STANDARD RANGE

Construction

BRECO- and BRECOFLEX timing belts are constructed from an extremely wear resistant polyurethane and a high tensile braided steel tension member. The combination of both high grade materials forms the basis for the extremely accurate and reliable BRECO and BRECOFLEX timing belts. An additional nylon tooth facing produces an extremely quiet timing belt with a high efficiency.

Properties

All our timing belts have a temperature range of -30°C to +80°C, are oil and petrol resistant, and are up to 98% efficient. Even in continuous operation no permanent post-elongation of the tension members will occur. Polyurethane is hydrolysis, ozone and sunlight resistant and does not harden with age.

The superior performance characteristics are especially evident in drives with frequent directional changes and where varying acceleration and breaking conditions prevail. All of our timing belts have a low mass to power ratio. The combination of polyurethane timing belts and metal pulleys virtually eliminate any chance of tooth jumping due to positive engagement of the teeth. The proof of a BRECO or BRECOFLEX timing belt can be found in its exceptional performance in the harshest of environments.

Tooth Profiles

Three tooth profiles are available in our Standard Range (please refer to catalog).

AT Series

Available in AT5, AT10 and AT20 metric pitches.

High performance timing belts with optimized tooth form, stronger tension member and large tooth cross section. For further information see page 6.

These timing belts should be employed in new drives whenever possible. They are especially recommended for drives with high performance, high torque and low noise requirements.

T Series

Available in both single and double-sided form in T5, T10 and T20 metric pitches to DIN 7721.

Standard timing belts with a trapezoidal tooth form. These belts are designed for use in standard applications and for multi-shaft drives where a double-sided belt needs to be employed.

Imperial Pitch Series

Available in XL (5.08 mm), L (9.525 mm), H (12.7 mm) and XH (22.225 mm) Imperial pitches to DIN/ISO 5296.

Standard timing belts with a trapezoidal tooth form. These belts are recommended for use as replacements on original drives with imperial pitches.

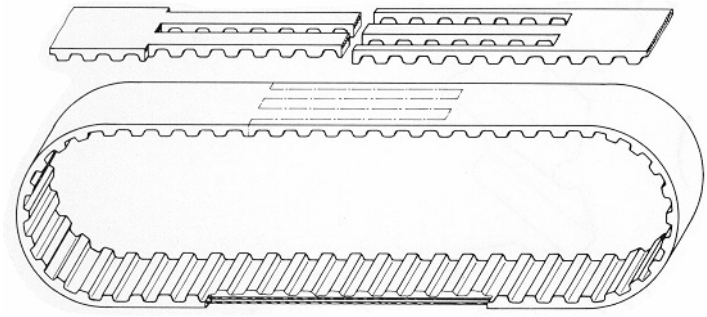
AT, T and Imperial pitch timing belts are all produced as continuous belts or as open lengths.

BRECO®-Timing Belts

BRECO M: Open length belting
BRECO V: Joined belting

BRECO M: The BRECO timing belt is produced in open lengths with the tension members lying parallel to the belt edge. A common application of open length belting is in linear drives. All loads are shared equally across the tension members.

BRECO V: By joining open lengths of belting, it is possible to obtain any length of BRECO timing belt. The belt strength at the join is derived from only half the number of tension members. Joined BRECO-timing belts are recommended for use in conveying applications over large center distances.



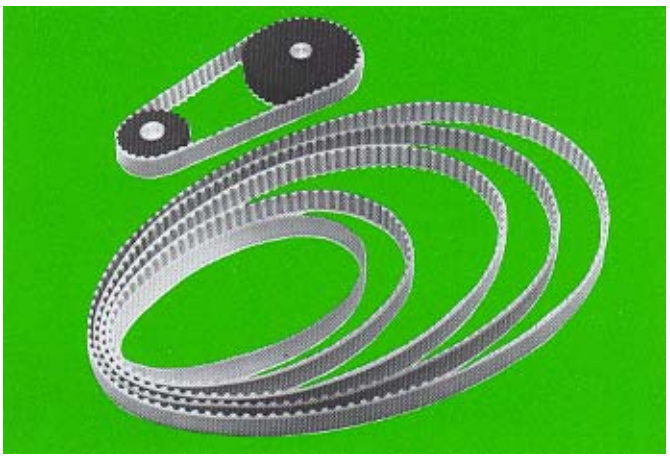
Where Used

Open Lengths in Linear Drives
In linear drives rotational motion is converted into linear movement. We recommend that the BRECO open length belt be clamped to the component of the machine to be moved. For application examples see page 37.

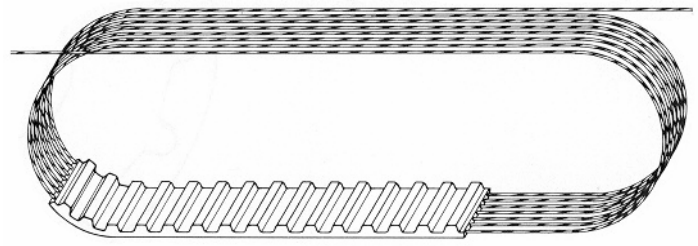
Joined Belts For Conveying Applications
There is no maximum length restriction for joined timing belts. For special conveying applications the timing belt can have a back covering or profiles welded to it. Refer to page 32 for application examples.

BRECOFLEX®-Timing Belts

Endless timing belts with continuous helically wound tension members.



BRECOFLEX: The BRECOFLEX timing belt is produced in endless lengths with a continuous tension member. The tension member is helically wound. BRECOFLEX timing belts are suitable for all drive applications up to 10,000 rpm.



Where Used

Endless timing belts for high power applications
BRECOFLEX timing belts with endlessly wound tension members are recommended for all high power drive applications. They are equally suited to drives with high duty cycles or stop/start applications up to a maximum 10,000 rpm.

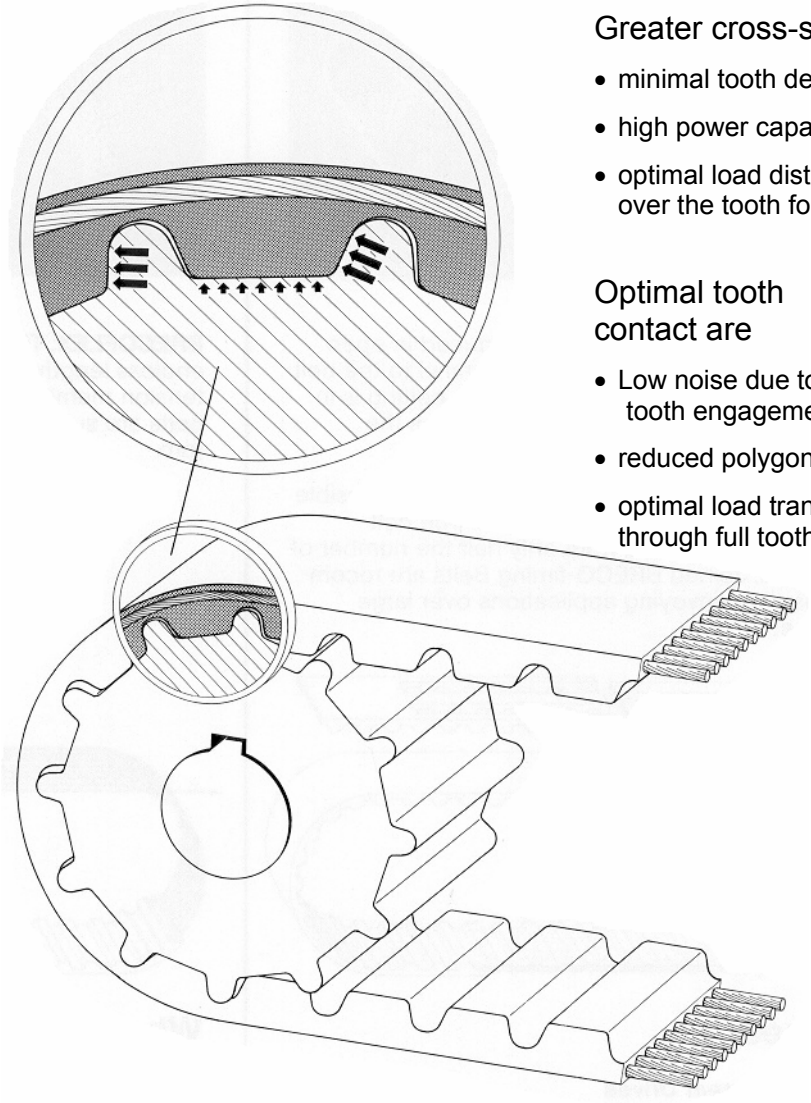
Endless timing belts are supplied in standard lengths (see Standard Range Catalog). Additionally, we can supply intermediate and longer pitch lengths up to a maximum of 22 meters.

