

Design guidelines

Properties, Fields of application

For the different fields of application BEHAbelt has developed a range of belt profiles to achieve an economical conveying of goods.

Properties

The BEHAbelt transport belts are used instead of complex conveying belts. They are running individually or in several lines one beside the other and transport the goods to be conveyed horizontally and even in positive and negative inclinations.

Fields of application

Please find the following examples of the variety of fields of applications, where BEHAbelt transport belts are successfully used:

TO CONVEY:

- Doors, parts of cabinets, veneer and plastic plats for the wood-working
- electronic devices, circuit boards, in production lines
- Tiles, washed-out concrete slabs and pavement in concrete factories
- Floor tiles of the ceramics industry, flat glass
- Car body parts and sharp-edged sheet plats of the car industry
- Paperboard containers and boxes of the packing industry, mail and parcel sending
- Pastries, milk products, meat, fish, fruits, vegetables of the food industry

Further applications:

- Paper processing installations of the printing industry
- Drive of roller conveyors in logistics centres
- For can-, tin and bottle transportation systems
- Harvesters and sorting machines for farming

Drive pulley and deflection pulley

The drive pulleys and deflection pulleys should be formed as disc pulleys, DIN 2217 or pulleys for round belts (refer to BEHAbelt recommendation page 46 and 47). Please choose the minimum pulley diameters according to the values listed in tables.

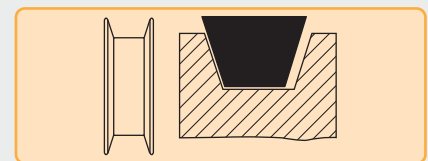
Due to the relatively slow conveying speed – 1 m per second according to experience – we have selected according to the material quality (shore hardness).

As the goods are being drawn, the drive pulley is to be provided at the end of the conveyor.

Supporting rolls / supporting rails

In order that the belts which are loaded with the goods to be conveyed will not bend in most cases supporting rolls or supporting rails are required. Supporting rolls may be stitchers or pulleys. The V-belt groove is to be performed in a way so that the transport belt is being supported at the bottom of the groove and can only touch the pulley with one side and will not jam in the groove.

The diameter and number of the required supporting rolls is depending on the length of the haulway as well as on the weight and dimensions of the goods to be conveyed. Supporting rails which are mainly made of plastics are designed smooth or with a keyway for a better guiding of the transport belt. The dimensions of the groove are to be performed at a width that the belt will not jam (see illustration).



The supporting or guiding rails should be made of materials with good sliding qualities; PE-HDPE

Pretension

In order to ensure a functional work of the transport installation, a suitable pretension of the belts is required. We therefore recommend an elongation factor of about 1 to 8% according to the belt quality (Shore hardness) and belt length.