

TECHNICAL NOTE

SPROCKET DRIVEN CONVEYOR BELTS

Positivebelt®



Positivebelt® is a new generation homogeneous conveyor belt, and combines positive drive with exceptional guiding.

Maximum food security is achieved with reduced cleaning costs.

For optimum efficiency and life time, please check below requirements:

1) OPERATING :

Positivebelt® has a unique teeth profile on the underside.

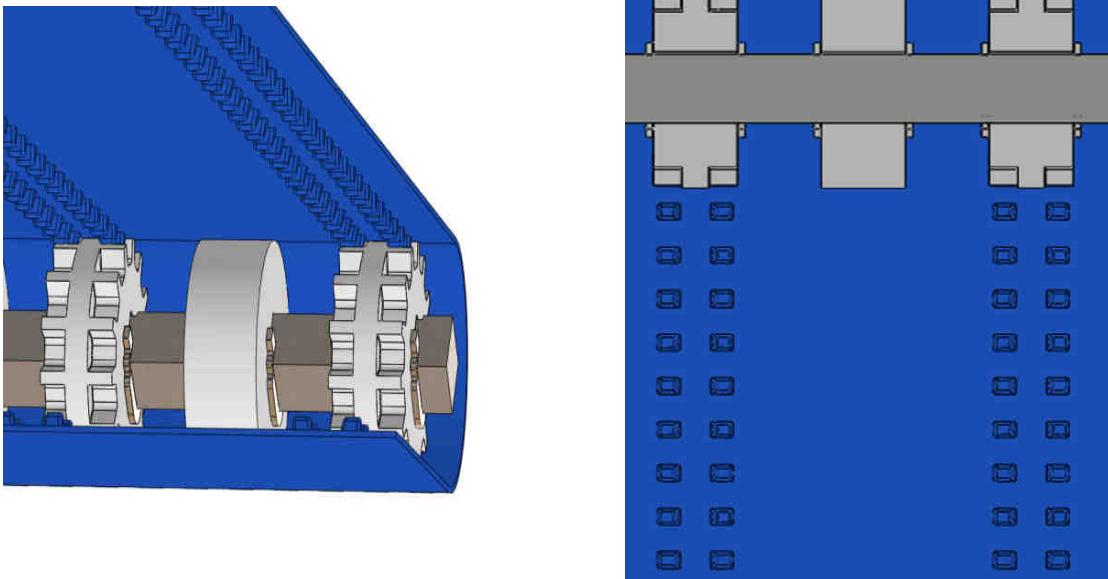
Due to its straight edges, guiding is exceptional all along slidebed, and the sprockets also guide the belt.

2) DRIVING AND TAIL SHAFT :

Positivebelt® does not require any tension. However, a release system can be implemented to ease installation and uninstallation of the belt, i.e. during cleaning and maintenance.

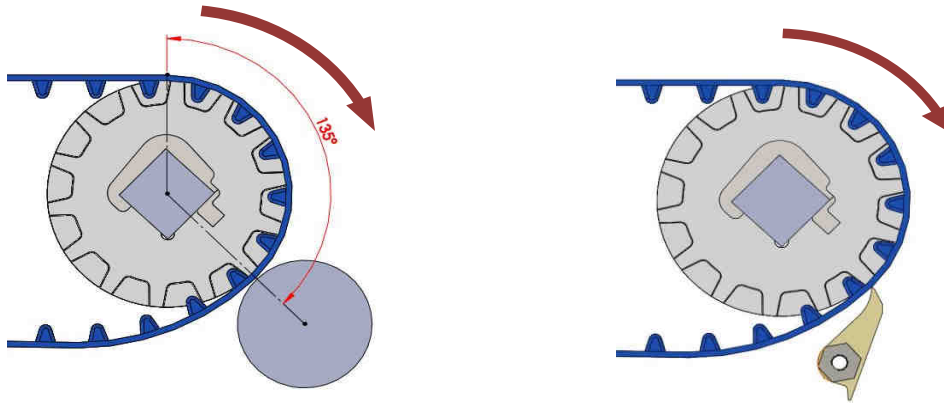
a) Driving shaft :

Driving shaft is equipped with the same number of sprocket as the number of teeth rows. In case of significant load and/or long conveyors, it is recommended to place a support wheel between each sprocket, and at each side of the belt if distance between edge of belt and center of sprocket is more than 100mm.



