



Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm)

Our 24.80" diameter Motorized Pulley range offers two different performance levels for BULK applications:

- M for Medium duty
- H for Heavy duty

It is important to note the product differences and choose the appropriate pulley based on estimated belt tension (radial load.) See page 82. The actual radial load must be less than the maximum allowable radial load shown in this catalog.

Be aware of increased belt tensions required to drive multi-ply thick heavy belts and/or larger belt widths.

If the 24.80" diameter model is not strong enough to resist estimated belt tension, then select 31.50" diameter model.

M for Medium duty

A solid 2-stage gearbox enables the 630M to handle irregular loadings in harsh operating conditions. 630M uses motor and gearbox from 500H. Note that 630M outer dimensions do not match 630H

H for Heavy duty

630H has stronger internal components with gearbox, shaft, and bearings designed for tough, irregular, and extreme operating conditions.

STANDARD SPECIFICATION of Motorized Pulley

- Crowned mild steel 24.80" diameter steel shell painted yellow at a minimum thickness of 2.4 mils
- Bolted powder coated cast iron bearing housings and covers, all painted yellow at a minimum thickness of 2.4 mils
- Mild steel shafts
- Shaft sealing system - degree of protection IP66/67 (EN60034-5.) See page 37.
- Cast iron terminal box for painted yellow at min.thickness of 2.4 mils
- 3-phase induction motors with thermal protector
- Voltage: All common voltages available. Please specify.
- Motor winding insulation Class F
- Dynamically balanced rotor
- Two oil plugs each fitted with a magnet to filter the oil
- Yellow painted mounting brackets (AL & ALO) included with pulley
- Oil change recommended every 10,000 operational hours
- Minimum RL. Refer to pages 63-64
- Maximum RL - Please inquire
- Non standard RL's available
- To be used in horizontal positions ±5 degree only

Please note:

- **Noise-sensitive Areas:** High speed 2-pole motors can cause higher noise levels and are not recommended for noise-sensitive areas
- **Technical Precautions for Design, Installation, and Maintenance:** pages 80-90
- **Environmental Considerations:** pages 78-79
- **Optional Extras:** page 61
- **Electrical Connection Diagrams:** pages 94-101

SEMI-RUST-FREE options

TS11

- Polyurethane painted mild steel shell at minimum thickness of 4.7 mil
- Polyurethane painted cast iron end housings at min. thickness of 4.7 mils
- Stainless steel bearing covers with labyrinth grooves – AISI 304 range
- Nitrided shaft sleeves
- Zinc-plated oil plugs - each with magnet
- Zinc-plated exterior bolts
- Shaft sealing system – degree of protection P66/67 (EN60034-5) See pg 37.
- Polyurethane painted terminal box at minimum thickness of 4.7 mils
- Nickel plated mounting brackets with labyrinth grooves

TS12

- As TS11, but without regreasable seals.
- Covers - standard

Please note:

- FDA & USDA food grade recognized oil and grease are not included in TS11 & TS12, but available on request.

Please specify required TS number when ordering Stainless Steel options.



OPTIONAL EXTRAS

Motorized Pulley 630M & 630H

Specification	Availability
Semi-rust-free option TS11 with regreasable labyrinth seals	x
Semi-rust-free option TS12 with standard seals	x
Regreasable labyrinth seals	x
Dust explosion proof Motorized Pulleys - ATEX 95 - Zone 22 - for applications handling of dusty grain etc. According to European Directive 94/9/EC.	x
Standard black rubber lagging (See pages 82-83.)	
3/8" full smooth lagging - Hardness 60 ±5 Shore A	o
3/8" full diamond lagging - Hardness 60 ±5 Shore A	o
3/8" partial smooth lagging - Hardness 60 ±5 Shore A	o
White smooth rubber lagging (FDA listed) - Oil, fat & grease resistant	o
Special lagging - e.g. hot vulcanized, partial, and ceramic (See page 80.)	o
External brake shaft (for mechanical brake by others)	x
Mechanical backstop	Min. RL = 29.53" for 630M Min. RL = 37.40" for 630H
Insulation class F with standard oil: (allowable ambient temperature: -13°F/+104°F)	Std.
Insulation class H with synthetic oil: (allowable ambient temperature: -13°F/+120°F)	x
Parallel shell	x
Thermal protection switch	Std
Temperature monitoring device (PT100 RTD or PTC)	x
Thermal protection switch and temperature monitoring device (PT100 RTD or PTC)	x
Voltage: Single voltage (460) stator (Y winding) wired for 460v/3ph/60 Hz at terminal box	Std.
IP66/67 Standard yellow powder coated cast iron terminal box	Std.
Special voltage motors	x
Special zinc-rich epoxy paint	x
CSA approved motors	x

