

MOTORIZED PULLEY 400M & 400H

Ø 400 mm



To match your requirements in diameter 400 mm, our product range offers three different loading performances for your BULK applications:

- M for Medium-duty
- H for Heavy-duty

You have a choice.

Therefore, it is important to notice the differences to choose the right type of pulley for the right application based on estimated belt tension (radial load) = T1+T2. The actual radial load **MUST** be **LESS** than the max. allowable radial load shown in this catalogue.

Be aware of increased belt tensions using *multi-ply thick heavy belts* and/or larger belt widths.

If you do not find the belt tension needed in this diameter, you might have to choose a larger one.

M for Medium-duty

The internal parts of 400M are designed for tough, irregular and extreme working conditions.

400M are typically used in grain storage, cement, steel, fertilities and heavy mobile crushing & screening applications.

H for Heavy-duty

Due to a solid 3-stage gearbox, 400H provides the necessary forces needed for low speeds, combined with high power, and is designed to handle irregular loadings in BRUTAL conditions.

STANDARD SPECIFICATION of Motorized Pulley

- Crowned mild steel Ø 400 mm steel shell painted yellow – min. layer of 60 µm
- Bolted powder coated cast iron bearing housings and covers, all painted yellow – min. layer of 60µm
- Mild steel shafts treated with anti-rust wax
- Shaft sealing system - degree of protection IP66/67 (EN60034-5)
- Powder coated aluminium terminal box – 400L
- Cast iron terminal box 400M & 400H painted yellow – min. layer of 60µm
- 3-phase induction motors with thermal protector
- Voltage: 3-phase single voltage. Most 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
- Oil change recommended every 20.000 operational hours
- Minimum RL. Please refer to pages 46/47
- Maximum RL – Please inquire!
- Non standard RL's available
- To be used in horizontal positions ±5 degree only!

Please note:

- Straight or elbow connector available – 400L ≤4.0 kW
- Special speeds available on request.
- Parallel shell available. Diameter equal to dimension Ø A.
- Motorized Pulleys for non-horizontal positions available on request.

STAINLESS STEEL

Stainless steel version or rust-resistant version on request -
For an optimum design of the correct anti-corrosion performance, we need the properties of the materials being conveyed. Our sales team will offer you the best available solution.

Other Options:

- FDA & USDA food grade recognized oil and grease are available on request
- Complete Motorized Pulleys in acid resistant stainless steel – AISI 316 range – on request.

Electrical connection options:

- Salt water resistant powder coated aluminium terminal box with zinc plated exterior bolts
- Stainless steel terminal box – AISI 304 range (400L - ≤4.0 kW only)
- Straight stainless steel connector with flying lead – AISI 304 range - ≤4.0 kW.

When ordering, please specify the required voltage, electrical connection, options, brackets and idler pulleys.

- Environmental consideration: page 72/73
- Technical precautions: page 75 ff.,
- Optional extras: page 41,
- Connection diagram: page 91 ff.

MOTORIZED PULLEY 400M & 400H

Optional extras



SPECIFICATIONS	400M & 400H
Food grade oil & grease - FDA & USDA recognized - available on request	x
Dust explosion proof Motorized Pulleys - ATEX 95 - Zone 22 - for applications handling of dusty grain etc. According to European Directive 2014/34EG	On request!
TOTAL acid resistant stainless steel option - AISI 316	x
Re-greasable labyrinth seals - mild steel	x
Black rubber lagging - STANDARD specifications: - Smooth lagging - Hardness 60 ±5 Shore A - Diamond lagging - Hardness 60 ±5 Shore A	o 8 mm 8 mm
White smooth rubber lagging (FDA). Oil, fat & grease resistant	x
SPECIAL lagging available on request - e.g. hot vulcanized, ceramic etc.	x
Electromagnetic brake	x
Min. RL dimensions increases by (mm)	100
Mechanical backstop - 400M from RL750mm & 400H from RL800 mm Min. RL dimensions increases by (mm)	x
Insulation class F - Allowable ambient temperature: -25°C-+40°C	Std.
Insulation class H with synthetic oil	x
Parallel shell	x
Thermal protector	Std.
IP66/67 cast iron terminal box painted yellow	Std.
Shaft sealing system - degree of protection IP66/67 (EN60034-5)	Std.
3-phase single voltage (3 x 400V) or (3 x 690V) 50Hz +/- 10% tolerance - DIN IEC 38	Std.
Euro-voltage (3x230/400V or 400/690V 50 Hz) with +/-10% tolerance -DIN IEC 38	Std.
Special voltages - 50 and/or 60Hz Please specify!	x
Dual voltage - delta/star - connection possibility!	x
CSA approved motors - available on request only!	x

x = Optional extras

o = Available as option with certain limitations. Please refer to Technical precautions pages 75 ff.