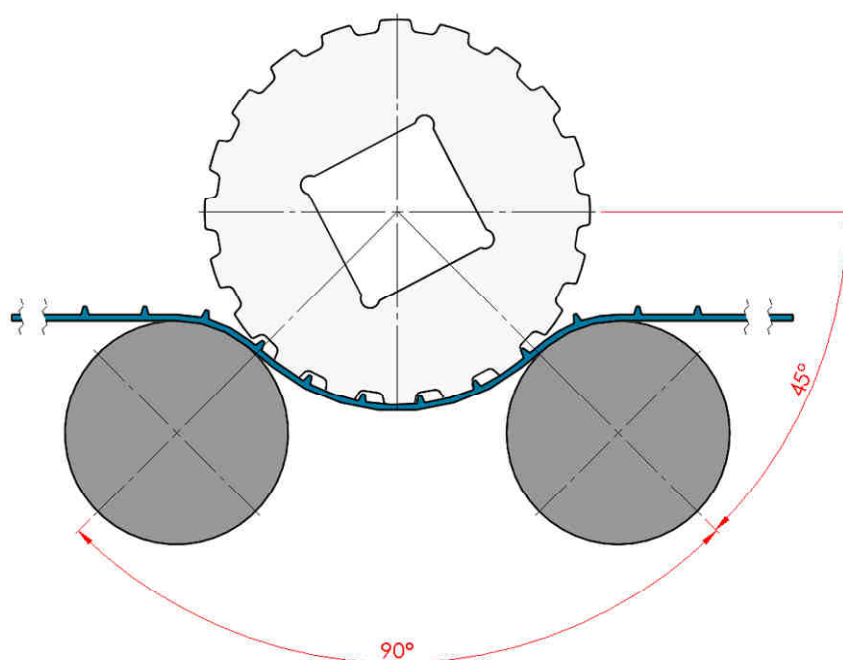
SPROCKETS AND WHEELS ON DRIVING SHAFT

A roller or scraper can guarantee perfect teeth engagement in case of high load on conveyor, long length, or long sag of belt on bottom of conveyor.

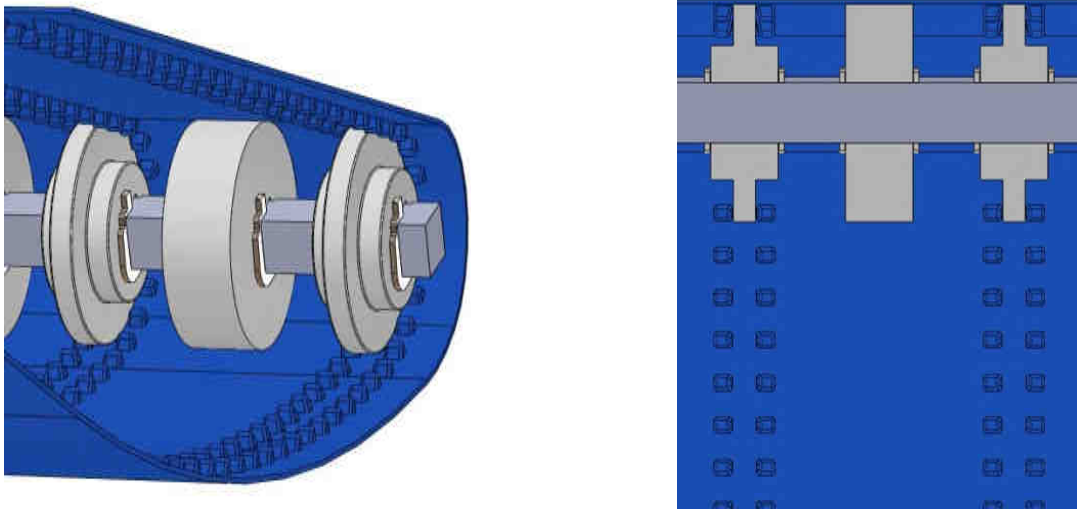


Angle should be between 120° and 170° and not over 180°

For bi-directional conveyors, the following driving system is recommended:



b) Tail shaft :



