

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+H
- 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
- Special speed available on request
- Motorized Pulleys for non-horizontal positions available on request
- 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 conditions: page 68/69
- Technical precautions: page 71 ff.,
- Optional extras: page 33,
- Connection diagrams: page 87 ff.

MOTORIZED PULLEY 320L, 320M & 320H

Optional extras

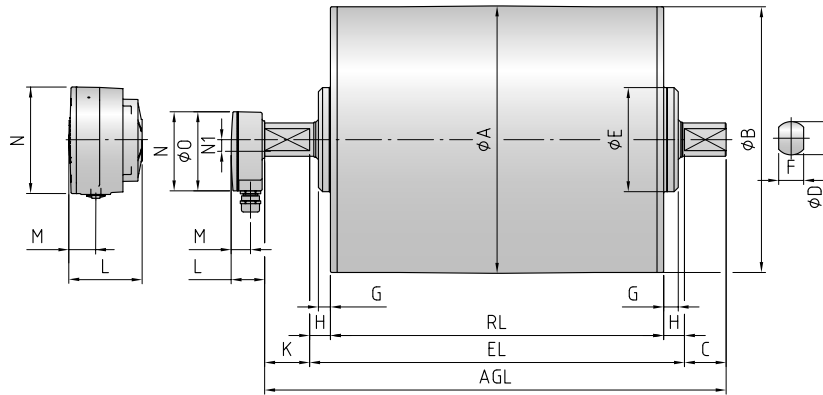
SPECIFICATIONS	320L	320M & 320H
Food grade oil & grease - FDA & USDA recognized - available on request	x	x
Dust explosion proof Motorized Pulleys - ATEX 95 - Zone 22 - for applications handling of dusty grain etc. According to European Directive 2014/34/EU	On request!	On request!
TOTAL acid resistant 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: -20°C-+40°C	Std.	Std.
Insulation class H with synthetic oil	x	x
SPECIAL motors for applications with NO belt contact	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.
Special voltages - 50 and/or 60 Hz Please specify!	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 71 ff.

