

MOTORIZED PULLEY 320L, 320M & 320H

Ø 320 mm



To match your requirements in diameter 320 mm, our product range offers three different loading performances for your BULK applications:

- L for Light-duty
- 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.

L for Light-duty

320L is meant for applications with regular and constant operating conditions. Max. allowable radial load has to be respected; therefore it is advisable to rubber lag these Pulleys to increase grip and to *limit* belt tension.

320L should NOT be used for e.g. feeder conveyors.

(Motor/gearbox origin from 220M).

M for Medium-duty

The internal parts of 320M are designed for TOUGH and IRREGULAR working conditions - e.g. in crusher & screening applications, asphalt, cement and concrete plants etc.

H for Heavy-duty

Due to a solid 3-stage gearbox, Ø 50 mm shafts, matching bearings etc, 320H 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 320 mm steel shell treated with anti-rust wax
- Powder coated cast iron bearing housings
- Mild steel shafts treated with anti-rust wax
- Shaft sealing system – degree of protection IP66/67 (EN60034-5)
- Compact powder coated die cast aluminium terminal box m=4.0 kW
- Larger Powder coated die cast aluminium terminal box M=5.5 kW
- 3-phase induction motors with thermal protector
- Voltage: wide range 3-phase single voltage. Most common voltages available. Please specify!
- Motor winding insulation Class F
- Dynamically balanced rotor
- One out of two oil plugs fitted with a magnet to filter the oil – 320L
- Two oil plugs fitted with a magnet to filter the oil – 320M & 320H
- Oil change recommended every 20.000 operational hours
- Minimum RL.
Please refer to pages 38-39
- 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
- Parallel shell available. Diameter equal to dimension Ø A
- Two speed motors on request
- Special speed available on request
- Motorized Pulleys for non-horizontal positions available on request
- The high speed of 2-pole motors can cause higher noise levels and are therefore not recommended in noise sensitive areas

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:

- 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 (max. 4 kW)
- Straight stainless steel connector with flying lead – AISI 304 range.

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 33,
- Connection diagram: page 91 ff.

MOTORIZED PULLEY 320L, 320M & 320H

Optional extras



SPECIFICATIONS	320L	320M & 320H
Food grade oil & grease - FDA & USDA recognized - available on request	x	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!	On request!
TOTAL acid resistant stainless steel option - AISI 316	x	x
Re-greasable labyrinth seals - mild steel	x	x
Black rubber lagging - STANDARD specifications: - Smooth lagging - Hardness 60 ±5 Shore A - Diamond lagging - Hardness 60 ±5 Shore A	o 5/8 mm 6/8 mm	o 5/8 mm 6/8 mm
White smooth rubber lagging (FDA). Oil, fat & grease resistant	x	x
SPECIAL lagging available on request - e.g. hot vulcanized, ceramic etc.	x	x
Electromagnetic brake	x	x
Min. RL dimensions increases by (mm)	100	100
Mechanical backstop	x	x
Min. RL dimensions increases by (mm)		50
Modified for vertical mounting	o	o
Modified for mounting between 5° - ≤ 90° - e.g. for magnetic separators	o	o
Insulation class F - Allowable ambient temperature: -25°C-+40°C	Std.	Std.
Insulation class H with synthetic oil	x	x
SPECIAL motors for applications with NO belt contact	x	x
Low noise drives for noise sensitive areas	x	x
Parallel shell	x	x
Thermal protector	Std.	Std.
IP66/67 Compact powder coated aluminium terminal box - food grade approved	Std.	Std. ≤ 4.0 kW
IP66/67 Compact stainless steel - AISI 304 or 316 range - terminal box	x	≤ 4.0 kW
IP66/67 Larger powder coated aluminium terminal box - food grade approved		Std. ≥ 5.5 kW
Straight or elbow connector with flying lead	x	≤ 4.0 kW
Straight connector with flying lead - Stainless steel - AISI 304 range -	x	≤ 4.0 kW
Shaft sealing system - degree of protection IP66/67 (EN60034-5)	Std.	Std.
Screened cables - a MUST together with Frequency Converters	x	x
3-phase single voltage (3 x 400V) or (3 x 690V) 50Hz +/- 10% - DIN IEC 38	Std.	Std.
Euro wide range voltage (3 x 380-415V 50 Hz) with +/-10% tolerance -DIN IEC 38 or (3 x 660-690V 50 Hz)	x	x
Special voltages - 50 and/or 60 Hz Please specify!	x	x
Dual voltage - delta/star - connection!	x	x
CSA approved motors - available on request only!	x	x

