
MECTROL

TRULY ENDLESS FLEX-BELTS



MECTROL *Truly Endless* POWER TRANSMISSION FLEX-BELTS

Mectrol's truly endless Flex-Belts are designed for power transmission and positioning applications. These belts are produced in a truly endless form. Having no splices or seams, they are ideal for higher torque drives and increased loads. High quality urethane with reinforcing steel cords gives Mectrol Flex-Belts many advantages over neoprene rubber belts.

Mectrol F-Series flex belts are made to custom lengths ranging from 2.5 to 12.5 meters. Our unique manufacturing process provides you with the benefit of custom length belts with the additional power and reliability of truly endless construction.



Mectrol S-Series flex belts are produced as sleeves, and slit to custom widths. Available in many pitches and lengths, they offer an excellent value. For special applications, profiles or other custom features may be designed directly into the sleeve.



FEATURES & BENEFITS

Truly Endless Design for greater loads and long life

- These belts are manufactured in an endless form for greater strength and longer life compared to spliced and welded belts. Our unique manufacturing capabilities can produce belts from 120 mm up to 12.5 meters in length, depending on pitch.

Steel reinforced urethane construction for improved durability

- Our steel reinforced urethane construction provides greater durability than rubber belts. These belts exhibit excellent abrasion and chemical resistance. Steel cords provide exceptional strength, low stretch, and excellent flex-fatigue properties.

High Stiffness for Precision Positioning

- Greater positional accuracy is achieved as these belts have much less stretch and tooth deflection compared to rubber belts.

Custom profiles and fabrication

- All Mectrol Flex-Belts can be customized for your specific application. We offer hundreds of different shaped profiles that may be attached to the belts. Custom tooth configurations, hole punching, and specialty backing materials are also available.

Nylon teeth for smooth quiet running

- F-Series Flex-belts have optional nylon teeth, for quieter, smoother operation.

MECTROL *Truly Endless* POWER TRANSMISSION FLEX-BELTS

All popular inch and metric pitches

Available pitches include:

Metric Pitches		Inch Pitches
T2.5	AT5	XL
T5	AT10	L
T10	AT20	H
T20		XH

Mectrol Corporation is the first company in the United States devoted exclusively to the manufacture of linear urethane timing belts. Our rapid growth and position as the market leader are testimony to the quality of our products and our ability to efficiently service the demands of industry worldwide.

With totally integrated manufacturing facilities in the United States, Spain, Germany and Mexico, Mectrol combines in-house extrusion with molding and fabricating capabilities. Having full control over production, delivery, and costs, Mectrol can economically handle short customized runs as well as high-volume production. The company prides itself in responding quickly to our customer's delivery needs.

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Truly Endless FLEX-BELTS

T2.5, T5

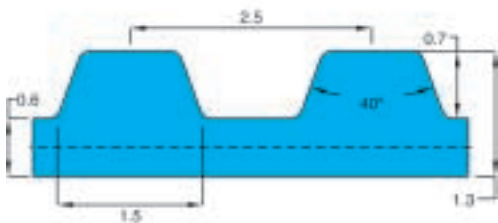
F-Series Flex-Belts

May be ordered in any width between and including minimum and maximum shown below.

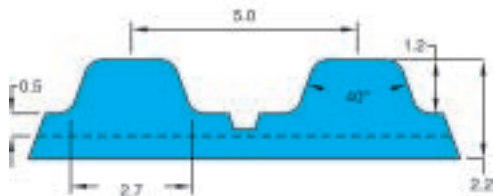
Pitch	T5
Minimum Length	2.5 Meters
Maximum Length	6.0 Meters
Minimum Width	10.0 Millimeters
Maximum Width	100 Millimeters
Nylon Teeth	Optional