AT-Timing Belts

AT5, AT10 and AT20 metric pitches.

BRECO AT timing belts for high power drives. Continuous development has produced a belt capable of transmitting 30% more power than standard types. The AT tooth form gives optimum load, torque and power transmission capabilities whilst at the same time minimizing tooth deformation and belt elongation.

This results in reliable and maintenance-free drives where abgular and postional accuracy is maintained even over very long duty cycles, thus offering the designer the highest quality drive belt possible.



Greater cross-section

- minimal tooth deformation
- high power capabilities
- optimal load distribution over the tooth form.

Optimal tooth contact are

- Low noise due to optimal tooth engagement
- reduced polygonal effect
- optimal load transfer through full tooth contact

Stronger tension member

- high periferal force
- low elongation
- equal load distribution on each tooth in mesh

AT 5

Grinding machines

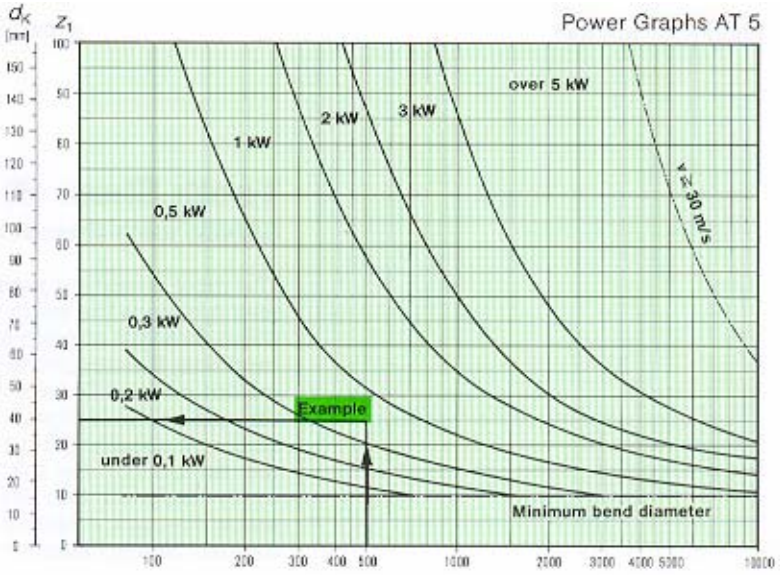
Small woodworking machinery

Control, regulating and positioning drives

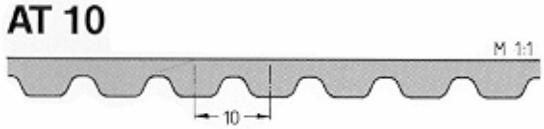
Linear drives for plotters

Light conveying applications

Example: To design a linear drive for a drafting machine. Power P=0.5 kW at a speed of N=500 rpm. Recommended drive = BRECO AT5 timing belt and timing pulley z_1=25. For precise data see pages 10 – 11.



AT 10



Construction machinery (main and auxiliary drives)

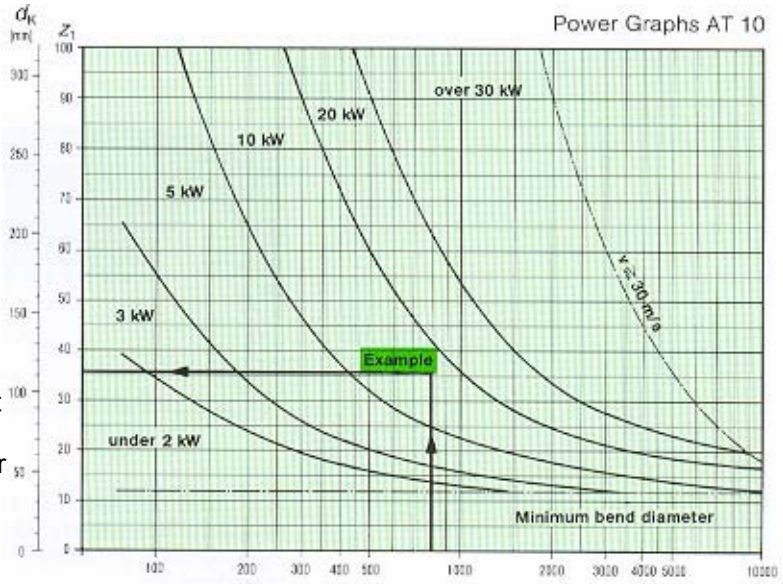
Printing and textile machinery

Woodworking machinery

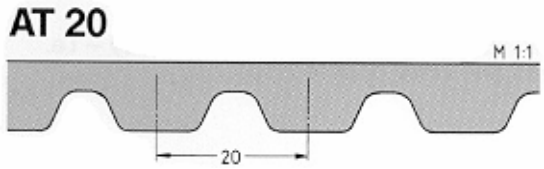
Traversing and linear drives in industrial robotics

Indexing and synchronous conveyors

Example: To design a roll table drive. Power P=10 kW at a speed of n=800 rpm. Recommended drive = BRECO-FLEX AT10 timing belt and timing pulley z_1=36 teeth. For precise data see pages 12 – 13.



AT 20



High power drives

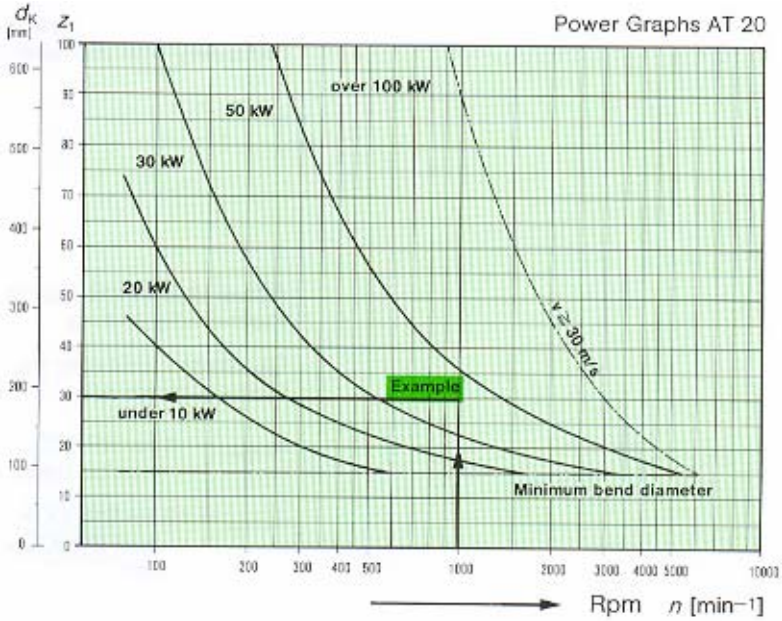
Paper making machinery

Pumps and compressors

Roll table drives

Linear and synchronous conveyors

Example: To design a compressor drive. Power P=50 kW at a speed of n=1000 rpm. Recommended drive= BRECOFLEX AT20 timing belt and timing pulley z_1=30. For precise data see pages 14 – 15.

