112	1484	255	11																			
90S	181	148	1491	262	13.5																			
90L	181	148	1516	287	13.5																			
100L	202	163	1552.5	323.50	16																			
112M	227	177	1574.5	345.50	16																			
132S	267	207	1636	407	21																			
132M	267	207	1674	445	21																			
123.1C-62.1P—71K	800	680 ^{h6}	740	28	40	6				139		105	1416	920	237	259		570	395	420	720	11	150 ^{m6}	240
71L							139	105	1416	237	11													
80K							157	112	1434	255	11													
80L							157	112	1434	255	11													
90S							181	148	1441	262	13.5													
90L							181	148	1466	287	13.5													
100L							202	163	1502.5	323.50	16													
112M							227	177	1524.5	345.50	16													
132S							267	207	1586	407	21													
132M							267	207	1624	445	21													
123.1C-63.1P—71K							800	680 ^{h6}	740	28	40	6	139		105		1466					920		
71L	139	105	1466	237	11																			
80K	157	112	1484	255	11																			
80L	157	112	1484	255	11																			
90S	181	148	1491	262	13.5																			
90L	181	148	1516	287	13.5																			
100L	202	163	1552.5	323.50	16																			
112M	227	177	1574.5	345.50	16																			
132S	267	207	1636	407	21																			
132M	267	207	1674	445	21																			

Note : Dimensions given above are for gears without holdback and brake.
 Dimensions g, g1, k and k2 may vary as per make of the motor.

RATING TABLE OF INLINE GEAR REDUCER SERVICE FACTOR 1.0

HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO									
7.5 (5.5)	1500	52P II	12.55	11.28	10.25	10.19	9.21	8.95	8.32	30.0 (22.0)	1500	123P II	95.99	83.87	30.0 (22.0)	1500	113P II	75.26	67.27	56.49	54.66	50.25	48.00
			7.87	7.30	7.08	6.39	5.81	5.61	5.22				47.06	45.10				41.56	36.91				
			4.72	4.44	4.14	3.99	3.60	3.16	36.07				32.90	30.88				27.81	25.49	24.29			
10.0 (7.5)	1000	113P II	116.31	105.57	92.24	40.0 (30.0)	1500	103P II	80.07	1500	83P II	23.74	22.76	20.31	17.43	15.60							
		103P II	80.07	1500	82P II			14.77	13.38		11.82	11.31	10.25	9.07	8.21								
	750	103P II	64.84		1500		123P II	83.87	77.10	68.43	1500	113P II	67.27	56.49	51.18	48.00	44.60	41.15	39.86				
		1000	93P II	69.06			1500	103P II	35.11	32.92		32.23	31.70	29.88	26.10								
	1500	93P II	90.96	1500	93P II			25.49	22.78	21.61	20.05	17.43											
		83P II	73.89		69.28		63.46	57.47	51.25	48.22	1500	83P II	15.60										
	1500	73P II	44.78	39.53	36.65		35.40	32.91	30.68	1500		82P II	14.77	13.38	11.82	10.25	9.64	9.07	8.27				
		1500	63P II	29.10	26.09		24.19	21.27	20.17		1500	82P II	8.21	7.71	7.38	6.62	6.33	5.92	5.08				
	1500		53P II	15.74	14.05		1500	52P II	12.55	11.28		10.25	9.21	8.95	8.32	7.87							
		1500	52P II	12.55	11.28			10.25	9.21	8.95	8.32	7.87											
15.0 (11.0)	1000		123P II	105.75	95.99	50 (37.0)	1500	113P II	116.31	105.57	92.24	84.79	1500	123P II	68.43	61.16	51.37						
		103P II	80.07	1500	113P II			48.00	44.60	41.15	39.86	35.50		33.48	32.57								
	1500	93P II	75.08		69.06		61.76	1500	103P II	26.10	23.18	20.67	20.32	18.76	18.04								
		83P II	51.25	48.22	44.01		36.93		31.71	31.12	1500	93P II	17.43	16.12	15.48	14.39	13.78	12.78	12.68				
	1500	73P II	28.97	27.23	24.56		23.53	22.60	19.95	18.49		1500	73P II	11.37	11.28	10.28	9.10	8.08	7.19				
		1500	72P II	15.47	13.60		12.38	11.57	10.88	9.40	9.27		60 (45.0)	123P II	68.43	61.16	51.37						
	1500		72P II	7.52	6.38		5.18	5.01	4.07	1500	113P II	48.00		44.60	41.15	39.86	35.50	33.48	32.57				
20.0 (15.0)		1000	123P II	83.87	77.10	68.43	1500	103P II	23.18		20.32	18.76	18.04	1500	93P II	17.43	16.12	15.48	14.39	13.78	12.78	12.68	
	113P II		92.24	84.79	75.26	1500		93P II	11.37	11.28	10.28	9.10	8.08		7.19								
	1500	103P II	71.82	64.84	58.85		75.0 (55.0)	123P II	51.37	46.53	43.65	40.55	37.42										
		93P II	50.98	47.50	43.63	39.37		36.07	1500	113P II	35.50	33.48	32.57	30.33	28.45	25.92	24.39						
	1500	83P II	34.10	32.70	31.69	27.85	27.20	25.23		23.74	1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53				
		1500	82P II	18.26	100.0 (75.0)	123P II	39.76	37.42	32.28	30.44		29.61											
	1500		73P II	17.56		16.92	1500	113P II	28.45	25.92	24.39	21.04	19.30										
		1500	72P II	15.47	13.60	12.38		10.88	8.53	11.57	9.40	125.0 (90.0)	123P II	30.44	29.61	27.57	25.87	23.56	22.17	19.13			
25.0 (18.5)	1000		123P II	77.10	68.43	1500	112P II	14.90	12.61	10.50	9.44		8.47	8.16	7.53								
		123P II	95.99																				
	1500	113P II	84.79	75.26	67.27	1500	122P II	13.55	11.47	9.54	8.58	7.42	6.85	6.02									
		103P II	58.85	51.32	47.06																		
	1500	93P II	43.63	39.37	36.07	32.90	30.88	27.81															
		83P II	27.20	25.23	20.31	17.43	15.60																
	1500	82P II	14.77	13.38	11.31	10.25	9.07	8.21	7.38														
82P II		6.33	5.92	5.08																			

