

# Filter belts custom engineered and manufactured for tower presses



## **Filter belts for tower presses**

Filter presses operate with premium-grade materials, ensuring unparalleled quality.

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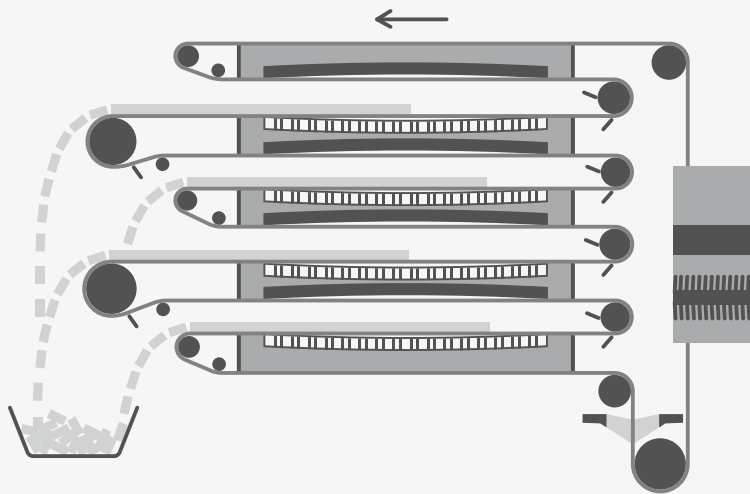
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## 1. Tower presses on the market

Tower presses play a vital role in solid-liquid filtration processes across various industries, offering efficient and reliable solutions for separating solids from liquids. These have a relatively small footprint compared to other filtration systems, making them suitable for space-limited environments. Most widely tower presses are supplied by all tower press systems. These are fully automatic filters with horizontally oriented filter plates. Depending on machine type from one or two sides diaphragms are integrated in recessed plates. All tower press systems work with single-belt system or multi module filter belt systems.



## 2. Filter belts

Filter belts, designed to zigzag between filter plates, boast dual-sided filtration capability. This feature ensures optimal performance in terms of capacity, cake moisture, and discharge during each cycle.

Engineered for dimensional stability, our belts are pre-stretched to mitigate shrinkage and elongation, guaranteeing consistent production and effective cake discharge.

Additionally, they offer superior cleanability and mechanical resilience.

With widths available up to 1.7 m and lengths reaching up to 215 m, our belts cater to diverse filtration needs.

We provide a comprehensive selection of filter fabrics tailored to various applications, offering air permeability ranging from 0.5 to 270 dm<sup>3</sup>/dm<sup>2</sup>\*min.

Crafted from polypropylene and polyester in a twill weave, our filter fabrics comply with EU and FDA food grade standards.

To prevent fraying, edges undergo ultrasonic treatment, while clipper seams securely connect ends, optionally coated for added durability.

Explore our range of common clipper seams below for further details.



### Clipper seams

	CS1	CS2	CS3
<b>Material</b>	AISI 316	AISI 316L	AISI 316L
<b>Pitch</b>	4.0 mm	3.175 mm	3.67 mm



### 3. Success Stories

#### Proteins:

Our customer faced numerous issues, including misalignment of running filter belts and inadequate food grade certification. However, our belts effectively resolved these challenges, tripling their lifespan. Additionally, our food grade certificate proved invaluable during their audit.

#### PCC (precipitated calcium carbonate):

Frequently, belt failures result from process-induced holes. However, our multi-layer PPV 50359 stands out for its exceptional strength and resilience, effectively mitigating such issues. Not only does it extend lifespan, but it also retains the finest particles with remarkable efficiency.

#### Starch:

In the food industry, specifically in the application of starch, the PP 11261 fabric for all tower press systems is utilized. However, a critical issue arose when the metal collector became detached, posing risks of contamination and product loss. Through an enhancement in the collector attachment, we successfully minimized both contamination and product loss.

### 4. Laboratory tests

We could run laboratory analysis of the filter cloth with subsequent analysis of the results. This includes determination of:

- Filtration test and fabric screening with our pressure nutsche
- Electric resistance through and along the fabric
- Air permeability
- Water permeability
- Pore size through microscope
- Weight
- Binding type
- Fabric material
- Thickness
- Yarn type
- Abrasion behaviour
- Chemical resistance

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