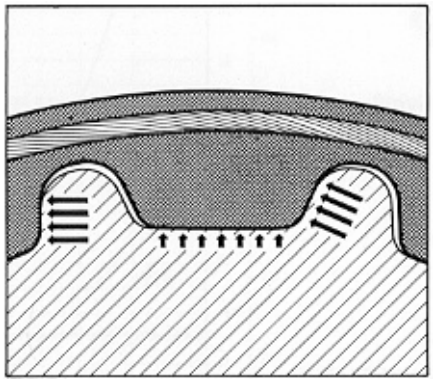


Providing that the following conditions of tooth shear strength (1), tension member tensile strength (2) and flexibility (3) conditions are met, then a maintenance-free timing belt drive can be expected. A calculation example appears on page 27.

Tooth Shear Strength

Specific tooth shear strength

The most important parameter to consider when sizing BRECO and BRECOFLEX timing belts is the tooth shear strength. The calculation is based on the specific shear strength of each tooth in mesh per cm belt width. By using the relevant formulae, the peripheral force, torque and power can all be determined. The maximum specific tooth shear strength must not be exceeded. This figure is defined as the marginal load which the belt can withstand without damage under all operating conditions. These values, which are related to the drive rpm, can be found in the following tables, charts and diagrams. A belt drive is correctly designed, that when under load, that load does not exceed the specific shear strength. A special safety factor is normally not required – see section headed Safety Factors on page 26.



The high specific tooth strength is achieved through a large cross-section and full tooth engagement.

The more belt teeth in mesh attainable, the better the load is spread. For simplicity it is always assumed that each tooth in mesh (z_e) will transmit the same power, in reality the force varies – see accompanying diagram – and therefore the value of z_e has a top limit as below.

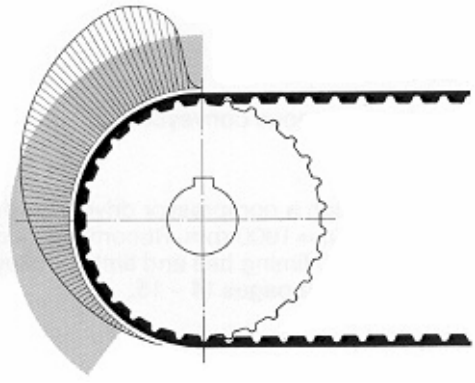
As a rule the tooth shear strength calculation is based on the small pulley – i.e. the pulley with the least teeth in mesh and worst load factors.

Actual load distribution over the tooth-in-mesh-area.

Calculated load over the tooth-in-mesh-area

$z_{e\ max}$= 6 for BRECO Joined belts

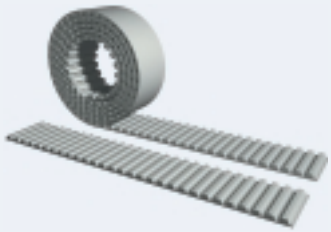
$z_{e\ max}$= 12 for BRECOFLEX belts and BRECO open length belting



AT-SERIES

AT5

STEEL Tension Member — standard
KEVLAR® Tension Member — optional



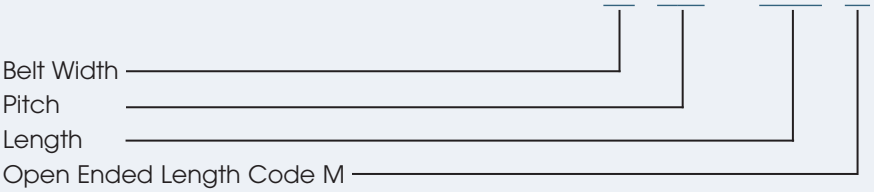
OPEN ENDED – M

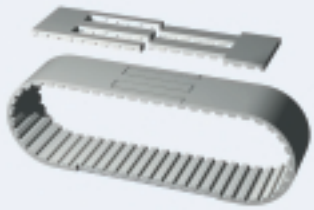
Widths: Standard Belt Widths in mm (in between widths available):
6 8 10 12 16 20 25 32 50 75

Lengths: Any length available – Stock Rolls: 50 meters

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**





SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths in mm (in between widths available):
10 12 16 20 25 32 50 75

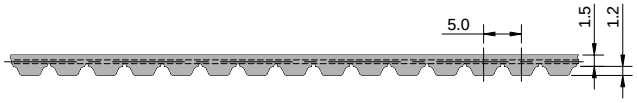
Lengths: Minimum Joined Length: 880 mm
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

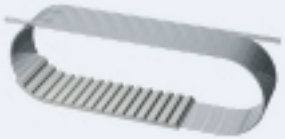
- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**

AT-SERIES

AT5



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



TRULY ENDLESS - BFX

Widths: Standard Belt Widths in mm (in between widths available):

6 8 10 12 16 20 25 32 50 75 100

Pitch/Length Version	Number of Teeth
AT5 / 225 BFX	45
AT5 / 255 BFX	51
AT5 / 260 SFX	52
AT5 / 280 BFX	56
AT5 / 300 SFX	60
AT5 / 305 BFX	61
AT5 / 330 SFX	66
AT5 / 340 BFX	68
AT5 / 375 SFX	75
AT5 / 390 BFX	78
AT5 / 420 BFX	84
AT5 / 450 SFX	90
AT5 / 455 BFX	91
AT5 / 480 SFX	96
AT5 / 490 SFX	98
AT5 / 500 BFX	100
AT5 / 525 SFX	105
AT5 / 545 BFX	109
AT5 / 600 SFX	120
AT5 / 610 BFX	122
AT5 / 620 SFX	124
AT5 / 630 SFX	126
AT5 / 660 BFX	132
AT5 / 670 SFX	134
AT5 / 690 SFX	138
AT5 / 710 SFX	142
AT5 / 720 BFX	144

Pitch/Length Version	Number of Teeth
AT5 / 750 SFX	150
AT5 / 780 BFX	156
AT5 / 825 SFX	165
AT5 / 840 BFX	168
AT5 / 855 BFX	171
AT5 / 860 SFX	172
AT5 / 875 BFX	175
AT5 / 900 SFX	180
AT5 / 920 SFX	184
AT5 / 960 BFX	192
AT5 / 975 SFX	195
AT5 / 990 BFX	198
AT5 / 1005 BFX	201
AT5 / 1020 BFX	204
AT5 / 1050 SFX	210
AT5 / 1075 BFX	215
AT5 / 1100 BFX	220
AT5 / 1125 BFX	225
AT5 / 1215 BFX	243
AT5 / 1230 BFX	246
AT5 / 1380 BFX	276
AT5 / 1400 BFX	280
AT5 / 1500 BFX	300
AT5 / 1600 BFX	320
AT5 / 1700 BFX	340
AT5 / 1750 BFX	350
AT5 / 1800 BFX	360