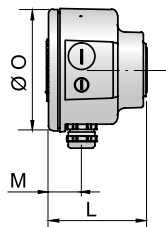
Std. = Fitted as standard

MOTORIZED PULLEY 400M & 400H

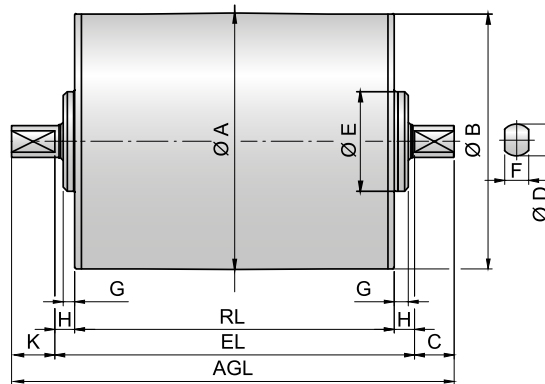
Ø 400 mm



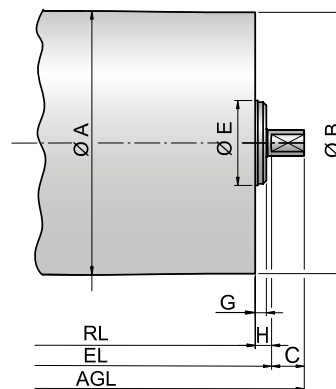
400M & 400H
terminal box



Motorized Pulley with terminal box



Idler Pulley
UT400L / UT400M / UT400H



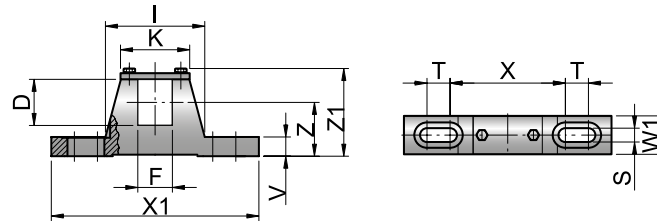
Type	Motorized Pulley or Idler Pulley (UT)									Terminal box			
	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	L mm	M mm	N mm	O mm
400M & 400H	404	400	50	60	194	45	15	25	50	131	46	-	165
UT400M & UT400H	404	400	50	60	168	45	20	25	-				

MOTORIZED PULLEY 400M & 400H

Ø 400 mm



Mounting brackets
KL41-HD & KL60



Motorized Pulley	Material	Bracket description	Dimensions												Weight
			D mm	F mm	I mm	K mm	S mm	T mm	V mm	W1 mm	X mm	X1 mm	Z mm	Z1 mm	
Type															
400M & 400H	Steel	KL60	60	45	132	90	18	30	25	50	150	270	70	115	4.8

Further product details:



https://www.rulmeca.com/contenuti/qr_code/english/400.pdf

MOTORIZED PULLEY 400M & 400H

Ø 400 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Min. RL incl. back-stop	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket															
Power kW/HP	No. of Poles	Gear stages							500	550	650	700	750	800	850	900	950	1000		per 50 mm up to 2000														
2.20/ 3.00	8	3	0.16	2638	13062	50000	700	400H														6 kg	KL60											
			0.20	2111	10450																			235	241	247	253	259	265	271	277			
			0.25	1688	8360																													
		2	0.32	1306	6465	40500	650	400M																										
			0.40	1045	5173																					200	206	212	218	224	230	236	242	
			0.50	836	4139																													
			0.63	663	3282																													
			0.80	522	2584																													
1.00	418	2090																																
1.25	334	1670																																
1.60	265	1325																																
4.00/ 5.50	8	3	0.25	3070	15200	50000	750	400H																										
			0.32	2399	11875																			250	256	262	268	274	280	286				
			0.40	1919	9500																													
		2	0.50	1520	7525	40500	700	400M																										
			0.63	1206	5970																				215	221	227	233	239	245	251			
			0.80	960	4750																													
			1.00	760	3800																													
			1.25	608	3040																													
1.60	475	2375																																
5.50/ 7.50	4	3	0.40	2638	13063	50000	700	400H																										
			0.50	2111	10450																			235	241	247	253	259	265	271	277			
			0.63	1675	8294																													
		2	0.80	1306	6465	40500	650	400M																										
			1.00	1045	5173																				200	206	212	218	224	230	236	242		
			1.25	844	4180																													
			1.60	660	3265																													
			2.00	528	2620																													
2.50	422	2090																																
3.15	332	1659																																
7.50/ 10.00	4	3	0.50	2878	14250	50000	750	400H																										
			0.63	2284	11310																			265	271	277	283	289	295					
			0.80	1799	8906																													
		2	1.00	1425	7054	40500	700	400M																										
			1.25	1140	5644																				212	218	224	230	236	242	248			
			1.60	891	4411																													
			2.00	712	3525																													
			2.50	570	2822																													
3.15	452	2238																																

* T1+T2 value is valid for shortest available RL – in case of any questions please contact Rulmeca sales.

MOTORIZED PULLEY 400M & 400H

Ø 400 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Min. RL incl. back-stop	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)											Type of Bracket					
Power kW/HP	No. of Poles	Gear stages							500	550	650	700	750	800	850	900	950	1000	per 50 mm up to 2000						
11.00/ 15.00	4	3	0.80	2638	13063	50000	750	400H														6 kg	KL60		
			1.00	2111	10450				259	265	271	277	283	289	295										
			1.25	1688	8360																				
		2	1.60	1306	6465	40500	700	400M																6 kg	KL60
			2.00	1045	5173				224	230	236	242	248	254	260										
			2.50	844	4180																				
15.00/ 20.00	2	3	1.00	2878	14250	50000	750	400H														6 kg	KL60		
			1.25	2303	11400				259	265	271	277	283	289	295										
			1.60	1799	8906																				
		2	2.00	1439	7125	40500	700	400M															6 kg	KL60	
			2.50	1142	5700				224	230	236	242	248	254	260										
			3.15	907	4523																				

Motor	Max. Radial Load T1+T2* N	Special min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)											Type of Bracket	
				500	550	600	650	700	750	800	850	900	950	1000		per 50 mm up to 2000
Idler Pulley	40500	600	UT400M			113	119	126	132	138	142	148	154	160	6 kg	KL60
	50000	650	UT400H				124	131	137	143	147	153	159	165	6 kg	KL60

* T1+T2 value is valid for shortest available RL – in case of any questions please contact Rulmeca sales.