RATING TABLE OF INLINE GEAR REDUCER SERVICE FACTOR 1.4

HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO									
0.33 (0.25)	750	53P II	127.81	113.32							1.5 (1.1)	1500	73P II	114.30									
	1000	43P II	114.75	96.00	87.23							1500	63P II	105.58	96.24	92.62	88.05	83.49	76.38	68.07			
	1500	43P II	114.75	107.51								1500	53P II	61.38	56.52	54.91	50.57	47.15	43.42	42.18			
	1000	33P II	64.37									1500	43P II	35.40	33.86	32.17	30.53	27.68	25.15	24.40			
	1500	33P II	88.98	83.077	74.15	66.13	60.42	57.45	53.89	48.24		45.50	43.03	40.61	37.94	33.70	33.09						
	1000	32P II	15.67	14.98	13.99	12.14	10.84						1500	33P II	21.45	19.14	18.10						
	1500	32P II	15.67	14.98	13.99	12.14	11.40	10.84	9.54	8.90		8.83	8.59	7.69	7.0	6.9	6.26						
			5.46	4.89								3000	32P II	9.62	8.83	8.61	7.69	7.0	6.9	6.26			
					5.46	4.89											5.46	4.89					
0.5 (0.37)	1000	63P II	158.51	145.03							2.0 (1.5)	750	83P II	117.27	100.71								
	1000	53P II	138.79	127.81	113.32	104.35	95.77					1000	83P II	117.27	100.71	91.34							
	1000	43P II	84.62	76.89								1500	83P II	129.48	117.27								
	1500	43P II	114.75	107.51	97.69	93.09						1500	73P II	103.33	93.54	85.78	82.73						
	1500	33P II	83.07	74.15	64.37	60.42	57.45	54.86	51.03	47.20		45.53	43.03	41.75	40.61	37.94	37.10						
				35.08	33.70	32.62	31.29	30.06	28.43	27.46		25.85	24.50	23.17	21.45	19.14	18.10						
	1500	32P II	16.78	15.67	14.98	13.99	12.21	11.40	10.84	9.62		8.90	8.61	7.69	7.0	6.9	5.46						
				4.89								1500	42P II	20.16	19.21	18.0	15.66	14.67	14.16	12.79			
	3000	32P II	9.62	8.90	8.83	8.61	8.59	7.69	7.0	6.26		5.46	4.89										
			6.26	5.46	4.89								3000	32P II	9.62	8.61	7.69	7.0	6.26	5.46	4.89		
0.75 (0.55)	750	73P II	114.30	103.33							3.0 (2.2)	750	93P II	90.96									
	1000	63P II	129.49	115.40								1000	83P II	117.27	106.16	91.34							
	1500	63P II	158.51	145.03								1500	83P II	129.48	117.27								
	1500	53P II	127.81	113.32	104.35	95.77	88.19					1500	73P II	103.33	85.78	82.73							
	1500	43P II	75.55	68.65	61.60	56.08	53.12	50.07						1500	63P II	68.07	62.28	56.99	50.89	48.68	46.56	41.49	
	1500	33P II	46.81	45.53	42.51	40.61	37.94	37.10	33.68	32.62		30.91	28.43	27.46	25.85	24.50	21.45						
				19.14								1500	53P II	34.0	31.15	29.54	28.68	27.20	23.83	21.81			
	1000	32P II	12.14	10.84	9.62	8.83	8.61					1500	43P II	19.46	17.25	13.59							
	1500	32P II	12.14	10.84	9.62	8.83	8.61	7.69	7.0	6.9		6.26	5.46	4.89									
	3000	32P II	9.62	9.54	8.9	8.83	8.61	7.69	7.0	6.26		5.46	4.89										
1.0 (0.75)	750	83P II	129.48	117.27							5.0 (3.7)	750	103P II	80.07									
	750	73P II	103.33									750	93P II	75.08									
	1000	73P II	114.30	103.33								1000	93P II	90.96	75.08	69.06							
	1500	63P II	141.53	129.49	116.38	103.74	93.50	85.55					1500	93P II	90.96								
	1500	53P II	75.18	72.00	69.23	60.06						1500	83P II	84.50	78.44	73.89	71.04	66.92	63.46	57.47			
	1500	43P II	55.60	53.12	49.70	48.16	44.93	42.85	41.55	40.83		38.85	35.30										
	1500	33P II	33.09	32.62	28.98	27.46	25.85	24.50	23.17	21.45		19.14	18.10	17.13									
	1500	32P II	16.78	15.67	14.98	13.99	12.14	10.84	9.62	8.83		8.61	7.69	7.0	6.9	6.26	5.46						
				4.89								1500	52P II	14.59	12.55	11.28	10.19	9.21					
	3000	32P II	9.62	8.83	8.61	7.69	7.0	6.9	6.26	5.46		4.89											
1.5 (1.1)	750	83P II	106.16	96.15							7.5 (5.5)	1000	113P II	122.38	116.31	105.57	92.24						
	1000	83P II	117.27									750	103P II	64.84									
	1000	73P II	103.33	93.54								1000	103P II	80.07	71.82	64.84							
												1500	93P II	90.96	75.08	69.06							

RATING TABLE OF INLINE GEAR REDUCER SERVICE FACTOR 1.4

HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO																
7.5 (5.5)	1500	83P II	66.92 36.93	63.46	57.47	51.25	48.22	44.01	40.64	25.0 (18.5)	1500	93P II	25.49	24.29	22.78	21.61	20.81	30.0 (22.0)	1500	123P II	83.87									
	1500	73P II	35.40	32.82	30.12	28.97	27.82	24.56	23.53		1500	83P II	20.31	17.43	15.60	1500	113P II		75.26 43.73	67.27 41.15	56.49 39.86	54.66 35.50	50.25	48.00	44.60					
	1500	63P II	21.27	20.17	18.87	17.74	16.60				1500	82P II	14.77 6.33	13.38 5.92	11.31 5.08	10.25	9.07		8.21	7.38	1500	103P II	32.92	32.23	31.70	29.88	26.10	25.09	23.18	
	1500	62P II	15.96 9.46	14.43	13.01	12.04	10.89	10.57	9.73			1500	93P II	22.78	21.61	20.99	20.81		20.05	19.68	17.84	40.0 (30.0)	1500	123P II	68.43	61.16	51.37			
	1500	52P II	9.21 5.81 3.60	8.95 5.61 3.16	8.32 5.22	7.87 4.72	7.30 4.44	7.08 4.14	6.39 3.99			1500	82P II	14.77 7.38	13.38 6.33	11.82 5.92	11.31 5.08		10.25	9.07	8.21	7.38	1500	113P II	48.00 30.33	44.60 28.45	41.15	39.86	35.50	33.48
10.0 (7.5)	1000	113P II	116.31	105.57	92.24					40.0 (30.0)	1500	123P II	61.16	51.37	46.53	43.65	40.55	37.42	1500	113P II	35.50 21.04	33.48	32.57	30.33	28.45	25.92	24.39			
	1500	113P II	136.24	122.38							1500	103P II	26.10	25.09	23.18	20.67	20.32	18.76	18.04	16.09	14.61	1500	93P II	12.78 7.19	12.68	11.37	11.28	10.28	9.10	8.08
	1000	103P II	71.82	64.84	58.85						1500	82P II	10.25 6.62	9.64 6.33	9.07 5.92	8.27	8.21	7.71	7.38	1500	103P II	43.63	39.37	36.07	32.25	30.88	27.81			
	1500	93P II	75.08	69.06	61.76	50.98					1500	83P II	36.93 22.76	31.71 20.31	31.12	28.18	27.20	25.23	23.74	1500	93P II	12.78	12.68	11.37	11.28	10.28	9.10	8.08		
	1500	83P II	48.22	44.01	41.38	40.64	36.93	35.54	31.71			1500	73P II	28.97 14.26	27.23 14.26	23.53	22.34	18.49	17.56	16.92	1500	82P II	14.77	13.38	11.31					
	1500	73P II	28.97	27.23	23.53	22.34	18.49	17.56	16.92			1500	62P II	13.01 8.14	12.04 7.93	11.84 7.71	10.89 7.36	9.73	9.46	8.62	1500	72P II	15.47 7.52	13.60 6.38	12.38 5.18	10.88 5.01	11.57 4.07	9.40	9.27	
	1500	62P II	13.01	12.04	11.84	10.89	9.73	9.46	8.62			1500	52P II	7.08 4.14	6.39 3.99	5.81 3.60	5.61 3.16	5.22	4.72	4.44	1500	113P II	92.24	84.79	75.26	67.27	62.56	56.49	54.66	
	1500	52P II	7.08	6.39	5.81	5.61	5.22	4.72	4.44			1500	103P II	51.32	47.06	45.10					1500	113P II	84.79 41.15	75.26 39.86	67.27	56.49	51.18	48.00	44.60	
15.0 (11.0)	1000	123P II	105.75	95.99						60.0 (45.0)	1500	123P II	37.42	36.25	32.28	30.44	29.61	27.57	100.0 (75.0)	1500	113P II	21.04	19.30							
	1500	113P II	116.31	105.57	92.24	84.79	80.73	75.26			1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53	1500	112P II	14.90 6.53	12.61 5.97	10.50	9.44	8.47	8.16	7.53		
	1500	103P II	71.82	64.84	58.85						1500	103P II	14.61							1500	93P II	12.68	11.37	11.28	10.28	9.10	8.08	7.19		
	1500	93P II	50.98	43.63	39.37						1500	82P II	14.77	13.38	11.31					1500	123P II	25.87	23.56	22.17						
	1500	83P II	36.93	31.71	31.12	28.18	27.20	25.23	23.74			1500	72P II	10.88 5.01	9.40 4.07	9.27	8.53	7.52	6.38	5.18	1500	113P II	21.04	19.30						
	1500	73P II	18.49	18.14							1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53	1500	123P II	22.17	19.13	17.55						
	1500	62P II	13.01	12.04	11.84	10.89	9.73	9.46	8.62			1500	103P II	36.91	35.11	32.92	32.23	31.70	29.88	26.10	1500	122P II	13.55	11.47	9.54	8.58	7.42	6.85	6.02	
20.0 (15.0)	1000	123P II	83.87	77.10	68.43					75.0 (55.0)	1500	123P II	25.87	23.56	22.17				1500	113P II	21.04	19.30								
	1500	113P II	92.24	84.79	75.26	67.27	62.56	56.49	54.66		1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53	1500	112P II	14.90 6.53	12.61 5.97	10.50	9.44	8.47	8.16	7.53		
	1500	103P II	51.32	47.06	45.10						1500	103P II	14.61							1500	93P II	12.68	11.37	11.28	10.28	9.10	8.08	7.19		
	1500	93P II	43.63	39.37	36.07	32.25	30.88	27.81			1500	82P II	14.77	13.38	11.31					1500	123P II	25.87	23.56	22.17						
	1500	83P II	27.20	25.23	23.74	22.76	20.31	17.43	15.60			1500	72P II	10.88 5.01	9.40 4.07	9.27	8.53	7.52	6.38	5.18	1500	113P II	21.04	19.30						
	1500	73P II	18.49	18.14							1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53	1500	123P II	22.17	19.13	17.55						
	1500	62P II	13.01	12.04	11.84	10.89	9.73	9.46	8.62			1500	103P II	36.91	35.11	32.92	32.23	31.70	29.88	26.10	1500	122P II	13.55	11.47	9.54	8.58	7.42	6.85	6.02	
25.0 (18.5)	1000	123P II	68.43							125.0 (90.0)	1500	123P II	22.17	19.13	17.55				1500	123P II	22.17	19.13	17.55							
	1500	123P II	95.99								1500	113P II	21.04	19.30					1500	122P II	13.55	11.47	9.54	8.58	7.42	6.85	6.02			
	1500	113P II	84.79	75.26	67.27	56.49	51.18	48.00	44.60		1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53	1500	123P II	22.17	19.13	17.55						
	1500	103P II	36.91	35.11	32.92	32.23	31.70	29.88	26.10		1500	103P II	14.61							1500	122P II	13.55	11.47	9.54	8.58	7.42	6.85	6.02		