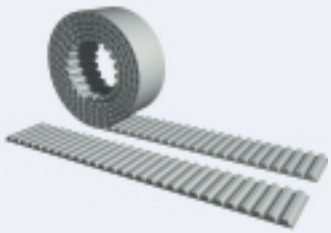
Pitch/Length Version	Number of Teeth
AT5 / 1900 BFX	380
AT5 / 2000 BFX	400
AT5 / 2120 BFX	424
AT5 / 2240 BFX	448
AT5 / 2360 BFX	472
AT5 / 2500 BFX	500
AT5 / 2650 BFX	530
AT5 / 2800 BFX	560
AT5 / 3000 BFX	600
AT5 / 3150 BFX	630
AT5 / 3350 BFX	670
AT5 / 3550 BFX	710
AT5 / 3750 BFX	750
AT5 / 3800 BFX	760
AT5 / 4000 BFX	800
AT5 / 4250 BFX	850
AT5 / 4500 BFX	900
AT5 / 4750 BFX	950
AT5 / 5000 BFX	1000
AT5 / 5300 BFX	1060
AT5 / 5600 BFX	1120
AT5 / 6000 BFX	1200
AT5 / 6300 BFX	1260
AT5 / 6700 BFX	1340
AT5 / 7100 BFX	1420
AT5 / 7500 BFX	1500

Further lengths up to 15,000 mm available.
Length of timing belt can be increased in increments of one tooth from minimum length of 1,075 mm.

AT-SERIES

AT5

STEEL Tension Member — standard
KEVLAR® Tension Member — optional



OPEN ENDED – M

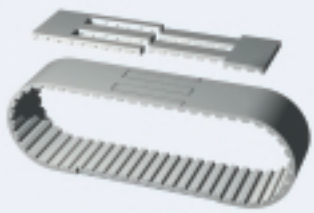
Widths: Standard Belt Widths in mm (in between widths available):
6 8 10 12 16 20 25 32 50 75

Lengths: Any length available – Stock Rolls: 50 meters

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**

Belt Width
Pitch
Length
Open Ended Length Code M



SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths in mm (in between widths available):
10 12 16 20 25 32 50 75

Lengths: Minimum Joined Length: 880 mm
Length of timing belt can be specified in one tooth increments

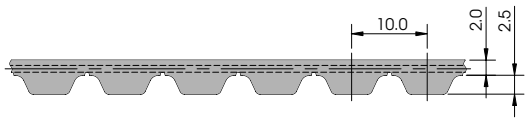
Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**

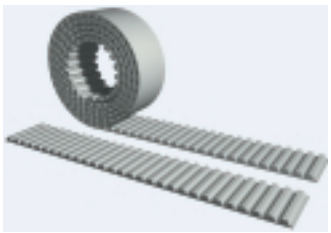
Belt Width
Pitch
Length
Joined Length Code V

AT-SERIES

AT10



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



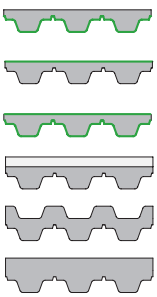
OPEN ENDED – M

Widths: Standard Belt Widths in mm (in between widths available):
10 12 16 20 25 32 50 75 100 150

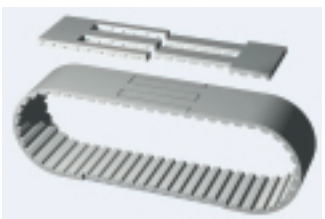
Lengths: Any length available – Stock Rolls: 50 meters

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**



AT10 / 2000 M
Belt Width
Pitch
Length
Open Ended Length Code M



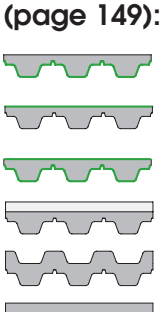
SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths in mm (in between widths available):
20 25 32 50 75 100 150

Lengths: Minimum Joined Length: 880 mm
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

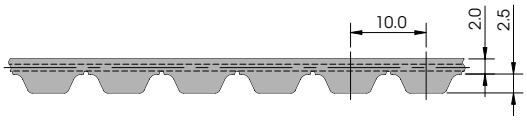
- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**
- **DL**
- **DR**



AT10 / 2000 V
Belt Width
Pitch
Length
Joined Length Code V

AT-SERIES

AT10



STEEL Tension Member — standard
KEVLAR® Tension Member — optional

TRULY ENDLESS - BFX

Widths: Standard Belt Widths in mm (in between widths available):

10 12 16 20 25 32 50 75 100 150

Pitch/Length Version	Number of Teeth
AT10 / 400 BFX	40
AT10 / 500 BFX	50
AT10 / 530 BFX	53
AT10 / 560 BFX	56
AT10 / 580 SFX	58
AT10 / 600 SFX	60
AT10 / 610 BFX	61
AT10 / 630 BFX	63
AT10 / 660 BFX	66
AT10 / 700 BFX	70
AT10 / 720 BFX	72
AT10 / 730 SFX	73
AT10 / 780 BFX	78
AT10 / 800 BFX	80
AT10 / 810 BFX	81
AT10 / 840 BFX	84
AT10 / 850 BFX	85
AT10 / 880 BFX	88
AT10 / 890 BFX	89
AT10 / 920 BFX	92
AT10 / 960 BFX	96
AT10 / 970 BFX	97
AT10 / 980 BFX	98
AT10 / 1000 SFX	100
AT10 / 1010 BFX	101
AT10 / 1050 SFX	105

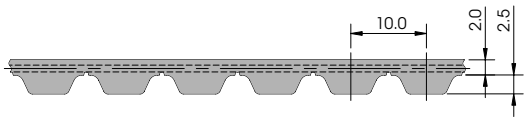
Pitch/Length Version	Number of Teeth
AT10 / 1080 BFX	108
AT10 / 1100 BFX	110
AT10 / 1150 BFX	115
AT10 / 1200 BFX	120
AT10 / 1210 BFX	121
AT10 / 1240 BFX	124
AT10 / 1250 BFX	125
AT10 / 1280 BFX	128
AT10 / 1300 BFX	130
AT10 / 1320 BFX	132
AT10 / 1350 BFX	135
AT10 / 1360 BFX	136
AT10 / 1400 BFX	140
AT10 / 1420 BFX	142
AT10 / 1480 BFX	148
AT10 / 1500 BFX	150
AT10 / 1530 BFX	153
AT10 / 1600 BFX	160
AT10 / 1700 BFX	170
AT10 / 1720 BFX	172
AT10 / 1800 BFX	180
AT10 / 1860 BFX	186
AT10 / 1900 BFX	190
AT10 / 1940 BFX	194
AT10 / 2000 BFX	200
AT10 / 2120 BFX	212

Pitch/Length Version	Number of Teeth
AT10 / 2240 BFX	224
AT10 / 2360 BFX	236
AT10 / 2500 BFX	250
AT10 / 2650 BFX	265
AT10 / 2800 BFX	280
AT10 / 3000 BFX	300
AT10 / 3150 BFX	315
AT10 / 3350 BFX	335
AT10 / 3550 BFX	355
AT10 / 3750 BFX	375
AT10 / 4000 BFX	400
AT10 / 4250 BFX	425
AT10 / 4500 BFX	450
AT10 / 4750 BFX	475
AT10 / 5000 BFX	500
AT10 / 5300 BFX	530
AT10 / 5600 BFX	560
AT10 / 6000 BFX	600
AT10 / 6300 BFX	630
AT10 / 6700 BFX	670
AT10 / 7100 BFX	710
AT10 / 7500 BFX	750
AT10 / 8000 BFX	800
AT10 / 9000 BFX	900