Dimensions

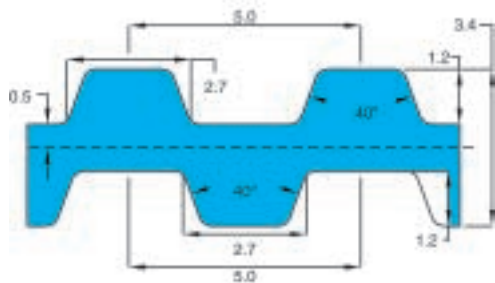
T 2.5 (2.5mm) Pitch



T5 (5mm) Pitch



T 5 DL (5mm) Pitch

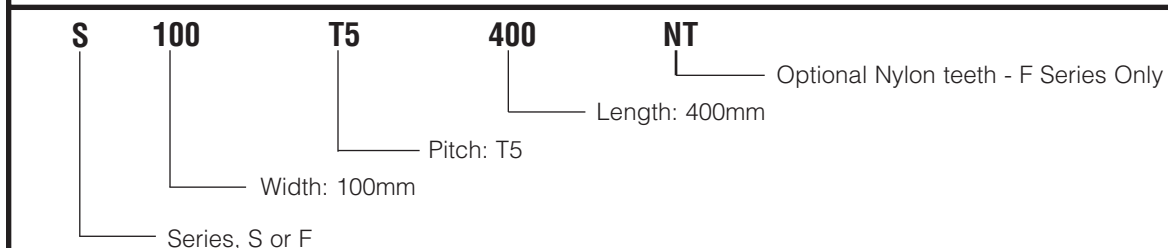


S-Series Flex-Belts

May be ordered in any width 5mm or larger up to 200mm in the lengths shown below. Contact factory for other lengths.

# of teeth	Belt length (mm)			# of teeth	Belt length (mm)		
	T2.5	T5	T5DL		T2.5	T5	T5DL
30		150		106	265		
33		165		109		545	
36		180		110		550	
37		185		112		560	
40		200		114	285		
43		215		115		575	
44		220		116	290		
45		225		118		590	590
48	120			122	305	610	
49	122.5	245		124		620	620
50		250		126		630	
51		255		127	317.5		
52		260	260	128		640	
54		270		130		650	
55		275		132	330	660	
56		280		135		675	
58	145			138		690	
59		295		140		700	
61		305		144		720	
63		315		150		750	750
64	160			152	380		
66		330		156		780	
68		340		158	395		
70		350		163		815	815
71	177.5	355		168	420	840	
72	180			172		860	860
73	182.5	365		180		900	
74	185			188		940	940
78		390		192	480		
80	200	400		198		990	
82		410	410	200	500		
84		420		215		1075	
89		445		216	540		
90		450		220		1100	
91		455		240	600		
92	230	460	460	243		1215	
95		475		248	620		
96		480	480	260	650		
98	245			263		1315	
100		500		276		1380	
102		510		312	780		
103		515	515	366	915		
105		525		380	950		

How To Order Flex-Belts



Truly Endless FLEX-BELTS

T10

F-Series Flex-Belts

May be ordered in any width between and including minimum and maximum shown below.

Pitch	T10/T10HF*
Minimum Length	2.5 Meters
Maximum Length	12.5 Meters
Minimum Width	10.0 Millimeters
Maximum Width	100 Millimeters
Nylon Teeth	Optional

