

BRECOflex CO., L.L.C.

High Precision Drive Components

The World Leader In Polyurethane Timing Belts

Truly Endless Woven Flat Belts



Truly Endless Woven Flat Belts

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Truly Endless Woven Flat Belts

Truly Endless Flat Belts

Truly endless homogeneous flat belts are manufactured without joints or splices for high-performance drive and conveying applications. These unique flat belts offer many advantages and benefits for demanding drive and conveying machinery and equipment. The endless belt technology outperforms conventional joined flat belt designs.

CHARACTERISTICS

- **Homogeneous** - Uniform elongation, tensile strength and thickness consistency throughout
- **Flexible** - Reliable for frequent back bending, suitable for small pulley and shaft diameters as well as knife edges
- **Quiet running** - Low noise level due to truly endless design (no joint)
- **Smooth running** - Consistent power delivery and conveying performance (no joint)
- **Customized** - Infinite combination of materials for carcass and covers, surfaces and finish configurations to meet unique application needs

ADVANTAGES

- **Highly efficient** (>98.5%)
- **Belt speeds of 150 m/s possible**
- **Long service life**
- **High loads possible** (up to 30 kW/cm)
- **Good dynamic characteristics**

PRODUCTS & PROPERTIES

- **Drive belts** - High running accuracy, low vibration, flexible
- **Standard Conveyor belts** - smooth, consistent and strong
- **Weighing belts** - Homogeneous, constant weight, reliable
- **Vacuum conveyor belts** - Precise, perforated
- **Food transport belts** - Easy to clean, temperature resistant
- **High temperature belts** - Reliable in temperature ranges up to 300°C
- **Machine and process belts** - Robust, reliable, durable
- **Special belts (to customer's specifications)** - Diverse, unique, solution-oriented
- **Conveyor belts for paper transport and paper handling** - Abrasion-resistant, smooth, high speed
- **Coating materials for timing and Multi-V belts** - Application specific, innovative

NOTE: The combination of materials, coatings and carcasses are fully customizable.

Truly Endless Woven Flat Belts

Drives

These belts are manufactured as truly endless woven flat belts to provide high efficiency, precise running, low vibration, low noise and long life even at high belt speeds and bending frequencies.

LIGHT-DUTY DRIVES UP TO 2.5 kW

Wear resistant belts with superior running and traction properties, high flexibility, well defined coefficients of friction, anti-static. Typical applications:

- High-speed drives - office equipment
- Household appliances
- Power tools
- Grinding machines
- Saws
- Testing equipment
- Spindle drives
- Spinning frames
- Bobbing machines
- Textile machinery

MEDIUM-DUTY DRIVES UP TO 15kW

Wear resistant belts with superior running and traction properties, low noise, low elongation, anti-static. Typical applications:

- Hi-speed drives
- Woodworking machinery
- Floor maintenance equipment
- Grinding machines
- Machine tools
- Textile machinery
- Construction equipment

HEAVY-DUTY DRIVES UP TO 60kW

Wear resistant belts with good traction properties, low elongation and smooth running. Typical applications:

- Balancing equipment
- Construction machinery
- Stamping presses
- Woodworking machinery
- Fan drives
- Engine test benches
- Turbine drives
- Hydro-electric power plants
- Mills
- Testing equipment

TWO PULLEY DRIVES

- Power transmission with low shaft loads and minimal wear
- Power transmission of up to 60 kW (special versions up to 150 kW)
- Temperature range up to 130° C
- Absorption of shock and vibration
- Suitable for overload protection
- High reliability and efficiency

SPINDLE DRIVES

- Spindle tapes and tangential drives in the textile industry
- Especially suited for very small shaft diameters and high belt speeds

PERPENDICULAR BELT DRIVES

- Ideal solutions for right angle drives

CROSSED BELT DRIVES

- Simple designs for changing the running direction of shaft (Crossed Belt Drives) or shaft position (Half-Crossed Belt Drives)

SERPENTINE DRIVES

- Long life at high belt speeds and bending frequencies



Truly Endless Woven Flat Belts

Conveying

Truly endless woven conveyor belts are available in many carcass materials with different coatings to meet the required coefficient of friction for a specific application. The most common types of conveying applications are as follows.

PAPER

For paper processing and paper handling we offer belts with various degrees of elasticity (supported and unsupported), high ozone resistance, high break strength and low elongation, based on specific needs. Typical applications: printing machines, copiers and scanners, ATMs and ticket dispensing equipment as well as paper and cardboard converting machines.

FOOD

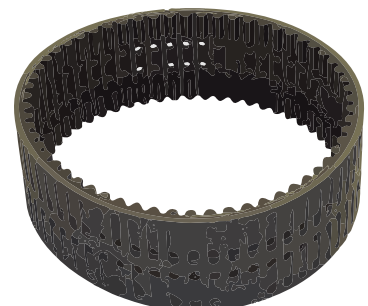
Truly endless woven conveyor belts allow delicate processing and packaging of food. The belts are easy to clean and temperature-resistant with various degrees of elasticity, flexibility and coefficients of friction. Typical applications: transfer stations, automatic packaging machines, cheese processing machines, bakery equipment and knife edges.

WEIGHING TECHNOLOGY

Truly endless woven conveyor belts are homogeneous over the entire belt width and length (including weight). All coating and elongation characteristics are consistent throughout the belt. Special surface finishes and low friction covers are applied evenly across the belt. The uniformity of truly endless woven flat belts makes them the perfect choice for weighing equipment. Typical applications: light weight bulk material handling, dynamic weighing devices and small shaft diameters. Bulk Material and Unit Goods truly endless woven flat belts convey every type of unit goods and bulk material of all weights and sizes to perfection. The belts are easy to clean and temperature-resistant with various degrees of elasticity and flexibility and well defined coefficients of friction. Typical applications: speed-up conveyors, vacuum conveyors, fixed shaft centers and knife edges.

SPECIAL CONVEYOR BELTS

We supply truly endless woven conveyor belts with special surface treatments to convey unit goods and bulk materials in extreme conditions. Typical applications: incline conveyors, synchronous and vacuum conveyors, sharp inclines and extended temperature ranges.



Truly Endless Woven Flat Belts

Carcass Materials

Truly endless woven flat belt carcasses are produced in truly endless form by using high tech weaving machines. These specialty carcasses are the belt bases for further processing, coating and treatment. Various carcass materials are used for specific belt characteristics.

POLYESTER

- Low elasticity
- Chemical-resistant

COTTON

- Low elasticity
- Low coefficient of friction

KEVLAR®

- Extremely low elasticity
- Low coefficient of friction
- Temperature range up to 280° C

ELASTIC YARN

- High elasticity elongation from 4-10%
- For fixed shaft centers
- No tensioning devices necessary

POLYAMIDE

- Medium elasticity, elongation from 0.5-1.5%
- For fixed shaft centers

NOMEX

- Low elasticity
- Temperature range up to 300° C

FIBERGLASS

- Low elasticity
- Low coefficient of friction
- Temperature range up to 300° C

Carcass Material Chemical Capatability Chart

Chemicals	Carcass Materials				
	Polyester	Cotton	Kevlar®	Nomex	Fiberglass
Water	+	+	+	+	+
Oil, Greases	+	O	+	+	+
Diluted Acids	+	+	+	+	+
Diluted Bases	O	+	+	+	+
Aromatics - Benzene based	+	+	+	+	+
Alcohol	+	+	+	+	+
Aliphatic compounds	+	+	+	+	+
Ether	+	+	+	+	+
Chlorinated hydrocarbons	+	+	+	+	+
Dimensional stability					
at high humidity	+	-	+	+	+
with highly fluctuation temperatures	+	+	+	+	+

High = + Medium = O Low = -

NOTE: The combination of materials, coatings and carcasses are fully customizable.

Truly Endless Woven Flat Belts

Coating Materials

All truly endless woven flat belt coatings are applied as endless covers so belts may be run in either direction. In addition polyurethane timing belts can be coated using the same materials.

POLYURETHANE (PU)

- Foamed (yellow, gray, white, red)
- Compact (white, FDA)
- Temperature range up to 60°C (intermittent up to 80°C)
- Good coefficient of friction to paper
- Different durometers available
- Thickness up to 10 mm

CHLOROPRENE RUBBER (CR)

- Black (durometer approx. 62 Shore A)
- Good abrasion resistance
- High coefficient of friction
- Good resistance to oils, greases, ozone
- Temperature range up to 100°C
- High flexibility- Anti-static

SILICONE (SI, HN, HG, HK)

- White, gray (durometer approx. 30 – 35 Shore A)
- Thickness up to 10 mm
- Temperature range up to 280°C
- High coefficient of friction
- Stain resistant
- FDA
- Resistant to adhesives

PVC (PC)

- Red
- Temperature range up to 60°C
- Good resistance to chemicals

xNBR RUBBER (xNBR)

- Off-white (durometer approx. 75 Shore A)
- Good abrasion resistance
- High coefficient of friction
- Ozone-resistant
- Good resistance to oils and greases
- Temperature range up to 130°C

NATURAL RUBBER (NK)

- Red (durometer approx. 42 Shore A)
- Maroon (durometer approx. 50 Shore A)
- High coefficient of friction
- Temperature range up to 70°C
- High elasticity
- Low tear propagation

NBR RUBBER (NBR)

- Light gray, blue, white
- White (FDA)
- Good abrasion resistance
- High coefficient of friction
- Very good resistance to oils and greases
- Temperature range up to 100°C

PVC (PC)

- Green (durometer approx. 65 Shore A)
- Very good resistance to weather aging
- Temperature range up to 80°C
- High coefficient of friction

Coating Material Chemical Compatibility Chart					
Chemicals	Coating Materials				
	Polyurethane (PU)	Chloroprene (CR)	Silicone (SI)	PVC (PC)	NBR/xNBR
Water	O	+	+	+	+
Oil, Greases	+	O	O	O	+
Diluted Acids	-	+	O	+	O
Diluted Bases	-	+	O	+	+
Aromatics - Benzene based	O	+	-	-	-
Alcohol	O	+	+	O	+
Aliphatic compounds	+	+	O	+	+
Ether	O	+	-	-	O
Chlorinated hydrocarbons	O	+	-	-	-

High = + Medium = O Low = -

NOTE: The combination of materials, coatings and carcasses are fully customizable.

Truly Endless Woven Flat Belts

Coefficients of Friction

Various coating materials along with several surface finishes offer a wide range of coefficients of friction both on the running and the carrying side. Almost all combinations of coatings are available.