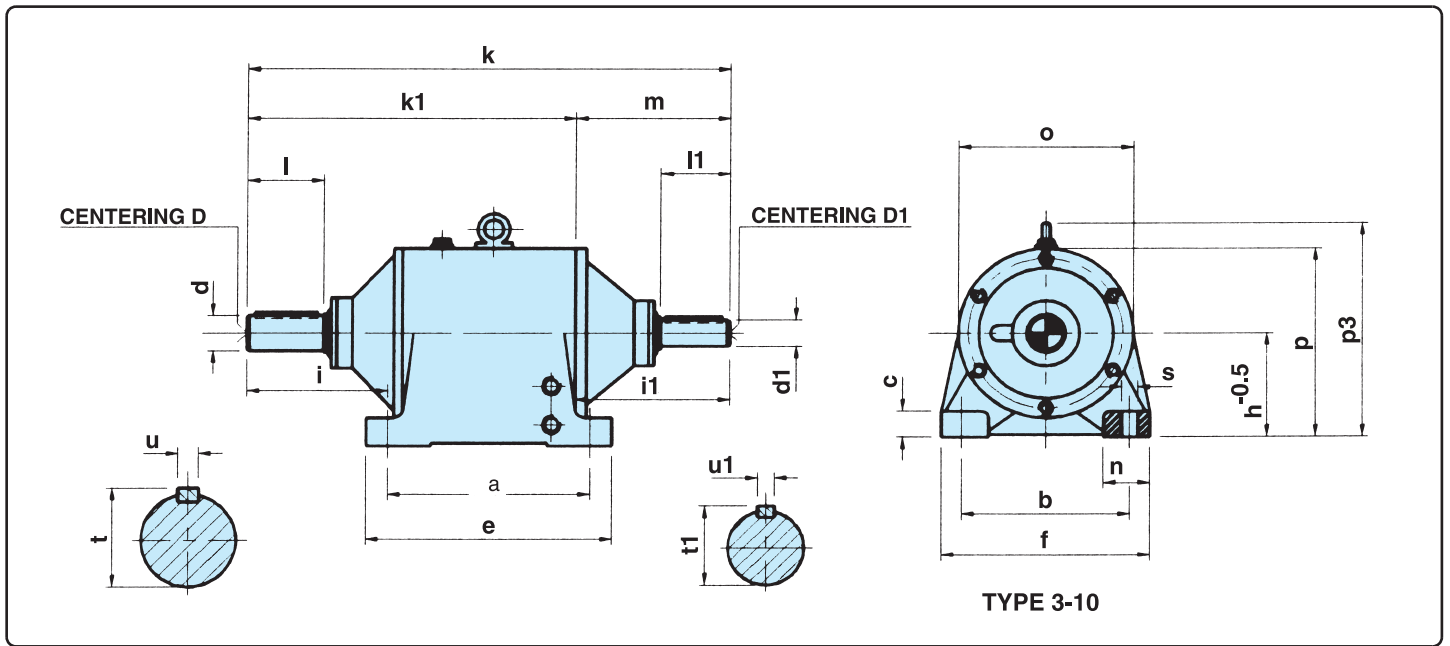
RATING TABLE OF INLINE GEAR REDUCER SERVICE FACTOR 1.65

HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								
0.33 (0.25)	750	63P II	130.34								1.5 (1.1)	1500	63P II	96.24	92.62	88.05	83.49	76.38	68.07	62.98		
	750	53P II	113.32	104.35								1500	53P II	50.57	47.15	43.42	42.18	38.84	35.36	34.00		
	1000	53P II	113.32									1500	43P II	27.68	25.15	24.40		22.06				
	1000	43P II	96.00	87.23								1500	42P II	21.51		20.16						
	1500	43P II	114.75	107.51	96.00	84.62						1500	33P II	19.14		18.10						
	1500	33P II	74.15	66.13	60.42	57.45	53.89	48.24	45.50	1500		32P II	16.78	15.67	14.98	13.99	12.21	11.40	10.78			
													9.62	8.61	7.69	7.0	6.26	5.46	4.89			
0.5 (0.37)	1000	63P II	158.51	145.03	129.49	116.38				2.0 (1.5)	750	83P II	100.71									
	1000	53P II	113.32	104.35	95.77						1000	83P II	117.27	100.71	91.34							
	1500	53P II	127.81	113.32	104.35						1500	83P II	129.48	117.27	106.16	96.15						
	1500	43P II	97.69	93.09	83.54	76.89	68.65	62.03				1500	73P II	85.78	82.73	70.20	65.22					
	1500	33P II	60.42	57.45	54.86	51.03	47.20	45.53	43.03		1500	63P II	62.98	57.62	51.94	48.68	44.03	41.49	37.96			
0.75 (0.55)	750	73P II	114.30	103.33				3.0 (2.2)	750	93P II	90.96	75.08										
	1000	63P II	129.49	115.40					1500	83P II	129.48	117.27	106.16	96.15	82.57	73.89						
	1500	63P II	158.51	145.03	130.34	116.38				1500	73P II	67.71	56.98	54.14	51.40	47.30	44.78					
	1500	53P II	113.32	104.35	95.77	88.19	78.19		72.00	67.26	1500	63P II	41.49	39.69	37.96	34.90	33.10	31.66	29.67			
	1500	43P II	61.60	56.08	53.12	50.07	48.63		44.93	42.85	1500	53P II	28.68	27.20	24.76	23.83	21.81	20.09	19.44			
1.0 (0.75)	750	83P II	129.48	117.27				5.0 (3.7)	750	113P II	92.24											
	750	73P II	103.33								750	103P II	80.07	71.82	64.84							
	1000	73P II	114.30	103.33	93.54						1000	93P II	69.06									
	1500	63P II	129.49	116.38	103.74	93.50	85.55		76.38				1500	83P II	73.89	71.046	66.92	63.46	57.47	51.25	48.22	
	1500	53P II	72.00	69.23	60.06	54.91	50.57		47.15				1500	73P II	40.54	38.71	35.96	32.44	30.43	28.75	26.35	
	1500	43P II	44.93	42.85	41.55	40.83	38.85		35.30				1500	63P II	24.19	21.27	20.17					
	1500	33P II	28.98	27.46	25.85	24.50	23.17		21.45	19.14	1500	62P II	17.87	15.96	13.01	11.84						
	1500	32P II	16.78	15.67	14.98	13.99	12.14		10.84	9.62	1500	52P II	11.28	10.19	9.21	8.95	8.32	7.87				
1.5 (1.1)	750	83P II	106.16	96.16				7.5 (5.5)	1000	113P	122.38	116.31	105.57	92.24	84.79							
	1000	83P II	117.27	106.16	91.34					1000	103P II	80.07	71.82	64.84	58.85							
	1500	73P II	114.30	103.33					1500	93P II	75.08	69.06	61.76	57.00								

RATING TABLE OF INLINE GEAR REDUCER SERVICE FACTOR 1.65

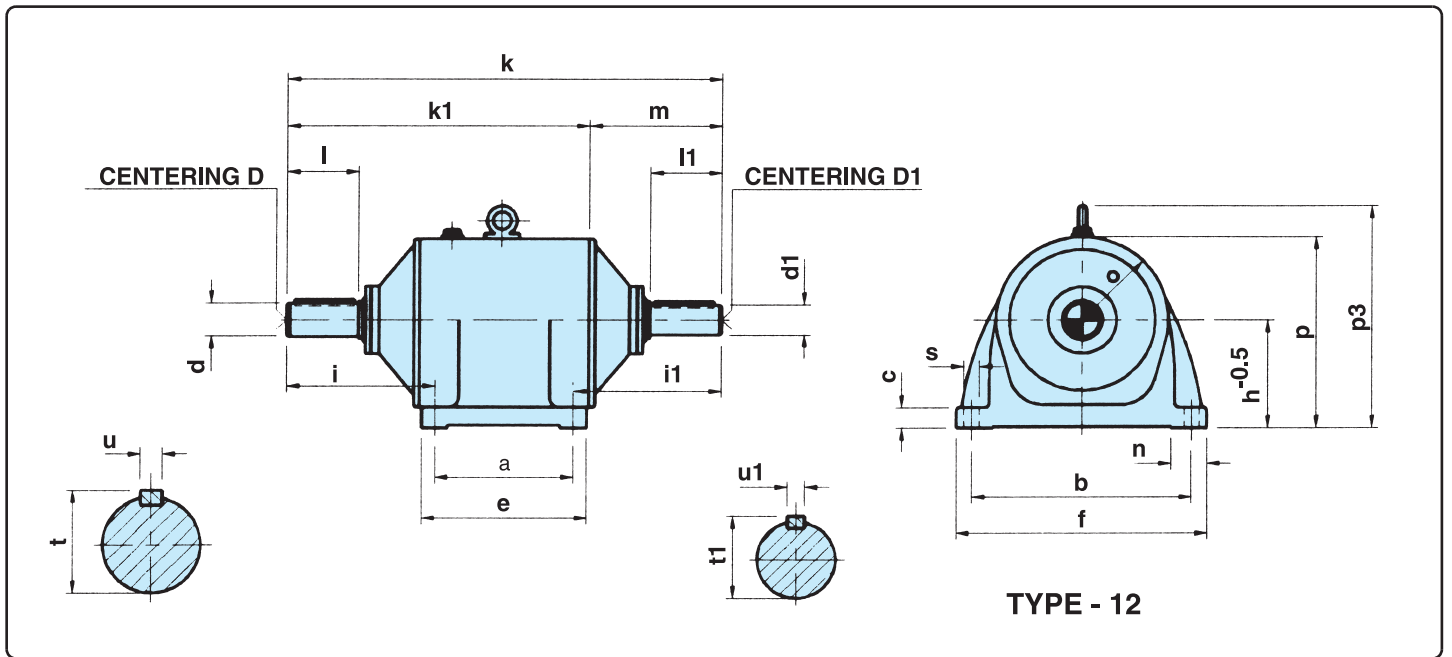
HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO								HP (KW)	INPUT RPM	TYPE OF GEAR BOX	RATIO							