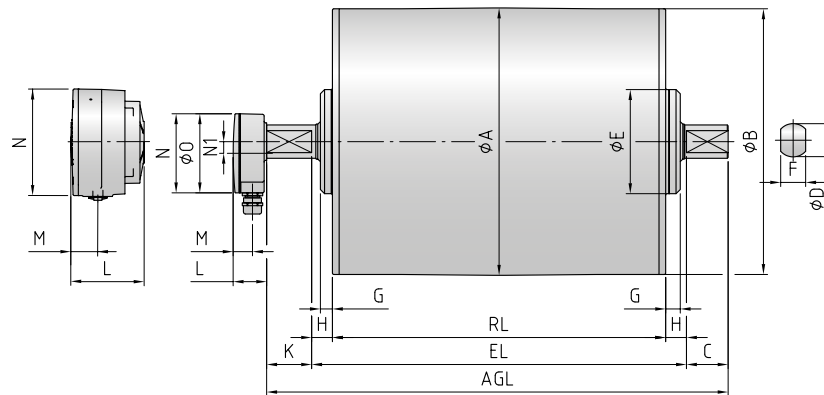
x = Optional extras

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

MOTORIZED PULLEY 320L, 320M & 320H, Ø 320 mm

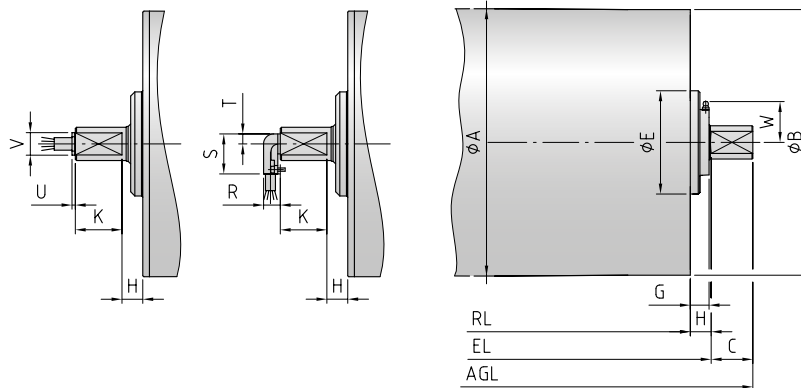


Motorized Pulley with Terminal box



Straight connector

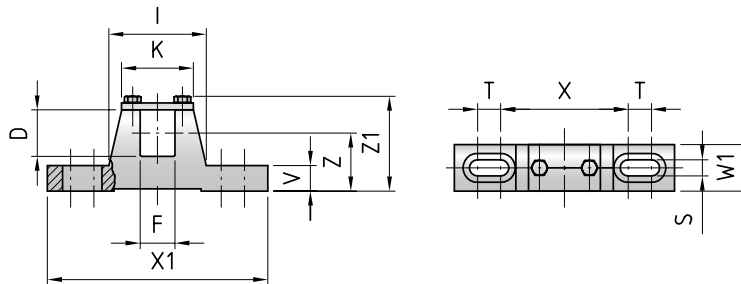
Elbow connector

Idler pulley
SS version

Type	Motorized Pulley or idler Pulley (UT)											Compact terminal box ≤4.0 kW				Larger terminal box ≥5.5 kW				Straight connector <4.0 kW		Elbow connector <4.0 kW		
	A mm	B mm	C mm	D mm	E mm	F mm	G mm	G TS9/11 mm	H mm	K mm	W mm	L mm	M mm	N mm	N1 mm	L mm	M mm	N mm	O mm	U mm	V mm	R mm	S mm	T mm
320L	323	319	50	40	96	30	15	19.5	25	54	-	41	24	95	14	-	-	-	-	4	27	20	48	12
320M	321	319	50	40	125	30	17.5	22.5	25	54	-	41	24	95	14	87	27	107	105	4	27	20	48	12
320H	321	319	50	50	148	40	11	20.5	25	54	-	41	24	95	14	87	27	107	105	4	27	20	48	12
UT320M	321	319	50	40	125	30	14.5	22.5	25	-	52	→ Idler Pulley shown with re-greasable seals												
UT320H	321	319	50	50	148	40	11	20.5	25	-	52	→ Idler Pulley shown with re-greasable seals												