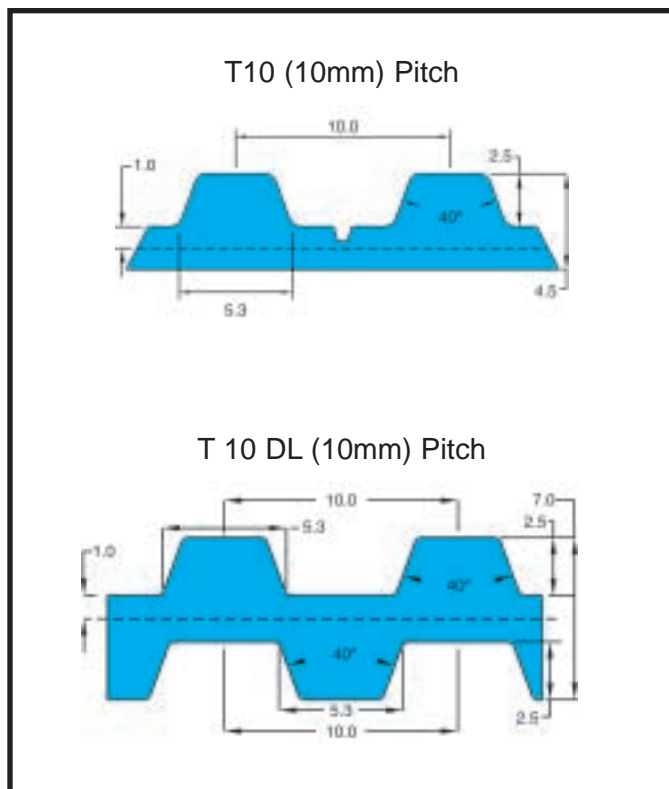
*High Flex Cord

S-Series Flex-Belts

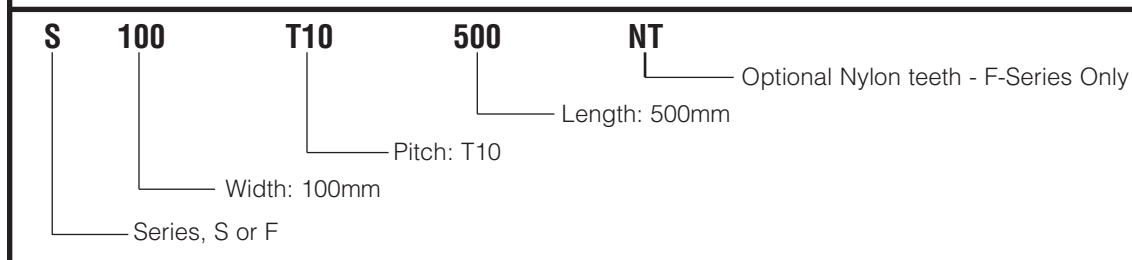
May be ordered in any width 5mm or larger up to 200mm in the lengths shown below. Contact factory for other lengths.

# of teeth	Belt length (mm)		# of teeth	Belt length (mm)	
	T10	T10-DL		T10	T10-DL
26	260		97	970	
37	370		98	980	
40	400		101	1010	
41	410		108	1080	
44	440		110	1100	
45	450		111	1110	
50	500		114	1140	
52	520		115	1150	
53	530		121	1210	
56	560		124	1240	
60	600	600	125	1250	
61	610		130	1300	
63	630	630	132	1320	
66	660		135	1350	
69	690		139	1390	
70	700		140	1400	
72	720	720	142	1420	
73	730		145	1450	
75	750		146	1460	
78	780		150	1500	
81	810		156	1560	
84	840	840	161	1610	1610
88	880		175	1750	
89	890		178	1780	
90	900		188	1880	
91	910		196	1960	
92	920	920	225	2250	
96	960	960			

Dimensions



How To Order Flex-Belts



Truly Endless FLEX-BELTS AT5, AT10

F-Series Flex-Belts

May be ordered in any width between and including minimum and maximum shown below.

Pitch	AT5	AT10
Minimum Length	2.5 Meters	2.5 Meters
Maximum Length	6.0 Meters	12.5 Meters
Minimum Width	10.0 mm	16.0 mm
Maximum Width	100 mm	100 mm
Nylon Teeth	Optional	Optional

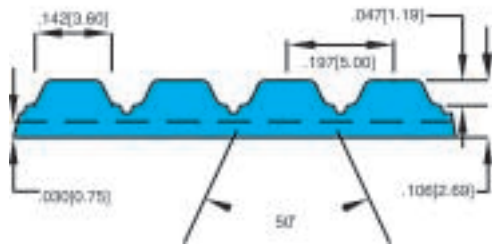
S-Series Flex-Belts

May be ordered in any width 5mm or larger up to 200mm in the lengths shown below. Contact factory for other lengths.

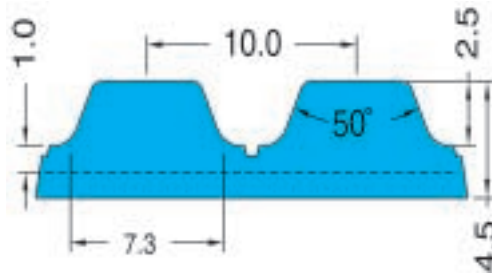
# of teeth	Belt length (mm)		# of teeth	Belt length (mm)	
	AT5	AT10		AT5	AT10
45	225		105		1050
50		500	108		1080
51	255		109	545	
55	275		115		1150
56	280	560	120	600	1200
60	300		121		1210
61		610	122	610	
66		660	125		1250
68	340		126	630	
70		700	132	660	1320
73		730	140		1400
75	375		144	720	
78	390	780	150	750	1500
80		800	156	780	
81		810	160		1600
84	420	840	165	825	
89		890	170		1700
91	455		180		1800
92		920	195	975	
96		960	210	1050	
98		980	225	1125	
100	500		300	1500	
101		1010			

