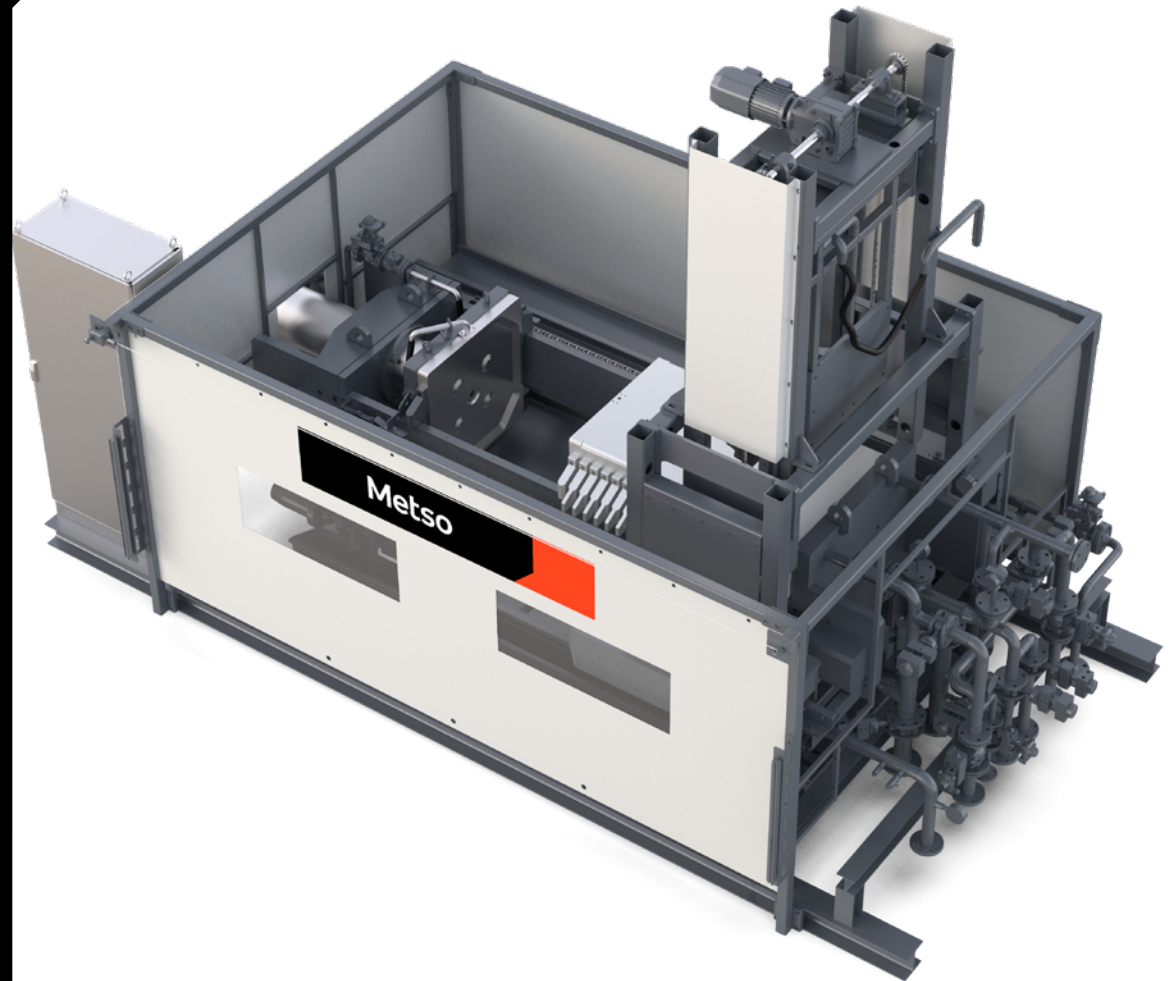
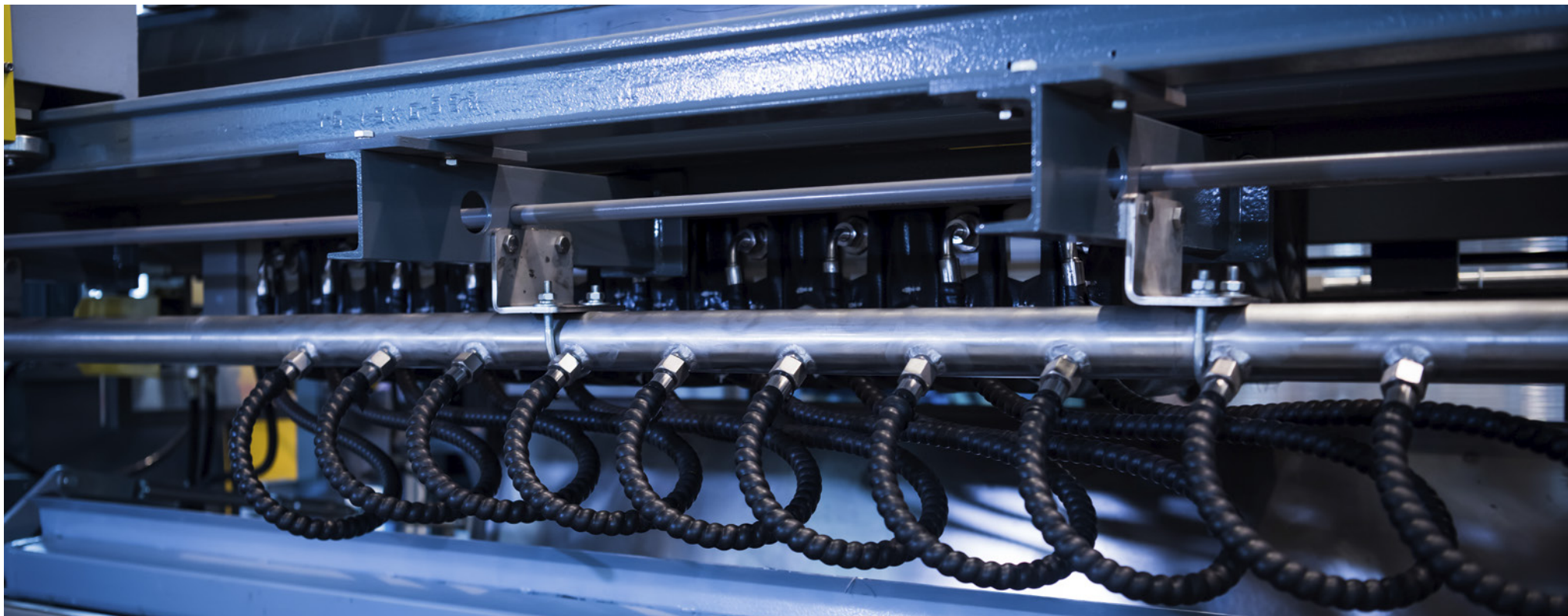


