

## MOTORIZED PULLEYS FOR BELT CONVEYORS BULK HANDLING

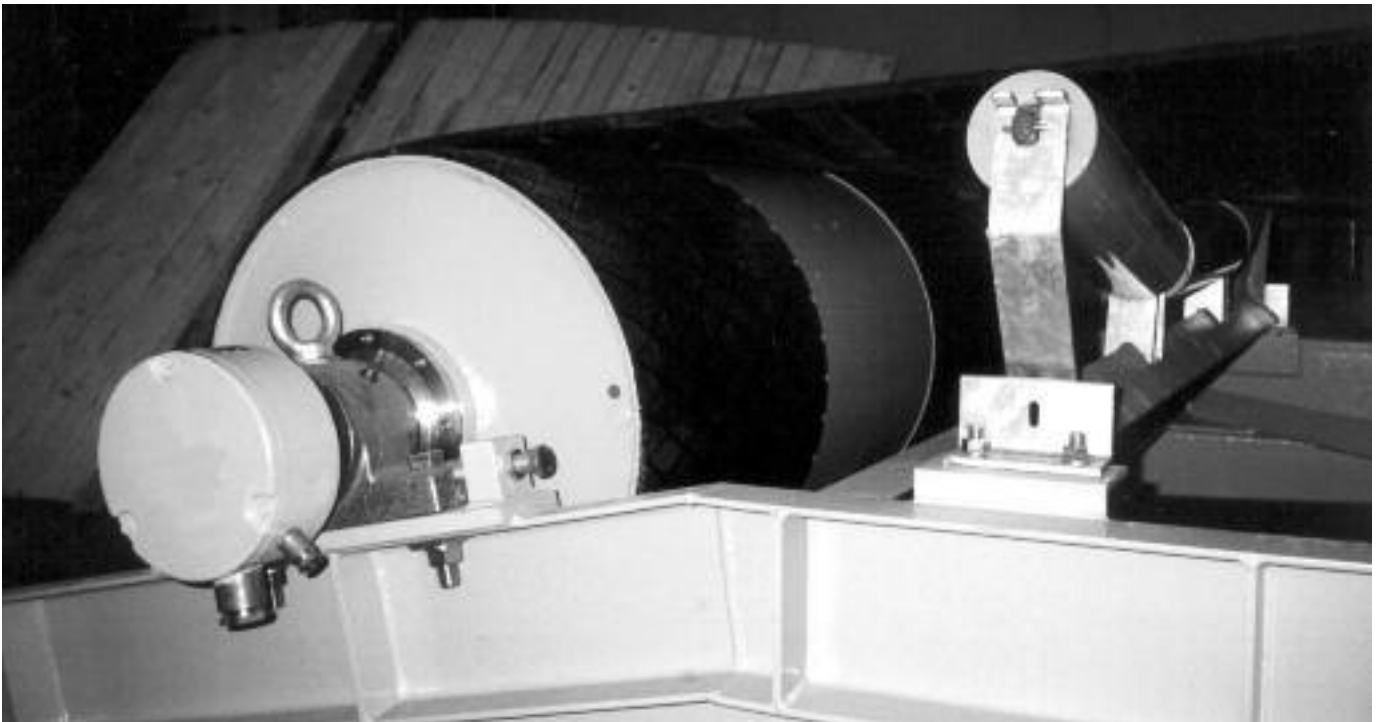
GENERAL CATALOGUE

**Moving ahead.**





Offshore dredging in the North Sea featuring full capacity unloading at each docking to meet tide turn-round. Capacity: 2700 t/hr at up to 3.15 m/sec.



All Motorized Pulleys on-board vary from 37 to 75kW and have TS-11 finish and re-greasable IP66/67 seals as a MUST in salt water environment with hosedowns.

## Motorized Pulley 1000HD, Ø 1000 mm

The RULMECA motorized pulley type 1000HD is a highly developed reliable and strong drive with an outstanding power range of 160 – 250 kW. 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,
- Heavy loaded conveyors in gravel and sand

The motorized pulley 1000HD is designed for tough, irregular, extreme and brutal working condition.

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

A high protection rate connected with the standard labyrinth sealing system it can be used in all ambient conditions.