Dimensions

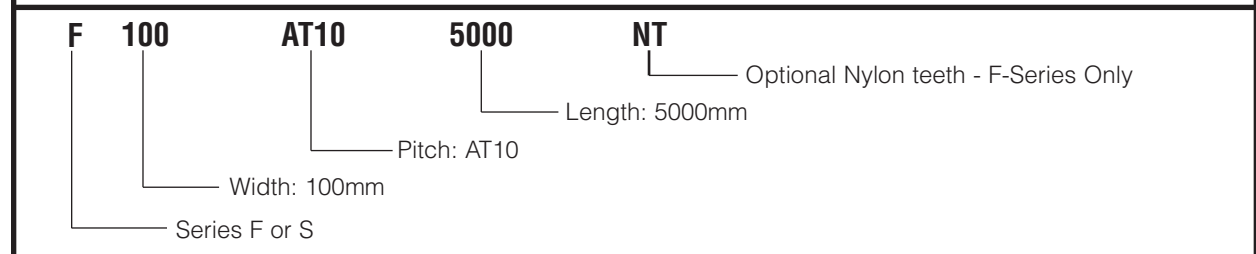
AT5 (5mm) Pitch



AT10 (10mm) Pitch



How To Order Flex-Belts



Truly Endless FLEX-BELTS T20, AT20

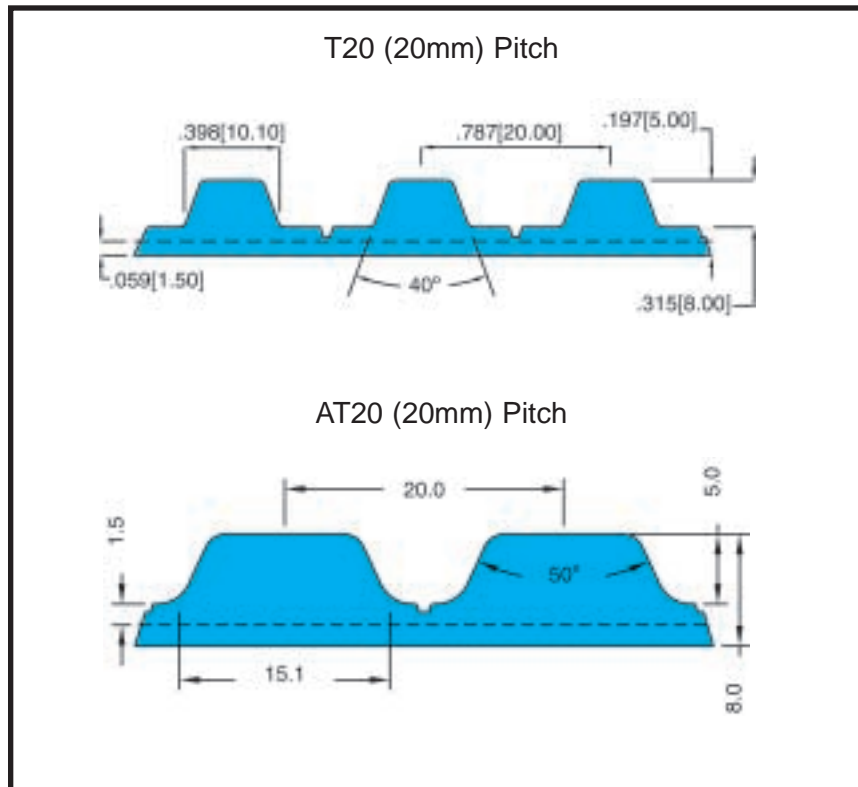
F-Series Flex-Belts

S-Series Flex-Belts

Pitch	T20	AT20
Minimum Length	2.5 Meters	2.5 Meters
Maximum Length	12.5 Meters	12.5 Meters
Minimum Width	16.0 mm	25.0 mm
Maximum Width	150 mm	150 mm
Nylon Teeth	Optional	Optional

Contact factory for sizes and availability

Dimensions



How To Order Flex-Belts

F **150** **AT20** **10000** **NT**
 Series, F or S Width: 150mm Pitch: AT20 Length: 10000mm (10 meters) Optional Nylon teeth - F-Series Only

