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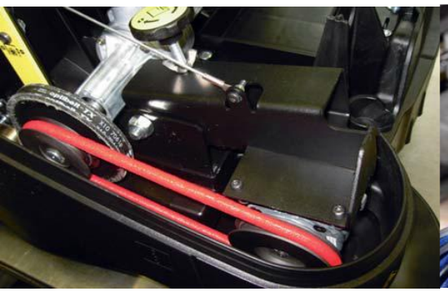
Driving gear and conveyor technology
Profiled belts
Continuous round belts turned and plaited

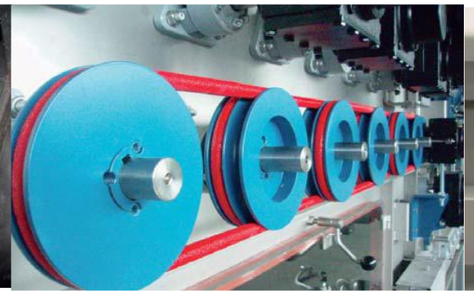
Endless Plaited Round Belts



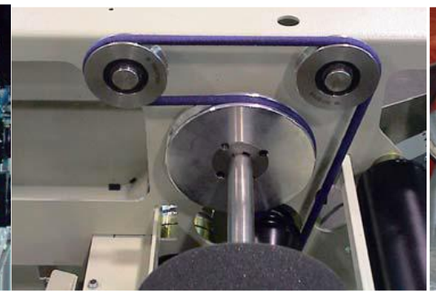
Endless elastic round belt, PU red inside the engine compartment of a cleaning machine

Endless elastic round belt, PU blue in a woodworking machine

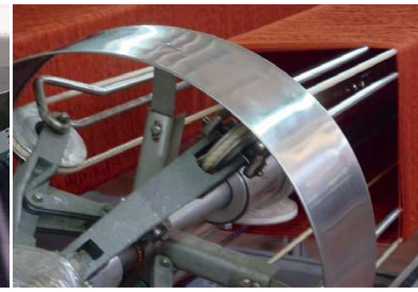
Lateral broom drive of a power sweeper



Upper roller drive in a Efecta-partition of a textile washing machine



Roller drive in a plaiting machine



NOMEX-PTFE high bulk belts in a textile finishing installation

Endless Plaited Round Belts

Endless plaited round belts are perfectly suitable to transmit power at low or medium speeds (up to 10,000 rpm). Their design allows very small pulley diameters, with a recommended minimum pulley diameter of 3.5 x the belt diameter.

One particular advantage is their ability to be diverted in any direction; thus changes of the direction of rotation, multiple-pulley drives, tangential drives and offset drives are very simple to realise.
Due to their, linear contact surface they can easily be guided, are track-adherent and run smoothly and quietly.

Generally, these belts consist of a reinforcement and the surrounding outer cover which protects the reinforcement and serves as supporting material for coatings or as a friction partner for goods to be conveyed. Depending on the respective material selected for the outer cover, specific properties such as antistatics or surface textures ranging from fine to rough can be achieved here. All reinforcements are wound endlessly. Elastic models need no elaborate tensioners and are therefore a popular and cost-effective design element in the mechanical and plant engineering industries.

Models with limited extensibility are primarily used for conveying applications or other special tasks. The spectrum of reinforcements ranges from semi-elastic fibres up to V4A.

As endless plaited round belts are predominantly used as force-fitted transmission elements, the tensile force that can be achieved together with the friction coefficient are crucial aspects to achieve maximum transmission capacity.

Thanks to their multi-component design and the raw materials we use, we are able to strengthen the basic versions of elastic models by up to 300% without substantially changing the diameter. As a result, tensile forces of up to 300 n are possible even with 5 mm belts.

The coating is selected depending on the respective application; usually, it serves to protect the outer cover, improves abrasion resistance, increases the friction coefficient and thus improves transmission capacity.

We can also provide the belts with multiple coatings to increase abrasion resistance or achieve a highly smooth surface.

We gladly discuss your respective application with you and recommend the version that suits your requirements best.

Elastic types: PA.66-DO-GU, PA.66-ULY, PES-DO-GU, PES-ULY
Types with low elongation: Polyester, Perlon, Nomex, Nomex-PTFE, Polyester-PTFE, Kevlar/Twaron, PA.6 antistatic, PBO

A tensioning device is needed for types with low elongation.

