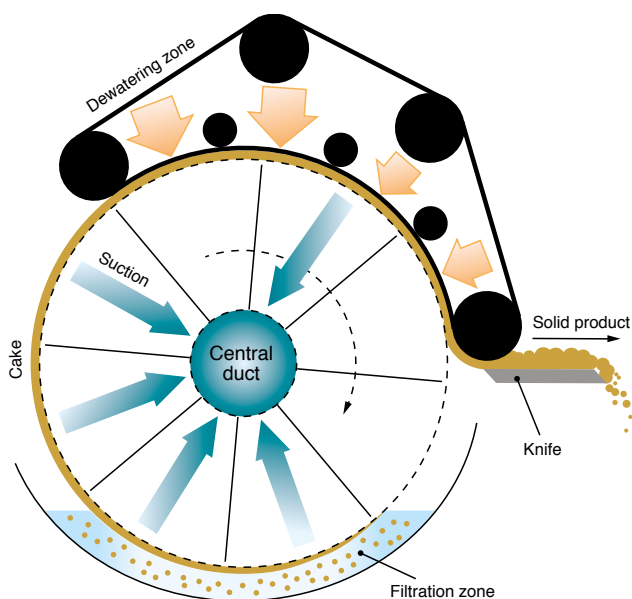


## Pressbelt

### RUBBER BELT FOR ROTARY DRUM FILTERS

#### Rotary Drum Filter

Rotary drum filters are used in different applications as solid/liquid pressure filtration. The machinery consists of a large rotating drum divided into circumferential sectors. Each sector forms a separate vacuum cell with internal piping connecting to a port on the end of the trunnion that supports the drum.



The slurry that must be filtered is fed to the bottom of the rotating drum and the cake is discharged on the descending side of the drum.

The pipes collect the filtrate as the drum rotates. Depending on the construction model, there can be leading pipes to collect filtrate on the rising side of the drum, trailing pipes to collect filtrate on the descending side, or both.

This type of filters are widely diffused and selected for different filtration processes and whether necessary they could operate with rubber belts in order to increase their efficiency.

The advantage of the rubber belt is mainly to provide a pressure on the cake and as a consequence to improve the flow of the filtrate and to enrich the cake solids.

Our Company is able to manufacture belts with useful width up to 4,5 m. Application of Pressbelt has influenced the process efficiency with improvements of filtrate flow 100-200% more than normal system.

The type of rubber belts is based on Natural rubber, SBR, Neoprene and other type of polymers. The textile reinforcing structure is generally based on EP fabrics.

### MAIN PROCESS APPLICATIONS

Inorganic and organic chemistry processes		
Metallurgical applications	Aluminum Hydroxide and Sulphate	Waste water treatment plants
Slurries of chemical and pharmaceutical	Soda and Sodium bicarbonate	Industrial and municipal sludges
Dyestuff	Gypsum (FGD plant)	Pigments
Pulp	Food	Minerals beneficiations

## TECHNICAL SPECIFICATION OF THE BELT

### 1. Manufacturing method

- Pressbelt is manufactured as following:
  - a) one single width without lengthwise splice up to 3600 mm;
  - b) from 3700 mm to 4500 mm with hot vulcanized lengthwise splice;
- Belt's edges are rubber coated to avoid any contact between ply core and processed material;
- Special and advanced technologies are adopted to obtain endless belt avoiding splice failure
- Different tensile class and carcass types are used to grant an high level of customization and provide our customer with the best solution for their applications.



### 2. Dimensions and Tolerances

Belt dimensions	Std sizes	Std tolerances
Total length	No limit	±0.75% of the ring length
Maximum width	4.5 m (net trimmed)	±15mm
Total thickness	8 mm – 13 mm	±1mm

### 3. Material

#### Rubber Std Type (Typical Values)

Type	Tensile strength	Elongation at break	Hardness	Abrasion (DIN 53516)
	MPa	%	Shore A	mm <sup>3</sup>
SBR	18	400	75 (±5)	90
Neoprene	16	400	65 (±5)	110

#### Carcass Std Type (Typical Values)

Type	Warp breaking strength	Warp elongation at break	Weft breaking strength	Weft elongation at break
	N/mm	%	N/mm	%
630/4*	>630	25	>210	30 ±5
630/2	>630	35	>160	40 ±5

\* two fabrics used as transverse reinforcement

### 4. Working conditions for standard materials above

- Diameter of end rollers: 250 mm
- Pressure on the rollers in the Press: 25 N/mm max; 60 N/mm as maximum total pressure for the 4 rollers
- Temperature of processed material up to a maximum value of 130 °C
- Ph ranging from 1 to 14

#### Adhesion Value (Typical Values)

Type	Adhesion value (N/mm)
Cover/Ply	6
Ply/Ply	7

### 5. Research and developments

Our Laboratories are always looking for new materials and technologies.

BeltTS offer high level of customization and possibility to design unique and special solutions fully compliant with customer requirements.

*A crew of skilled technicians is always available to provide the necessary support for customized designs and installation on site.*



**WIN WIN S.r.l.**  
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