Mounting brackets KL41-HD & KL42



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															kg
320L & 320M	Steel	KL41-HD	40	30	84	62	14	20	22	40	110	190	50	83	2.1
320H	Steel	KL42	50	40	121	90	18	30	25	50	150	250	70	110	4.5

Further product details:



https://www.rulmeca.com/contenuti/qr_code/english/320.pdf

MOTORIZED PULLEY 320L

Ø 320 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	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
Power kW/HP	No. of Poles	Gear stages							400	450	500	550	600	650	700	750	800	850	per 50 mm up to 2000	
0.75/ 1.00	8	2	0.32	356	2218	11500	450	320L											4 kg	KL41-HD
			0.40	285	1776															
			0.50	228	1421															
			0.63	181	1128															
			0.80	142	885															
			1.00	114	710															
1.10/ 1.50	4	2	1.25	92	573	11500	400	320L	73	76	80	84	88	92	96	100	104	108	4 kg	KL41-HD
			0.63	265	1651															
			0.80	209	1302															
			1.00	167	1040															
			1.25	134	835															
			1.60	105	654															
1.50/ 2.00	4	2	2.00	84	524	11500	400	320L	75	78	82	86	90	94	98	102	106	110	4 kg	KL41-HD
			0.63	362	2255															
			0.80	285	1776															
			1.00	228	1421															
			1.25	182	1134															
			1.60	143	891															
2.20/ 3.00	4	2	2.50	67	417	11500	450	320L											4 kg	KL41-HD
			0.80	418	2604															
			1.00	334	2081															
			1.25	265	1651															
			1.60	209	1302															
			2.00	167	1040															
3.00/ 4.00	4	2	2.50	134	835	11500	500	320L			90	94	98	102	106	110	114	118	4 kg	KL41-HD
			1.25	362	2255															
			1.60	285	1776															
			2.00	228	1421															
4.00/ 5.50	2	2	2.50	182	1134	11500	500	320L			90	94	98	102	106	110	114	118	4 kg	KL41-HD
			1.60	380	2368															
			2.00	304	1894															
			2.50	243	1514															

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

MOTORIZED PULLEY 320M & 320H

Ø 320 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	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	
Power kW/HP	No. of Poles	Gear stages							450	500	550	600	650	700	750	800	850	per 50 mm up to 2000		
0.75/1.00	12	3	0.13	876	5475	35000	550	320H			135	139	144	149	154	159	164	5 kg	KL42-HD	
		2	0.16	712	4453	20000	500	320M											4 kg	KL41-HD
			0.20	570	3562															
	0.25		456	2841																
	0.32		356	2218																
	0.40	285	1776																	
	0.50	228	1421																	
0.63	181	1128																		
0.80	142	885																		
1.10/1.50	12	3	0.13	1286	8039	35000	550	320H			135	139	144	149	154	159	164	5 kg	KL42-HD	
		2	0.16	1045	6531	20000	500	320M										4 kg	KL41-HD	
	8	2	0.20	836	5225															
			0.25	669	4181															
			0.32	522	3252															
			0.40	418	2604															
			0.50	334	2081															
			0.63	265	1651															
			0.80	209	1302															
			1.00	167	1040															
1.25	134	835																		

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
				450	500	550	600	650	700	750	800	850	per 50 mm up to 2000	
Idler Pulley	20000	450	UT320M	50	54	58	62	66	70	74	78	82	4 kg	KL41-HD
	35000	450	UT320H		61	65	69	73	77	81	85	89	4 kg	KL42-HD

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MOTORIZED PULLEY 320M & 320H

