



# Motorized Pulley 1000H & 1000HD, Ø 40.16 in. (1020 mm)

The RULMECA Motorized Pulley type 1000H and 1000HD are highly reliable and strong drives with a power range of 220–330 HP. They are able to take a high radial load and are robust in design. Therefore, it is especially developed for use in:

- Mining conveyors,
- Excavators,
- Stackers,
- Reclaimers, and
- Ship loading conveyors.

The Motorized Pulleys 1000H and 1000HD are designed for tough, irregular, extreme working conditions.

The compact design allows the design engineers to save material and cost when developing the conveyor.

With its high protection rating and its standard labyrinth sealing system, this Motorized Pulley can be used in all ambient conditions.

## STANDARD SPECIFICATION of Motorized Pulley

- Crowned mild steel shell, outside diameter 40.16 in.
- Mild steel shafts.
- Totally enclosed cast iron brackets,
- Shell lagged with 0.39 in thick bonded ceramic lagging,
- Bearing houses from cast steel.
- Three stage cast steel gearboxes.
- Sealing system with degree of protection IP66/67 (EN60034-5).
- Terminal box from cast iron.
- 3-phase induction motors with 3 phase single voltage,
- Std. voltage 460v/3ph/60Hz,
- Please specify voltage.
- Motor winding insulation class H,
- 3 bimetallic thermal protectors connected in series, 2 temperature resistors PT100 and 3 PTC-resistors connected in series installed in the winding.

- Rotor dynamically balanced.
- 2 oil plugs (with magnet).
- Minimum roller length (RL = 55.12 in at 220 HP & 59.06 in at 330 HP,
- Synthetic oil EP220.
- First oil change recommended after 50,000 operational hours.
- Regreasable labyrinth seals.

### Please Note:

- **Special speeds:** available on request.
- **Environmental conditions:** See pages 78-79.
- **Technical precautions:** See pages 80-90.
- **Optional extras:** See below.
- **Connection diagrams:** See pages 94-100.

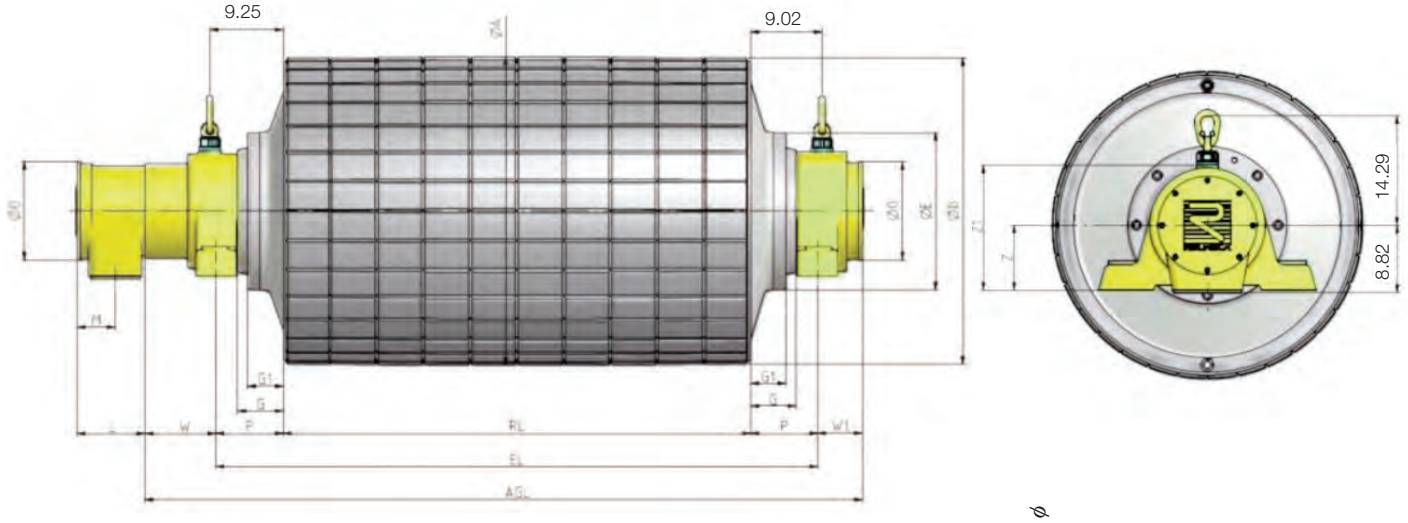
## OPTIONAL EXTRAS

Specification	Availability
Different types and shapes of ceramic lagging	x
Mechanical backstop	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
Degree of protection IP66/67	Std.
Allowable ambient temperatures -13 degrees F to +120 degrees F	Std.
External brake shaft (for mechanical brake by others)	x
Motor protection and control by 3 bimetallic thermal protectors connected in series, 2 temperature sensors PT100 and 3 PTC-resistors connected in series	Std.
Insulation class H with synthetic oil	Std.
Thermal winding protection	Std.
Voltage US (3 x 460V at 60 Hz), Europe (3 x 690V at 50 Hz,) with tolerances +/- 10% (DIN IEC 38)	Std.
IP66/67 cast iron terminal box	Std.
Other voltages from 400V up to 1000V	x
CSA approved motors	x

