



## Motorized Pulley 80LS

Ø 3.21 in. (80 mm), helical steel gearbox

### Product description

This Motorized Pulley is perfect for high torque applications with limited space or access.

### Characteristics

- Asynchronous 3 phase AC induction motor
- Integral motor protection
- Hardened steel helical gearbox
- Low noise operation
- Reversible operation
- Motorized Pulleys with RL greater than 19.69 inches have reinforced shaft.

### Applications

- Small package handling conveyors with high duty cycle
- Dynamic weighing equipment
- Metal detectors
- Pharmaceutical equipment
- Food processing equipment
- Positive drive and modular belt conveyors
- Dry, humid and wash down applications

### Technical data

<b>Type of Motor</b>	Asynchronous squirrel-cage, IEC 34 (VDE 0530)
<b>Insulation class of motor windings</b>	Class F, IEC 34 (VDE 0530)
<b>Available power supplies*</b>	230v/3ph/60Hz, 460v/3ph/60Hz
<b>Seal protection rating (standard)</b>	P66
<b>Seal protection rating (optional)</b>	IP69
<b>Thermal protection</b>	Bimetallic contact
<b>Allowable ambient temp, 3-ph motor</b>	+32° F to +104° F
<b>Max. roller length (RL)</b>	39.37 in

\* Other power supply voltages and frequencies are available.



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## Materials

Component	Version	Aluminum	Steel	Stainless steel
<b>Shell</b>	Crowned	-	Std	Opt
	Cylindrical	-	Std	Opt
	Cylindrical with key (for sprockets)	-	Opt	Opt
	Special profiles	-	Opt	Opt
<b>End housing</b>	Standard	Std	-	Opt
<b>Shaft</b>	Standard	-	-	Std
	Cross-drilled and threaded, M6	-	-	Opt
<b>Electrical termination</b>	Power cord, straight ss connector	-	-	Std
	Power cord, elbow ss connector	-	-	Std
	Power cord, with shaft cap & ss elbow connector	-	-	Std

## Options

- Rubber lagging for standard belts
- Profiled lagging for positive drive belts
- Profiled ss shells for positive drive belts
- Mechanical backstop
- Special smooth stainless steel end housings, slotted screw oil plugs, Viton® shaft seals and PTFE deflection seals (option TS8N) for IP69 sealing.
- Electromagnetic brake
- Rectifier
- Encoder
- Food grade oil (EU, FDA and USDA)
- Non-horizontal mounting (more than  $\pm 5^\circ$ )

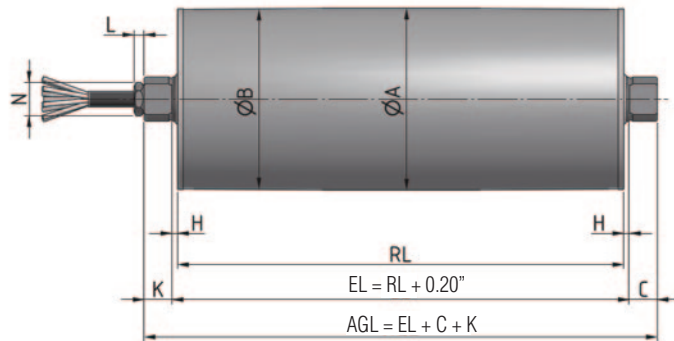
## Power Cord Specifications

- Standard, shielded, 10 feet long
- Other types & lengths available upon request

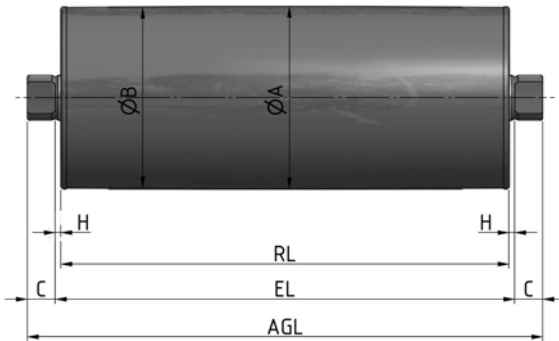


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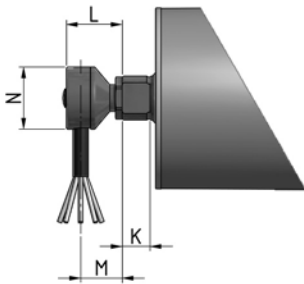
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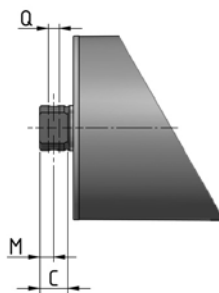
Standard Motorized Pulley with straight stainless steel connector



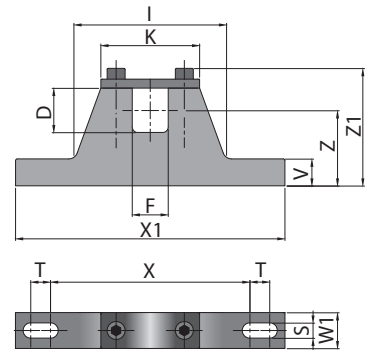
Idler Pulley



Standard shaft with ss elbow connector

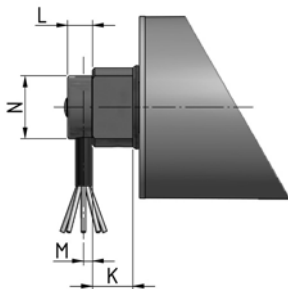


Cross-drilled and threaded shaft.