### STANDARD SPECIFICATION of the Motorized Pulley

- Crowned mild steel shell + ceramic lagging, outside diameter 1020mm.
- Mild steel shafts.
- Totally enclosed cast iron brackets,
- Shell lagged with a 10mm bonded ceramic lagging,
- Bearing houses from cast steel.
- Gear 3-stage boxes from cast steel.
- 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. voltages 400V, 415V, 525V, 690V, 50Hz & 460V, 575V 60Hz

#### Please specify!

- Motor winding insulations class H,
- 3 bimetallic thermal protectors in connected 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 = 1400mm at 160kW & 1500 at 250kW,
- Synthetic oil EP220.
- First oil change recommended after 50.000 operational hours.
- Regreasable labyrinth seals with automatic greasing system,
- Special speeds available on request,

#### Please Note!

- Environmental conditions: page 77-78.
- Technical precautions page 81-92,
- Optional extras on page 72,
- Connection diagrams on page 100.





## OPTIONAL EXTRAS

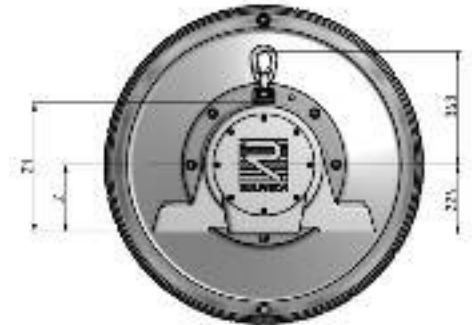
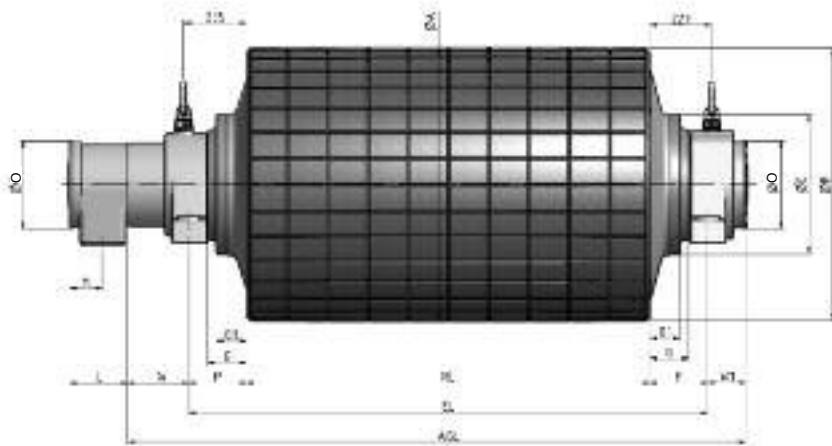
### Motorized Pulley 1000HD

Option	1000HD
Different types and shapes of ceramic lagging	x
Mechanical backstop RL + 0	x
External brake shaft RL + 0	x
Allowable ambient temperatures	-25°C until +40°C
Insulation class H with synthetic oil	Std.
Motor protection and Control by 3 bimetallic thermal protectors connected in series, 2 temperature resistors PT100 and 3 PTC-resistors connected in series	Std.
Dust Explosion proof Motorized Pulleys – ATEX95 – Zone 22 – for applications handling of dusty grain etc. according to European Directive 94/9/EC	x
Thermal winding protection	Std.
IP66/67 cast iron terminal box	Std.
Degree of protection IP66/67	Std.
Triphase single voltage (3x400V, 415V, 525V & 690V at 50Hz & 460V, 575V 60Hz) with tolerances +/-10% (DIN IEC 38)	Std.
Other voltages up to 1000V	x
CSA approved motors	x