Coefficients of friction in clean, unused condition

Measured on ground or smooth surfaces; all values $\mu \pm 0.1 \mu$

Coefficient of Friction									
Coating/Surface Finishes	Steel	Aluminum	Aluminum Iodized	Cast Iron	Stainless Steel	UHMW	PETP White	Paper	PE Foil
CR ground	0.7	0.6	0.6	0.7	0.4	0.3	0.7	0.8	0.3
CR textured	0.6	0.4	0.6	0.5	0.6	0.3	0.6	0.8	0.2
CR smooth	0.6	0.6	0.8	>0.9	0.6	0.4	0.8	0.9	0.9
PU ground	0.4	0.4	0.8	0.4	0.3	0.2	0.6	0.8	0.2
PU soft, ground	0.4	0.4	0.9	0.5	0.3	0.2	0.4	0.8	0.2
PU non-porous	0.3	0.5	0.6	0.8	0.3	0.2	0.4	0.5	0.2
PU low-friction coating	0.2	0.3	0.7	0.4	0.2	0.2	0.4	0.6	0.2
SI ground	0.4	0.4	0.6	0.5	0.3	0.2	0.3	0.6	0.3
SI skim coat	0.7	0.8	0.9	0.8	0.5	0.4	0.8	0.9	>0.9
PVC textured	0.7	0.8	>0.9	0.9	0.6	0.4	0.8	0.9	0.5
PVC smooth	0.6	0.8	0.9	0.8	0.5	0.4	0.8	0.9	>0.9
FX ground	0.4	0.3	0.4	0.5	0.2	0.2	0.4	0.7	0.1
FX smooth	0.5	0.4	0.5	0.6	0.4	0.1	0.2	0.4	0.9
FX structured	0.3	0.4	0.5	0.5	0.2	0.1	0.4	0.6	0.1
NK red or maroon ground	0.8	0.8	0.6	0.9	0.6	0.7	0.6	0.8	0.7
NBR smooth, textured, ground	0.4	0.4	0.4	0.5	0.3	0.3	0.4	0.5	0.8
NBR blue textured, ground	0.4	0.4	0.9	0.5	0.4	0.2	0.6	0.8	0.2
xNBR off-white textured, ground	0.3	0.4	0.5	0.4	0.3	0.2	0.5	0.6	0.2
EPDM smooth	0.8	>0.9	>0.9	0.9	>0.9	>0.9	>0.9	0.9	>0.9
EPDM ground, 80-grain	0.9	>0.9	>0.9	0.9	0.9	>0.9	>0.9	0.9	0.3
EPDM ground, 150-grain	0.9	>0.9	>0.9	0.9	0.9	>0.9	>0.9	0.9	0.4
Carcass raw polyester, Kevlar®	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.1
Carcass raw fiberglass	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.1
Carcass raw cotton	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.3	0.1
Carcass CR impregnated	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.4	0.2

Truly Endless Woven Flat Belts

Special Processing

All of these products are truly endless flat belts manufactured to exacting standards to meet specific application requirements.

We can accommodate custom designs. Perforations, vacuum slots and transport pockets are manufactured using a 5-axis, computer controlled machine to meet specific application requirements.

The following are examples of the many possible machined belt configurations:



FLAT BELTS WITH SELF-TRACKING GUIDES

- Guides are either bonded to the flat belt or milled from solid material



FLAT BELTS WITH PERFORATIONS

- Hole diameters from 1.5 to 10mm
- Perforation patterns according to specific requirements
- Non-standard holes possible



FLAT BELTS WITH HEAVY COATING AND VACUUM HOLES

- Suction slots increase the vacuum surface area



POLYURETHANE TIMING BELTS WITH COATING

- Vacuum holes and suction slots for Form-Fill-Seal applications

Truly Endless Woven Flat Belts

Polyurethane PU

Truly endless woven flat belts with a polyurethane coating are available with different surface finishes to meet the needs of a particular application. The following is a guideline to select a suitable finish combination.

COATED AND GROUND ON ONE SIDE

- Standard configuration
- Other side impregnated

COATED AND GROUND ON BOTH SIDES

- Increases the coefficient of friction
- Seals the carcass

ONE SIDE TEXTILE RAW

- Only available for PU-Elastic, PU 12, PU 18 and PU 20/1
- Carcass material is exposed without penetration of the coating material from the other side
- Reduces the coefficient of friction

NON-POROUS PLY

- Seals the surface
- Stain resistant and easy to clean
- Increases the coefficient of friction

LOW FRICTION COATING

- Reduces the coefficient of friction on the coated side

SILICONE SKIM COAT

- Can be applied to any polyurethane coated belts
- Increases the coefficient of friction
- Stain resistant and easy to clean

SPECIAL GRINDING

- Provides a very smooth finish
- Improves the belt thickness tolerance

Surface Versions		Type										
One Side	Other Side	Type										
		PU 0/6	PU-Elastic	PU-Elastic 13	PU 4/6	PU 10	PU 11	PU 12	PU 17	PU 18	PU 20/1	PU 20
Ground	Uncoated		X	X	X	X	X	X	X	X		X
Non-porous ply	Uncoated		X	X	X	X	X	X	X	X		X
Low-friction coating	Uncoated		X	X	X	X						
Special grinding/ Low-friction coating	Uncoated						X	X	X	X		X
Ground	Ground	X	X	X	X	X	X	X	X	X		X
Ground	Non-porous ply		X	X	X	X	X	X	X	X		X
Ground	Low-friction coating		X	X	X	X						
Ground	Textile raw		X	X				X		X	X	
Ground	Textile impregnated		X	X				X		X		
Ground	Special grinding/ Low-friction coating						X	X	X	X		X
Non-porous ply	Non-porous ply		X	X	X	X	X	X	X	X		X
Non-porous ply	Low-friction coating		X	X	X	X						
Non-porous ply	Textile raw		X	X				X		X	X	
Non-porous ply	Textile impregnated		X	X				X		X		
Non-porous ply	Special grinding/ Low-friction coating						X	X	X	X		X
Low-friction coating	Textile raw		X	X								
Low-friction coating	Textile impregnated		X	X								
Low-friction coating	Low-friction coating		X	X	X	X						
Textile raw	Special grinding/ Low-friction coating							X		X		
Textile impregnated	Special grinding/ Low-friction coating							X		X		
Special grinding/ Low-friction coating	Special grinding/ Low-friction coating							X		X		

Truly Endless Woven Flat Belts

Chloroprene CR and FX - SI - PC

CHLOROPRENE CR - CHARACTERISTICS

- Black color
- Anti-static
- Temperature range -20°C to 100°C, Intermittent -25°C to 140°C
- Durometer approx. 62 Shore A
- High coefficient of friction
- Low abrasion
- Good resistance to oils, greases, ozone
- High flexibility

COMPACT POLYURETHANE FX

- White color
- Durometer approx. 80 Shore A
- FDA approved
- Temperature range -10°C to 80°C, Intermittent -10°C to 80°C
- Surface versions: smooth, ground or structured
- Only available in certain thicknesses

SILICONE SI

- White and gray color
- Durometer approx. 30-35 Shore A
- FDA approved
- Temperature range -60°C to 200°C, Intermittent -60°C to 250°C
- High coefficient of friction
- Resistant to dirt and chemicals

PVC PC

- Red color
- Temperature range -10°C to 60°C, Intermittent -10°C to 80°C
- Resistant to chemicals and microbes



Surface Versions		Type					
One Side	Other Side	SI 1	SI 1	SI 1	SI 1	SI 1	SI 1
Ground	Uncoated	X	X	X	X	X	X
Silicone skim coat	Uncoated	X	X	X	X	X	X
Ground	Ground	X	X	X	X	X	X
Ground	Silicone skim coat	X	X	X	X	X	X
Silicone skim coat	Silicone skim coat	X	X	X	X	X	X

Truly Endless Woven Flat Belts

Design Considerations

Truly endless woven flat belts offer the opportunity to create limitless belt drive designs. The next two pages contain guidelines regarding pulley designs, belt layout, and placement of idlers and special belt drive designs.

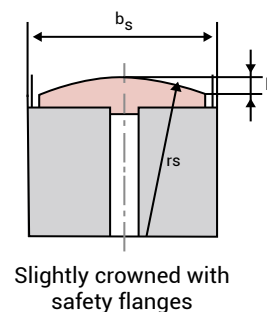
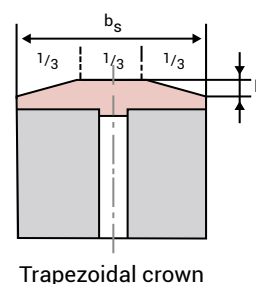
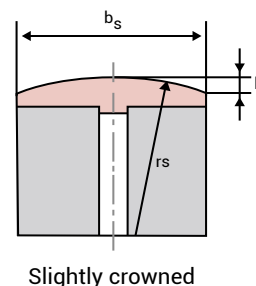
FLAT BELT TRACKING USING CROWNED PULLEYS

Textile flat belts run with a high degree of directional stability. To ensure optimum belt tracking at least one of the pulleys should be crowned. Contact applications engineering for assistance if the design does not allow for observing the crown and pulley width recommendations. Flanged systems require additional lateral belt stiffness.

Important note: The largest pulleys rotating in the same direction should be crowned.

Recommended materials are steel, cast iron or aluminum with surface roughness of Ra 3.2µm or Ra to 1.6µm. Coated pulleys may be advised in special circumstances.