x = Optional extras

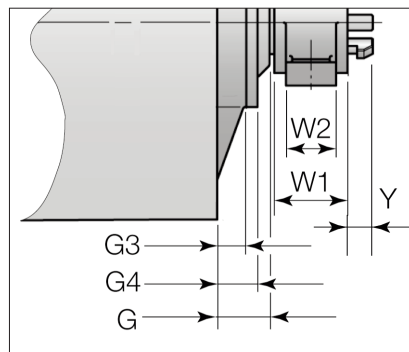
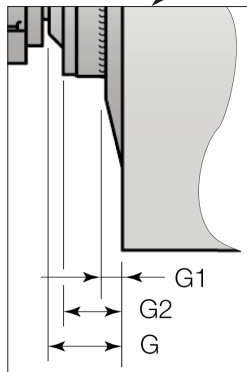
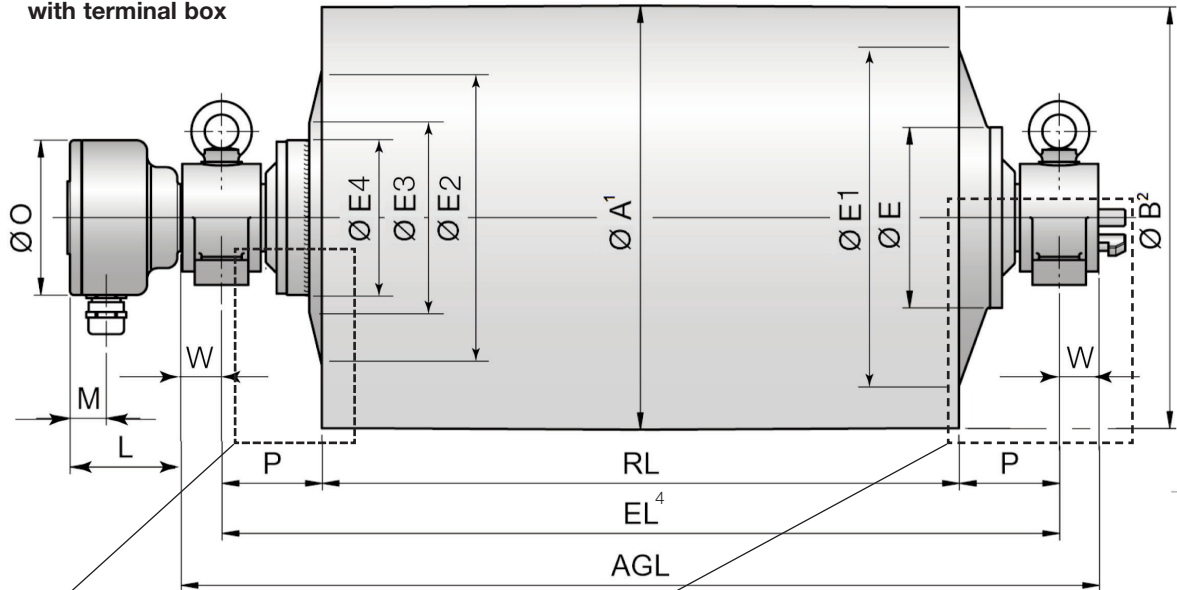
o = An option with certain limitations. Please refer to Technical precautions pages 80-90.

Std. = Fitted as standard

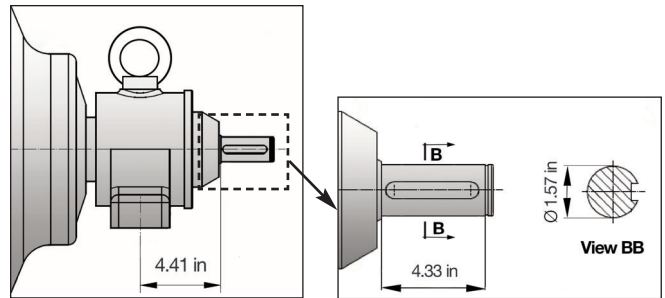


Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm)