MC = Mounting bracket center-to-center spacing =  $RL + 0.59$ "

Mounting bracket



Shaft cap with ss elbow connector

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## Dimensions for Motorized Pulley 80LS

Type/Option	A in	B in	C in	D in	E in	F in	G in	H in	K in	L in	M in	N in	Q in	T in
Standard shaft, ss straight connector	3.21	3.17	0.49	0.67		0.53		0.1	0.49	0.18		0.59		
Standard shaft, ss elbow connector									0.49	0.98	0.73	1.1		
Cross-drilled and threaded shaft			0.49								0.25		M6	
Shaft cap, ss elbow connector				1.38		0.83			0.71	0.43	0.16	1.1		

## Revised Dimensions for options

The following options increase the minimum roller length (RL)

Option	Optional RL min.
Electromagnetic brake	Standard RL min. + 1.97in
Encoder	Standard RL min. + 1.97in

## Dimensions, materials, and weights for Mounting Brackets

Motorized Pulley	Standard Material	Optional Material	D in	F in	I in	K in	S in	T in	V in	W1 in	X in	X1 in	Z in	Z in	Thread	Wt lbs
80LS	Aluminum	Stainless steel	0.67	0.53	2.24	1.50	0.26	0.35	0.47	0.39	2.83	4.06	1.38	2.17	M6	0.3/0.5

## Standard weights for Motorized Pulley 80LS

Power HP	Poles	Standard weight [lbs] for standard RL [in]													
		7.87	9.84	11.81	13.78	15.75	17.72	19.69	21.65	23.62	25.59	27.56	31.5	35.43	39.37
0.027	8	---	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
0.047	4	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.09	4	---	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
	2	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.16	2	---	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5



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Power & Speed Combinations: 3 phase									
Power HP	Poles (rpm)	FLA (amps) <sup>1</sup>	No. Gear Stages	Gear Ratio	Nominal belt speed at Full Load 60 Hz fpm <sup>2</sup>	Actual belt speed at Full Load 60 Hz fpm <sup>2</sup>	Belt Pull lbs	Max. Radial Load T1 + T2 lbs <sup>3</sup>	RL in
0.05	4 (1670)	0.52/0.27	3	53.89	26	26	57	810	min 7.87 max 47.24
				37.78	38	38	40		
				30.88	48	45	33		
			2	21.23	72	66	22	600	
0.09	4 (1630)	0.79/0.40	3	53.89	26	26	116	810	min 9.84 max 47.24
				37.78	38	35	82		
				30.88	48	45	67		
			2	21.23	60	64	46	600	
				14.88	90	92	32		
				12.16	120	111	26		
	2 (3180)	0.60/0.31	3	53.89	52	50	60	600	min 7.87 max 47.24
				37.78	72	71	42		
30.88				90	85	34			
2			21.23	120	125	24	475		
0.16	2 (3230)	0.78/0.35	3	53.89	52	50	101	600	min 9.84 max 47.24
				37.78	72	71	71		
				30.88	90	87	58		
			2	21.23	120	128	40	475	
				14.88	180	182	28		
				12.16	220	222	23		
0.21	2 (3180)	0.70/0.46	3	53.89	52	50	137	600	min 11.81 max 47.24
				37.78	72	71	96		
				30.88	90	85	78		
			2	21.23	120	125	54	475	
				14.88	180	179	38		
				12.16	220	217	31		

- 1 FLA = full load amps at 230volts and 460 volts, respectively.
- 2 Use "Nominal Speed" to specify pulley. "Actual belt speed" is presented (for unlagged pulley) to assist with process design calculations. See "Actual Speed vs Nominal Speed" section in Technical Precautions. Note that actual belt speed increases when lagging is used due to increased pulley diameter.
- 3 Pulley must not be subjected to radial load exceeding "Maximum Radial Load" defined above. See "Belt Tension" section in Technical Precautions.