Belt Width	Pulley Face Width	Crown Height	Crown Radius
b (mm)	b_s (mm)	h (mm)	r_s (mm)
10	13	0.3	71
13	16	0.3	107
16	20	0.3	167
20	25	0.3	261
25	32	0.3	427
32	40	0.4	500
40	50	0.4	782
50	63	0.4	1241
63	80	0.4	2000
80	100	0.5	2500
100	125	0.5	3907
125	160	0.6	5334
160	200	0.7	7143
200	250	0.8	9766



Truly Endless Woven Flat Belts

Drive Layout

DESIGN OF THE BELT DRIVE WITH CROWNED/FLAT PULLEYS

With gearing ratios exceeding 3:1 and horizontal shaft positions, the small pulley may be flat. In the case of drives with vertical shaft positions it is recommended to have both pulleys crowned. (see fig. 1)

For Multi-Shaft belt drives, the pulleys with the biggest diameters and rotating in the same direction, must be crowned. (see fig. 2)

ARRANGEMENT OF TENSIONING ROLLERS

When using tensioning rollers the following must be observed:

- The diameter of the tensioning roller should be selected as large as possible
- The tensioning roller should always be in the slack side of the drive
- The tensioning roller should always be flat
- The necessary pre-tension can be applied by using tensioning roller, eccentric tensioner, spring tension or the inherent elasticity of the belt

PROPERTIES OF THE CONVEYOR BELTS IN THE DESIGNS SHOWN ON THE LEFT HAND SIDE:

- Low coefficient of friction on the running side
- Belt thickness as thin as possible (especially knife edge and checkweigher belts)
- If necessary, increase coefficient of friction on the pulley (rubber coating on pulley)
- Chemical-resistant
- Anti-static (carcass)
- Belts with self-tracking guides

Fig. 1

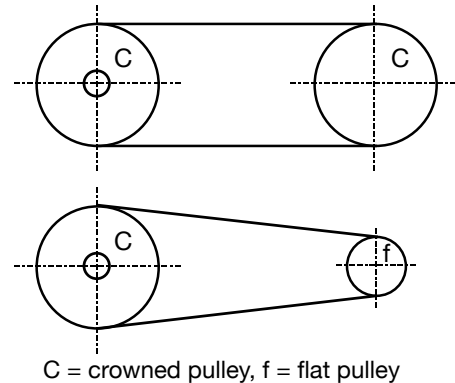
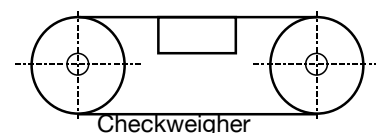
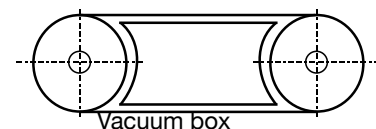
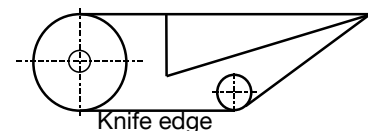
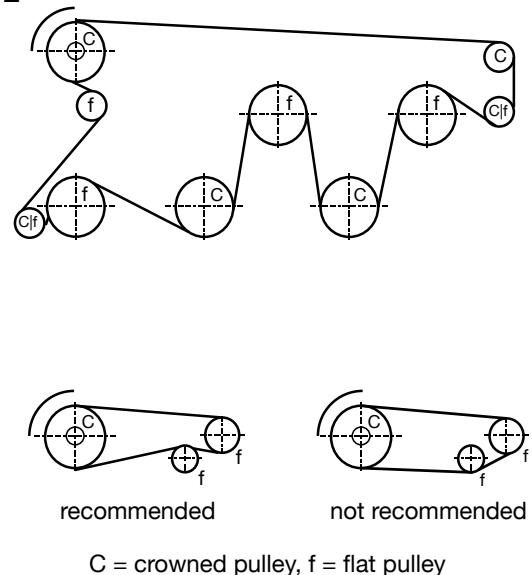


Fig. 2



Truly Endless Woven Flat Belts

Belt Sizing

1. Calculation example for standard drives

The calculation example is based on the following:

- Power $P = 7.5 \text{ kW}$
- Pulley dia. $d_1 = 140 \text{ mm}$
- Pulley Speed
 $n_1 = 2900 \text{ rpm}$
- Pulley dia. $d_2 = 52 \text{ mm}$
- Number of pulleys
 $z = 2$
- Shaft center distance
 $e = 165 \text{ mm}$
- Belt type selected:
NE 22
- Coefficient of friction
 $\mu = 0.5$
- Duty factor
 $CB = 0.9$

$$1.1 \text{ Belt length } L = 2 \cdot e + \frac{\pi}{2} (d_2 + d_1) + \frac{(d_2 - d_1)^2}{4 \cdot e} = 643 \text{ mm}$$

$$1.2 \text{ Belt speed } v = \frac{d_1 \cdot n_1}{19100} = 21.26 \text{ m/s}$$

$$1.3 \text{ Bending frequency } f_B = 1000 \cdot z \cdot \frac{v}{L} = 66 \text{ 1/s}$$

$$1.4 \text{ Arc of contact } \beta = 180 - \frac{60 \cdot |d_1 - d_2|}{e} = 148^\circ$$

Please check graph 4 "Determining the bending frequency" for min. allowable pulley diameter

$$1.5 \text{ Specific rated power } P_N = \text{According to graph 3: } 2.3 \text{ kW per cm of belt width}$$

$$1.6 \text{ Belt width } b = \frac{10 \cdot P}{C_B \cdot P_N} = 36.2 \text{ mm} \Rightarrow \text{select } 40 \text{ mm}$$

$$1.7 \text{ Strand force ratio } m = \frac{2.71828^{\frac{\beta \cdot \pi \mu}{180}}}{1} = 3.64$$

(Euler's number)

$$1.8 \text{ Minimum pre-tension } F_V = \frac{m+1}{m-1} \cdot \frac{500 \cdot P}{v} + \frac{1.21 \cdot b \cdot v^2}{1000} = 331.9 \text{ N}$$

$$1.9 \text{ Static shaft load } F_W = 2 \cdot F_V \cdot \sin \frac{\beta}{2} = 638.1 \text{ N}$$

1.10 Suggested ordering text:
CR 22; 643 x 40mm
or closest preferred size = 650 x 40mm

2. Selecting the Duty factor C_B

1.0

Steady operation, small mass to be accelerated

0.9

Almost steady operation, medium mass to be accelerated

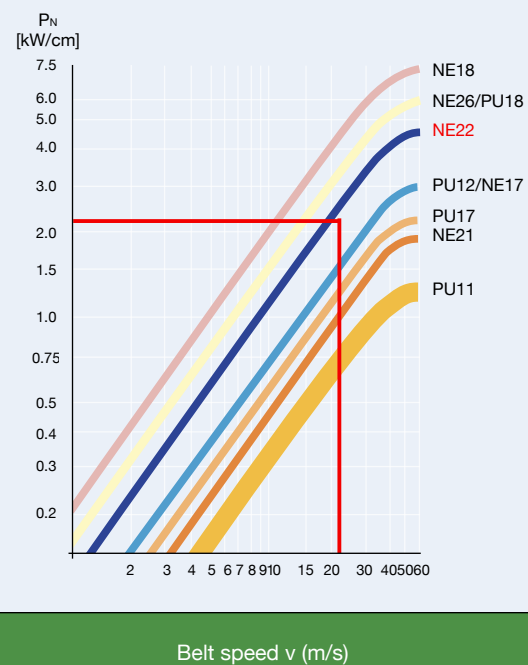
0.75

Non-steady operation, medium mass to be accelerated

0.65

Non-steady operation, large mass to be accelerated, heavy shock loads

3. Relationship between transmittable power and belt speed



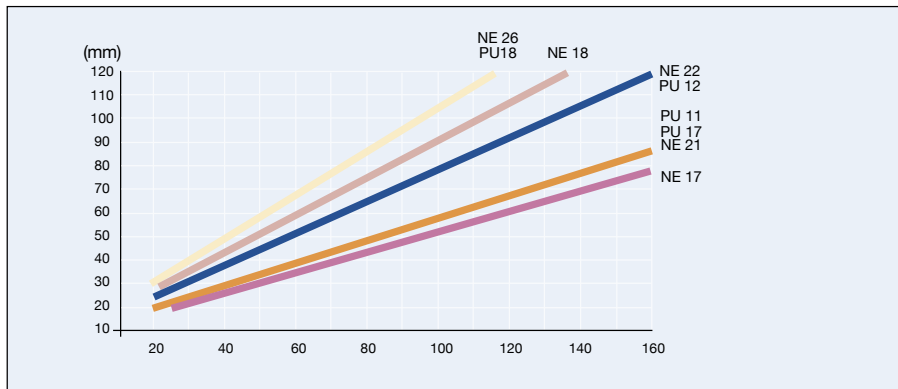
Truly Endless Woven Flat Belts

Belt Sizing cont.

4. Determining the bending frequency f_B

Guide values for maximum bending frequency and minimum pulley diameter for truly endless woven drive belts of standard thickness.

Guide values for maximum bending frequency and minimum pulley diameter for truly endless woven drive belts of standard thickness.

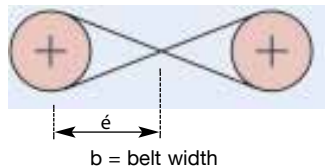


Chloroprene belts ground and Polyurethane belts coated both sides: reduce f_B perm by 15%

Max. permissible bending frequency f_B perm

5. Equations for special drive designs

Crossed Belt Drive



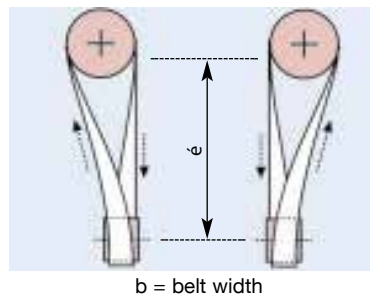
Determining the minimum shaft center distance:

$$\acute{e} \geq 20 \cdot b$$

Calculating the belt length:

$$L = 4\sqrt{Z} + \frac{1}{2} (d_1 + d_2) + \frac{(d_1 + d_2)^2}{8\sqrt{Z}}$$

Half-Crossed Belt Drive



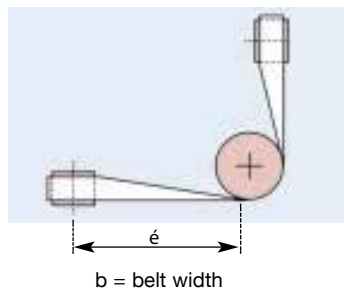
Determining the minimum shaft center distance:

$$\acute{Z} \geq 20 \cdot b$$

Calculating the belt length:

$$L = 2\sqrt{Z} + \frac{1}{2} (d_1 + d_2) + \frac{d_1^2 + d_2^2}{4\sqrt{Z}}$$

Perpendicular Belt Drive



Determining the minimum shaft center distance:

$$\acute{Z} \geq 20 \cdot b$$

Calculating the belt length:

$$L = 4\sqrt{Z} + \frac{1}{2} (d_1 + d_2 + d_3) + \frac{d_1^2 + d_2^2}{8\sqrt{Z}}$$

Truly Endless Woven Flat Belts

PU Belt Specifications

PU 4/6 grounded

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	Polyurethane ground	Textile
Hardness	55 ± 7 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10° up to + 60° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	650 N	
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2% 100 N: 0.6 up to 0.8% 300 N: 3.3 up to 3.7%	
Elasticity - shaft load force per cm of width at 1% elongation*	130 ± 15 N	
Minimum pulley diameter*	9mm	
Available standard sizes	Length: 200 up to 3000mm Width: 3.0 up to 800mm Thickness: 0.8 up to 10.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

