Sure motion Synchronous Belt Drive Components

Synchronous Drive Timing Belts
Neoprene with Fiberglass Reinforcement

SureMotion timing belts are an excellent choice for many industrial applications. Several pitches and widths are available to cover a wide range of power transmission requirements. Belts are neoprene with fiberglass reinforcement.

XL Pitch ***L Pitch***

Timing Belts

Part Number	*Price*	*Weight (lb)*	*# Teeth*	*Pitch Designation*	*Pitch (in)*	*Circumference (in)*	*Width (in)*	*Part Number*	*Price*	*Weight (lb)*	*# Teeth*	*Pitch Designation*	*Pitch (in)*	*Circumference (in)*	*Width (in)*
60XL025NG		0.1	30	XL	0.200	6	0.25	***150L050NG***		0.1	40	L	0.375	15	0.50
60XL037NG		0.1	30	XL	0.200	6	0.375	***150L100NG***		0.1	40	L	0.375	15	1.0
70XL037NG		0.1	35	XL	0.200	7	0.375	***187L050NG***		0.1	50	L	0.375	18.75	0.50
80XL025NG		0.1	40	XL	0.200	8	0.25	***187L100NG***		0.1	50	L	0.375	18.75	1.0
80XL037NG		0.1	40	XL	0.200	8	0.375	***210L050NG***		0.1	56	L	0.375	21	0.50
90XL025NG		0.1	45	XL	0.200	9	0.25	***210L100NG***		0.1	56	L	0.375	21	1.0
90XL037NG		0.1	45	XL	0.200	9	0.375	***225L050NG***		0.1	60	L	0.375	22.5	0.50
100XL025NG		0.1	50	XL	0.200	10	0.25	***225L100NG***		0.1	60	L	0.375	22.5	1.0
100XL037NG		0.1	50	XL	0.200	10	0.375	***240L050NG***		0.1	64	L	0.375	24	0.50
110XL025NG		0.1	55	XL	0.200	11	0.25	***240L100NG***		0.1	64	L	0.375	24	1.0
110XL037NG		0.1	55	XL	0.200	11	0.375	***244L100NG***		0.1	65	L	0.375	24.375	1.0
120XL037NG		0.1	60	XL	0.200	12	0.375	***255L050NG***		0.1	68	L	0.375	25.5	0.50
130XL025NG		0.1	65	XL	0.200	13	0.25	***255L100NG***		0.1	68	L	0.375	25.5	1.0
130XL037NG		0.1	65	XL	0.200	13	0.375	***270L050NG***		0.1	72	L	0.375	27	0.50
140XL025NG		0.1	70	XL	0.200	14	0.25	***270L100NG***		0.1	72	L	0.375	27	1.0
140XL037NG		0.1	70	XL	0.200	14	0.375	***285L050NG***		0.1	76	L	0.375	28.5	0.50
150XL025NG		0.1	75	XL	0.200	15	0.25	***300L050NG***		0.1	80	L	0.375	30	0.50
150XL037NG		0.1	75	XL	0.200	15	0.375	***300L100NG***		0.1	80	L	0.375	30	1.0
160XL025NG		0.1	80	XL	0.200	16	0.25	***322L050NG***		0.1	86	L	0.375	32.25	0.50
160XL037NG		0.1	80	XL	0.200	16	0.375	***322L100NG***		0.2	86	L	0.375	32.25	1.0
170XL025NG		0.1	85	XL	0.200	17	0.25	***345L050NG***		0.1	92	L	0.375	34.5	0.50
170XL037NG		0.1	85	XL	0.200	17	0.375	***345L100NG***		0.2	92	L	0.375	34.5	1.0
180XL037NG		0.1	90	XL	0.200	18	0.375	***367L050NG***		0.1	98	L	0.375	36.75	0.50
190XL025NG		0.1	95	XL	0.200	19	0.25	***367L100NG***		0.2	98	L	0.375	36.75	1.0
190XL037NG		0.1	95	XL	0.200	19	0.375	***390L050NG***		0.1	104	L	0.375	39	0.50
200XL025NG		0.1	100	XL	0.200	20	0.25	***390L100NG***		0.2	104	L	0.375	39	1.0
200XL037NG		0.1	100	XL	0.200	20	0.375	***420L050NG***		0.1	112	L	0.375	42	0.50
210XL037NG		0.1	105	XL	0.200	21	0.375	***420L100NG***		0.2	112	L	0.375	42	1.0
220XL037NG		0.1	110	XL	0.200	22	0.375	***450L050NG***		0.1	120	L	0.375	45	0.50
230XL025NG		0.1	115	XL	0.200	23	0.25	***450L100NG***		0.2	120	L	0.375	45	1.0
230XL037NG		0.1	115	XL	0.200	23	0.375	***480L050NG***		0.1	128	L	0.375	48	0.50
240XL037NG		0.1	120	XL	0.200	24	0.375	***480L100NG***		0.2	128	L	0.375	48	1.0
250XL025NG		0.1	125	XL	0.200	25	0.25	***510L050NG***		0.1	136	L	0.375	51	0.50
250XL037NG		0.1	125	XL	0.200	25	0.375	***510L100NG***		0.2	136	L	0.375	51	1.0
260XL025NG		0.1	130	XL	0.200	26	0.25	***540L050NG***		0.1	144	L	0.375	54	0.50
260XL037NG		0.1	130	XL	0.200	26	0.375	***540L100NG***		0.3	144	L	0.375	54	1.0
124L050NG		0.1	33	L	0.375	12.375	0.50	***600L050NG***		0.2	160	L	0.375	60	0.50
124L100NG		0.1	33	L	0.375	13.375	1.0	***600L100NG***		0.3	160	L	0.375	60	1.0