Motorized Pulley with terminal box



Optional external brake shaft



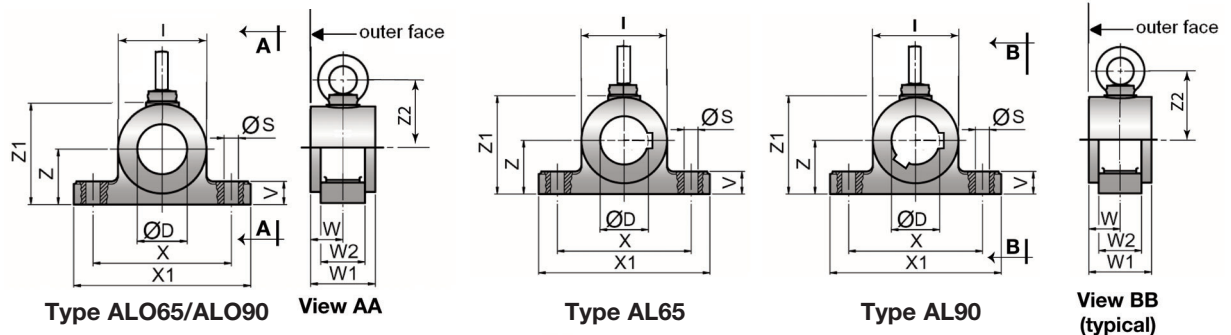
Model	Dimensions ⁵																		
	A	B	D ³	E	E1	E2	E3	E4	G	G1	G2	G3	G4	L	M	O	P	Y	
	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
630M	24.80	24.65	2.56	7.56	21.85	20.91	10.79	7.68	3.74	0.87	3.35	1.67	3.35	3.94	1.42	6.14	5.91	2.0	
630M (30 HP)	24.80	24.65	3.54	7.56	21.85	20.91	10.79	7.68	3.74	0.87	3.35	1.67	3.35	6.50	2.13	9.06	5.91	2.0	
630H	24.80	24.65	3.54	10.55	17.56	15.79	12.48	8.94	3.46	1.00	2.05	1.97	2.64	6.50	2.13	9.06	5.91	2.0	

- 1 A dimension is outer diameter of unlagged pulley shell at pulley centerline.
- 2 B dimension is outer diameter of unlagged pulley shell at each end of shell.
- 3 D dimension is shaft diameter.
- 4 EL = mounting centers.
- 5 Dimensions E, E1, E2, E3, E4, G, and G3 may vary +/- 0.25 in because they do not all refer to machined parts. G dimension does not apply to lab seals (see pg 64).



Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm) 60 Hz

Mounting Brackets



Motorized Pulleys	Material	Bracket Type	Dimensions													Weight lbs
			D	I	S	V	W	W1	W3	X	X1	Z	Z1	Z2		
Model			in	in	in	in	in	in	in	in	in	in	in	in	in	
620M	Cast iron	AL65 / ALO65	2.56	4.53	0.91	1.34	1.85	3.54	2.36	7.09	9.45	3.15	5.55	3.65	17.64	
630M (30 HP), 630H	Cast steel	AL90 / ALO90	3.54	6.30	1.02	1.65	2.40	4.61	3.15	9.84	12.60	3.94	7.20	5.14	41.89	

Motor			Model	Nominal belt speed ¹ at Full Load 60 Hz fpm	Actual belt speed ¹ at Full Load 60 Hz fpm	Belt Pull ² lbs	Max. Radial Load ³ T1 + T2 lbs	Min. RL in	RL Dimension inches (RL > 78.74" available on request)											Type of Bracket
Power HP	No. of Poles	No. Gear Stages							Weight in lbs ⁵											
7.5	8	2	630M	150	157	1473	10,300	29.53	29.53	31.50	33.46	35.43	37.40	39.37	41.34	43.31	45.28	longer than 45.28	See Note ⁴ AL65 & ALO65	
				240	267	866			907	929	951	972	994	1019	1041	1064	1086			
10	6	2	630M	300	351	659			927	949	970	992	1014	1039	1061	1084	1106			
				384	487	475														
15	8	2	630M	480	594	388			960	982	1006	1027	1049	1074	1096	1119	1141			
				600	777	591														
20	6	2	630M	768	782	296														
				240	267	1181			984	1006	1030	1052	1074	1099	1120	1143	1165			
25	4	2	630M	300	313	2003			1006	1028	1052	1074	1096	1121	1142	1165	1187			
				384	401	1574														
30	6	2	630M	480	526	1199			1006	1028	1052	1074	1096	1121	1142	1165	1187			
				600	586	1075														
30	4	2	630M	768	730	863														
				240	267	1318	1006	1028	1052	1074	1096	1121	1142	1165	1187					