PU 17

	Side 1	Side 2
Carcass	Aramide Special Carcass	
Coating	Polyurethane ground	Textile
Hardness	55 ± 7 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2400 N	
Elongation per cm of width - shaft load*	300 N: 0.2 up to 0.4 % 600 N: 0.5 up to 0.7 % 1000 N: 1.0 up to 1.2 %	
Elasticity - shaft load force per cm of width at 1% elongation*	950±50 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 200 up to 4600 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 10.0 mm	
Tolerances	Length: ± 1.0 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU Elastic-both sides	Side 1	Side 2
Carcass	Rubber Thread with Cotton Special Carcass	
Coating	Polyurethane ground	Polyurethane ground
Hardness	55 ± 7 Shore A	55 ± 7 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	250 N	
Elongation per cm of width - shaft load*	10 N: 1.8 up to 3.1 % 20 N: 5.2 up to 8.2 % 30 N: 9.5 up to 13.0 %	
Elasticity - shaft load force per cm of width at 1% elongation*	9±3 N	
Minimum pulley diameter*	30mm	
Available standard sizes	Length: 200 up to 3500 mm Width: 5.0 up to 500 mm Thickness: 2.4 up to 10.0 mm	
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

PU Elastic	Side 1	Side 2
Carcass	Rubber Thread with Cotton Special Carcass	
Coating	Polyurethane ground	Textile Raw
Hardness	55 ± 7 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	250 N	
Elongation per cm of width - shaft load*	10 N: 1.8 up to 3.1 % 20 N: 5.2 up to 8.2 % 30 N: 9.5 up to 13.0 %	
Elasticity - shaft load force per cm of width at 1% elongation*	6±3 N	
Minimum pulley diameter*	25mm	
Available standard sizes	Length: 200 up to 3500 mm Width: 5.0 up to 500 mm Thickness: 1.8 up to 10.0 mm	
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU Elastic + SI		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Polyurethane ground	Silicone ground	
Hardness	55 ± 7 Shore A	30 ± 5 Shore A	
Abrasion resistance	High	Very low	
Food contact approval	No	FDA	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4± 0.1 μ Paper: 0.6 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	300 N		
Elongation per cm of width - shaft load*	10 N: 1.8 up to 3.1 % 20 N: 5.2 up to 8.2 % 30 N: 9.5 up to 13.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	9±3 N		
Minimum pulley diameter*	30mm		
Available standard sizes	Length: 200 up to 3500 mm Width: 5.0 up to 500 mm Thickness: 2.4 up to 10.0 mm		
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

* at minimum belt thickness

PU 0/6		Side 1	Side 2
Carcass	Polyurethane Special Carcass		
Coating	Polyurethane ground	Polyurethane ground	
Hardness	55 ± 7 Shore A	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	No		
Break strength per cm of width - shaft load*	140 N		
Elongation per cm of width - shaft load*	10 N: 8.5 up to 9.5 % 20 N: 33.0 up to 35.0 % 30 N: 72.0 up to 76.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	1.5±1 N		
Minimum pulley diameter*	8mm		
Available standard sizes	Length: 200 up to 2400 mm Width: 3.0 up to 600 mm Thickness: 0.9 up to 10.0 mm		
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 11 (both sides coated)		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Polyurethane ground	Textile	
Hardness	55 ± 7 Shore A	-	
Abrasion resistance	High	-	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.4 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	1250 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 1.2 up to 1.7 % 600 N: 5.0 up to 5.5 %		
Elasticity - shaft load force per cm of width at 1% elongation*	230±30 N		
Minimum pulley diameter*	12mm		
Available standard sizes	Length: 200 up to 5000 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

PU 11		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Polyurethane ground	Polyurethane ground	
Hardness	55 ± 7 Shore A	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	No		
Break strength per cm of width - shaft load*	1500 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 1.2 up to 1.7 % 600 N: 5.5 up to 6.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	230±30 N		
Minimum pulley diameter*	15mm		
Available standard sizes	Length: 200 up to 5000 mm Width: 3.0 up to 800 mm Thickness: 1.3 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 11 Sponge

	Side 1	Side 2
Carcass	Polyester Special Carcass	
Coating	Polyurethane ground	Textile
Hardness	55 ± 7 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	1250 N	
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 1.2 up to 1.7 % 600 N: 5.0 up to 5.5 %	
Elasticity - shaft load force per cm of width at 1% elongation*	230±30 N	
Minimum pulley diameter*	12mm	
Available standard sizes	Length: 200 up to 5000 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 10.0 mm	
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

PU 11 (Sponge + SI)

	Side 1	Side 2
Carcass	Polyester Special Carcass	
Coating	Polyurethane ground	Textile
Hardness	30 ± 7 Shore A	-
Abrasion resistance	Medium	-
Food contact approval	Yes	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	1250 N	
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 1.2 up to 1.7 % 600 N: 5.0 up to 5.5 %	
Elasticity - shaft load force per cm of width at 1% elongation*	230±30 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 200 up to 5000 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 10.0 mm	
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 12 (both side coated)		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Polyurethane ground	Polyurethane ground	
Hardness	55 ± 7 Shore A	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	3400 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 0.9 up to 1.2 % 600 N: 2.0 up to 2.8 %		
Elasticity - shaft load force per cm of width at 1% elongation*	290±30 N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 200 up to 4800 mm Width: 3.0 up to 800 mm Thickness: 2.0 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

PU 12		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Polyurethane ground	Textile	
Hardness	55 ± 7 Shore A	-	
Abrasion resistance	High	-	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	3400 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 0.9 up to 1.2 % 600 N: 2.0 up to 2.8 %		
Elasticity - shaft load force per cm of width at 1% elongation*	290±30 N		
Minimum pulley diameter*	20mm		
Available standard sizes	Length: 200 up to 4800 mm Width: 3.0 up to 800 mm Thickness: 1.5 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 13 Elastic		Side 1	Side 2
Carcass	Rubber Thread with Cotton Special Carcass		
Coating	Polyurethane ground	Textile Raw	
Hardness	55 ± 7 Shore A	-	
Abrasion resistance	High	-	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.2± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	200 N		
Elongation per cm of width - shaft load*	10 N: 1.9 up to 2.1 % 20 N: 5.8 up to 6.2 % 30 N: 9.6 up to 10.4 %		
Elasticity - shaft load force per cm of width at 1% elongation*	8±2 N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 200 up to 1500 mm Width: 5.0 up to 500 mm Thickness: 1.5 up to 10.0 mm		
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

* at minimum belt thickness

PU 17 (both side coated)		Side 1	Side 2
Carcass	Aramide Special Carcass		
Coating	Polyurethane ground	Polyurethane ground	
Hardness	55 ± 7 Shore A	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	2400 N		
Elongation per cm of width - shaft load*	300 N: 0.2 up to 0.4 % 600 N: 0.5 up to 0.7 % 1000 N: 1.0 up to 1.2 %		
Elasticity - shaft load force per cm of width at 1% elongation*	950±50 N		
Minimum pulley diameter*	20mm		
Available standard sizes	Length: 200 up to 4600 mm Width: 3.0 up to 800 mm Thickness: 1.4 up to 10.0 mm		
Tolerances	Length: ± 1.0 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 18 (both side coated)		Side 1	Side 2
Carcass	Aramide Special Carcass		
Coating	Polyurethane ground	Polyurethane ground	
Hardness	55 ± 7 Shore A	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	6400 N		
Elongation per cm of width - shaft load*	300 N: 0.3 up to 0.5 % 600 N: 0.6 up to 0.8 % 1000 N: 0.8 up to 1.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	1280±50 N		
Minimum pulley diameter*	35mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 3.0 up to 10.0 mm		
Tolerances	Length: ± 1.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

PU 18		Side 1	Side 2
Carcass	Aramide Special Carcass		
Coating	Polyurethane ground	Textile	
Hardness	55 ± 7 Shore A	-	
Abrasion resistance	High	-	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	6400 N		
Elongation per cm of width - shaft load*	300 N: 0.4 up to 0.5 % 600 N: 0.7 up to 0.8 % 1000 N: 0.9 up to 1.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	1280±50 N		
Minimum pulley diameter*	30mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 2.2 up to 10.0 mm		
Tolerances	Length: ± 1.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 20 (both side coated)		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Polyurethane ground		Polyurethane ground
Hardness	55 ± 7 Shore A		55 ± 7 Shore A
Abrasion resistance	High		High
Food contact approval	No		No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ		Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	850 N		
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2 % 100 N: 0.5 up to 0.7 % 300 N: 2.1 up to 2.6 %		
Elasticity - shaft load force per cm of width at 1% elongation*	165±15 N		
Minimum pulley diameter*	9mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 1.1 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

PU 20		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Polyurethane ground		Textile
Hardness	55 ± 7 Shore A		-/-
Abrasion resistance	High		-/-
Food contact approval	No		No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ		Steel: 0.3± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10 up to + 60 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	8500 N		
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2 % 100 N: 0.5 up to 0.7 % 300 N: 2.1 up to 2.6 %		
Elasticity - shaft load force per cm of width at 1% elongation*	165±15 N		
Minimum pulley diameter*	5mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 0.8 up to 10.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

PU Belt Specifications cont.