**Std.** = standard

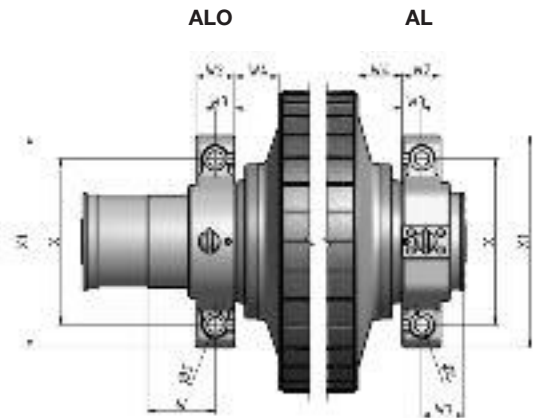
**x** = available as option

# Motorized Pulley 1000 HD, Ø 1000 mm

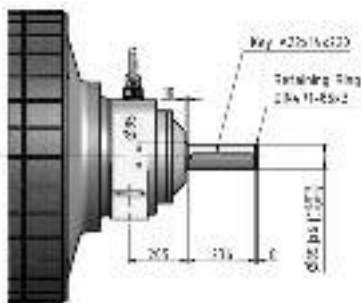


Motorized Pulley Dimension

A	B	D	E	G	G1	L	M	O	P	W	W1	W4
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1020	1014	203	520	145	114	218	122	325	215	228	143	150



Standard External Brake Shaft Dimension



Bracket Dimension

Type	S	W2	W3	X	X1	Z	Z1
	mm	mm	mm	mm	mm	mm	mm
AL	50	130	65	560	717	215	412
ALO	50	130	65	560	717	215	412



## Motorized Pulley 1000H Ø1020 mm

50 Hz

Motor		Gear stages	Nominal belt speed at full load 50Hz m/s	Torque Nm	Belt Pull N	Max. radial load T1+T2 kN	min. RL	Type	Weight in kg for STANDARD width																
Power kW/HP	No. of Poles								RL in mm											per 50mm up to 2500					
									1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800					
160.0/ 218.0	6	2	3.00	25160	49330	300	1300	1000H															65kg		
			3.50	21030	41240																			1250	
			4.00	18830	36930																				
	4	2	4.50	16770	32890	220			3755	3825	3870	3935	4000	4065	4130	4195	4260	4325	4390	4455					
			5.50	14020	27500																				
			6.50	11310	22170																				
200.0/ 272.0	4	2	7.00**	10750	21080	220	1300	1000H																65kg	
			7.50**	10230	20060																				
			8.50	8870	17390																				
	2	2	4.50	20960	41110	300				4005	4075	4120	4185	4250	4315	4380	4445	4510	4575	4640					
			5.50	17530	34370																				
			6.50	14130	27720																				
250.0/ 340.0	4	2	7.00**	13440	26350	220	1350	1000H																65kg	
			7.50**	12790	25080																				
			8.50	11089	21740																				
	2	2	4.50	26200	51390	300																			
			5.50	21900	42950																				
			6.50	17650	34650																				
250.0/ 340.0	4	2	7.00**	16800	32940	220	1350	1000H																65kg	
			7.50**	15980	31350																				
			8.50	13850	27170																				
	2	2	4.50	26200	51390	300																			
			5.50	21900	42950																				
			6.50	17650	34650																				

\*\* for speeds marked with double star optional gear ratios possible on request.

## Motorized Pulley 1000HD Ø1020 mm

50 Hz

Motor		Gear stages	Nominal belt speed at full load 50Hz m/s	Torque Nm	Belt Pull N	Max. radial load T1+T2 kN	min. RL	Type	Weight in kg for STANDARD width																
Power kW/HP	No. of Poles								RL in mm											per 50mm up to 2500					
									1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800					
160.0/ 218.0	6	3	1.60	45540	89280	300	1450	1000 HD															65kg		
			2.00 *	36310	71200																			1400	
			2.50	30300	59400																				
	4	3	3.15	24400	47800	300	1400																		
			4.00	19200	37600																				
			4.50	16700	32700																				
200.0/ 272.0	4	3	5.50	14000	27400	300	1450	1000 HD																65kg	
			2.00 *	45390	89000																				1450
			2.50 *	37950	74300																				
	4	3	3.15 *	30600	60000	300	1450																		
			4.00	24000	47000																				
			4.50	20900	40950																				
250.0/ 340.0	4	3	5.50	17600	34500	300	1500	1000 HD																65kg	
			2.50 *	47430	93010																				1500
			3.15 *	38250	75010																				
	4	3	4.00	30000	58830	300	1500																		
			4.50	26150	51250																				
			5.50	22000	43100																				

\* Power and speeds marked with a star can be used with 100% load at clockwise direction of rotation only!

For anti-clockwise direction the motorized pulley has to be assembled in an opposite way.

Note: Please specify the outer dimension of your power supply cable.

Because of high torque the start-up of the motorized pulley has to be done with a soft starter or VFD.