= Optional extras  
 = Fitted as standard



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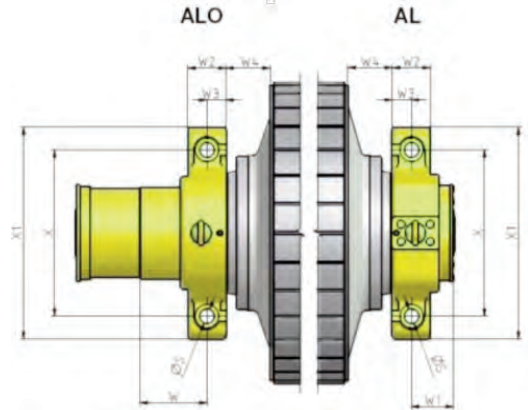
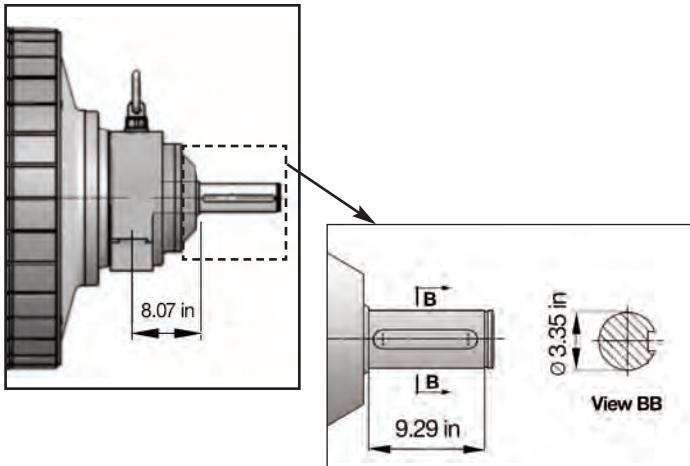


## Motorized Pulley Dimensions

Type	A <sup>1</sup> in	B <sup>2</sup> in	D <sup>3</sup> in	E in	G in	L in	M in	O in	P in	W in	W1 in	W4 in
1000HD	40.16	39.92	7.99	20.47	5.71	8.58	4.80	12.79	8.46	8.98	5.63	5.91

- 1 A dimension is outer diameter of lagged pulley shell at pulley centerline.
- 2 B dimension is outer diameter of lagged pulley shell at each end of shell.
- 3 D dimension is shaft diameter.

## Optional external brake shaft



## Bracket Dimensions

Type*	S in	W2 in	W3 in	X in	X1 in	Z in	Z1 in
AL	1.97	5.12	2.56	22.05	28.23	8.46	16.22
ALO	1.97	5.12	2.56	22.05	28.23	8.46	16.22

\* AL is drive side bracket and is locked against rotation.

ALO is non-drive side bracket and is free to rotate.



## Motorized Pulley 1000H & 1000HD, Ø 40.16 in. (1020 mm) 60 Hz

Motor		No. of Gear Stages	Model	Nominal belt speed <sup>1</sup> at Full Load 60 Hz fpm	Actual belt speed <sup>1</sup> at Full Load 60 Hz fpm	Belt Pull <sup>2</sup> lbs	Max. Radial Load <sup>3</sup> T1 + T2 lbs	Min. RL in	RL Dimension inches (RL>70.87" available on request) Weight in lbs <sup>5</sup>																									
Power HP	No. of Poles								55.12	57.09	59.06	61.02	62.99	64.96	66.93	68.90	70.87	longer than 70.87																
220	6	3	1000HD	384	399	16,474	67,443	57.09	-	9,810	9,965	10,064	10,207	10,351	10,494	10,637	10,781	See Note <sup>4</sup>																
				480	504	13,062		55.12	9,259	9,413	9,513	9,656	9,800	9,943	10,086	10,229	10,373																	
	4	2	1000H	700	723	9,102	67,443	51.18	9,083	9,226	9,370	9,513	9,656	9,800	9,943	10,086	10,229																	
				850	865	7,610																												
	4	2	1000H	1064	1091	6,034	49,458	49.21	8,675	8,818	8,962	9,105	9,248	9,392	9,535	9,678	9,822																	
				1300	1304	5,045																												
				1550	1617	4,068																												
				1850	1876	3,507																												
				2000	2062	3,191																												
				2250	2363	2,785																												
	270	4	3	1000HD	480*	507	16,242	67,443	57.09	-	9,811	9,965	10,064	10,207	10,351	10,494	10,637		10,781															
					600*	606	13,580																											
760					751	10,951																												
850					872	9,440																												
960					958	8,590																												
2					1000H	1064	1097											7,503				49,458	51.18	9,083	9,226	9,370	9,513	9,656	9,800	9,943	10,086	10,229		
		1300	1312	6,273																														
		1550	1626	5,059																														
		1850	1887	4,361																														
		2000	2074	3,968																														
		2250	2376	3,463																														
330		4	3	1000HD	600*	602	17,069	67,443	59.06	-	-	10,362	10,516	10,615	10,759	10,902	11,045	11,188																
	760*				747	13,765																												
	850				867	11,865																												
	960				953	10,796																												
	2				1000H	1064	1091														9,430	49,458	53.15	9,380	9,568	9,778	9,921	10,064	10,207	10,346	10,494	10,637		
						1300	1304														7,885													
		1550	1617	6,359																														
		1850	1876	5,481																														
		2000	2062	4,987																														
		2250	2363	4,353																														

\* This power & speed can only be used with 100% load in clockwise direction of rotation. For counterclockwise rotation Motorized Pulley must be assembled in opposite manner. Please specify rotation direction when ordering.

Note: Please specify outer diameter of your power cable when ordering.

This Motorized Pulley must be started with VFD or soft starter.

- 1 Use "nominal belt speed" to specify lagged pulley. Actual full load belt speed of lagged pulley, will assist with process design calculations.
- 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 Precaution, page 82.
- 4 Additional Motorized Pulley weight: Models 1000HD and 1000H:  $70.87 \leq RL \leq 98.43$  Wt = 72.7 lbs/in.
- 5 All weights shown above include mounting brackets and are for pulleys "fully lagged" with 0.39" thick ceramic.

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