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

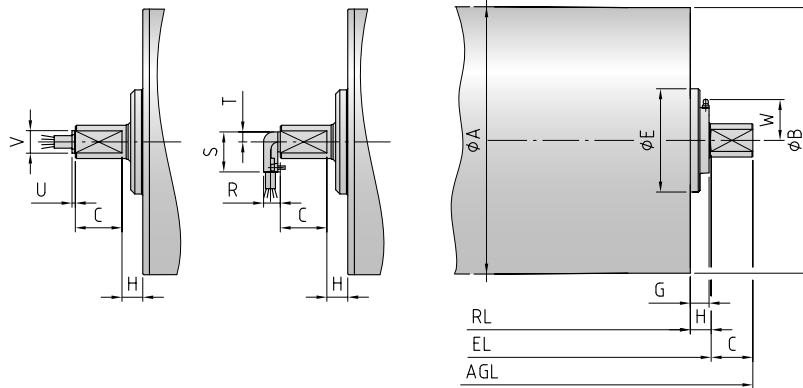
Motorized Pulley with Terminal box



Straight connector

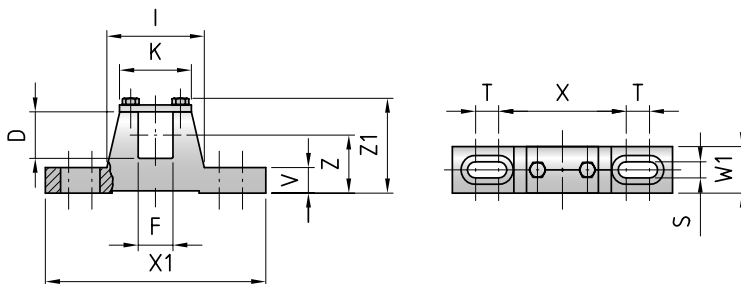
Elbow connector

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																			
			1.25	92	573																			
1.10/ 1.50	4	2	0.63	265	1651	11500	400	320L	73	76	80	84	88	92	96	100	104	108				4 kg	KL41-HD	
			0.80	209	1302																			
			1.00	167	1040																			
			1.25	134	835																			
			1.60	105	654																			
			2.00	84	524																			
			2.50	67	417																			
1.50/ 2.00	4	2	0.63	362	2255	11500	400	320L	75	78	82	86	90	94	98	102	106	110				4 kg	KL41-HD	
			0.80	285	1776																			
			1.00	228	1421																			
			1.25	182	1134																			
			1.60	143	891																			
			2.00	114	710																			
			2.50	92	573																			
2.20/ 3.00	4	2	0.80	418	2604	11500	450	320L															4 kg	KL41-HD
			1.00	334	2081																			
			1.25	265	1651																			
			1.60	209	1302																			
			2.00	167	1040																			
			2.50	134	835																			
3.00/ 4.00	4	2	1.25	362	2255	11500	500	320L															4 kg	KL41-HD
			1.60	285	1776																			
			2.00	228	1421																			
			2.50	182	1134																			
4.00/ 5.50	2	2	1.60	380	2368	11500	500	320L															4 kg	KL41-HD
			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				110	114	118	122	126	130	134	138	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														5 kg	KL41-HD	
	8	2	0.20	836	5225	20000	500	320M				110	114	118	122	126	130	134	138	4 kg	KL41-HD
			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

* 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												
1.50/ 2.00	8	3	0.16 0.20	1425 1140	8906 7125	35000	550	320H			135	139	144	149	154	159	164	5 kg	KL42-HD											
		2	0.25 0.32	912 712	5700 4436	20000	500	320M	110	114	118	122	126	130	134	138	4 kg	KL41-HD												
			0.40 0.50 0.63 0.80 1.00 1.25	570 456 362 285 228 182	3551 2841 2255 1776 1421 1134													KL41-HD												
	0.20 0.25		1672 1338	10450 8362	35000													550	320H			135	139	144	149	154	159	164	5 kg	KL42-HD
	2.20/ 3.00	8	2	0.32 0.40 0.50	1045 836 669	6531 5225 4181	20000	500	320M	110	114	118	122	126	130	134	138	4 kg	KL41-HD											
			4	2	0.63 0.80 1.00 1.25 1.60 2.00 2.50	522 418 334 265 209 167 134													3252 2604 2081 1651 1302 1040 835	100	104	108	112	116	120	124	128	4 kg	KL41-HD	
0.25 0.32 0.40					1824 1425 1140	11400 8906 7125													35000										550	320H
0.50 0.63 0.80 1.00 1.25 1.60 2.00 2.50		912 727 570 456 362 285 228 182			5700 4525 3562 2841 2255 1776 1421 1134	20000	500	320M	100	104	108	112	116	120	124	128	4 kg	KL41-HD												
6		3	0.32 0.40 0.50	1900 1520 1216	11875 9499 7600													35000	550	320H	135	139	144	149	154	159	164	5 kg	KL42-HD	
			4	2	0.63 0.80																								965 760	6031 4735
	1.00 1.25 1.60 2.00 2.50				608 486 380 304 243	3788 3028 2368 1894 1514	KL41-HD																							

* 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													KL42-HD
			0.50	1672	10450						135	139	144	149	154	159	164	5 kg			
		0.63	1327	8294																	
		0.80	1045	6531																	
		2	1.00	836	5225	20000	500	320M													KL41-HD
			1.25	671	4180				110	114	118	122	126	130	134	138	4 kg				
			1.60	524	3259																
			2.00	418	2604																
			2.50	334	2081																
7.50/10.00	2	3	0.80	1424	8909	35000	550	320H													KL42-HD
			1.00	1140	7125						135	139	144	149	154	159	164	5 kg			
		1.25	911	5700																	
		1.60	712	4453																	
		2	2.00	570	3562	20000	500	320M													KL41-HD
			2.50	456	2850				110	114	118	144	149	154	159	164	4 kg				
11.00/15.00	2	3	1.00	1672	10450	35000	1100	320H	Note for: 11kW: min. RL 1100										KL42-HD		
			1.25	1327	8294																
		1.60	1045	6531																	
		2.00	836	5225																	
		2	2.50	671	4180	20000	800	320M											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 Ruimeca sales.