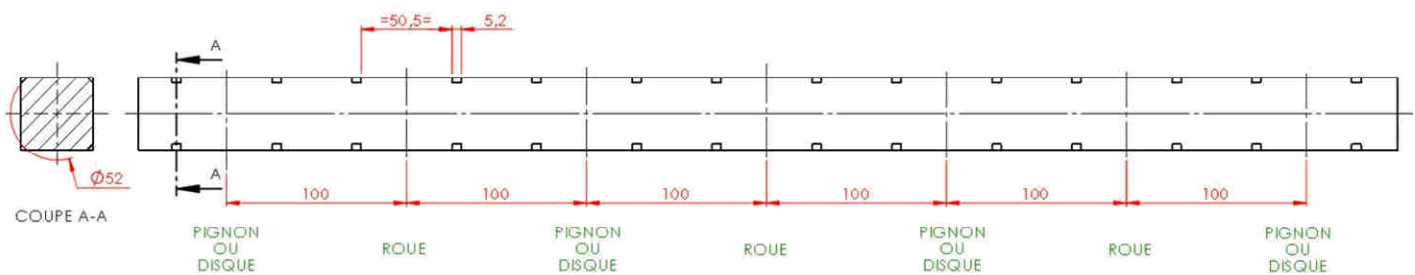
DISKS ON TAIL SHAFT






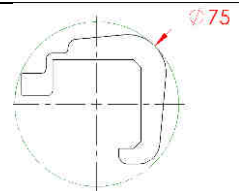

We recommend using disks and not sprockets on tail shaft.

c) Assembling :

Sprockets, disks and wheels are locked on sides. It can be done with our special locking ring, by machining grooves in the shaft. Place the locking ring and fold the end with a wrench.



d) Sprockets, disks and support wheels :