Sure motion Synchronous Belt Drive Components

Product Overview

Timing Pulleys

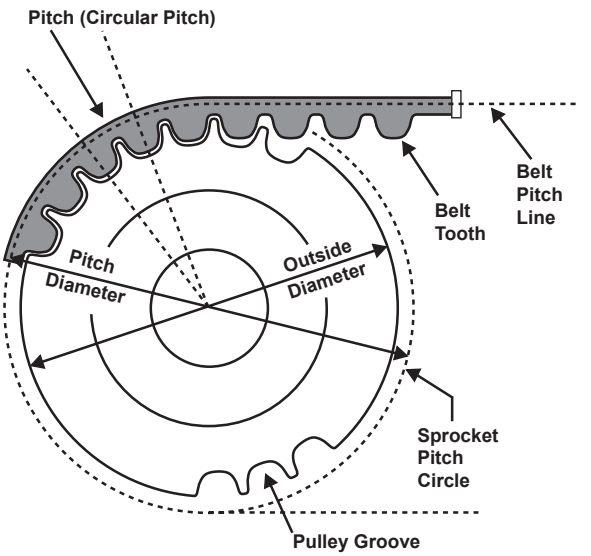
Bushings

Timing Belts

Timing pulleys, bushings, and belts allow you to change speed and torque while connecting mechanically rotating components.

- Select pulley sizes in order to accomplish the speed or torque change that you need.
- Bushings allow you to connect the same pulleys to different sized shafts, or vice versa.
- Synchronous drive belts and pulleys utilize teeth to prevent slippage and unwanted speed variations.

Note: For pulley speeds in excess of 6,000 RPM, pulleys should be dynamically balanced.