- 1 Use "nominal belt speed" to specify pulley. "Actual belt speed" is presented (for pulley lagged with 3/8" thick rubber) to assist with process design calculations. See Technical Precautions page 81. Note that "actual belt speed" decreases when lagging is not used due to decreased pulley diameter.
- 2 Belt pull value allows for gearbox loss.
- 3 Pulley must not be subjected to radial load exceeding "Maximum radial load" defined above. See "Belt Tension" section in Technical Precautions, page 82.
- 4 Additional Motorized Pulley weight: Model 630M: 45.28" ≤ RL ≤ 78.74" Wt = 11.2 lbs/in; Model 630H: 51.18" ≤ RL ≤ 78.74" Wt = 15.8 lbs/in.
- 5 All weights shown above are for pulleys "fully lagged" with 3/8" thick rubber. For model 630H "partially lagged" pulleys add 4% to 7% to the weights shown above. See pages 45, 82, and 83 for "partial lagging." To calculate unlagged pulley weight subtract 1.2 lbs/in of Roller Length from above.

Rulmeca offers return, snub, and idler pulleys with dimensions to match our Motorized Pulleys on request.



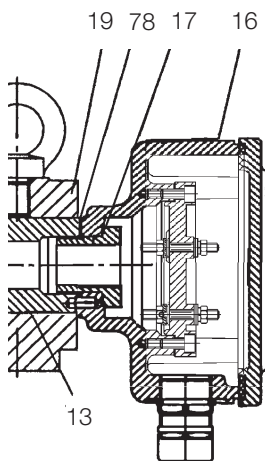
Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm) 60 Hz

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Power HP	37.40									39.37	41.34	43.31	45.28	47.24	49.21	51.18	longer than 51.18	
30	8	2	630H	240 300 384 480 600 768	247 314 408 492 639 783	3745 2946 2268 1879 1449 1182	16,600	37.40	1819	1850	1879	1910	1939	1963	1995	2025	See Note ⁴	AL90 & ALO90
40	8	2	630H	240 300 384 480 600 768	247 314 408 492 639 783	5107 4018 3093 2563 1975 1611	22,000	37.40	1863	1894	1923	1955	1983	2007	2039	2069		
50	6	2	630H	300 384 480 600 768	330 418 544 656 851	4723 3717 2861 2370 1828	22,000	37.40	1863	1894	1923	1955	1983	2007	2039	2069		
61	4	2	630H	480 600 768 960	493 627 815 984	3830 3013 2321 1922	19,900	37.40	1907	1939	1967	1999	2027	2051	2083	2114		
75	4	2	630H	600 768 960	627 815 984	3683 2836 2349	19,900	37.40	1907	1919	1967	1999	2027	2051	2083	2114		

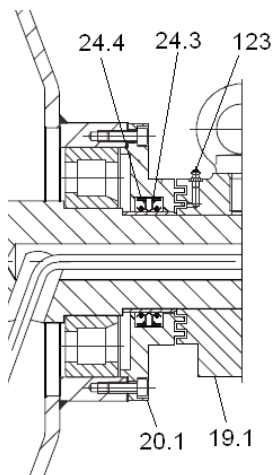
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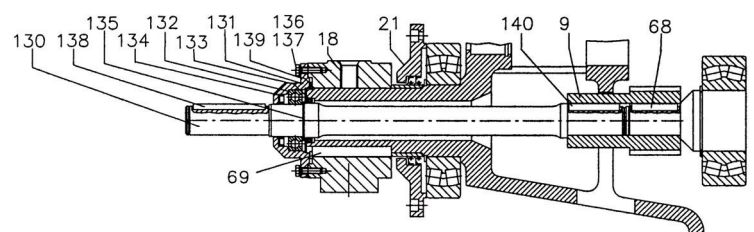
Terminal Box
(valid for 630M)