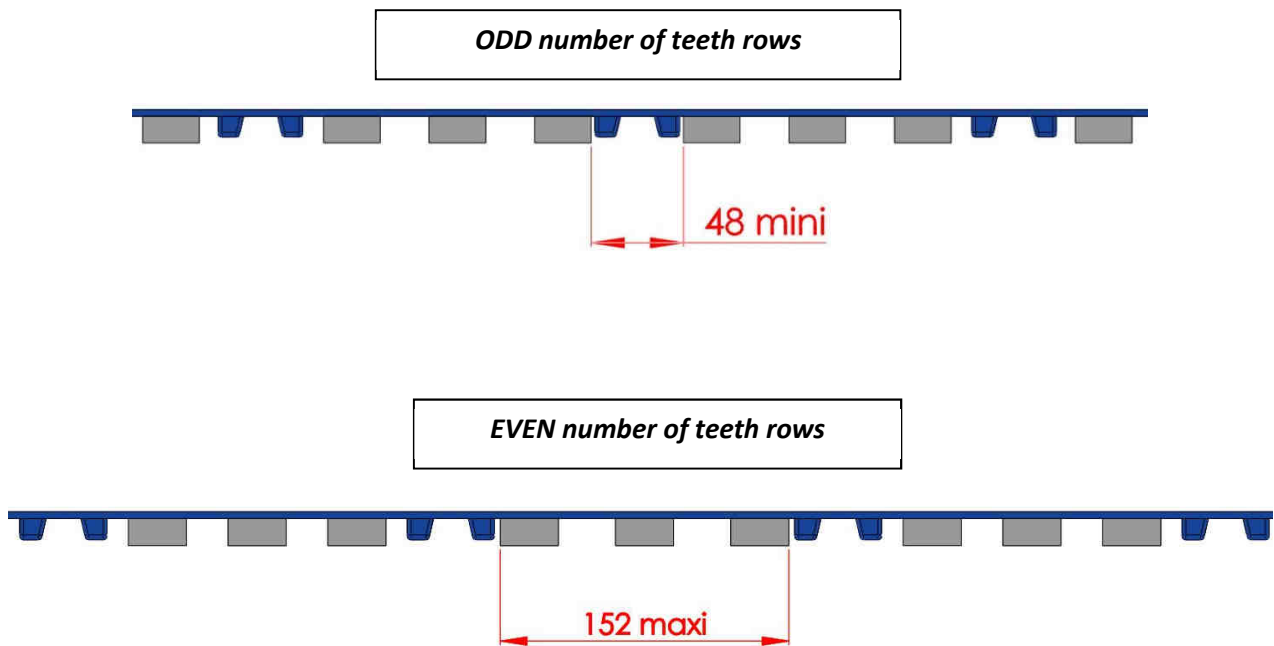
Article	Art. nbr	Diameter	Thickness	Bore	Material	View
Sprocket 10 teeth	P31WUN10C40	100mm	50mm	□ 40mm	HDPE	
Sprocket 12 teeth	P31WUN12C40	120mm	50mm	□ 40mm	HDPE	
Sprocket 14 teeth	P31WUN14C40	142mm	50mm	□ 40mm	HDPE	
Sprocket 16 teeth	P31WUN16C40	162mm	50mm	□ 40mm	HDPE	
Sprocket 20 teeth	P31WUN20C40	202mm	50mm	□ 40mm	HDPE	
Wheel (10 teeth)	R31WUN10C40	100mm	50mm	□ 40mm	HDPE	
Wheel (12 teeth)	R31WUN12C40	120mm	50mm	□ 40mm	HDPE	
Wheel (14 teeth)	R31WUN14C40	142mm	50mm	□ 40mm	HDPE	
Wheel (16 teeth)	R31WUN16C40	162mm	50mm	□ 40mm	HDPE	
Wheel (20 teeth)	R31WUN20C40	202mm	50mm	□ 40mm	HDPE	
Disk (10 teeth)	D31WUN10C40	100mm	50mm	□ 40mm	HDPE	
Disk (12 teeth)	D31WUN12C40	120mm	50mm	□ 40mm	HDPE	
Disk (14 teeth)	D31WUN14C40	142mm	50mm	□ 40mm	HDPE	
Disk (16 teeth)	D31WUN16C40	162mm	50mm	□ 40mm	HDPE	
Disk (20 teeth)	D31WUN20C40	202mm	50mm	□ 40mm	HDPE	
Locking ring	CLIP-40		4.9mm	□ 40mm	Stainless steel	

NOTE : Other dimensions (diameter, bore) on demand.

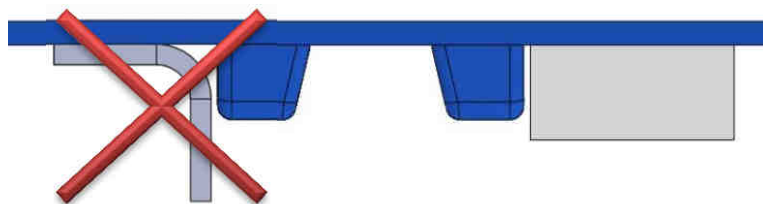
3) GUIDING:

Positivebelt® must be guided in the center by only one row of teeth.

Position of guides depends on the number of teeth rows:

