



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

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

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

The motorized pulley 1000HD is designed for tough, irregular, extreme and brutal 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 76 -77.
- **Technical precautions:** See pages 78 - 98.
- **Optional extras:** See below.
- **Connection diagrams:** See page 92.

## OPTIONAL EXTRAS

### Specification

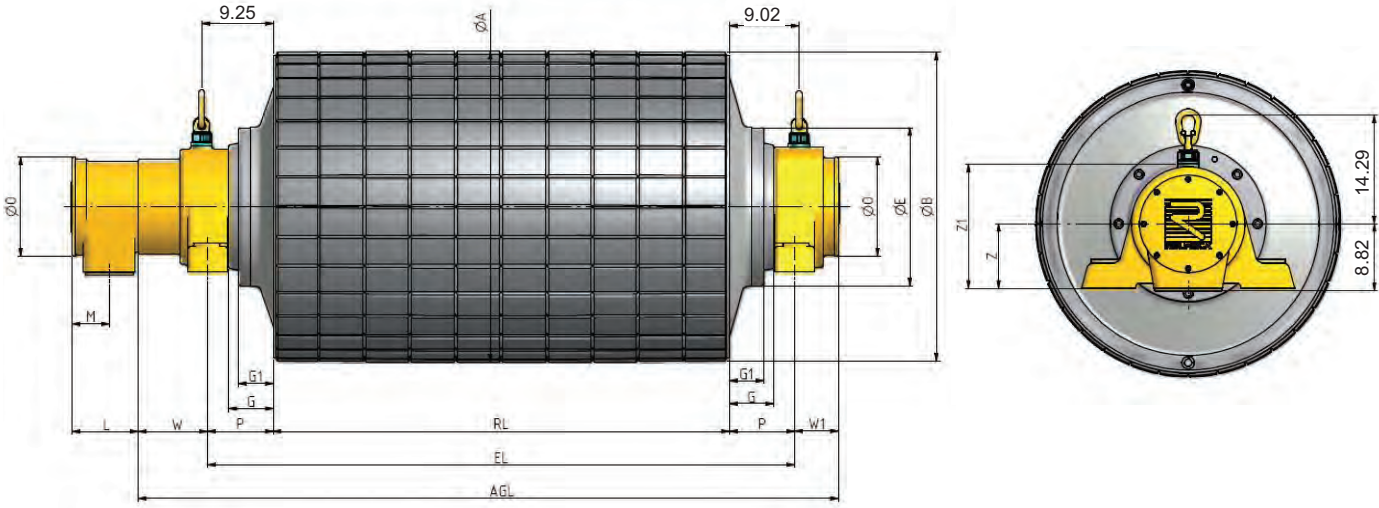
### Availability

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
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

x = Optional extras  
Std. = Fitted as standard



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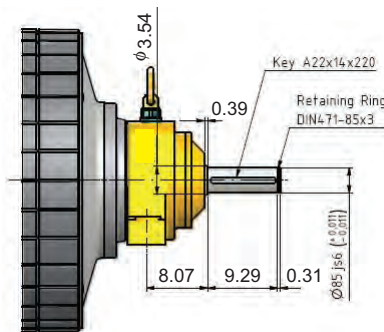


## Motorized Pulley Dimensions

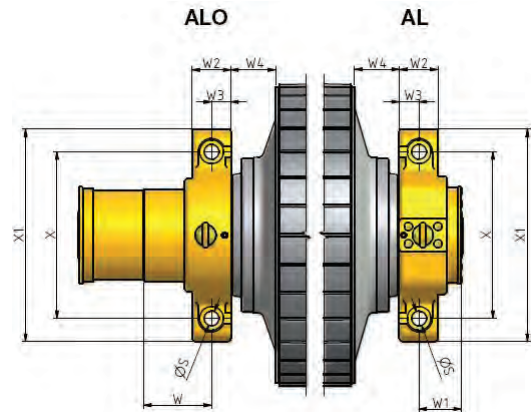
Type	A <sup>1</sup> in	B <sup>2</sup> in	D <sup>3</sup> in	E in	G in	L in	M in	O in	P in	W in	W1 in	W4 in
1000HD	40.16	39.92	7.99	20.47	5.71	8.58	4.80	12.79	8.46	8.98	5.63	5.91

- 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.

## Standard External Brake Shaft Dimension



\* All dimensions are in imperial units, except for brake shaft diameter, key, and retaining ring, which are metric.



## 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 1000HD, Ø 40.16 in. (1020 mm) 60 Hz

Motor		No. 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)									
Power HP	No. of Poles								Weight in lbs <sup>5</sup>									
									55.12	57.09	59.06	61.02	62.99	64.96	66.93	68.90	70.87	longer than 70.87
220	4	3	1000HD	600	-	13,354	67,443	55.12	9,259	9,414	9,513	9,656	9,800	9,943	10,086	10,229	10,373	
				756	-	10,746												
				960	-	8,453												
				1080	-	7,351												
				1320	-	6,160												
270	4	3	1000HD	600	-	16,703	67,443	57.09	-	9,811	9,965	10,064	10,207	10,351	10,494	10,637	10,781	See Note <sup>4</sup>
				756	-	13,489												
				960	-	10,566												
				1080	-	9,206												
				1320	-	7,756												
330	4	3	1000HD	600	-	20,885	67,443	59.06	-	-	10,362	10,516	10,615	10,759	10,902	11,045	11,188	
				756	-	16,838												
				960	-	13,219												
				1080	-	11,521												
				1320	-	9,689												

Standard RL →

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

