



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 78. 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 88.
- 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
- 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 76-86
- **Environmental Considerations:** page 72
- **Optional Extras:** page 61 and back cover
- **Electrical Connection Diagrams:** pages 94-96.

SEMI-RUST-FREE options

TS11

- Painted mild steel shell at minimum thickness of 4.7 mils
- Painted cast iron end housings at minimum 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 88.
- 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 page 80.)		
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	x
	Min. RL = 37.40" for 630H	x
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 protector		Std.
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
CSA approved motors		x

x = Optional extras

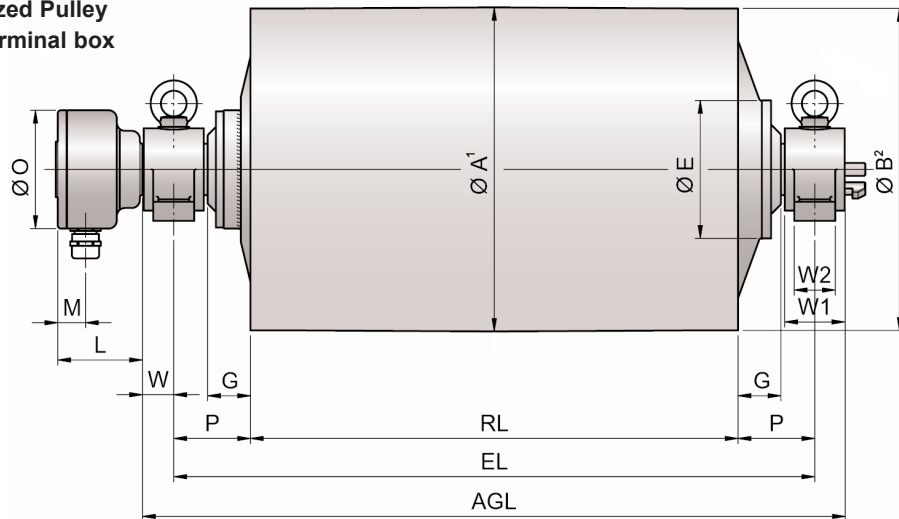
o = An option with certain limitations. Please refer to Technical precautions pages 76-86!

Std. = Fitted as standard

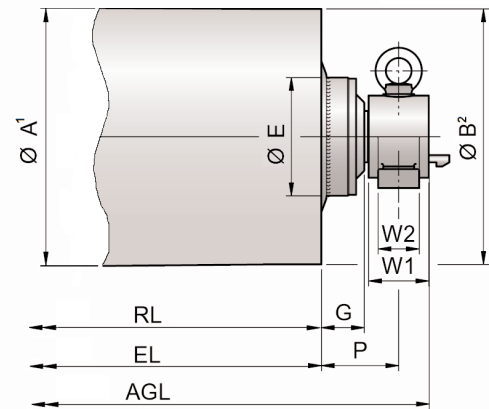


Motorized Pulley 630M & 630H, Ø 24.80 in. (630 mm)

Motorized Pulley with terminal box

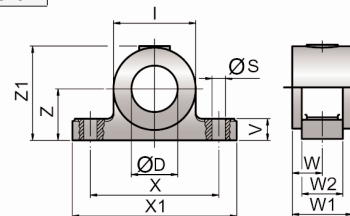


Idler Pulley³
UT500H / UT502H



Model	Motorized Pulleys or Idler Pulleys									
	A in	B in	C in	D ⁴ in	E in	G in	L in	M in	O in	P in
630M	24.80	24.65	-	2.56	7.56	3.74	3.94	1.42	6.14	5.91
630H	24.80	24.65	-	3.54	10.55	3.46	6.50	2.13	9.06	5.91
UT500H	19.72	19.72	-	2.56	9.25	3.74	-	-	-	5.91
UT502H	19.72	19.72	-	3.54	8.90	3.35	-	-	-	5.91

- 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 Idler pulley shown is non-crowned version.
- 4 D dimension is shaft diameter.



Mounting brackets*

Motorized Pulleys & Idler Pulleys Model	Material	Bracket Size*	Dimensions												Weight lbs
			D in	I in	S in	V in	W in	W1 in	W2 in	X in	X1 in	Z in	Z1 in		
630M & UT500H	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	17.64	
630H & UT502H	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	41.89	

* Type AL bracket has gib key. Type ALO has no gib key. See position 69 on page 68.



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

Motor		No. Gear Stages	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								Weight in lbs ⁵																																																																																																			
										29.53	31.50	33.46	35.43	37.40	39.37	41.34	43.31	45.28	longer than 45.28																																																																																									
7.5	8	2	630M	150 192 240	157 200 267	1473 1155 866	10,300	29.53														See Note ⁴	AL65 & ALO65																																																																																					
	6	2	630M	300 384 480 600 768	351 390 487 594 782	659 591 475 388 296																		907	929	951	972	994	1019	1041	1064	1086																																																																												
10	8	2	630M	150 192 240	157 200 267	2009 1574 1181																																																																																																						
	6	2	630M	300 384 480 600 768	351 390 487 594 782	899 807 647 530 404																																			927	949	970	992	1014	1039	1061	1084	1106																																																											
15	6	2	630M	240 300 384 480 600 768	267 351 390 487 594 782	1733 1318 1183 949 777 591																																																																																																						
				300 384 480 600 768	313 401 526 586 730	2003 1574 1199 1075 863																																																				960	982	1006	1027	1049	1074	1096	1119	1141																																										
20	4	2	630M	300 384 480 600 768	313 401 526 586 730	2003 1574 1199 1075 863																																																																																																						
				384 480 600 768	400 526 586 730	1959 1478 1327 1064																																																																					984	1006	1030	1052	1074	1099	1120	1143	1165																									
25	4	2	630M	384 480 600 768	400 526 586 730	1959 1478 1327 1064																																																																																																						
				600 768	627 800	1473 1155																																																																																						1006	1028	1052	1074	1096	1121	1142	1165	1187								
30	2	2	630M	600 768	627 800	1473 1155																																																																																																						

Motor		No. Gear Stages	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								Weight in lbs ⁵																																																																																						
										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																																																																																							
				480 600 768	492 639 783	1879 1449 1182																		1819	1850	1879	1910	1939	1963	1995	2025																																																																
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																																																																						
				480 600 768	492 639 783	2563 1975 1611																																			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																																																					
				480 600 768	493 627 815 984	3830 3013 2321 1922																																																				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																																				
				600 768 960	627 815 984	2321 1922																																																																					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																			
				600 768 960	627 815 984	2836 2349																																																																																						1907	1919	1967	1999

Idle Pulley															
		Model UT500H		10,300	29.53	578	600	638	658	677	697	716	735	See Note ⁴	AL65 & ALO65
		Model UT502H		22,000	29.53	669	691	711	733	753	775	797	818		

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 77. 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 78.

4 Additional Motorized Pulley and Idler 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 page 80 for "partial lagging." To calculate unlagged pulley weight subtract 1.2 lbs/in of Roller Length from above.