PU 20/1	Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass	
Coating	Polyurethane ground	Textile Raw
Hardness	55 ± 7 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.1± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10 up to + 60 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1150 N	
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2 % 100 N: 0.5 up to 0.7 % 300 N: 2.1 up to 2.6 %	
Elasticity - shaft load force per cm of width at 1% elongation*	165±15 N	
Minimum pulley diameter*	9mm	
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 10.0 mm	
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

PU 20/1 + SI	Side 1		Side 2	
Carcass	Polyester/Cotton Special Carcass			
Coating	Polyurethane ground		Silicone ground	
Hardness	55 ± 7 Shore A		30 ± 5 Shore A	
Abrasion resistance	High		Very low	
Food contact approval	No		FDA	
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.8 ± 0.1 μ		Steel: 0.4± 0.1 μ Paper: 0.6 ± 0.1 μ	
Temperature range	-10 up to + 60 °C			
Anti-static	Possible			
Break strength per cm of width - shaft load*	1150 N			
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2 % 100 N: 0.5 up to 0.7 % 300 N: 2.1 up to 2.6 %			
Elasticity - shaft load force per cm of width at 1% elongation*	165±15 N			
Minimum pulley diameter*	15mm			
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 1.5 up to 10.0 mm			
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm			

* at minimum belt thickness

Truly Endless Woven Flat Belts

NE Belt Specifications

NE 20		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	62 ± 5 Shore A	
Abrasion resistance	Medium	Medium	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	950 N		
Elongation per cm of width - shaft load*	100 N: 0.4 up to 0.6 % 300 N: 1.8 up to 2.0 % 600 N: 5.5 up to 5.9 %		
Elasticity - shaft load force per cm of width at 1% elongation*	190 ± 10 N		
Minimum pulley diameter*	8mm		
Available standard sizes	Length: 180 up to 4200 mm Width: 3.0 up to 420 mm Thickness: 0.8 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

NE 20/1		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	62 ± 5 Shore A	
Abrasion resistance	Medium	Medium	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	950 N		
Elongation per cm of width - shaft load*	100 N: 0.4 up to 0.6 % 300 N: 1.8 up to 2.0 % 600 N: 5.5 up to 5.9 %		
Elasticity - shaft load force per cm of width at 1% elongation*	190 ± 10 N		
Minimum pulley diameter*	8mm		
Available standard sizes	Length: 180 up to 4200 mm Width: 3.0 up to 420 mm Thickness: 0.8 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

NE Belt Specifications cont.

NE 21		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	62 ± 5 Shore A	
Abrasion resistance	Medium	Medium	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	1700 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.4 % 300 N: 1.0 up to 1.2 % 600 N: 4.0 up to 4.5 %		
Elasticity - shaft load force per cm of width at 1% elongation*	270 ± 15 N		
Minimum pulley diameter*	15mm		
Available standard sizes	Length: 180 up to 4800 mm Width: 3.0 up to 420 mm Thickness: 0.9 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

NE 22		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	62 ± 5 Shore A	
Abrasion resistance	Medium	Medium	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	3400 N		
Elongation per cm of width - shaft load*	100 N: 0.2 up to 0.3 % 300 N: 0.7 up to 0.8 % 600 N: 1.6 up to 1.7 %		
Elasticity - shaft load force per cm of width at 1% elongation*	375±15 N		
Minimum pulley diameter*	20mm		
Available standard sizes	Length: 180 up to 4800 mm Width: 3.0 up to 420 mm Thickness: 1.4 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

NE Belt Specifications cont.

NE 26		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	62 ± 5 Shore A	
Abrasion resistance	Medium	Medium	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	4150 N		
Elongation per cm of width - shaft load*	300 N: 0.8 up to 0.9 % 600 N: 1.4 up to 1.6 % 1000 N: 3.0 up to 3.4 %		
Elasticity - shaft load force per cm of width at 1% elongation*	385±15 N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 400 up to 4200 mm Width: 3.0 up to 420 mm Thickness: 2.0 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

NE 133		Side 1	Side 2
Carcass	Polyester/Cotton Special Carcass		
Coating	Chloroprene Rubber ground	Chloroprene Rubber ground	
Hardness	62 ± 5 Shore A	-	
Abrasion resistance	Medium	-	
Food contact approval	No	No	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.8 ± 0. μ	Steel: 0.2 ± 0.1 μ Paper: 0.4 ± 0.1 μ	
Temperature range	-20 up to + 100 °C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	2100 N		
Elongation per cm of width - shaft load*	30 N: 0.0 up to 0.1 % 300 N: 0.5 up to 0.7 % 600 N: 1.6 up to 2.0 %		
Elasticity - shaft load force per cm of width at 1% elongation*	300±30 N		
Minimum pulley diameter*	15mm		
Available standard sizes	Length: 180 up to 4400 mm Width: 3.0 up to 420 mm Thickness: 1.3 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.15 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

SI Belt Specifications

SI 1	Side 1	Side 2
Carcass	Polyester Special Carcass	
Coating	Silicone ground	textile
Hardness	30 ± 5 Shore A	-
Abrasion resistance	Very low	-
Food contact approval	FDA	-
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-20 up to + 150 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1450 N	
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5 % 300 N: 2.0 up to 2.2 % 600 N: 6.6 up to 7.0 %	
Elasticity - shaft load force per cm of width at 1% elongation*	190 ± 20 N	
Minimum pulley diameter*	12mm	
Available standard sizes	Length: 200 up to 4800 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 5.5 mm	
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

SI 3	Side 1	Side 2
Carcass	Polyester / Cotton Special Carcass	
Coating	Silicone ground	Textile raw
Hardness	30 ± 5 Shore A	-
Abrasion resistance	Very low	-
Food contact approval	FDA	-
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-20 up to + 120 °C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	800 N	
Elongation per cm of width - shaft load*	30 N: 0.0 up to 0.2 % 300 N: 1.4 up to 1.6 % 600 N: 4.3 up to 4.7 %	
Elasticity - shaft load force per cm of width at 1% elongation*	135 ± 15 N	
Minimum pulley diameter*	10mm	
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 800 mm Thickness: 1.0 up to 5.5 mm	
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

SI Belt Specifications cont.

SI 15		Side 1	Side 2
Carcass	Polyester Special Carcass		
Coating	Silicone ground	Textile raw	
Hardness	30 ± 5 Shore A	-	
Abrasion resistance	Very low	-	
Food contact approval	FDA	-	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-50 up to + 120 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	On request		
Elongation per cm of width - shaft load*	On request		
Elasticity - shaft load force per cm of width at 1% elongation*	On request		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 840 mm Thickness: 3.0 up to 5.5 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

SI 301		Side 1	Side 2
Carcass	Polyester / Cotton Special Carcass		
Coating	Silicone ground	Textile raw	
Hardness	30 ± 5 Shore A	-	
Abrasion resistance	Very low	-	
Food contact approval	FDA	-	
Coefficient of Friction	Steel: 0.6 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-20 up to + 120 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	550 N		
Elongation per cm of width - shaft load*	30 N: 0.0 up to 0.2% 300 N: 1.4 up to 1.6% 600 N: 4.3 up to 4.7%		
Elasticity - shaft load force per cm of width at 1% elongation*	125 ± 15N		
Minimum pulley diameter*	10mm		
Available standard sizes	Length: 200 up to 4200 mm Width: 3.0 up to 600 mm Thickness: 0.8 up to 5.5 mm		
Tolerances	Length: ± 0.5 % (min. +/- 2.5 mm) Width: ± 0.5 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

SI Belt Specifications cont. FX start

SI Elastic		Side 1	Side 2
Carcass	Rubber thread with cotton special carcass		
Coating	Silicone ground		
Hardness	30 ± 5 Shore A		
Abrasion resistance	Very low		
Food contact approval	FDA		
Coefficient of Friction	Steel: 0.6 ± 0.2 μ Paper: 0.6 ± 0.1 μ		
Temperature range	-20 up to + 100 °C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	170 N		
Elongation per cm of width - shaft load*	10 N: 7.0 up to 10.0% 20 N: 20.0 up to 25.0% 30 N: 30.0 up to 38.0%		
Elasticity - shaft load force per cm of width at 1% elongation*	4 ± 2N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 200 up to 2000 mm Width: 3.0 up to 500 mm Thickness: 1.8 up to 3.0 mm		
Tolerances	Length: ± 2.0 % (min. +/- 2.5 mm) Width: ± 1.0 mm Thickness: ± 0.1 mm		

* at minimum belt thickness

FX 10 both sides coated		Side 1	Side 2
Carcass	Polyamid special carcass		
Coating	FDA polyurethane, white ground		
Hardness	80 ± 5 Shore A		
Abrasion resistance	High		
Food contact approval	Yes, FDA		
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ		
Temperature range	-10° up to + 80° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	750 N		
Elongation per cm of width - shaft load*	30 N: 0.3 up to 0.5% 100 N: 2.2 up to 2.6% 300 N: 8.8 up to 9.3%		
Elasticity - shaft load force per cm of width at 1% elongation*	55 ± 10 N		
Minimum pulley diameter*	15mm		
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.0mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX 11 both sides coated		Side 1	Side 2
Carcass	Polyester special carcass		
Coating	FDA polyurethane, white smooth		FDA polyurethane, white T-profile
Hardness	80 ± 5 Shore A		80 ± 5 Shore A
Abrasion resistance	High		High
Food contact approval	Yes, FDA		Yes, FDA
Coefficient of Friction	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ		Steel: 0.3 ± 0.1 μ Paper: 0.6 ± 0.1 μ
Temperature range	-10° up to + 80° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	1000 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5% 300 N: 1.3 up to 1.7% 600 N: 5.0 up to 5.8%		
Elasticity - shaft load force per cm of width at 1% elongation*	230 ± 20 N		
Minimum pulley diameter*	20mm		
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.1mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm		

* at minimum belt thickness

FX 11 flat		Side 1	Side 2
Carcass	Polyester special carcass		
Coating	FDA polyurethane, white ground		Textile raw
Hardness	80 ± 5 Shore A		-
Abrasion resistance	High		-
Food contact approval	Yes, FDA		-
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ		Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10° up to + 80° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	1000 N		
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5% 300 N: 1.3 up to 1.7% 600 N: 5.0 up to 5.8%		
Elasticity - shaft load force per cm of width at 1% elongation*	230 ± 20 N		
Minimum pulley diameter*	10mm		
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 0.8 up to 1.1mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX 11 grounded

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	FDA polyurethane, white smooth	Textile raw
Hardness	80 ± 5 Shore A	-
Abrasion resistance	High	-
Food contact approval	Yes, FDA	-
Coefficient of Friction	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1000 N	
Elongation per cm of width - shaft load*	100 N: 0.3 up to 0.5% 300 N: 1.3 up to 1.7% 600 N: 5.0 up to 5.8%	
Elasticity - shaft load force per cm of width at 1% elongation*	230 ± 20 N	
Minimum pulley diameter*	12mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 0.9 up to 1.2mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm	

* at minimum belt thickness

FX 12 both sides coated

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	FDA polyurethane, white ground	FDA polyurethane, white smooth
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	4000 N	
Elongation per cm of width - shaft load*	100 N: 0.2 up to 0.4% 300 N: 0.7 up to 1.1% 600 N: 1.5 up to 2.3%	
Elasticity - shaft load force per cm of width at 1% elongation*	320 ± 40 N	
Minimum pulley diameter*	35mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.6 up to 3.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX 17 both sides coated