Truly Endless FLEX-BELTS

XL, L

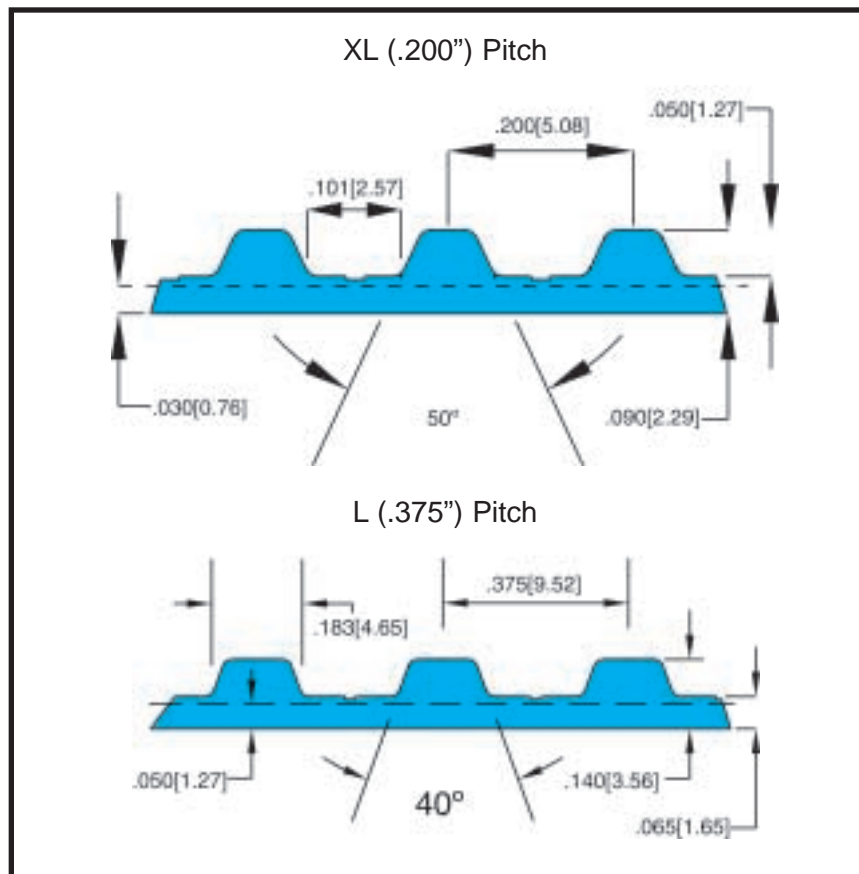
F-Series Flex-Belts

S-Series Flex-Belts

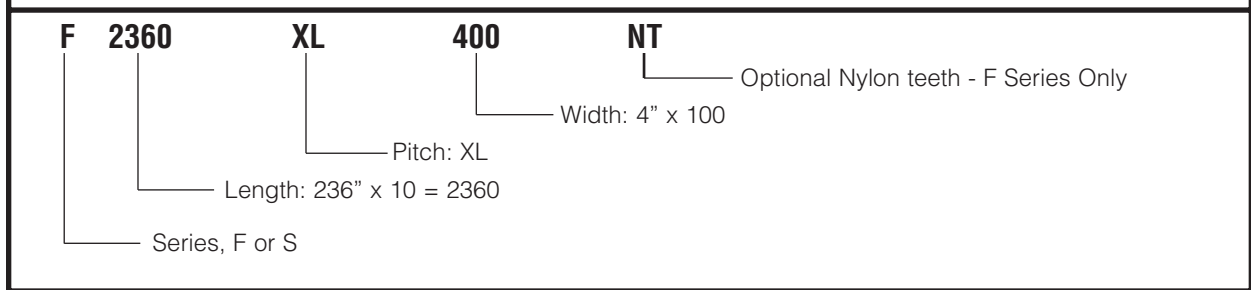
Pitch	XL	L
Minimum Length	99 Inches	99 Inches
Maximum Length	236 Inches	492 Inches
Minimum Width	0.25 Inches	0.50 Inches
Maximum Width	4 Inches	4 Inches
Nylon Teeth	Optional	Optional