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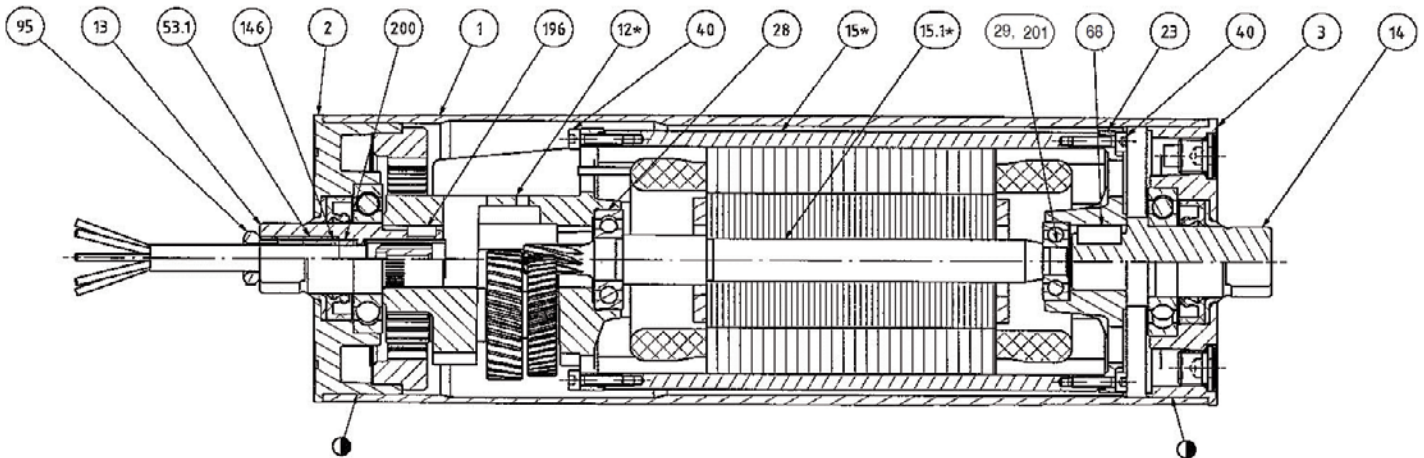
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## Spare Parts List and Sectional Drawings

1	Pulley shell	15.1*	Rotor assembly	95	Straight connector
2	Bearing housing	23	Rear flange	146	Washer
3	Bearing housing	28	Ball bearing	196	Key
12*	Gearbox (3 stage shown)	29	Ball bearing	200	Rubber seal
13	Front shaft	40	Hexagon socket screw	201	Encoder (if applicable)
14	Rear shaft	53.1	Pressure nipple		
15*	Stator	68	Key		

## 80LS Standard: 3 stage gearbox with power cord



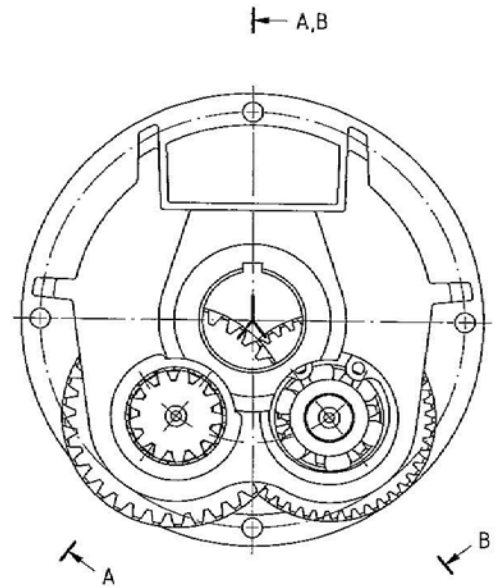
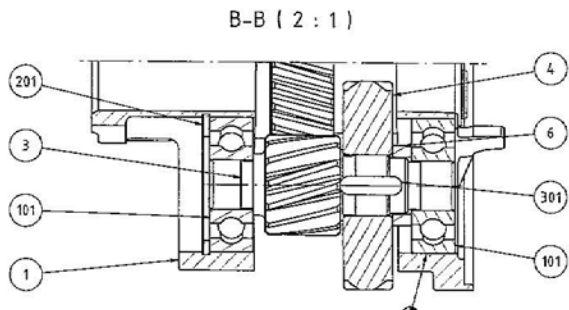
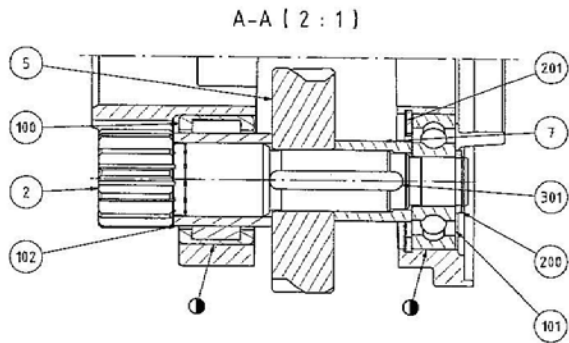
\* Variable parts for other speeds and powers

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## Spare Parts List and Sectional Drawings for Gearbox

1	Gear housing	6	Distance nipple	200	Retaining ring
2	Output pinion shaft	7	Distance nipple	201	Retaining ring
3	Intermediate pinion shaft	100	Needle bearing	300	Key
4	Input wheel	101	Ball bearing	301	Key
5	Intermediate wheel	102	Inner ring		



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## Spare Parts List and Sectional Drawing for End Housing

- 1 End housing
- 2 Deflection seal
- 3 Oil plug
- 4 Oil plug with magnet
- 100 Ball bearing
- 200 Shaft seal

