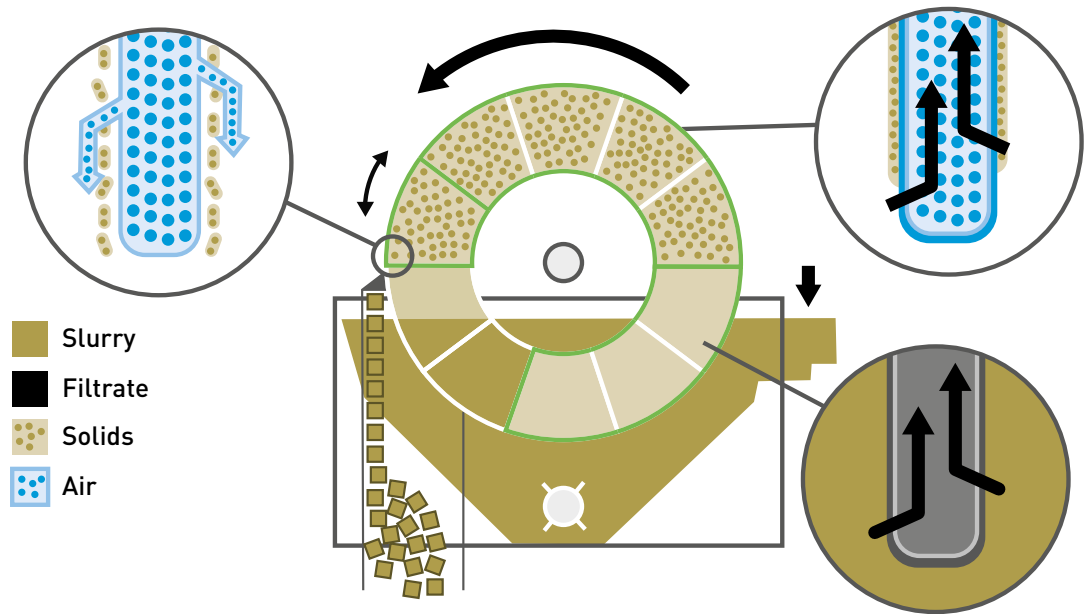


Metso:Outotec

SC filter



Metso Outotec SC filters are a proven, industry-leading solution for dewatering iron, mineral concentrates, tailings, and industrial minerals.



SC filters provide a simple, efficient and reliable method for dewatering coarse concentrates, ensuring high productivity, cost-efficiency, and reliability in a wide variety of applications.

With all necessary ancillary equipment integrated into the equipment package, they are also easy to install, operate, and maintain.

Benefits

- High vacuum and high filtration rates
- Continuous and efficient cake discharge
- Large flow areas reduce vacuum losses
- Easy to install and operate, with excellent reliability and availability
- Simple components and external piping enable easy, cost-effective maintenance

Read more at
mogroup.com/sc-filter

Product features

Suited to any application

SC filters are the industry standard for fine iron ore concentrate processing, with a successful track record stretching back over 30 years. Designed to withstand the rigorous demands of the mining industry, they provide a large filtration area in a small footprint, and offer an economical CAPEX and low lifetime maintenance costs.

Although designed for the fine iron industries, Metso Outotec SC filters are ideally suited to any application involving coarser concentrates and tailings. Typical applications for Metso Outotec SC Vacuum Filters include bulk-mined products such as:

- Iron ore pelletizing feed
- Tailings for dry or paste disposal
- Industrial minerals

We can supply individual vacuum disc filters, or complete filtering stations with necessary auxiliary equipment depending on your individual requirements.

Operating principle

The filters consist of multiple discs mounted on a horizontal shaft. Each disc is made up of 10 plastic sectors covered with filter cloth bags that are clamped together. The bottom of each sector is connected to a filtrate tube that runs along the shaft to a rotary valve at the end of the filter. This tube connects the rotating discs to a vacuum source. The discs sit partially submerged in an agitated slurry bath, and the vacuum applied to the sectors forms a cake in the slurry as filtrate passes through the cloth and solids are captured on the surface. As the disc rotates out of the slurry, the cake is dried before a snap blow discharges it through chutes.

Simple maintenance, minimized downtime, and maximum reliability

All Metso Outotec SC filter models feature simple components and low-cost wear parts to simplify maintenance and minimize downtime. For example, the filtrate tubes are mounted externally so they can be quickly and easily replaced. Trunnion-bearing liners are also easy to replace. To extend the life of wear parts, the vacuum head includes multiple lubrication ports and the valve and wear rates come with allowance for re-machining. Rigid cast-iron wear plates reduce leakage, while a heavy-duty enclosed chain drive boosts durability and reliability.



Specifications and portfolio

Models and specifications

Metso Outotec SC-90 series filters are available in a range of sizes, from the single-ended 60 m² model up to the 120 m² double-ended model. All models are available with a full range of ancillary equipment, including vacuum pumps and filtrate and droplet separators.

The standard Metso Outotec SC-90 Vacuum Filter is available with a disc diameter of 2.74 m. Each disc has an area of 10 m².

Metso Outotec SC filter portfolio

Model	SC-9006	SC-9008	SC-9010	SC-9012
Disc Diameter (mm)	2.74	2.74	2.74	2.74
Sectors per disc	10	10	10	10
Numbers of discs	6	8	110	12
Base length (mm)	3020	3832	4644	5456
Base width (mm)	2970	2970	2970	2970
Total height (mm)	3330	3330	3330	3330
Total length (mm)	4740	5086	5898	6710

Features for improved reliability include:

- Large flow areas in sector-neck and filtrate tubes to ensure smooth flow and low vacuum loss
- Staggered filtrate tubes for more efficient cake removal
- External blow-port indicator ensures correct snap-blow timing
- Bottom agitators prevent settling and ensure homogeneity of slurry
- Vacuum valve designed to facilitate liquid flow and make maintenance easier
- Filter offered with sectors made of cost-effective polypropylene
- External piping system to simplify maintenance
- Snap-in filter sectors are quick and easy to replace

Metso Outotec is a frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By improving our customers' energy and water efficiency, increasing their productivity, and reducing environmental risks with our product and process expertise, we are the **partner for positive change**.