Ø 320 mm - 50 Hz



Power kW/HP	Motor		Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2*	Special min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket																					
	No. of Poles	Gear stages							450	500	550	600	650	700	750	800	850	per 50 mm up to 2000																						
1.50/ 2.00	8	3	0.16	1425	8906	35000	550	320H											5 kg	KL42-HD																				
			0.20	1140	7125																	135	139	144	149	154	159	164												
		2	0.25	912	5700	20000	500	320M													4 kg	KL41-HD																		
				0.32	712																	4436																		
			0.40	570	3551																		KL41-HD																	
			0.50	456	2841																			110	114	118	122	126	130	134	138									
0.63	362	2255																																						
0.80	285	1776																																						
1.00	228	1421																																						
1.25	182	1134																																						
2.20/ 3.00	8	3	0.20	1672	10450	35000	550	320H												5 kg	KL42-HD																			
			0.25	1338	8362																		135	139	144	149	154	159	164											
		2	0.32	1045	6531	20000	500	320M														4 kg	KL41-HD																	
				0.40	836																		5225	110	114	118	122	126	130	134	138									
			0.50	669	4181																			KL41-HD																
			0.63	522	3252																																			
0.80	418	2604	100	104	108																				112	116	120	124	128											
1.00	334	2081																																						
1.25	265	1651																																						
1.60	209	1302																																						
2.00	167	1040																																						
2.50	134	835																																						
3.00/ 4.00	6	3	0.25	1824	11400	35000	550	320H												5 kg	KL42-HD																			
			0.32	1425	8906																		135	139	144	149	154	159	164											
		2	0.50	912	5700	20000	500	320M														4 kg	KL41-HD																	
				0.63	727																		4525																	
			0.80	570	3562																			KL41-HD																
			1.00	456	2841																				100	104	108	112	116	120	124	128								
1.25	362	2255																																						
1.60	285	1776																																						
2.00	228	1421																																						
2.50	182	1134																																						
4.00/ 5.50	6	3	0.32	1900	11875	35000	550	320H												5 kg	KL42-HD																			
			0.40	1520	9499																		135	139	144	149	154	159	164											
		2	0.63	965	6031	20000	500	320M														4 kg	KL41-HD																	
				0.80	760																		4735																	
			1.00	608	3788																			KL41-HD																
			1.25	486	3028																				110	114	118	122	126	130	134	138								
1.60	380	2368																																						
2.00	304	1894																																						
2.50	243	1514																																						

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

MOTORIZED PULLEY 320M & 320H

Ø 320 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	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																											
Power kW/HP	No. of Poles	Gear stages							450	500	550	600	650	700	750	800	850	per 50 mm up to 2000																												
5.50/ 7.50	4	3	0.40	2090	13062	35000	550	320H													5 kg	KL42-HD																								
			0.50	1672	10450																		135	139	144	149	154	159	164																	
		0.63	1327	8294																																										
		0.80	1045	6531																																										
		2	1.00	836	5225	20000	500	320M															4 kg	KL41-HD																						
			1.25	671	4180																																									
			1.60	524	3259																																									
			2.00	418	2604																																									
			2.50	334	2081																																									
			0.80	1424	8909	35000	550	320H																																						
			1.00	1140	7125																																									
			1.25	911	5700																																									
1.60	712	4453																																												
7.50/ 10.00	2	2	2.00	570	3562	20000	500	320M																																						
			2.50	456	2850																																									
			1.00	1672	10450																					35000	1100	320H																		
			1.25	1327	8294																																									
1.60	1045	6531																																												
2.00	836	5225																																												
11.00/ 15.00	2	3	2.50	671	4180	20000	800	320M																																						
			Note for: 11kW: min. RL 1100																							178	182	5 kg	KL42-HD																	
			2	2.50	671	4180	20000	800	320M											173	178	4 kg	KL41-HD																							

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
				450	500	550	600	650	700	750	800	850	per 50 mm up to 2000	
Idler Pulley	20000	450	UT320M	50	54	58	62	66	70	74	78	82	4 kg	KL41-HD
	35000	450	UT320H	57	61	65	69	73	77	81	85	89	4 kg	KL42-HD

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