Contact factory for sizes and availability

Dimensions



How To Order Flex-Belts



Truly Endless FLEX-BELTS

H, XH

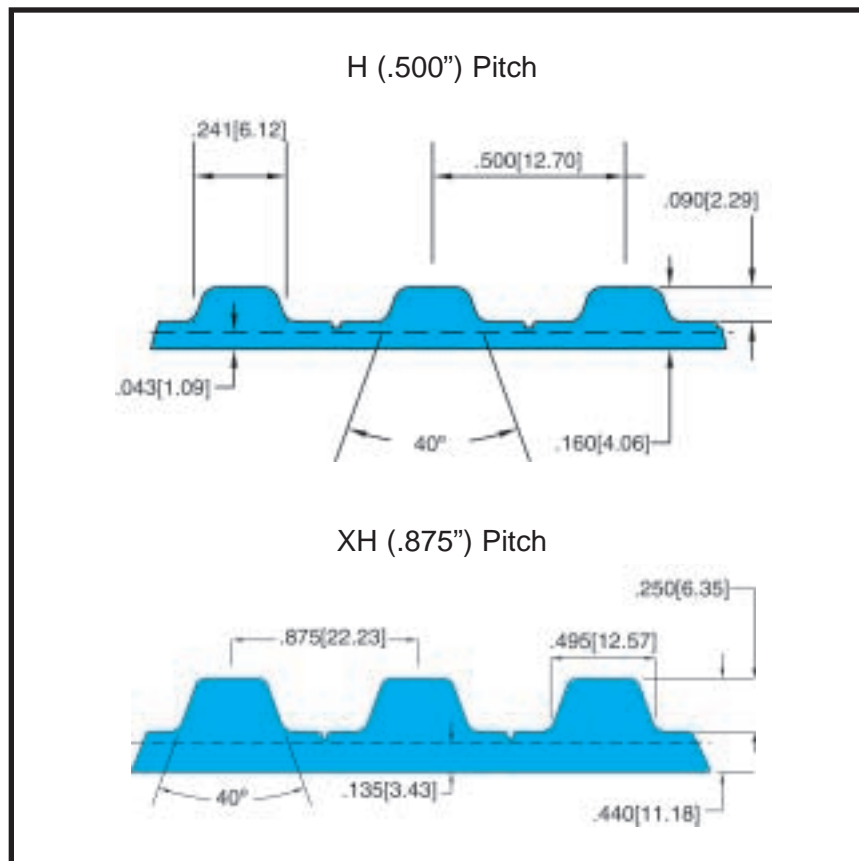
F-Series Flex-Belts

S-Series Flex-Belts

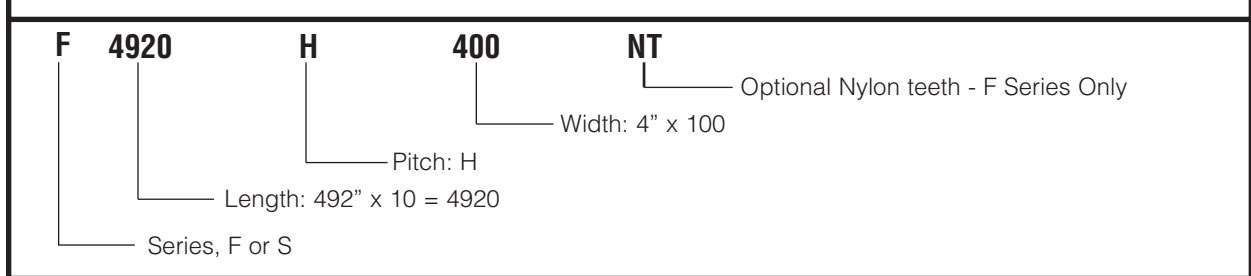
Pitch	H	XH
Minimum Length	99 Inches	99 Inches
Maximum Length	492 Inches	492 Inches
Minimum Width	0.50 Inches	1.0 Inches
Maximum Width	4 Inches	4 Inches
Nylon Teeth	Optional	Optional

Contact factory for sizes and availability

Dimensions



How To Order Flex-Belts



TECHNICAL SPECIFICATIONS

Inch Pitch Belts - F-Series

		Pitch			
		XL	L	H	XH
Ultimate tensile strength	Lb/in	861	1338	1497	3399
	N/25mm	3828	5952	6660	15120
Max allowable tension per inch/mm belt width	Lb/in	215	335	374	850
	N/25mm	957	1488	1665	3780
Allowable effective tension for belt teeth	Lb/in	180	360	440	880
	N/25mm	790	1580	1930	3855
Specific Belt Weight	Lb/ft ²	0.446	0.721	0.793	2.197
	kg/m ²	21.7	35.0	38.6	106.8
Minimum diameter of tension idler	in	1.125	2.375	3.125	5.875
	mm	30	60	80	150
Minimum number of pulley teeth		10	10	14	18
Temperature range		-30°C to +80°C (-22°F to 176°F)			