7.5 (5.5)	1500	73P II	30.12	28.97	27.82	27.23	24.56	23.53	22.60	25.0 (18.5)	1500	93P II	22.78	21.61	20.81	20.05	17.84	17.43	16.12		
		63P II	18.87	17.74	16.60	83P II	15.60														
		62P II	14.43	13.01	12.04	10.89	10.57	9.73	9.46			82P II	14.77	13.38	11.31	10.25	9.07	8.21	7.38		
	1500	52P II	6.39	5.81	5.61	5.22	4.72	4.44	4.14		30.0 (22.0)	1500	123P II	77.10	68.43	61.16					
			3.99	3.60	3.16	1500	113P II	56.49	54.66			50.25	48.00	44.60	43.73	41.15					
10.0 (7.5)	1000	113P II	116.31	105.57	92.24	40.0 (30.0)	1500	103P II	26.10	25.09		23.18	20.32								
		113P II	136.24	122.38	116.31			105.57	92.24	84.79		93P II	20.05	19.68	17.84	17.43	16.12	15.48	14.39		
		103P II	80.07	71.82	64.84			58.85	82P II	11.31		10.25	9.07	8.21	7.38	6.33	5.92				
	1500	93P II	50.98	43.63	39.37		1500	123P II	46.53	45.69	43.65										
		83P II	36.93	35.54	31.71		28.18	27.20	25.23	23.74	1500	113P II	41.15	39.86	35.50	33.48	32.57	30.33	28.45		
		73P II	22.34	18.49	17.56		16.92	14.26	1500	103P II	20.67	20.32	18.76	18.04	16.09	14.61					
		72P II	13.60	11.57	10.88		1500	93P II	14.39	13.78	12.78	12.68	11.37	11.28	10.28						
		62P II	9.73	9.46	8.62		8.14	7.93	7.71	7.36	1500	82P II	7.71	7.38	6.62	6.33	5.92	5.08			
		7.19	6.93	6.57	6.43		5.78	5.35	50.0 (37.0)	1500	123P II	40.55	39.76	37.42	36.25	32.28	30.44				
5.22	4.72	4.44	4.14	3.99	3.60	3.16	1500	113P II		28.45	25.92	24.39	21.04	19.30							
15.0 (11.0)	1000	123P II	105.75	95.99	60.0 (45.0)	1500	112P II	14.90													
		113P II	116.31	105.57			92.24	84.79		80.73	75.26	68.92	1500	103P II	14.61	12.66					
		103P II	58.85	51.32			1500	93P II		11.37	11.28	10.28	9.10	8.08	7.19						
	1500	93P II	47.50	43.63		39.37	36.07	32.25		30.88	27.81	1500	123P II	40.55	39.76	37.42	36.25	32.28	30.44		
		83P II	27.20	25.23		23.74	22.76	20.31		17.43	15.60	1500	113P II	28.45	25.92	24.39	21.04	19.30			
		82P II	14.77	13.38		1500	112P II	14.90													
		72P II	12.38	11.57		10.88	9.40	9.27		7.52	6.38	1500	103P II	14.61	12.66						
5.18	5.01	4.07	75.0 (55.0)	1500	93P II	9.10	8.08	7.19													
20.0 (15.0)	1000	123P II		77.10	68.43	100.0 (75.0)	1500	123P II	22.17	19.13	17.55										
		113P II		92.24	84.79			75.26	67.27	62.56	56.49	54.66	1500	112P II	14.90	12.61	10.50	9.44	8.47	8.16	7.53
		103P II		36.91	35.11			32.92	32.23	31.70	29.88	125.0 (90.0)	1500	123P II	19.13	17.55					
	93P II	27.81		25.49	24.29	22.78	21.61	20.81	1500	122P II	13.55			11.47	9.54	8.58	7.42	6.85	6.02		
	83P II	20.31		17.43	15.60	25.0 (18.5)	1500	123P II	77.10	68.43	61.16										
	82P II	14.77		13.38	11.31			10.25	9.07												
	72P II	8.53		7.52	6.38			5.18	5.01	4.07											
	25.0 (18.5)	1500		123P II	77.10	68.43	61.16	1500	113P II	51.18	48.00	44.60	41.15	39.86							
113P II			51.18	48.00	44.60	41.15	39.86														
103P II			35.11	32.92	32.23	31.70	29.88		26.10	25.09											
23.18																					

