

Tracking and tensioning

Methods to correct mistracking

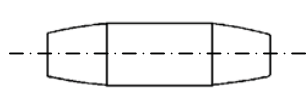
Fixed tracking possibilities or adjustable by hand:

- » Crowning of the pulleys.
- » Tracking rollers: flat tracking roller, snub pulley, adjusting trough assembly, V-rollers/strips.
- » Fixed provisions on the conveyor: side rollers, side guides.
- » Fixed provision on the belt.
- » Tracking ropes, tracking strips, guide rollers.
- » Variable tracking: with use of the belt, tracking devices with own drive.

Crowning of the pulleys

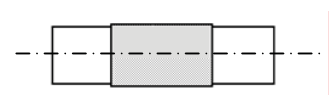


Convex pulley: ideal Shape, difficult to make



Cylindrical pulley with conical sides: imitation of the convex model

Emergency solution or test



Apply non slip tape on a cylindrical pulley

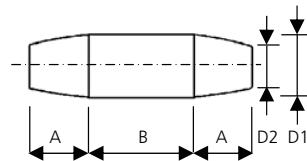
Dimension

Diameter difference = 1% but maximum 4 mm

$$\frac{D1}{D2} = \frac{101}{100}$$

D1 = largest diameter
D2 = smallest diameter

Length partition



NB: pulley length = belt width + 50 mm

Pulley length mm

(drive pulley dia. 80-300 mm)

	A	B	A
up to 400	1/3	1/3	1/3
400 - 800	1/4	2/4	1/4
800 - 1200	1/5	3/5	1/5
1200 - 1600	1/6	4/6	1/6
over 1600	300	...	300

Which pulleys to be crowned:

1. Drive drum.
2. Drive drums and tail drums when the conveyor is longer than 4 x the belt width.

Recommendations:

- » In principle the pulleys and rollers must be adjustable (e.g. bolt \varnothing 10 in hole \varnothing 12).
- » Pulleys preferably not at the butt end.
- » For high belt speeds ($v = 2$ m/s) balance the pulleys.
- » Never crown the knife edges or set them out of square.