Drive Component Selection

1. Determine required torque (ft·lbs) and rpm of driven shaft.
2. Determine design horsepower:

$$DHP = \frac{T \cdot N \cdot sf}{5{,}252}$$

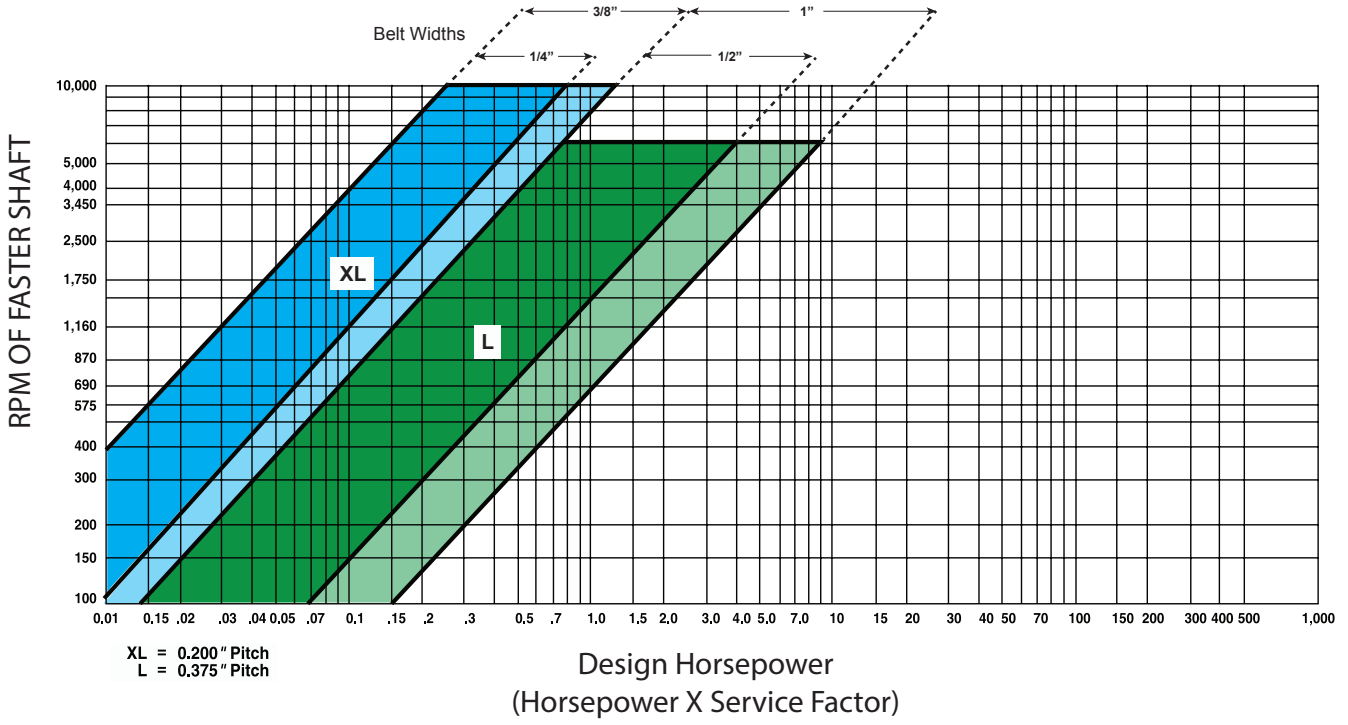
Where: T = torque (ft·lb)
N = rpm
sf = service factor per table

Service Factors			
Machine Type	*<8hr per day*	*8-16 hr per day*	*Continuous*
Smooth Running	1.0	1.2	1.4
Light Shock Loads	1.3	1.5	1.7
Heavy Shock Loads	1.7	1.9	2.1

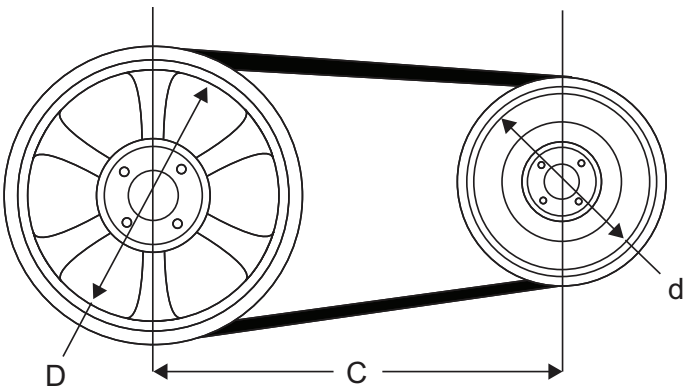
3. Determine Pitch (XL or L) required by reading Design Horsepower Chart.
4. Select driver and driven pulleys to match desired speed or torque change.
5. Determine belt length.

Synchronous Belt Drive Components

Design Horsepower Chart



Drive Component Selection Continued



Belt Length Calculations

$$L = 2C + 1.57\,(D + d) + \frac{(D-d)^2}{4C}$$

Where:

L = Length of belt at pitch line (in inches)
C = Center distance (in inches)
D = Pitch diameter (in inches) of large sprocket
d = Pitch diameter (in inches) of small sprocket