

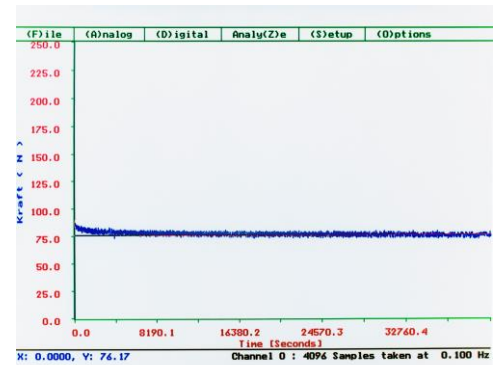
# Elastic drive and transport belts

pflug.



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

In force-fitted belt drives, the tangential force is transmitted by friction (traction) from the drive pulley to the belt and from there to the output pulley(s). The transmittable torque depends on the existing friction coefficient and the contact force between the belt and the pulleys. The belt slips or breaks when the maximum capacity is reached. Wedge-shaped pulleys increase the contact force while the load on the drive shafts remains the same, which results in a higher transmittable torque.



Dynamic force-elongation chart

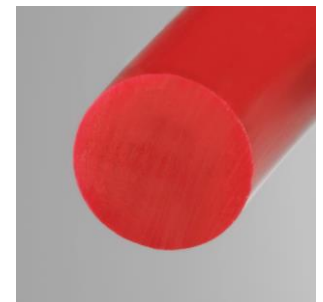
## Single-component belt structures

for homogeneous belts such as:

- Welded PU-round belts
- Endless twisted PU-round belts
- Endless twisted Vulkollan round belts
- Endless injected round belts
- PU-hook belts

the stress values are determined by the used raw material and the percentage preload.

These types are predominantly produced free-length. Quality controls can therefore be easily carried out by measuring the free length.



Homogeneous PU-round belt

## Multi-component belt structures

e.g.:

- Endless elastic braided round belts
- Textile hook belts

These types are produced under tension from several components. The tension force is determined by the selection and number of reinforcements. Parameters such as elongation and shrinkage can be adjusted by appropriate production settings.

Due to the multi-component structure, the respective proportions of reinforcement and textile material can be variably exchanged in order to adjust the tension forces to the desired transmission capacity without considerably changing the diameter.

In this manufacturing process, the reinforcement has to compress the surrounding textile material after removal from the production machine. Even after several weeks these belts may sometimes shrink a little due to various storage times before the coating process and variable strengths of the reinforcements.

For this reason, information given on drawings (e.g. the free length), shall be considered as reference values for the incoming goods department, but are no indication of quality. In order to carry out correct incoming goods and quality controls, the belts have to be pulled to their nominal dimension and the tension force has to be measured. Higher tension values result in higher transmission capacity.



Endless elastic braided round belt

**Please note: For these types of belts, deviations from the specified free lengths are no reason for complaint.**

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