Application: low- and medium-speed drives in the textile and engineering industry, precision machinery, sorting systems, grinding machines, special machinery, winding machines, transport elements in high temperature range, cleaning machines, stripping machines, wood working machines, paper industry, packaging systems, conveying machinery, roller guides, chemical industry, metal working machines, laundry machines, etc.

Types

Material	Available ∅*	Temperature-resistance °C	Elasticity	Coefficient of friction µ to polished V2A Steel[1]	Fixed to lessen elasticity
PA.66-DO-GU	3 – 18 mm	-10°C - +80°C	High	0,14 µ	No
PA.66-ULY	5 – 18 mm	-10°C - +80°C	High	0,14 µ	No
PES-DO-GU	3 – 18 mm	-10°C - +80°C	High	0,14 µ	No
PES-ULY	5 – 18 mm	-10°C - +80°C	High	0,14 µ	No
Polyester	3 – 15 mm	-40°C - +160°C	No	0,12 µ	Yes
Perlon	3 – 15 mm	-35°C - +120°C	No	0,11 µ	Yes
Nomex	3 – 10 mm	-40°C - +220°C	No	0,18 µ	Yes
Nomex-PTFE	5 – 10 mm	-40°C - +220°C	No	0,05 µ	Yes
Polyester-PTFE	5 – 10 mm	-40°C - +160°C	No	0,05 µ	Yes
Kevlar/Twaron	3 – 10 mm	-40°C - +240°C	No	0,15 µ	Yes
PA.6 antistatic	4 – 10 mm	-35°C - +120°C	No	0,10 µ	Yes
PBO	3 – 10 mm	-50°C - +480°C	No	0,18 µ	Yes

* depending on the minimum circumference

Temperature-resistance depends on the duration and the extent of mechanical stress and various environmental effects.

Please note that the reinforcement can be combined with the various coating materials. Strengthened types with up to 650 n pretensioning force can be manufactured from the elastic types – depending on the dimension.

Special reinforcement on request.

Available circumferences on request.

Belt coatings

Material	Temperature-resistant up to°C	Coefficient of friction µ to polished V2A steel[1]	Coefficient of friction µ to high density polyethylen[1]
PU	80°C	0,30 µ	0,25 µ
Rz100	130°C	0,20 µ	0,20 µ
EVA	140°C	0,30 µ	0,25 µ
LA	90°C	0,35 µ	0,40 µ

Please note that the coefficient of friction can vary according to the operation temperature.

All coatings can be delivered in various colours such as red, blue, green, yellow, black, etc.

Further coatings for special applications on request.

We gladly advise you in choosing material combinations and support you with technical calculations to find the most suitable belt type for your needs.

Chemical resistance on request.

[1] According to Pflug test specification SPPN 91.001

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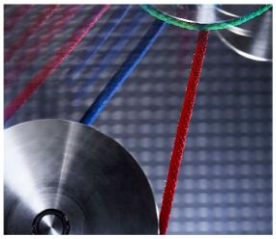
Company profile



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Testing Service

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Welded timing belts
in short lengths

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Round belts for
heat-setting machines

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Endless injected round belts

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Endless turned round belts

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Endless plaited round belts

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Hooked belts

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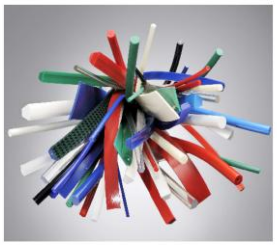
PU round- and profile belts



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PU profile belts and
special profiles

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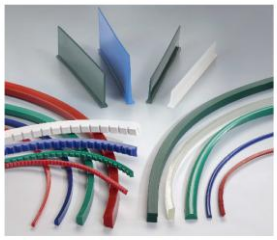
PU tracking guides, cleats
and guides



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Food line

Types for the food industry compliant to EU/FDA

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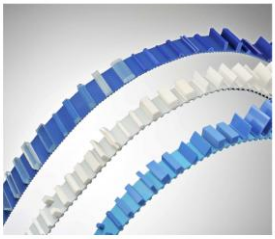
PU cleats and block profiles



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PU Poly-V belts

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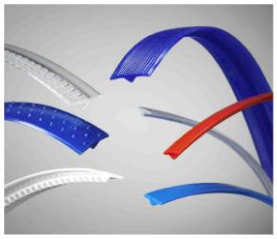
PU-V-guide belts
compliant to EU/FDA



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PU coatings

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