FOOT MOUNTED INLINE GEAR REDUCER



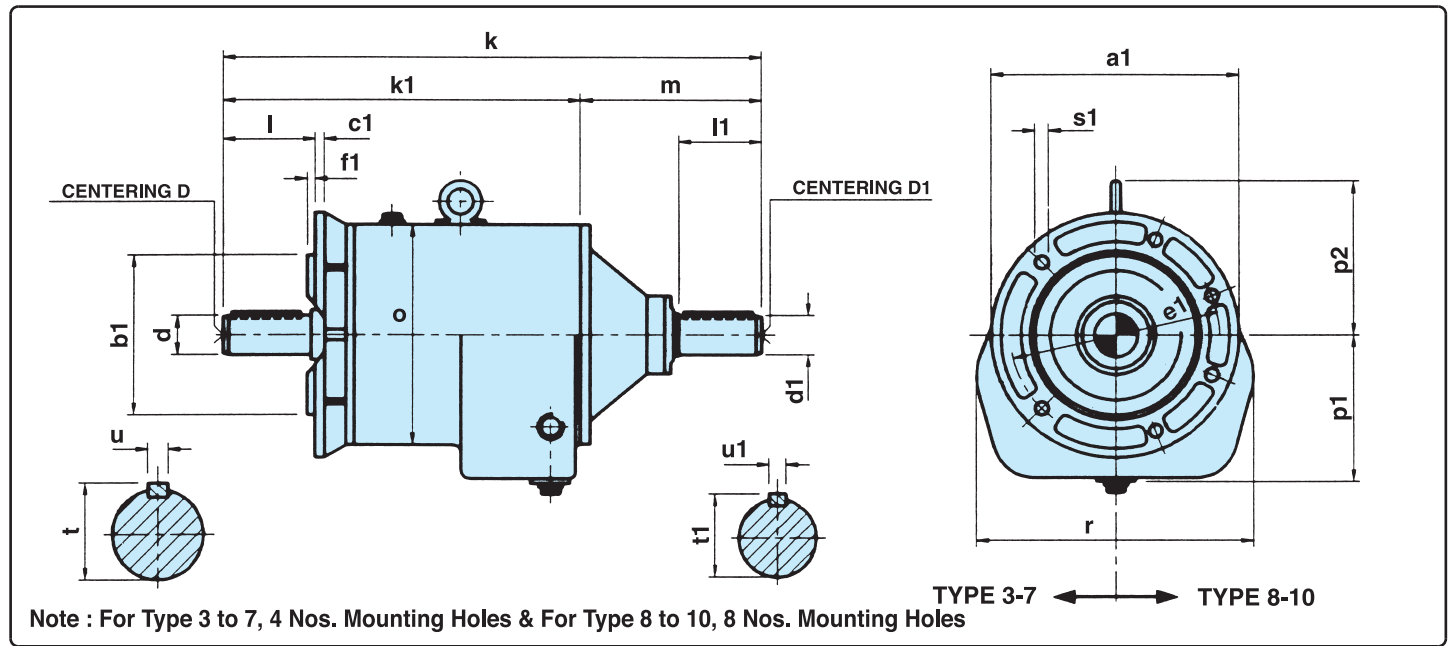
PRINCIPAL DIMENSIONS

Type	Kg. Weight	a	b	c	e	f	n	s	k	k1	h	i	i1
32P II	22	140	140	22	170	180	40	11.5	342	217	100	88	114
33P II	25	170	140	22	200	180	40	11.5	374	249	100	88	116
42P II	40	165	180	28	200	220	50	14	404	259	112	110	129
43P II	45	200	180	28	235	220	50	14	443	298	112	110	133
52P II	52	200	205	30	240	250	56	18	466	316	132	142	124
53P II	62	240	205	30	280	250	56	18	505	355	132	142	123
62P II	86	230	250	40	280	310	70	23	535	355	160	150	155
63P II	97	280	250	40	330	310	70	23	585	405	160	150	155
72P II	137	260	280	45	320	350	80	27	637	422	180	189	188
73P II	146	310	280	45	370	350	80	27	693	478	180	189	194
82P II	216	320	300	55	390	400	100	27	752	482	225	196	236
83P II	234	380	300	55	450	400	100	27	820	550	225	196	244
93P II	344	440	390	55	530	490	110	33	944	644	250	236	268
103P II	500	480	425	65	580	540	125	35	1049	719	280	270	299
113P II	1000	465	730	70	555	830	120	39	1265	920	370	405	395
123P II	1005	465	730	70	555	830	120	39	1265	920	370	405	395
112P II	850	325	730	70	415	830	120	39	1125	780	370	405	395
122P II	860	325	730	70	415	830	120	39	1125	780	370	405	395