POLYURETHANE TIMING BELTS

REDFLEX GEN III-SERIES

AT10
REDFLEX GEN III



STEEL Tension Member — standard

TRULY ENDLESS - SFX GEN III

Widths: Standard Belt Widths in mm (in between widths available):
16 25 32 50 75 100 150

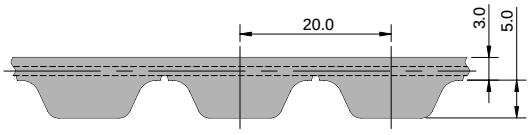
Pitch/Length Version	Number of Teeth
AT10 / 500 SFX	50
AT10 / 560 SFX	56
AT10 / 580 SFX	58
AT10 / 600 SFX	60
AT10 / 610 SFX	61
AT10 / 660 SFX	66
AT10 / 700 SFX	70
AT10 / 730 SFX	73
AT10 / 780 SFX	78
AT10 / 800 SFX	80
AT10 / 840 SFX	84
AT10 / 880 SFX	88
AT10 / 890 SFX	89

Pitch/Length Version	Number of Teeth
AT10 / 920 SFX	92
AT10 / 960 SFX	96
AT10 / 980 SFX	98
AT10 / 1000 SFX	100
AT10 / 1010 SFX	101
AT10 / 1050 SFX	105
AT10 / 1080 SFX	108
AT10 / 1100 SFX	110
AT10 / 1150 SFX	115
AT10 / 1200 SFX	120
AT10 / 1210 SFX	121
AT10 / 1250 SFX	125
AT10 / 1280 SFX	128

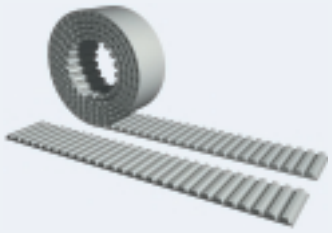
Pitch/Length Version	Number of Teeth
AT10 / 1300 SFX	130
AT10 / 1320 SFX	132
AT10 / 1350 SFX	135
AT10 / 1360 SFX	136
AT10 / 1400 SFX	140
AT10 / 1480 SFX	148
AT10 / 1500 SFX	150
AT10 / 1600 SFX	160
AT10 / 1700 SFX	170
AT10 / 1720 SFX	172
AT10 / 1800 SFX	180
AT10 / 1860 SFX	186
AT10 / 1940 SFX	194

AT-SERIES

AT20



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



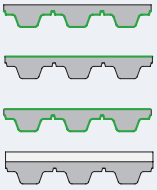
OPEN ENDED – M

Widths: Standard Belt Widths in mm (in between widths available):
25 32 50 75 100 150

Lengths: Any length available – Stock Rolls: 50 meters

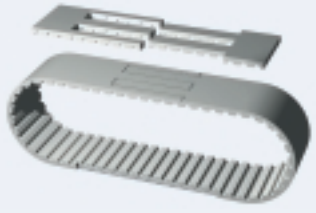
Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**



AT20 / 2000 M

Belt Width
Pitch
Length
Open Ended Length Code M



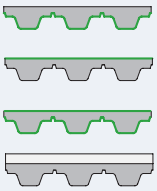
SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths in mm (in between widths available):
25 32 50 75 100 150

Lengths: Minimum Joined Length: 1000 mm
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**

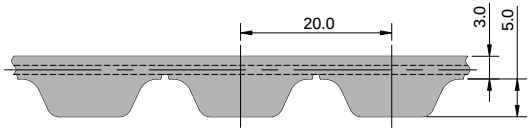


AT20 / 2000 V

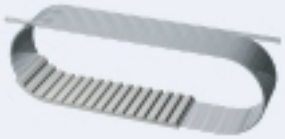
Belt Width
Pitch
Length
Joined Length Code V

AT-SERIES

AT20



STEEL Tension Member — standard



TRULY ENDLESS - BFX

Widths: Standard Belt Widths in mm (in between widths available):
25 32 50 75 100 150

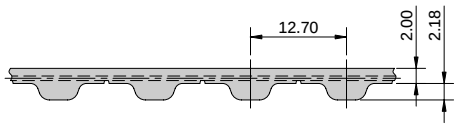
Pitch/Length Version	Number of Teeth
AT20 / 1000 SFX	50
AT20 / 1100 SFX	55
AT20 / 1200 SFX	60
AT20 / 1260 SFX	63
AT20 / 1500 BFX	75
AT20 / 1600 BFX	80
AT20 / 1700 BFX	85
AT20 / 1760 BFX	88
AT20 / 1800 BFX	90
AT20 / 1900 BFX	95
AT20 / 1960 BFX	98
AT20 / 2000 BFX	100
AT20 / 2120 BFX	106

Pitch/Length Version	Number of Teeth
AT20 / 2240 BFX	112
AT20 / 2360 BFX	118
AT20 / 2500 BFX	125
AT20 / 2660 BFX	133
AT20 / 2800 BFX	140
AT20 / 3000 BFX	150
AT20 / 3160 BFX	158
AT20 / 3360 BFX	168
AT20 / 3560 BFX	178
AT20 / 3760 BFX	188
AT20 / 4000 BFX	200
AT20 / 4260 BFX	213
AT20 / 4500 BFX	225

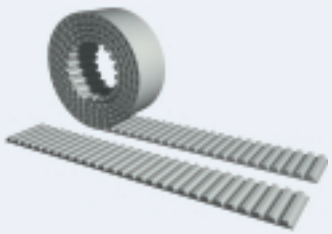
Pitch/Length Version	Number of Teeth
AT20 / 4760 BFX	238
AT20 / 5000 BFX	250
AT20 / 5300 BFX	265
AT20 / 5600 BFX	280
AT20 / 6000 BFX	300
AT20 / 6300 BFX	315
AT20 / 6700 BFX	335
AT20 / 7100 BFX	355
AT20 / 7500 BFX	375
AT20 / 8000 BFX	400
AT20 / 8500 BFX	425
AT20 / 9000 BFX	450

IMPERIAL-SERIES

H=T1/2”
(12.7mm)



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



OPEN ENDED – M

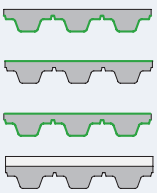
Widths: Standard Belt Widths (in between widths available):

in inch:	0.5	0.75	1.0	1.5	2.0	3.0	4.0	6.0
in mm:	12.7	19.05	25.4	38.1	50.8	76.2	101.6	152.4

Lengths: Any length available – Stock Rolls: 50 meters (164 feet)

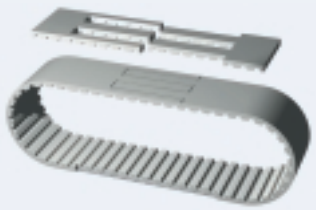
Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**



50.8 T1/2” / 2032 M or 800 H 200 M

- Belt Width
- Pitch
- Length
- Open Ended Length Code M



SPLICED AND WELDED ENDLESS – V

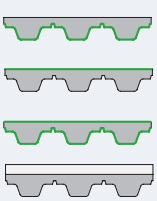
Widths: Standard Belt Widths (in between widths available):

in inch:	0.5	0.75	1.0	1.5	2.0	3.0	4.0	6.0
in mm:	12.7	19.05	25.4	38.1	50.8	76.2	101.6	152.4

Lengths: Minimum Joined Length: 876.3 mm (34.5 inches)
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**
- **T-Cover**