Metric Pitch Belts - F-Series

		Pitch						
		T5	AT5	T10	T10HF	AT10	T20	AT20
Ultimate tensile strength	Lb/in	861	1450	1747	2286	3210	3210	4816
	N/25mm	3828	6448	7770	10170	14280	14280	21420
Max allowable tension per inch/mm belt width	Lb/in	215	362	437	572	803	803	1204
	N/25mm	957	1612	1943	2543	3570	3570	5355
Allowable effective tension for belt teeth	Lb/in	200	290	380	380	585	715	1220
	N/25mm	880	1270	1665	1665	2565	3135	5345
Specific Belt Weight	Lb/ft ²	0.452	0.670	0.916	0.998	1.173	1.533	2.040
	kg/m ²	22.0	32.6	44.5	48.5	57.0	74.5	99.2
Minimum diameter of tension idler	in	1.125	2.375	3.125	3.125	4.750	4.750	7.125
	mm	30	60	80	80	120	120	180
Minimum number of pulley teeth		10	12	16	12	18	15	18
Temperature range		-30°C to +80°C (-22°F to 176°F)						

Metric Pitch Flexbelts - S-Series

		Pitch					
		T2.5	T5	AT5	T10	AT10	T20
Ultimate tensile strength	Lb/in	304	816	1745	1888	3154	3154
	N/25mm	1350	3631	7762	8399	14028	14028
Max allowable tension per inch/mm belt width	Lb/in	76	204	436	472	788	788
	N/25mm	338	908	1941	2100	3507	3507
Allowable effective tension for belt teeth	Lb/in	66	200	290	380	585	715
	N/25mm	290	880	1270	1665	2565	3135
Specific Belt Weight	Lb/ft ²	0.028	0.447	0.704	0.933	1.166	1.526
	kg/m ²	1.3	21.7	34.2	45.4	56.7	74.2
Minimum diameter of tension idler	in	0.787	1.125	2.375	3.125	4.751	4.751
	mm	20	30	60	80	120	120
Minimum number of pulley teeth		12	10	12	16	18	15
Temperature range		-30°C to +80°C (-22°F to 176°F)					

For assistance in belt sizing and additional technical data, please refer to the Belt Selection Guide in our Urethane Timing Belts Catalog, or on our Website, www.mectrol.com.

OTHER MECTROL PRODUCTS



Urethane Timing Belts

Urethane Timing Belts

Urethane timing belts for synchronized conveying and linear positioning. All inch, metric, HTD and STD pitches – with steel or Kevlar cords. Available in rolls, or as endless belts, in widths up to 18 inches. Belts can be customized with molded profiles and friction surfaces. Ask for Mectrol's belt catalog.



Wide Timing Belts

Wide Timing Belts

These belts have all the advantages of our regular timing belts, and are available in widths up to 18 inches in H pitch, and 450mm in T10. For complete information, ask for Mectrol's wide belt catalog.

Pulleys

Available in all pitches, standard and custom. Choose from several available materials and special coatings. We can handle any size order, large or small. For complete information, ask for Mectrol's pulley catalog.



Pulleys

Precision Servo Reducers

Our new range offers an excellent combination of performance and flexibility. Our unique hybrid planetary design, and all planetary design, offer a wide variety of ratios and backlash as low as 3 arc-min. For complete information, ask for Mectrol's Precision Servo Reducer catalog.

Dojen Zero-Backlash Reducers

Our Dojen high-output reducers are true zero backlash. Compact and vibration free, they are available in a wide



Precision Servo Reducers



Dojen Zero-Backlash Reducers

range of reduction ratios. For complete information, ask for Mectrol's brochure and designer's guide.

Mectrol's new headquarters in Salem, New Hampshire is shown below.



**Explore the
New Mectrol
Website**
www.mectrol.com

**For Detailed information on all Mectrol products,
visit us on the world wide web
at www.mectrol.com**

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