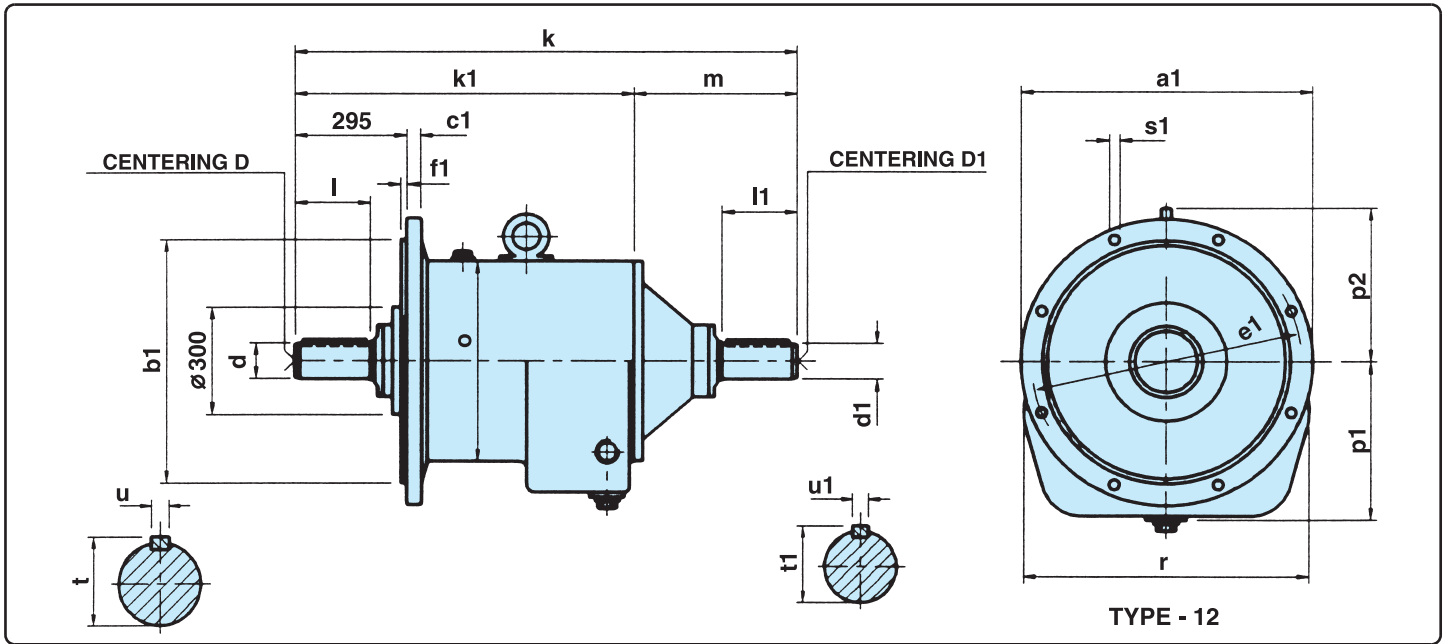
m	o	p	p3	d	l	t	u	D DIN 332	d1	l1	t1	u1	D1 DIN 332
125	160	180		25 ^{k6}	60	27.9	8	M8	19 ^{k6}	40	21.5	6	M5
125	160	180		25 ^{k6}	60	27.9	8	M8	19 ^{k6}	40	21.5	6	M5
145	190	207		32 ^{k6}	80	35.3	10	M12	24 ^{k6}	50	26.9	8	M8
145	190	207		32 ^{k6}	80	35.3	10	M12	24 ^{k6}	50	26.9	8	M8
150	220	242	285	40 ^{k6}	110	43.1	12	M16	24 ^{k6}	50	26.9	8	M8
150	220	242	285	40 ^{k6}	110	43.1	12	M16	24 ^{k6}	50	26.9	8	M8
180	260	290	340	50 ^{k6}	110	53.5	14	M16	28 ^{k6}	60	30.9	8	M8
180	260	290	340	50 ^{k6}	110	53.5	14	M16	28 ^{k6}	60	30.9	8	M8
215	300	330	392	60 ^{m6}	140	64.2	18	M20	38 ^{k6}	80	41.3	10	M12
215	300	330	392	60 ^{m6}	140	64.2	18	M20	38 ^{k6}	80	41.3	10	M12
270	365	408	479	70 ^{m6}	140	74.6	20	M20	42 ^{k6}	110	45.1	12	M16
270	365	408	479	70 ^{m6}	140	74.6	20	M20	42 ^{k6}	110	45.1	12	M16
300	420	460	531	90 ^{m6}	180	95.3	25	M24	48 ^{k6}	110	51.5	14	M16
330	460	510	600	100 ^{m6}	210	106.1	28	M24	55 ^{m6}	110	58.8	16	M20
345	285	655	790	130 ^{m6}	240	136.9	32	M24	60 ^{m6}	140	64.2	18	M20
345	285	655	790	150 ^{m6}	240	157.7	36	M30	60 ^{m6}	140	64.2	18	M20
345	285	655	790	130 ^{m6}	240	136.9	32	M24	60 ^{m6}	140	64.2	18	M20
345	285	655	790	150 ^{m6}	240	157.7	36	M30	60 ^{m6}	140	64.2	18	M20

FLANGE MOUNTED INLINE GEAR REDUCER



PRINCIPAL DIMENSIONS

Type	Weight kg	a1	b1	e1	s1	c1	f1	k	k1	m
32.1P II	21	160 or 200	110 ^{j6} 130 ^{j6}	130 165	9.5 11.5	10 10	4 4	342	217	125
33.1P II	24	160 or 200	110 ^{j6} 130 ^{j6}	130 165	9.5 11.5	10 10	4 4	374	249	125
42.1P II	38	200 or 250	130 ^{j6} 180 ^{j6}	165 215	11.5 14	10 10	4 4	404	259	145
43.1P II	43	200 or 250	130 ^{j6} 180 ^{j6}	165 215	11.5 14	10 10	4 4	443	298	145
52.1P II	51	250	180 ^{j6}	215	14	12	5	466	316	150
53.1P II	54	250	180 ^{j6}	215	14	12	5	505	355	150
62.1P II	79	250 or 300	180 ^{j6} 230 ^{j6}	215 265	14 14	15 15	5 5	535	355	180
63.1P II	86	250 or 300	180 ^{j6} 230 ^{j6}	215 265	14 14	15 15	5 5	585	405	180
72.1P II	129	350	250 ^{h6}	300	18	16	6	637	422	215
73.1P II	133	350	250 ^{h6}	300	18	16	6	693	478	215
82.1P II	213	450	350 ^{h6}	400	18	23	6	752	482	270
83.1P II	237	450	350 ^{h6}	400	18	23	6	820	550	270
93.1P II	343	450 or 550	350 ^{h6} 450 ^{h6}	400 500	18 18	23 28	6 6	944	644	300
103.1P II	489	550 or 660	450 ^{h6} 550 ^{h6}	500 600	18 22	28 40	6 6	1049	719	330
113.1P II	920	800	680 ^{h6}	740	28	40	6	1265	920	345
123.1P II	927	800	680 ^{h6}	740	28	40	6	1265	920	345
112.1P II	770	800	680 ^{h6}	740	28	40	6	1125	780	345
122.1P II	777	800	680 ^{h6}	740	28	40	6	1125	780	345