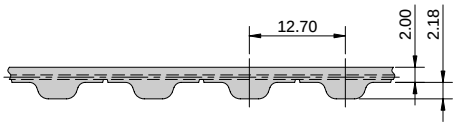


50.8 T1/2” / 2032 V or 800 H 200 V

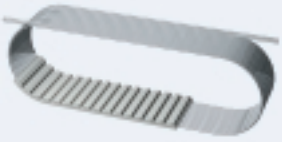
- Belt Width
- Pitch
- Length
- Joined Length Code V

IMPERIAL-SERIES

H=T1/2”
(12.7mm)



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



TRULY ENDLESS - BFX

Widths: Standard Belt Widths (in between widths available):

in inch:	0.5	0.75	1.0	1.5	2.0	3.0	4.0
in mm:	12.7	19.05	25.4	38.1	50.8	76.2	101.6

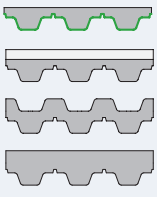
Length/Pitch Code	Length in mm	Number of Teeth
420 H	1066.8	84
450 H	1143.0	90
480 H	1219.2	96
510 H	1295.4	102
540 H	1371.6	108
570 H	1447.8	114
600 H	1524.0	120
630 H	1600.2	126
660 H	1676.4	132
700 H	1778.0	140
750 H	1905.0	150
800 H	2032.0	160

Length/Pitch Code	Length in mm	Number of Teeth
850 H	2159.0	170
900 H	2286.0	180
1000 H	2540.0	200
1100 H	2794.0	220
1250 H	3175.0	250
1400 H	3556.0	280
1700 H	4318.0	340
2000 H	5080.0	400
2300 H	5842.0	460
2600 H	6604.0	520
3000 H	7620.0	600

Further lengths up to 16,002.00 mm (630 inches) available.
Length of timing belt can be increased in increments of one tooth from minimum length of 1,066.8 mm (42 inches).

Available Options (page 149):

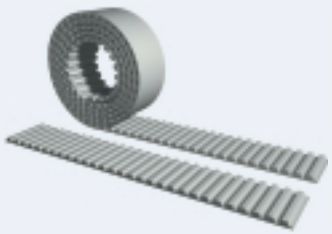
- **PAZ**
- **T-Cover**
- **DL**
- **DR**



IMPERIAL-SERIES

L=T3/8”
(9.525mm)

STEEL Tension Member — standard
KEVLAR® Tension Member — optional



OPEN ENDED – M


Pulleys page 168

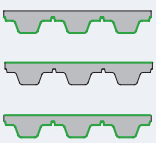
Widths: Standard Belt Widths (in between widths available):

in inch:	0.375	0.5	0.75	1.0	1.5	2.0
in mm:	9.53	12.7	19.05	25.4	38.1	50.8

Lengths: Any length available – Stock Rolls: 50 meters (164 feet)

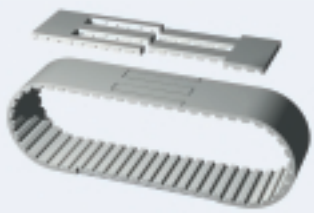
Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**



25.4 T3/8” / 762 M or 300 L 100 M

- Belt Width
- Pitch
- Length
- Open Ended Length Code M



SPLICED AND WELDED ENDLESS – V


Pulleys page 168

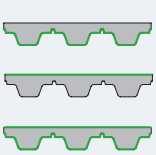
Widths: Standard Belt Widths (in between widths available):

in inch:	0.375	0.5	0.75	1.0	1.5	2.0
in mm:	9.53	12.7	19.05	25.4	38.1	50.8

Lengths: Minimum Joined Length: 876.3 mm (34.5 inches)
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**



T3/8” / 762 V or 300 L 100 V

- Belt Width
- Pitch
- Length
- Joined Length Code V

IMPERIAL-SERIES

L=T3/8”
(9.525mm)

STEEL Tension Member — standard
KEVLAR® Tension Member — optional

TRULY ENDLESS - BFX

Widths: Standard Belt Widths in mm (in between widths available):

in inch:	0.375	0.5	0.75	1.0	1.5	2.0	3.0	4.0
in mm:	9.53	12.7	19.1	25.4	38.1	50.8	76.2	101.6

Length/Pitch Code	Length in mm	Number of Teeth
124 L	314.33	33
150 L	381.00	40
187 L	476.25	50
202 L	514.35	54
210 L	533.40	56
225 L	571.50	60
240 L	609.60	64
255 L	647.70	68
270 L	685.80	72
285 L	723.90	76
300 L	762.00	80
322 L	819.15	86
345 L	876.30	92
367 L	933.45	98

Length/Pitch Code	Length in mm	Number of Teeth
390 L	990.60	104
420 L	1066.80	112
450 L	1143.00	120
480 L	1219.20	128
540 L	1371.60	144
570 L	1447.80	152
600 L	1524.00	160
630 L	1600.20	168
660 L	1676.40	176
705 L	1790.70	188
750 L	1905.00	200
1102 L	2800.35	294
2002 L	5086.35	534
3000 L	7620.00	800

Further lengths up to 14,992.35 mm (590.25 inches) available.
Length of timing belt can be increased in increments of one tooth from minimum length of 1,066.8 mm (42 inches).

Available Options (page 149):

- **PAZ** 

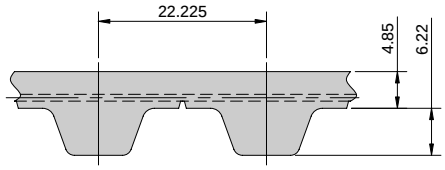
25.4 T3/8” / 762 BFX or 300 L 100 BFX

- Belt Width
- Pitch
- Length
- Truly Endless Length Code BFX

IMPERIAL-SERIES

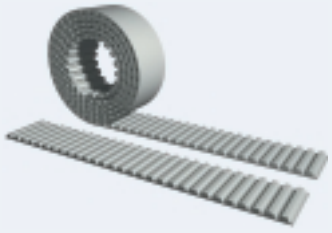
XH=T7/8”

(22.225mm)



STEEL Tension Member — standard

KEVLAR® Tension Member — optional



OPEN ENDED – M

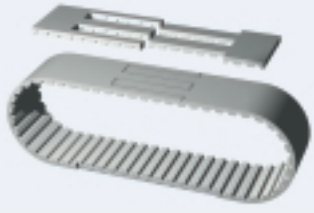
Widths: Standard Belt Widths (in between widths available):

in inch:	1.0	1.5	2.0	3.0	4.0
in mm:	25.4	38.1	50.8	76.2	101.6

Lengths: Any length available – Stock Rolls: 50 meters (164 feet)

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**



SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths (in between widths available):

in inch:	1.0	1.5	2.0	3.0	4.0
in mm:	25.4	38.1	50.8	76.2	101.6

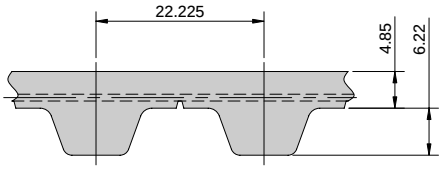
Lengths: Minimum Joined Length: 889 mm (35 inches)
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

- **PAZ**
- **PAR**
- **PAZ-PAR**

IMPERIAL-SERIES

XH=T7/8”
(22.225mm)



STEEL Tension Member — standard
KEVLAR® Tension Member — optional

TRULY ENDLESS - BFX

Widths: Standard Belt Widths (in between widths available):

in inch:	0.75	1.0	1.5	2.0	3.0	4.0
in mm:	19.05	25.4	38.1	50.8	76.2	101.6

Length/Pitch Code	Length in mm	Number of Teeth
560 XH	1422.4	64
630 XH	1600.2	72
700 XH	1778.0	80
770 XH	1955.8	88
840 XH	2133.6	96
980 XH	2489.2	112
1120 XH	2844.8	128
1260 XH	3200.4	144

Length/Pitch Code	Length in mm	Number of Teeth
1400 XH	3556.0	160
1540 XH	3911.6	176
1750 XH	4445.0	200
1960 XH	4978.4	224
2275 XH	5778.5	260
2450 XH	6223.0	280
3500 XH	8890.0	400

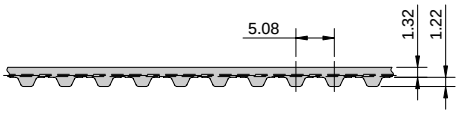
Further lengths up to 16,002.0 mm (630 inches) available.
Length of belt can be increased in increments of one tooth from minimum length of 1,422.4 mm (56 inches).