Labyrinth Seal Option



External Brake Shaft Option

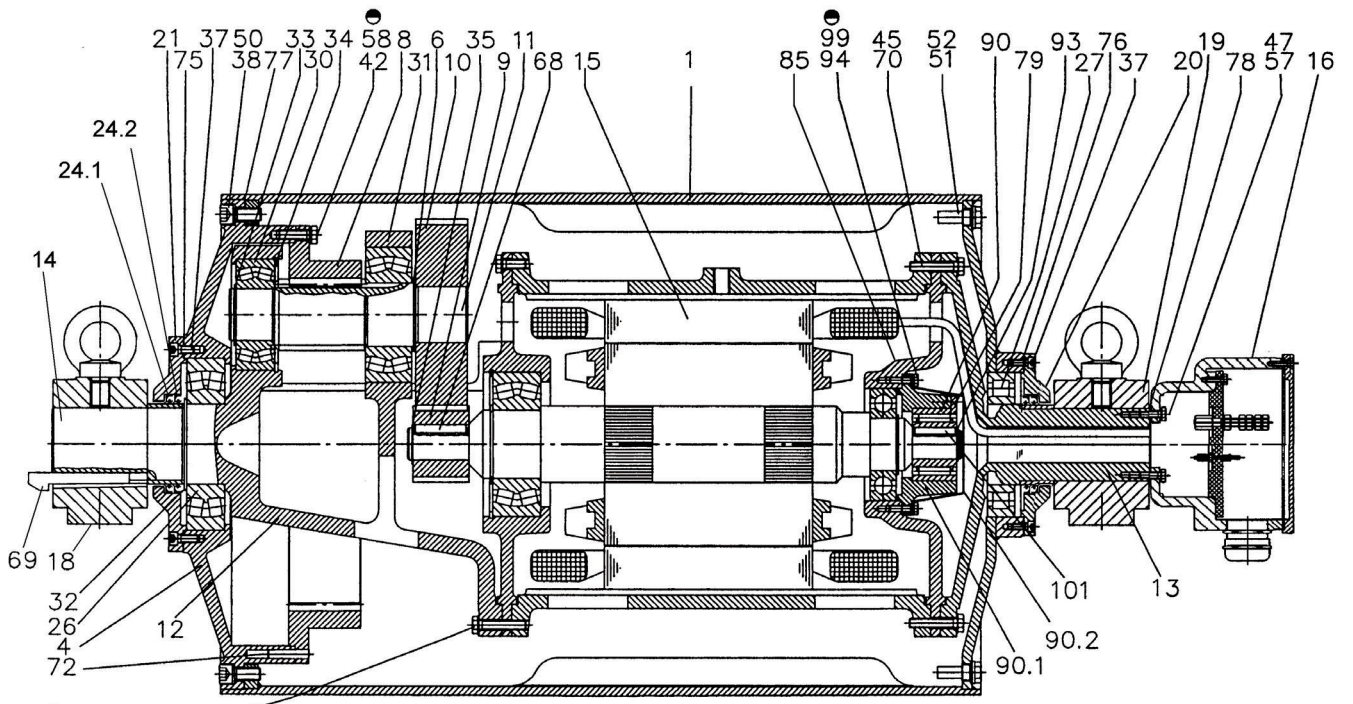




Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm)

Spare parts list and sectional drawings

Pos.	Description	Pos.	Description	Pos.	Description
1	Shell	24.4	Shaft oil seal inner (lab option)	76	Gasket
4	End housing with geared rim	26	Bearing	77	Gasket
6	Distance washer (630H)	27	Bearing	78	Gasket
8	Geared rim	30	Bearing	79	Holding plate
9	Rotor pinion	31	Bearing	85	Motor flange for backstop/brake
10	Input wheel	32	Retaining ring	90	Backstop
11	Output pinion	33	Retaining ring	90.1	Backstop housing
12	Gear box including rear shaft	34	Retaining ring	90.2	Backstop cover
13	Front shaft	35	Retaining ring	93	Retaining ring
14	Rear shaft	37	Hexagon socket screw	94	Hexagon head screw
15	Stator complete	38	Hexagon socket screw	99	Spring washer
15.1	Rotor	42	Hexagon head screw	101	Key
16	Terminal box complete	44	Hexagon head screw	123	Grease nipple
17	Nipple (630M only)	45	Hexagon head screw	130	Brake shaft
18	Mounting bracket rear side	47	Hexagon head screw	131	Mounting bracket bearing cover
18.1	Mtg bracket rear side (lab option)	50	Washer	132	Roller bearing
19	Mounting bracket front side	51	Gasket	133	Brake shaft seal
19.1	Mtg bracket front side (lab option)	52	Magnetic oil plug	134	Brake shaft seal
20	Cover - front side	57	Washer	135	Retaining ring
20.1	Cover with labyrinth groove	58	Spring washer	136	Bolts - bearing cover
21	Cover - rear side	68	Key	137	Spring lock washer
21.1	Cover with labyrinth groove	69	Gib key	138	Key
23	Rear flange	70	Waved spring washer	139	Retaining ring
24.1	Shaft oil seal outer	72	Grooved pin	140	Key
24.2	Shaft oil seal inner	73	Set screw		
24.3	Shaft oil seal outer (lab option)	75	Gasket		



● 44, 70

Backstop Option

● bolt fitted with glue
Omnifit or Loctite