o	p1	p2	r	d	i	t	u	D DIN 332	d1	l1	t1	u1	D1 DIN 332
160	109		170	25 ^{k6}	60	27.9	8	M8	19 ^{k6}	40	21.5	6	M5
160	109		170	25 ^{k6}	60	27.9	8	M8	19 ^{k6}	40	21.5	6	M5
190	123		215	32 ^{k6}	80	35.3	10	M12	24 ^{k6}	50	26.9	8	M8
190	123		215	32 ^{k6}	80	35.3	10	M12	24 ^{k6}	50	26.9	8	M8
220	146	153	230	40 ^{k6}	110	43.1	12	M16	24 ^{k6}	50	26.9	8	M8
220	146	153	230	40 ^{k6}	110	43.1	12	M16	24 ^{k6}	50	26.9	8	M8
260	172	169	273	50 ^{k6}	110	53.5	14	M16	28 ^{k6}	60	30.9	8	M8
260	172	169	273	50 ^{k6}	110	53.5	14	M16	28 ^{k6}	60	30.9	8	M8
300	194	212	315	60 ^{m6}	140	64.2	18	M20	38 ^{k6}	80	41.3	10	M12
300	194	212	315	60 ^{m6}	140	64.2	18	M20	38 ^{k6}	80	41.3	10	M12
365	239	254	390	70 ^{m6}	140	74.6	20	M20	42 ^{k6}	110	45.1	12	M16
365	239	254	390	70 ^{m6}	140	74.6	20	M20	42 ^{k6}	110	45.1	12	M16
420	267	281	450	90 ^{m6}	180	95.3	25	M24	48 ^{k6}	110	51.5	14	M16
460	297	320	490	100 ^{m6}	210	106.1	28	M24	55 ^{m6}	110	58.8	16	M20
285	395	420	720	130 ^{m6}	240	136.9	32	M24	60 ^{m6}	140	64.2	18	M20
285	395	420	720	150 ^{m6}	240	157.7	36	M30	60 ^{m6}	140	64.2	18	M20
285	395	420	720	130 ^{m6}	240	136.9	32	M24	60 ^{m6}	140	64.2	18	M20
285	395	420	720	150 ^{m6}	240	157.7	36	M30	60 ^{m6}	140	64.2	18	M20

LUBRICATION

All geared motors and gear reducers delivered are arranged for oil lubrication, though first fill of oil is not supplied. Grease lubricated gears will be delivered upon special request only. The oil level may be checked at the sight glass. The filling plug is always located at the highest point of the gear housing, whereas the drain plug is at the lowest point.

The oil used permits approx 5,000 to 8,000 hours of operation between refills. However, if other machinery nearby requires oil changes at shorter intervals, the geared motors may be included in this servicing cycle. The first change of oil should preferably be made after approximately 300 to 500 operating hours.

After the above mentioned number of operating hours, the oil should be changed.

Oil Capacity of Geared Motors/Geared Boxes

Type of Gear	Design B3 & B5 Litres	Design B6 & B7 Litres	Design B8 Litres	Design V1 & V5 Litres	Design V3 & V6 Litres	Design Agitator Type Litres
32	0.5	0.75	1.0	1.25	1.0	1.7
33	0.75	1.25	1.3	2.25	2.0	2.7
42	0.75	1.25	1.3	2.25	2.0	2.7
43	1.25	2.25	2.3	3.25	3.0	3.7
52	1.25	2.25	2.3	4.5	4.0	5.8
53	1.75	3.0	3.25	5.0	4.5	6.3
62	1.75	3.0	3.25	6.75	5.25	8.0
63	2.5	4.25	4.5	7.25	7.75	8.5
72	2.5	4.5	4.75	9.5	9.0	13.5
73	3.75	7.0	7.5	11.5	10.5	15.5
82	4.5	7.5	8.0	17.5	17.5	24.5
83	7.5	14.0	14.5	22.0	20.0	27.0
93	10.0	20.0	21.0	30.0	28.0	38.0
103	16.0	30.0	32.0	45.0	42.0	61.0
113/123	37.0	63.0	52.0	120.0	135.0	148.0

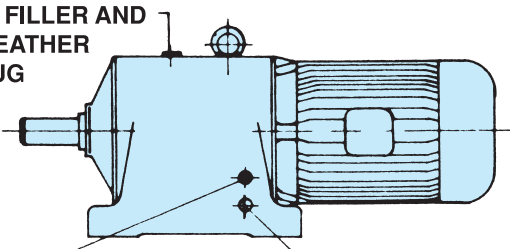
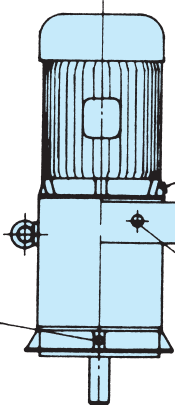
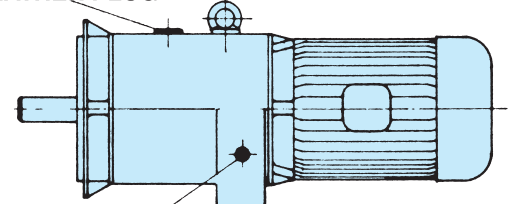
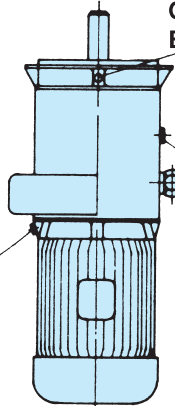
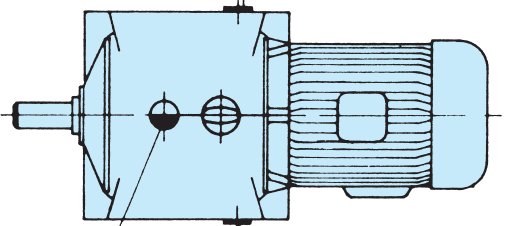
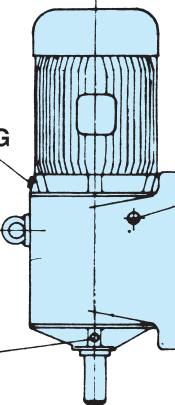
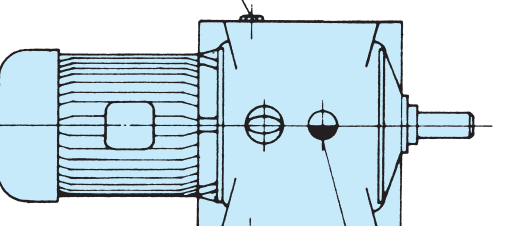
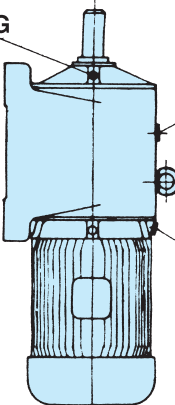
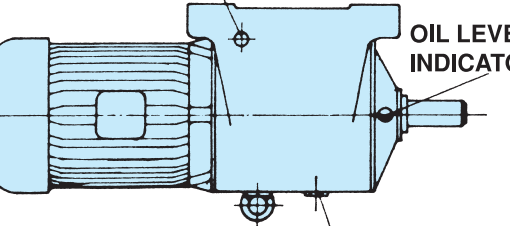
Lubrication Oil Recommendations