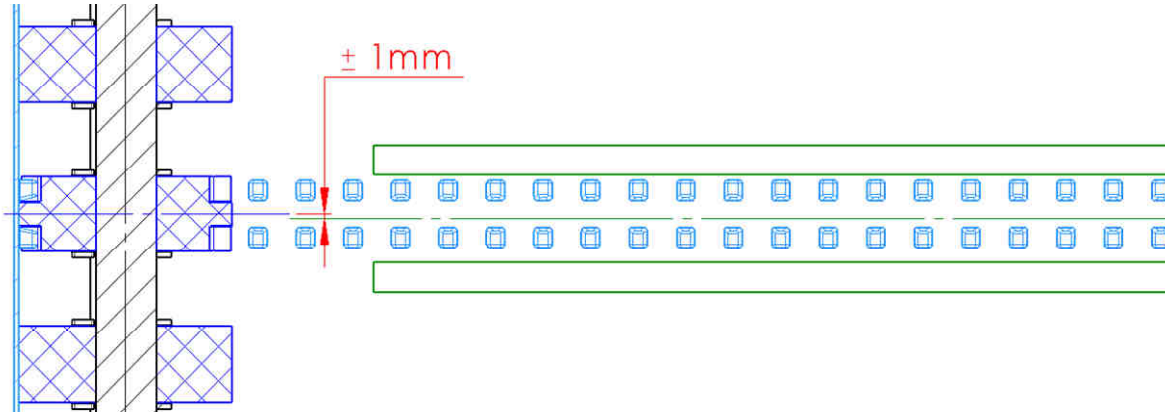


Radii or chamfers of guides should be small enough (<3mm) :



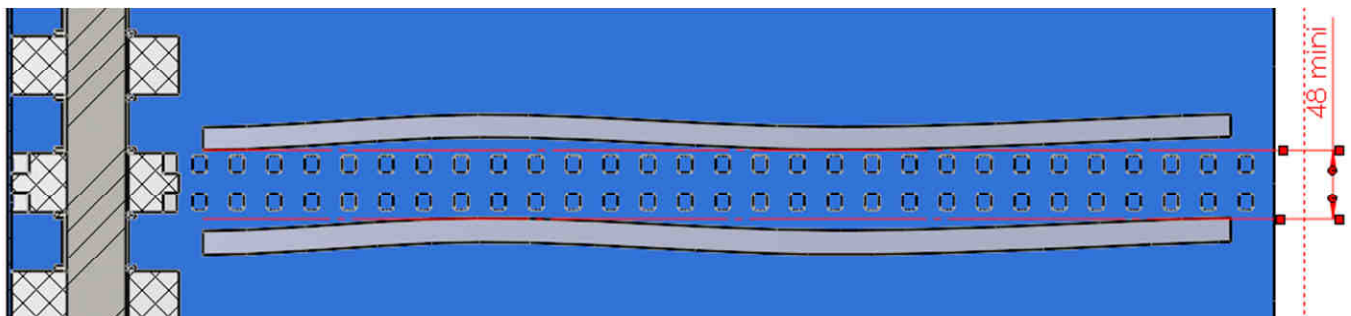
Alignment of sprockets and disks :

Sprockets and tail disks must be correctly aligned with sliding bed guides:



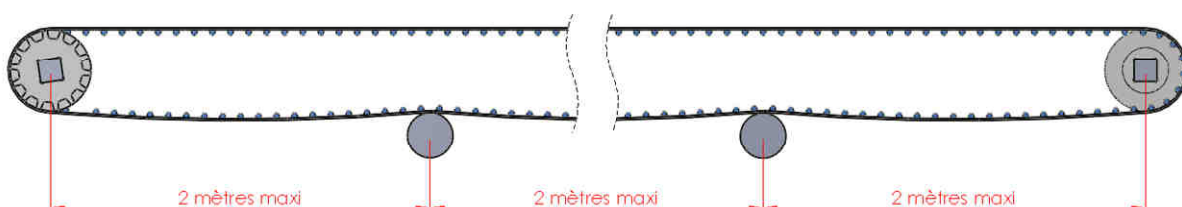
Guiding clearance :

The belt guiding clearance must be superior to misalignment of conveyor guides, and not below 3mm.



Belt support :

The below part of the belt must be supported every 2 meters maximum with rollers or HDPE guides.



SPROCKET DRIVEN CONVEYOR BELTS

Positivebelt®

MAIN TECHNICAL CHARACTERISTICS :

- ✓ Homogeneous Thermoweldable Food Approved Polyurethane
- ✓ Double rows of teeth in the mass of material
- ✓ Perfectly smooth faces (no shrink over teeth), perfect for scrapers
- ✓ Operating temperature = $-20^{\circ}\text{C} / +75^{\circ}\text{C}$
- ✓ Special version for very low temperature (-30°C)
- ✓ Friction Coefficient / Stainless steel = 0.6
- ✓ Friction Coefficient / HDPE = 0.35
- ✓ Minimum Pulley diameter = 100mm

DIMENSIONS (mm) :