Available Options (page 149):

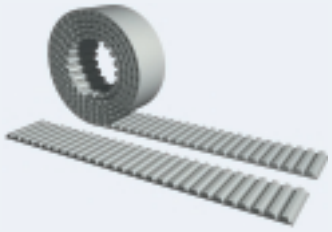
- **PAZ** 

IMPERIAL-SERIES

XL=T1/5”
(5.08mm)



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



OPEN ENDED – M

Widths: Standard Belt Widths (in between widths available):

in inch:	0.25	0.313	0.375	0.5	0.75	1.0
in mm:	6.35	7.94	9.53	12.7	19.05	25.4

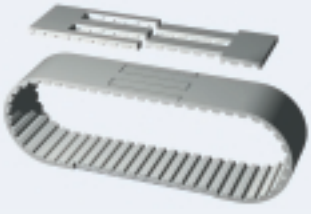
Lengths: Any length available – Stock Rolls: 50 meters (164 feet)

Available Options (page 149):

- **PAZ** 
- **PAR** 
- **PAZ-PAR** 

25.4 T1/5” / 2540 M or 1000 XL 100 M

- Belt Width
- Pitch
- Length
- Open Ended Length Code M



SPLICED AND WELDED ENDLESS – V

Widths: Standard Belt Widths (in between widths available):

in inch:	0.375	0.5	0.75	1.0
in mm:	9.53	12.7	19.05	25.4

Lengths: Minimum Joined Length: 878.84 mm (34.6 inches)
Length of timing belt can be specified in one tooth increments

Available Options (page 149):

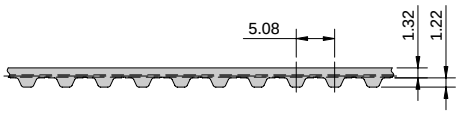
- **PAZ** 
- **PAR** 
- **PAZ-PAR** 

T1/5” / 2540 V or 1000 XL 100 V

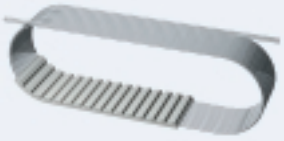
- Belt Width
- Pitch
- Length
- Joined Length Code V

IMPERIAL-SERIES

XL=T1/5”
(5.08mm)



STEEL Tension Member — standard
KEVLAR® Tension Member — optional



TRULY ENDLESS - BFX

Widths: Standard Belt Widths (in between widths available):

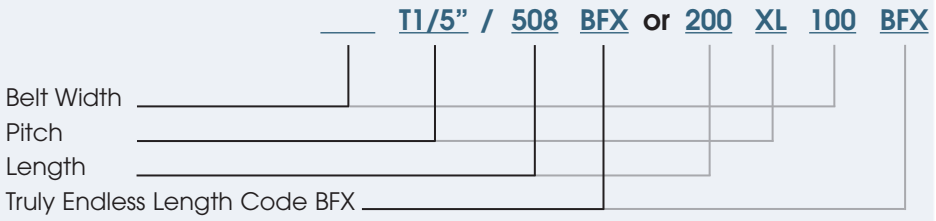
in inch:	0.25	0.313	0.375	0.5	0.75	1.0	1.5	2.0	3.0	4.0
in mm:	6.35	7.94	9.53	12.7	19.05	25.4	38.1	50.8	76.2	101.6

Length/Pitch Code	Length in mm	Number of Teeth
60 XL	152.4	30
70 XL	177.8	35
80 XL	203.2	40
90 XL	228.6	45
100 XL	254.0	50
110 XL	279.4	55
120 XL	304.8	60
130 XL	330.2	65
140 XL	355.6	70
150 XL	381.0	75
160 XL	406.4	80

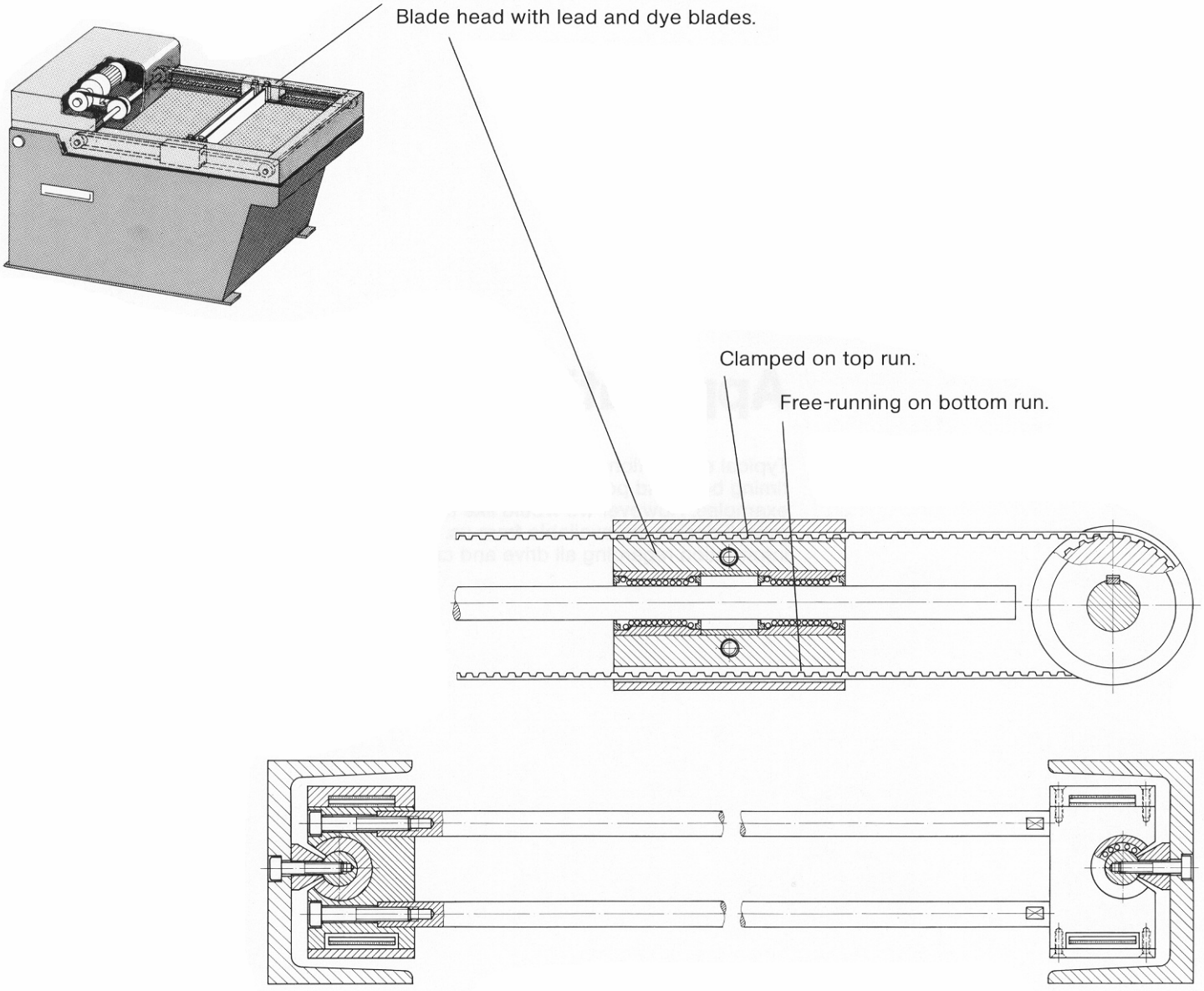
Length/Pitch Code	Length in mm	Number of Teeth
170 XL	431.8	85
180 XL	457.2	90
190 XL	482.6	95
200 XL	508.0	100
210 XL	533.4	105
220 XL	558.8	110
230 XL	584.2	115
240 XL	609.6	120
250 XL	635.0	125
260 XL	660.4	130