BRAND	GRADE OF OIL	GREASE FOR BEARINGS
INTERNATIONAL BRANDS		
BRITISH PETROLEUM	ENERGOL GR-XP 320 OR GR-XP 460	ENERGREASE LS 2
CASTROL	ALPHA SP 320 OR ALPHA SP 460	EPL 2
CALTEX	MEROPA 320 OR MEROPA 460	STARFAX PREMIUM 2
ESSO PETROLEUM	SPARTAN EP 320 OR SPARTAN EP 460	BEACON 2
FUCHS	RENOLIN CLP 320 OR RENOLIN CLP 460	FWA 160
MOBIL OIL CO.	MOBILGEAR 632 OR MOBILGEAR 634	MOBILUX 2
SHELL CO.	OMALA 320 OR OMALA 460	SHELL ALVANIA 2
INDIAN BRANDS		
INDIAN OIL	SERVOMESH - SP 460 OR SP 320	SERVO GEM - 2
HINDUSTAN PETROLEUM	PARTHAN - EP 460 OR EP 320	BEACON 2
CASTROL	ALPHA SP 320 OR ALPHA SP 460	EPL 2
GULF	EP LUBRICANT 460 OR 320 HD	M.P. GREASE 2
BHARAT PETROLEUM	AMOCAM 460 OR 320	M. P. GREASE 2

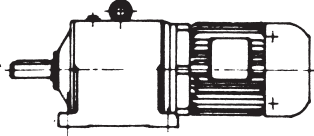
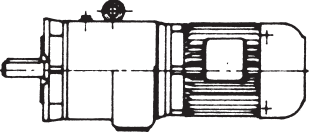
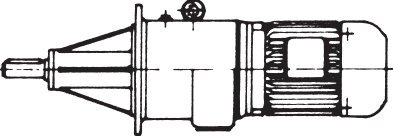
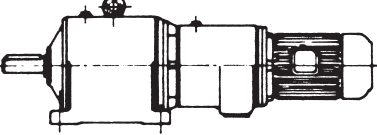
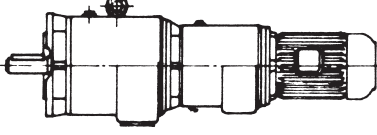
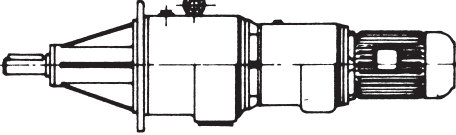
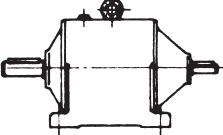
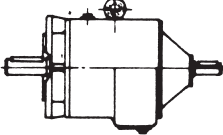
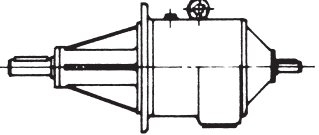
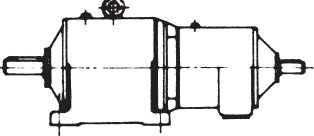
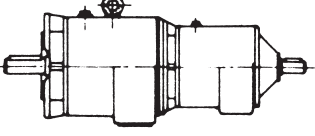
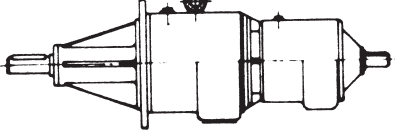
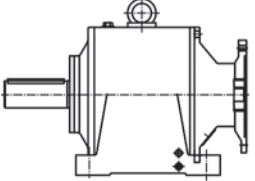
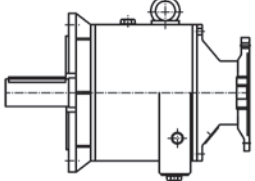
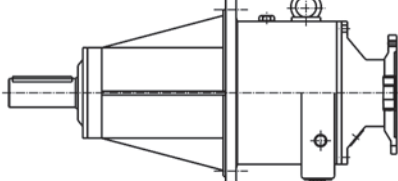
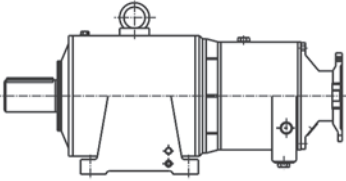
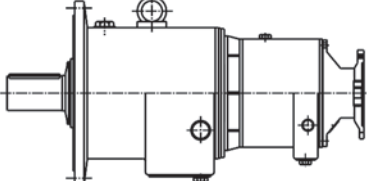
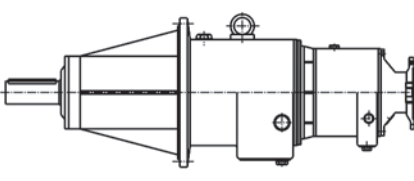
DATA REQUIRED FOR THE SELECTION OF HELICAL GEARED MOTORS/GEAR REDUCER

- Type
- Power to be transmitted in HP or kW
- Service factor
- Output RPM or ratio
- Hours of operation per day
- Radial load on output shaft (acting at mid point of std. shaft extension)
- Axial load on output shaft (Push or Pull)
- Peak or shock load giving magnitude and duration wherever possible
- Type of driven machine
- GD² with respect to motor shaft.
- Type of drive, for instance V - Belt, Spur gear or coupling
- Ambient temperature, if higher than 40° C
- Power supply (Voltage / phase/frequency)
- Mounting position.

MOUNTING POSITIONS

 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	B3	 <p>OIL FILLER AND BREATHER PLUG</p> <p>DRAIN PLUG</p> <p>OIL LEVEL INDICATOR</p>	V1
 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	B5	 <p>OIL FILLER AND BREATHER PLUG</p> <p>DRAIN PLUG</p> <p>OIL LEVEL INDICATOR</p>	V3
 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	B6	 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	V5
 <p>OIL FILLER AND BREATHER PLUG</p> <p>DRAIN PLUG</p> <p>OIL LEVEL INDICATOR</p>	B7	 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	V6
 <p>OIL FILLER AND BREATHER PLUG</p> <p>OIL LEVEL INDICATOR</p> <p>DRAIN PLUG</p>	B8		

DIFFERENT TYPES OF GEARED MOTORS AND INLINE GEAR REDUCERS

 <p>FOOT MOUNTED GEARED MOTOR</p>	 <p>FLANGE MOUNTED GEARED MOTOR</p>	 <p>AGITATOR TYPE GEARED MOTOR</p>
 <p>DOUBLE GEARED MOTOR WITH FOOT MOUNTING</p>	 <p>DOUBLE GEARED MOTOR WITH FLANGE MOUNTING</p>	 <p>AGITATOR TYPE DOUBLE GEARED MOTOR</p>
 <p>FOOT MOUNTED INLINE GEAR REDUCER</p>	 <p>FLANGE MOUNTED INLINE GEAR REDUCER</p>	 <p>AGITATOR TYPE INLINE GEAR REDUCER</p>
 <p>FOOT MOUNTED DOUBLE GEAR REDUCER WITH INLINE CONSTRUCTION</p>	 <p>FLANGE MOUNTED DOUBLE GEAR REDUCER WITH INLINE CONSTRUCTION</p>	 <p>AGITATOR TYPE DOUBLE GEAR REDUCER WITH INLINE CONSTRUCTION</p>
 <p>FOOT MOUNTED MOTOR MOUNT GEAR BOX</p>	 <p>FLANGE MOUNTED MOTOR MOUNT GEAR BOX</p>	 <p>AGITATOR TYPE MOTOR MOUNT GEAR BOX</p>
 <p>FOOT MOUNTED DOUBLE GEAR MOTOR MOUNT GEAR BOX</p>	 <p>FLANGE MOUNTED DOUBLE GEAR MOTOR MOUNT GEAR BOX</p>	 <p>AGITATOR TYPE DOUBLE GEAR MOTOR MOUNT GEAR BOX</p>