	Side 1	Side 2
Carcass	Aramide special carcass	
Coating	FDA polyurethane, white smooth FDA polyurethane, white T-profile	
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.6 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2300 N	
Elongation per cm of width - shaft load*	300 N: 0.3 up to 0.4% 600 N: 0.6 up to 0.7% 1000 N: 0.9 up to 1.0%	
Elasticity - shaft load force per cm of width at 1% elongation*	1040 ± 50 N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.3mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm	

* at minimum belt thickness

FX 18 both sides coated

	Side 1	Side 2
Carcass	Aramide special carcass	
Coating	FDA polyurethane, white ground	FDA polyurethane, white ground
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	7950 N	
Elongation per cm of width - shaft load*	300 N: 0.2 up to 0.3% 600 N: 0.4 up to 0.5% 1000 N: 0.6 up to 0.7%	
Elasticity - shaft load force per cm of width at 1% elongation*	1700 ± 200 N	
Minimum pulley diameter*	40mm	
Available standard sizes	Length: 480 up to 4200mm Width: 5.0 up to 800mm Thickness: 3.0 up to 13.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 1.0mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX 20 both sides coated

	Side 1	Side 2
Carcass	Polyester / cotton special carcass	
Coating	FDA polyurethane, white ground	FDA polyurethane, white ground
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1300 N	
Elongation per cm of width - shaft load*	100 N: 0.6 up to 0.7% 300 N: 1.8 up to 2.0% 600 N: 4.6 up to 5.1%	
Elasticity - shaft load force per cm of width at 1% elongation*	170 ± 15 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

FX 20 flat

	Side 1	Side 2
Carcass	Polyester / cotton special carcass	
Coating	FDA polyurethane, white smooth	Textile raw
Hardness	80 ± 5 Shore A	-
Abrasion resistance	High	-
Food contact approval	Yes, FDA	-
Coefficient of Friction	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1200 N	
Elongation per cm of width - shaft load*	100 N: 0.6 up to 0.7% 300 N: 1.8 up to 2.0% 600 N: 4.6 up to 4.9%	
Elasticity - shaft load force per cm of width at 1% elongation*	170 ± 10 N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX 20 grounded		
	Side 1	Side 2
Carcass	Polyester / cotton special carcass	
Coating	FDA polyurethane, white ground	Textile raw
Hardness	80 ± 5 Shore A	-
Abrasion resistance	High	-
Food contact approval	Yes, FDA	-
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.1 ± 0.1 μ Paper: 0.3 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	1360 N	
Elongation per cm of width - shaft load*	30 N: 0.1 up to 0.2% 100 N: 0.5 up to 0.7% 300 N: 2.1 up to 2.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	165 ± 15 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 0.7 up to 0.9mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

FX 1101		Side 1	Side 2
Carcass	Polyester special carcass		
Coating	FDA polyurethane, white T-Profile	Textile raw	
Hardness	80 ± 5 Shore A	-	
Abrasion resistance	High	-	
Food contact approval	Yes, FDA	-	
Coefficient of Friction	Steel: 0.3 ± 0.1 μ Paper: 0.6 ± 0.1 μ	Steel: 0.2 ± 0.1 μ Paper: 0.3 ± 0.1 μ	
Temperature range	-10° up to + 80° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	700 N		
Elongation per cm of width - shaft load*	100 N: 1.3 up to 1.7% 300 N: 5.5 up to 6.8% 600 N: 13.0 up to 15.0%		
Elasticity - shaft load force per cm of width at 1% elongation*	70 ± 10 N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 480 up to 4000mm Width: 5.0 up to 900mm Thickness: 1.4mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 2.0mm Thickness: ± 0.15mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

FX Belt Specifications cont.

FX Elastic outside flat	Side 1	Side 2
Carcass	Polyurethane special carcass	
Coating	FDA polyurethane, white ground	FDA polyurethane, white smooth
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.5 ± 0.1 μ Paper: 0.4 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	No	
Break strength per cm of width - shaft load*	On request	
Elongation per cm of width - shaft load*	10 N: 1.8 up to 2.2% 20 N: 3.6 up to 4.4% 30 N: 5.9 up to 6.9%	
Elasticity - shaft load force per cm of width at 1% elongation*	3 ± 2 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 150 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.6 up to 3.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

FX Elastic outside T-Profile	Side 1	Side 2
Carcass	Polyurethane special carcass	
Coating	FDA polyurethane, white ground	FDA polyurethane, white T-profile
Hardness	80 ± 5 Shore A	80 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	Yes, FDA	Yes, FDA
Coefficient of Friction	Steel: 0.4 ± 0.1 μ Paper: 0.7 ± 0.1 μ	Steel: 0.3 ± 0.1 μ Paper: 0.6 ± 0.1 μ
Temperature range	-10° up to + 80° C	
Anti-static	No	
Break strength per cm of width - shaft load*	On request	
Elongation per cm of width - shaft load*	10 N: 1.8 up to 2.2% 20 N: 3.6 up to 4.4% 30 N: 5.9 up to 6.9%	
Elasticity - shaft load force per cm of width at 1% elongation*	3 ± 2 N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 150 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.6 up to 3.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications

HT 63 AR

	Side 1	Side 2
Carcass	Aramid / Polyester special carcass	
Coating	Hytrel® ground	Textile raw
Hardness	63 ± 5 Shore A	-
Abrasion resistance	High	-
Food contact approval	No	No
Coefficient of Friction	0.2 ± 0.1μ 0.4 ± 0.1μ	0.2 ± 0.1μ 0.3 ± 0.1μ
Temperature range	-20° up to + 150° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	2600N	
Elongation per cm of width - shaft load*	100N: 1.4 up to 1.6% 300N: 3.1 up to 3.5% 600N: 5.0 up to 5.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	175 ± 20N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.0 up to 2.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HT 404/6 + NBR Blue

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	Hytrel® ground	NBR rubber, blue ground
Hardness	75 ± 5 Shore A	75 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.1μ 0.5 ± 0.1μ
Temperature range	-20° up to + 80° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	650N	
Elongation per cm of width - shaft load*	30N: 0.2 up to 0.3% 100N: 0.6 up to 0.8% 300N: 2.5 up to 3.5%	
Elasticity - shaft load force per cm of width at 1% elongation*	130 ± 30N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.2 up to 3.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 404/6 grounded

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	Hytrel® ground	Hytrel® smooth
Hardness	40 ± 5 Shore A	40 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.5 ± 0.1μ 0.5 ± 0.1μ
Temperature range	-40° up to + 100° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	800N	
Elongation per cm of width - shaft load*	100N: 0.6 up to 0.8% 300N: 2.5 up to 3.0% 600N: 5.5 up to 7.5%	
Elasticity - shaft load force per cm of width at 1% elongation*	130 ± 30N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.4 up to 3.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HT 4011 both sides ground

	Side 1	Side 2
Carcass	Polyester special carcass	
Coating	Hytrel® ground	Hytrel® ground
Hardness	40 ± 5 Shore A	40 ± 5 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.5 ± 0.1μ 0.5 ± 0.1μ
Temperature range	-40° up to + 100° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2300N	
Elongation per cm of width - shaft load*	100N: 0.2 up to 0.4% 300N: 0.8 up to 1.3% 600N: 2.0 up to 4.0%	
Elasticity - shaft load force per cm of width at 1% elongation*	290 ± 30N	
Minimum pulley diameter*	20mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.2 up to 3.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 4011 one side ground		Side 1	Side 2
Carcass	Polyester special carcass		
Coating	Hytrel® ground		Textile
Hardness	40 ± 5 Shore D		-
Abrasion resistance	High		-
Food contact approval	No		-
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ		0.1 ± 0.1μ 0.3 ± 0.1μ
Temperature range	-40° up to + 100° C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	1700N		
Elongation per cm of width - shaft load*	100N: 0.3 up to 0.4% 300N: 1.0 up to 1.2% 600N: 4.0 up to 5.0%		
Elasticity - shaft load force per cm of width at 1% elongation*	280 ± 30N		
Minimum pulley diameter*	20mm		
Available standard sizes	Length: 540 up to 5660mm Width: 5.0 up to 600mm Thickness: 1.0 up to 3.0mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

HT 4012		Side 1	Side 2
Carcass	Polyester special carcass		
Coating	Hytrel® black smooth		Textile
Hardness	40 ± 5 Shore D		-
Abrasion resistance	High		-
Food contact approval	No		-
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ		0.2 ± 0.1μ 0.3 ± 0.1μ
Temperature range	-40° up to + 100° C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	3400N		
Elongation per cm of width - shaft load*	100N: 0.2 up to 0.3% 300N: 0.6 up to 0.8% 600N: 1.5 up to 1.7%		
Elasticity - shaft load force per cm of width at 1% elongation*	380 ± 30N		
Minimum pulley diameter*	25mm		
Available standard sizes	Length: 540 up to 5660mm Width: 5.0 up to 600mm Thickness: 1.5 up to 3.0mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 4017 + PU

	Side 1	Side 2
Carcass	Aramide special carcass	
Coating	Hytrel® ground	Polyurethane ground
Hardness	40 ± 5 Shore D	55 ± 7 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.1μ 0.8 ± 0.1μ
Temperature range	-10° up to + 60° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2700N	
Elongation per cm of width - shaft load*	300N: 0.2 up to 0.3% 600N: 0.6 up to 0.8% 1000N: 1.5 up to 1.7%	
Elasticity - shaft load force per cm of width at 1% elongation*	1000 ± 50N	
Minimum pulley diameter*	25mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.5 up to 6.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HT 4017 + SI

	Side 1	Side 2
Carcass	Aramide special carcass	
Coating	Hytrel® ground	Silicone ground
Hardness	40 ± 5 Shore D	30 ± 7 Shore A
Abrasion resistance	High	Very low
Food contact approval	No	FDA
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.1μ 0.6 ± 0.1μ
Temperature range	-10° up to + 100° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2700N	
Elongation per cm of width - shaft load*	300N: 0.2 up to 0.4% 600N: 0.5 up to 0.7% 1000N: 0.9 up to 1.2%	
Elasticity - shaft load force per cm of width at 1% elongation*	1000 ± 50N	
Minimum pulley diameter*	25mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.5 up to 6.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 4020/1