Available Options (page 149):

- **PAZ**



SCREENPRINTING MACHINE



The motion of a screen printing machine is characterized by fast forward and return strokes. Dye is spread over the screen printing surface by the leading blade and on the return stroke the dye is pressed through the screen by the dye blade. A considerable proportion of the drive power is used in accelerating and breaking the system.

Design Characteristics:
The timing belt has a low mass. In order to move the system backwards and forwards two BRECO timing belts are used in parallel. Open length belting is employed, each belt being clamped to one side of the blade head on the top run. The bottom run of each belt freely passes through a slot on the underneath of the blade head.

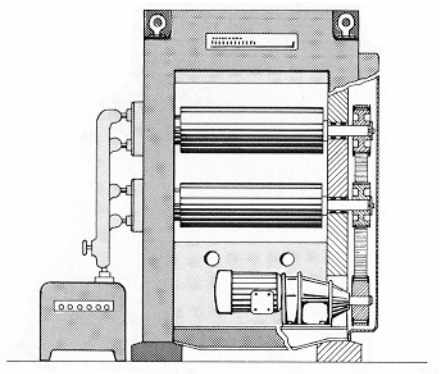
Drive data:

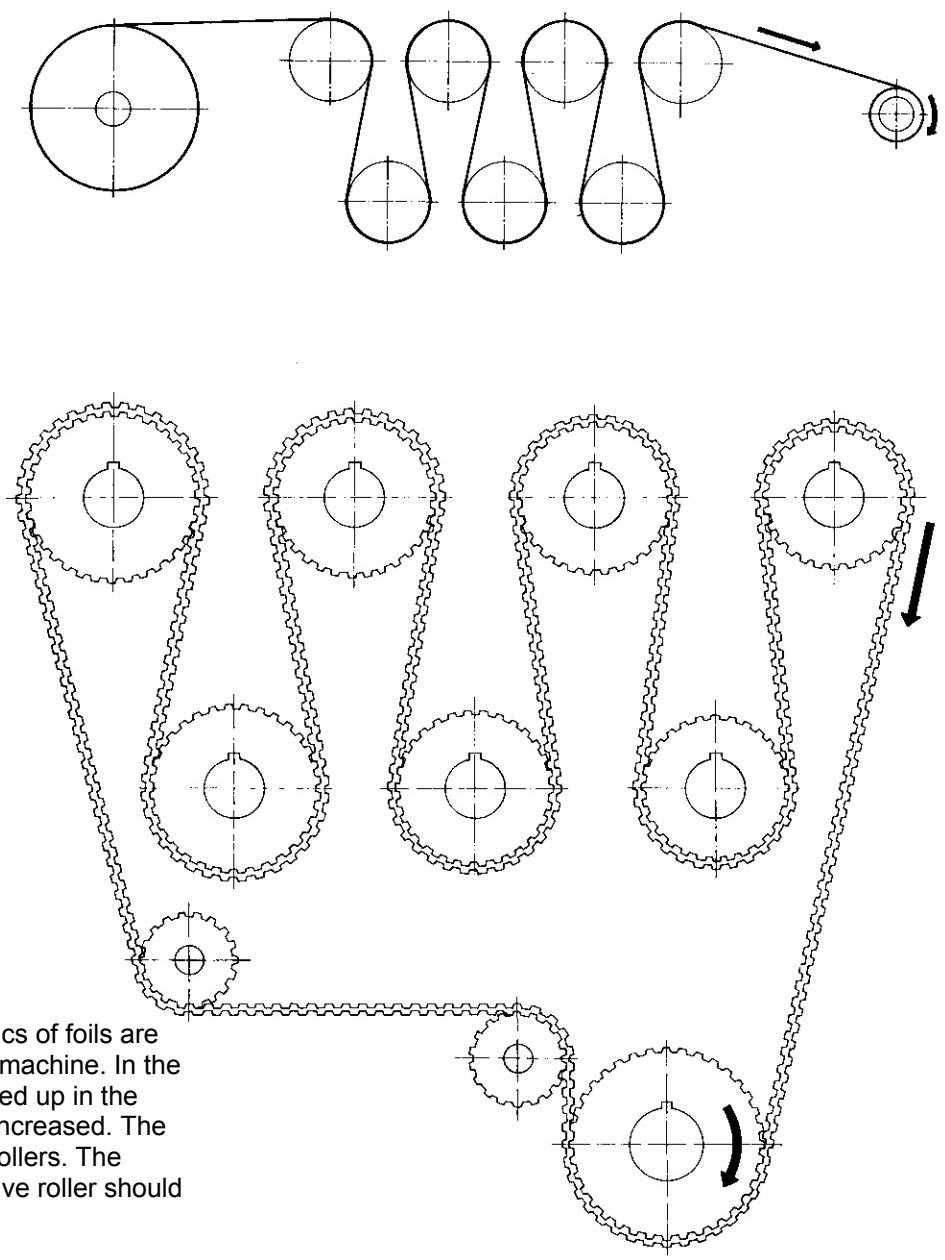
Power	P = 1.2 kW
Drive speed	n = 1000 rpm
Belt velocity	v = 3 m/s
Timing pulleys	z = 36

Choice of belting:
BRECO 25 T5 / open length timing belt. The timing belt has a mass of 0.055 kg/m. Due to the steel cord tension members there is no post elongation, therefore re-tensioning of the belting is not necessary and maintenance-free running without the need for lubrication can be expected.

Notes:
There is no length restriction on BRECO open length belting. The standard roll length is 50 meters.

FOIL CONVERTING MACHINE





The physical properties and characteristics of foils are deliberately changed in a foil converting machine. In the converting process the molecules are lined up in the direction of pull and the tear strength is increased. The converting process occurs over heated rollers. The change in speed between each successive roller should be in the region of 3 – 3.5%

Design Characteristics:
Bearing mounted pulleys should be fitted to the drive side of the rollers. Successive pulleys should differ from each other by one tooth i.e. z = 33 / 32 / 31 etc. The path of the timing belt should follow that of the foil.

Drive data:

Drive speed	n = 400 rpm
Drive power	P = 12 kW
Main drive pulley	z = 36

The surrounding components on the drive side are covered in an oil film due to neighboring machine components.

Choice of belting:
BRECOFLEX 50 T20 / 7500-DL timing belt. Both sides of the belt can carry the same loading. The belt is completely oil resistant due to the polyurethane used in its construction. The steel cord tension members ensure no post elongation, thus resulting in a maintenance-free drive.

Notes:
BRECOFLEX single and double sided timing belts are available in endless lengths up to 22 meters (longer lengths available on request).