	Side 1	Side 2
Carcass	HT coated polyester / cotton special carcass	
Coating	Polyurethane hard, grey spec. grinding, low frict. coat.	Silicone, grey ground
Hardness	70 ± 7 Shore A	30 ± 5 Shore A
Abrasion resistance	High	Very low
Food contact approval	No	FDA
Coefficient of Friction	0.2 ± 0.1μ 0.4 ± 0.1μ	0.4 ± 0.1μ 0.6 ± 0.1μ
Temperature range	-10° up to + 60° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	1150N	
Elongation per cm of width - shaft load*	30N: 0.1 up to 0.2% 100N: 0.5 up to 0.7% 300N: 2.1 up to 2.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	165 ± 15N	
Minimum pulley diameter*	30mm	
Available standard sizes	Length: 200 up to 4200mm Width: 3.0 up to 800mm Thickness: 2.0 up to 10.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HT 4020/2

	Side 1	Side 2
Carcass	impregnated polyester / cotton special carcass	
Coating	Polyurethane hard, red spec. grinding, low frict. coat.	Silicone, grey ground
Hardness	70 ± 7 Shore A	30 ± 5 Shore A
Abrasion resistance	High	Very low
Food contact approval	No	FDA
Coefficient of Friction	0.2 ± 0.1μ 0.4 ± 0.1μ	0.4 ± 0.1μ 0.6 ± 0.1μ
Temperature range	-10° up to + 60° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	1150N	
Elongation per cm of width - shaft load*	30N: 0.1 up to 0.2% 100N: 0.5 up to 0.7% 300N: 2.1 up to 2.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	165 ± 15N	
Minimum pulley diameter*	30mm	
Available standard sizes	Length: 200 up to 4200mm Width: 3.0 up to 800mm Thickness: 2.0 up to 10.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 6317		Side 1	Side 2
Carcass	Aramid special carcass		
Coating	Hytrel® ground	Hytrel® ground	
Hardness	63 ± 5 Shore D	63 ± 5 Shore D	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	0.2 ± 0.1μ 0.4 ± 0.1μ	0.2 ± 0.1μ 0.4 ± 0.1μ	
Temperature range	-20° up to + 150° C		
Anti-static	Hytrel® white = NO / Hytrel® black = YES		
Break strength per cm of width - shaft load*	2700N		
Elongation per cm of width - shaft load*	300N: 0.2 up to 0.4% 600N: 0.5 up to 0.7% 1000N: 0.9 up to 1.2%		
Elasticity - shaft load force per cm of width at 1% elongation*	1000 ± 50N		
Minimum pulley diameter*	30mm		
Available standard sizes	Length: 540 up to 2700mm Width: 5.0 up to 450mm Thickness: 1.2 up to 2.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

* at minimum belt thickness

HT 6320 + SI		Side 1	Side 2
Carcass	Polyester / cotton special carcass		
Coating	Hytrel® black ground	Silicone ground	
Hardness	63 ± 5 Shore D	30 ± 5 Shore A	
Abrasion resistance	High	Very low	
Food contact approval	No	FDA	
Coefficient of Friction	0.2 ± 0.1µ 0.4 ± 0.1µ	0.4 ± 0.1µ 0.6 ± 0.1µ	
Temperature range	-20° up to + 120° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	1200N		
Elongation per cm of width - shaft load*	100N: 1.2 up to 1.4% 300N: 2.6 up to 3.0% 600N: 5.0 up to 7.0%		
Elasticity - shaft load force per cm of width at 1% elongation*	230 ± 20N		
Minimum pulley diameter*	50mm		
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 2.0 up to 6.0mm		
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT 40133

	Side 1	Side 2
Carcass	Polyester / cotton special carcass	
Coating	Hytrel® T-profile	Hytrel® T-profile
Hardness	40 ± 5 Shore D	40 ± 5 Shore D
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.4 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.1μ 0.5 ± 0.1μ
Temperature range	-40° up to + 100° C	
Anti-static	Possible	
Break strength per cm of width - shaft load*	2100N	
Elongation per cm of width - shaft load*	30N: 0.0 up to 0.1% 300N: 0.5 up to 0.7% 600N: 1.6 up to 2.0%	
Elasticity - shaft load force per cm of width at 1% elongation*	300 ± 30N	
Minimum pulley diameter*	30mm	
Available standard sizes	Length: 540 up to 4000mm Width: 5.0 up to 600mm Thickness: 1.3 up to 3.0mm	
Tolerances	Length: ± 0.5% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.15mm	

* at minimum belt thickness

HT Elastic 40 black

	Side 1	Side 2
Carcass	Without special carcass	
Coating	Hytrel® smooth	Hytrel® ground
Hardness	40 ± 5 Shore D	40 ± 5 Shore D
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.5 ± 0.1μ 0.5 ± 0.1μ
Temperature range	-40° up to + 100° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	-	
Elongation per cm of width - shaft load*	10N: 1.5 up to 1.9% 20N: 3.0 up to 3.6% 30N: 4.6 up to 5.4%	
Elasticity - shaft load force per cm of width at 1% elongation*	6 ± 2N	
Minimum pulley diameter*	10mm	
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.6 up to 2.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT Elastic 40 FDA white		Side 1	Side 2
Carcass	Without special carcass		
Coating	Hytrel® FDA smooth	Hytrel® FDA ground	
Hardness	40 ± 5 Shore D	40 ± 5 Shore D	
Abrasion resistance	High	High	
Food contact approval	FDA	FDA	
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.5 ± 0.1μ 0.5 ± 0.1μ	
Temperature range	-40° up to + 100° C		
Anti-static	No		
Break strength per cm of width - shaft load*	-		
Elongation per cm of width - shaft load*	10N: 2.0 up to 2.4% 20N: 4.0 up to 4.6% 30N: 6.0 up to 6.8%		
Elasticity - shaft load force per cm of width at 1% elongation*	5 ± 2N		
Minimum pulley diameter*	10mm		
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.6 up to 2.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

HT Elastic 40 white	Side 1		Side 2	
Carcass	Without special carcass			
Coating	Hytrel® smooth		Hytrel® ground	
Hardness	40 ± 5 Shore D		40 ± 5 Shore D	
Abrasion resistance	High		High	
Food contact approval	No		No	
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ		0.5 ± 0.1μ 0.5 ± 0.1μ	
Temperature range	-40° up to + 100° C			
Anti-static	No			
Break strength per cm of width - shaft load*	-			
Elongation per cm of width - shaft load*	10N: 1.5 up to 1.9% 20N: 3.0 up to 3.6% 30N: 4.6 up to 5.4%			
Elasticity - shaft load force per cm of width at 1% elongation*	6 ± 2N			
Minimum pulley diameter*	10mm			
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.6 up to 2.0mm			
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm			

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT Elastic 40 white + SI		Side 1	Side 2
Carcass	Without special carcass		
Coating	Hytrel® smooth	Silicone ground	
Hardness	40 ± 5 Shore D	30 ± 7 Shore A	
Abrasion resistance	High	Very low	
Food contact approval	No	FDA	
Coefficient of Friction	0.5 ± 0.1µ 0.5 ± 0.1µ	0.4 ± 0.1µ 0.6 ± 0.1µ	
Temperature range	-20° up to + 100° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	-		
Elongation per cm of width - shaft load*	10N: 1.5 up to 1.9% 20N: 3.0 up to 3.6% 30N: 4.6 up to 5.4%		
Elasticity - shaft load force per cm of width at 1% elongation*	6 ± 2N		
Minimum pulley diameter*	15mm		
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 1.2 up to 2.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

HT Elastic 40 + PU		Side 1	Side 2
Carcass	Hytel® special carcass		
Coating	Hytel® ground	Polyurethane ground	
Hardness	40 ± 5 Shore D	55 ± 7 Shore A	
Abrasion resistance	High	High	
Food contact approval	No	No	
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.1μ 0.8 ± 0.1μ	
Temperature range	-10° up to + 60° C		
Anti-static	Possible		
Break strength per cm of width - shaft load*	On request		
Elongation per cm of width - shaft load*	10N: 1.0 up to 1.4% 20N: 2.2 up to 2.8% 30N: 8.1 up to 9.0%		
Elasticity - shaft load force per cm of width at 1% elongation*	8 ± 2N		
Minimum pulley diameter*	12mm		
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 1.2 up to 2.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont.

HT Elastic 63 black + SI	Side 1	Side 2
Carcass	Without special carcass	
Coating	Hytrel® smooth	Silicone ground
Hardness	63 ± 5 Shore D	30 ± 7 Shore A
Abrasion resistance	High	Very low
Food contact approval	No	FDA
Coefficient of Friction	0.2 ± 0.1μ 0.4 ± 0.1μ	0.4 ± 0.1μ 0.6 ± 0.1μ
Temperature range	-20° up to + 140° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	-	
Elongation per cm of width - shaft load*	30N: 0.5 up to 0.8% 60N: 1.1 up to 1.4% 100N: 1.9 up to 2.4%	
Elasticity - shaft load force per cm of width at 1% elongation*	50 ± 10N	
Minimum pulley diameter*	15mm	
Available standard sizes	Length: 130 up to 600mm Width: 3.0 up to 300mm Thickness: 1.2 up to 3.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HT Elastic 4002 + SPU	Side 1	Side 2
Carcass	Hytrel® special carcass	
Coating	SPU smooth	SPU ground
Hardness	40 ± 5 Shore D	55 ± 7 Shore A
Abrasion resistance	High	High
Food contact approval	No	No
Coefficient of Friction	0.5 ± 0.1μ 0.5 ± 0.1μ	0.4 ± 0.2μ 0.9 ± 0.1μ
Temperature range	-10° up to + 60° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	On request	
Elongation per cm of width - shaft load*	15N: 2.5 up to 2.8% 20N: 3.4 up to 4.0% 30N: 5.9 up to 6.5%	
Elasticity - shaft load force per cm of width at 1% elongation*	7 ± 2N	
Minimum pulley diameter*	10mm	
Available standard sizes	Length: 130 up to 2000mm Width: 3.0 up to 400mm Thickness: 0.8 up to 2.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

HT Belt Specifications cont. HR start

HT Elastic 4003		Side 1	Side 2
Carcass	Without special carcass		
Coating	Hytrel® black T-profile, L-impregnated		Silicone ground
Hardness	40 ± 5 Shore D		30 ± 7 Shore A
Abrasion resistance	High		Very low
Food contact approval	No		FDA
Coefficient of Friction	0.2 ± 0.1μ		0.4 ± 0.2μ
	0.4 ± 0.1μ		0.6 ± 0.1μ
Temperature range	-20° up to + 100° C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	-		
Elongation per cm of width - shaft load*	10N: 2.5 up to 1.9%		
	20N: 2.9 up to 3.5%		
	30N: 4.4 up to 5.2%		
Elasticity - shaft load force per cm of width at 1% elongation*	6.7 ± 2N		
Minimum pulley diameter*	30mm		
Available standard sizes	Length: 710 up to 2200mm		
	Width: 3.0 up to 400mm		
	Thickness: 1.1 up to 2.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm)		
	Width: ± 0.5mm		
	Thickness: ± 0.1mm		

* at minimum belt thickness

HR Elastic 85 Black + PU		Side 1	Side 2
Carcass	Without special carcass		
Coating	TPU ground		Polyurethane ground
Hardness	85 ± 5 Shore A		85 ± 5 Shore A
Abrasion resistance	Very high		High
Food contact approval	No		No
Coefficient of Friction	0.4 ± 0.1μ		0.4 ± 0.1μ
	0.7 ± 0.1μ		0.8 ± 0.1μ
Temperature range	-10° up to + 60° C		
Anti-static	Yes		
Break strength per cm of width - shaft load*	-		
Elongation per cm of width - shaft load*	10N: 1.3 up to 1.5%		
	20N: 3.0 up to 3.4%		
	30N: 4.8 up to 5.5%		
Elasticity - shaft load force per cm of width at 1% elongation*	9 ± 2N		
Minimum pulley diameter*	12mm		
Available standard sizes	Length: 150 up to 2000mm		
	Width: 3.0 up to 300mm		
	Thickness: 1.3 up to 4.0mm		
Tolerances	Length: ± 1.0% (min. +/- 2.5mm)		
	Width: ± 0.5mm		
	Thickness: ± 0.1mm		

* at minimum belt thickness

Truly Endless Woven Flat Belts

HR Belt Specifications

HR Elastic 85 Black

	Side 1	Side 2
Carcass	Without special carcass	
Coating	TPU smooth	TPU ground
Hardness	85 ± 5 Shore A	85 ± 5 Shore A
Abrasion resistance	Very high	Very high
Food contact approval	No	No
Coefficient of Friction	0.4 ± 0.1μ 0.4 ± 0.1μ	0.4 ± 0.1μ 0.7 ± 0.1μ
Temperature range	-10° up to + 100° C	
Anti-static	Yes	
Break strength per cm of width - shaft load*	-	
Elongation per cm of width - shaft load*	10N: 1.4 up to 1.6% 20N: 3.1 up to 3.5% 30N: 5.0 up to 5.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	7 ± 2N	
Minimum pulley diameter*	10mm	
Available standard sizes	Length: 150 up to 2000mm Width: 3.0 up to 300mm Thickness: 0.8 up to 2.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

HR Elastic 85 White

	Side 1	Side 2
Carcass	Without special carcass	
Coating	TPU FDA smooth	TPU FDA ground
Hardness	85 ± 5 Shore A	85 ± 5 Shore A
Abrasion resistance	Very high	Very high
Food contact approval	No	No
Coefficient of Friction	0.4 ± 0.1μ 0.4 ± 0.1μ	0.4 ± 0.1μ 0.7 ± 0.1μ
Temperature range	-10° up to + 100° C	
Anti-static	No	
Break strength per cm of width - shaft load*	-	
Elongation per cm of width - shaft load*	10N: 1.4 up to 1.6% 20N: 3.1 up to 3.5% 30N: 5.0 up to 5.6%	
Elasticity - shaft load force per cm of width at 1% elongation*	7 ± 2N	
Minimum pulley diameter*	10mm	
Available standard sizes	Length: 150 up to 2000mm Width: 3.0 up to 300mm Thickness: 8.0 up to 2.0mm	
Tolerances	Length: ± 1.0% (min. +/- 2.5mm) Width: ± 0.5mm Thickness: ± 0.1mm	

* at minimum belt thickness

Truly Endless Woven Flat Belts

Belt Examples

NOTE: Below you will find standard and common truly endless woven flat belts. The combination of materials, coatings and carcasses are fully customizable.



Polyurethane Gray
Machined Vacuum Flat Belt



Polyurethane Yellow
Vacuum Flat Belt



Polyurethane Gray
Machined Vacuum Flat Belt



Neoprene Black
Vacuum Flat Belt



Polyurethane Gray
Vacuum Timing Belt



Polyurethane Red
Vacuum Timing Belt



Neoprene Black
Flat Belt



Polyurethane Black / Carcass Raw
Flat Belt



Polyurethane Red
Flat Belt



Silicone Gray
Vacuum Flat Belt



Polyurethane Yellow
Multi V-Belt



Polyurethane Yellow
Machined Vacuum Flat Belt

Truly Endless Woven Flat Belts

Belt Examples

NOTE: Below you will find standard and common truly endless woven flat belts. The combination of materials, coatings and carcasses are fully customizable.



Polyurethane Yellow
Vacuum Timing Belt



Polyurethane Red
Vacuum Timing Belt



Polyurethane Gray
Vacuum Timing Belt



Polyurethane Yellow
Profiled Flat Belt



Silicone White
Flat Belt



Polyurethane Red
Coated Timing Belt



Natural Rubber Red / NBR Blue
Machined Vacuum Flat Belt Set



Polyurethane Yellow
Coated Timing Belt



Polyurethane Gray
Vacuum Flat Belt



Polyurethane Yellow
Profiled Flat Belt



Web
Vacuum Flat Belt



Polyurethane Yellow / Silicone Gray
Machined Flat Belt



Polyurethane Yellow
Flat Belt



Polyurethane Yellow
Flat Belt with Tracking Guide



Polyurethane Red
Machined Vacuum Flat Belt

Advanced Meat Recovery AMR Belts

Discover the Difference

BRECOflex CO., L.L.C. aims to consistently exceed customer expectations as a market leader in the belting industry. That's no reason to rest on our laurels, but increases our motivation to come up with further developments and innovations. These innovative separator belts combine many years of experience and know-how, and are ideal for the separation process involving all types of meat, poultry, fruits, vegetables, etc. The new truly endless woven separator belts offer many functional advantages. Flexibility, quiet running and durability are the main features. Additionally, these separator belts are capable of a higher product yield and a greater longevity. Our customer-oriented service offers further advantages by combining knowledge and ability with an understanding of the production process.



Beef/Poultry/Pork



Fish



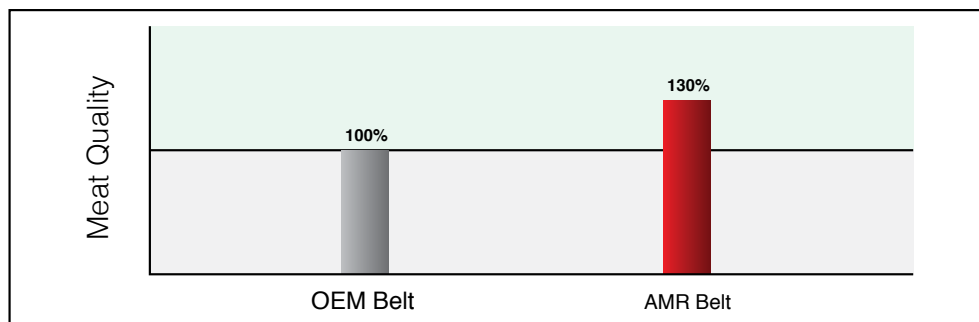
Fruit/Vegetables



Recycling

Quality at it's finest

We regard it as our obligation to manufacture the perfect endless belt. We aim to optimize our belt to ensure our customers achieve the highest level of performance and production time. We also make it our priority to provide quality support to our customers, during both design and operation, to ensure they are using the best possible belt in their application. In product separation it is often the details and the finer points in the production process that ultimately ensure success. Our belts significantly contribute to this accomplishment.



Advanced Meat Recovery

AMR Belts

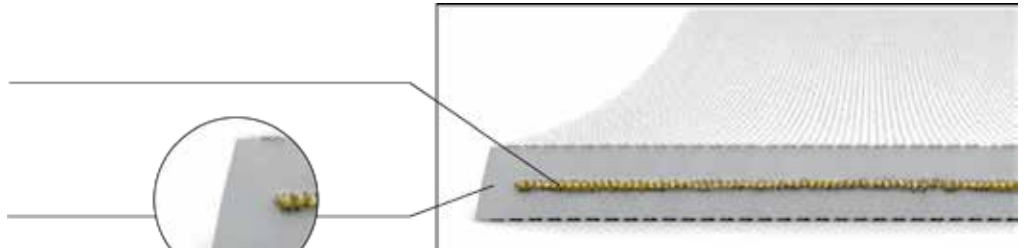
Variety to Meet Your Requirements

Does your preparation involve separating meat from bones, cartilage, tendons or feathers? Does the separation equipment work with a roller drive or chain drive? We can offer you different variants of our belts to suit your own particular requirements.

Tension Members Made of Endless Special Fabric

Highly **tear** and **stretch**
resistant aramid fibers

Completely coated
by **sealed edges**



High performance coating materials FDA-conform

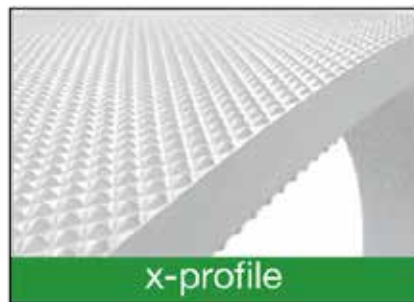
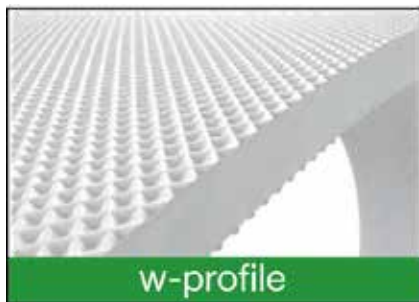
Each available for the outside and running side:

- FX with 80 Shore A
- FX with 92 Shore A
- GX with 70 Shore A
- GX with 90 Shore A

FDA conform conveyor belts meet the requirements of EC 1935/2004 as well the standards of FDA (U.S. Food and Drug Administration)



Surface texture can be selected for the outside and running side



Characteristics/Properties

- high yielding output efficiency
- wear-resistant coating
- easy belt cleaning
- temperature-resistant up to 176°F (80°C)
- very good resistance to oils and greases
- long-lasting
- sealed edges
- less downtime
- extremely low elasticity

Product Dimensions

Length (mm)	1300 - 3000 mm
Width (mm)	150 - 300 mm
Thickness (mm)	10.0 - 17.0 mm



BRECOflex CO., L.L.C.

High Precision Drive Components

Contact Us

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