Metso

Pressure filtration

FPS filter press





The Metso FPS filter press offers efficient solid-liquid separation in a broad range of applications such as filtration in bulk mining, metallurgical refineries, industrial minerals, food, pharma, and biotechnology. The filtration areas range from 1 m² to 800 m². FPS is supported by Metso's long filtration experience and expert technical services for reliable process performance and long equipment lifetime.

Benefits:

- Wide variety of applications
- Improved process results
- Standard design reduces CAPEX
- Short lead time
- Short technical time filter available
- Designed for harsh environments

Standard design and options for short lead time

Operating principle

The plate pack is located between two rigid plates and is opened plate by plate with the plate-shifting device and closed by a hydraulic cylinder.

In the closed position the plates form a solid pack of sealed chambers with two filter cloths between each pair of plates.

The process liquid enters through slurry distribution channels that are formed when the plate pack is closed. The slurry is pumped into all chambers simultaneously to form a filter cake on both sides of the chamber. After filtration is complete, the plate pack opens and the cake is discharged.

The modular design enables customization of standard equipment with optional accessories to meet the specific requirements of each application.

Side bar design

The side bar consist of 800/1000/1250/1500/2000 mm series bars for both chamber filter and membrane filter. The overhead beam is recommended for applications in harsh conditions.

Plate shifter for side bar

A plastic anti-corrosion chain cover protects the chain against slurry residue and corrosive mater, as well as reduces noise. The variable-speed drive enables the shifter speed and torque to be adjusted.

Plate shifter for overhead beam

The top single-point shifting device helps prevent non-synchronous movement of the side-bar shifter. Using the torque in the overhead beam to control plate shifting helps to prevent corrosion caused by contact with slurry residue. The shifting movement is precise, smooth, and easy to adjust, with reduced wear resulting in longer component lifetime.

Hydraulic power unit (HPU)

The hydraulic power unit (HPU) is the main power system of the filter press, and can be either standardized or customized according to requirements. The HPU is reliable and easy to maintain.

Cloth washing device (optional)

The cloth washing device uses an advanced retractable cleaning arm and water at a maximum pressure of 40 bar for higher cleaning efficiency and lower water consumption.

Head piping with valves and instruments (optional)

Metso provides a complete set of piping, valves, and instruments to meet the needs of the filtration process. Commissioning of head piping is completed at the factory to enable quicker on-site commissioning and easy operation after the piping and wiring connections have been completed.

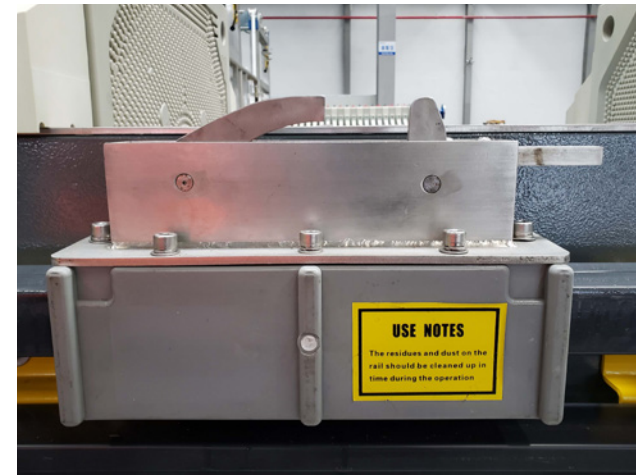


Plate shifter for side bar



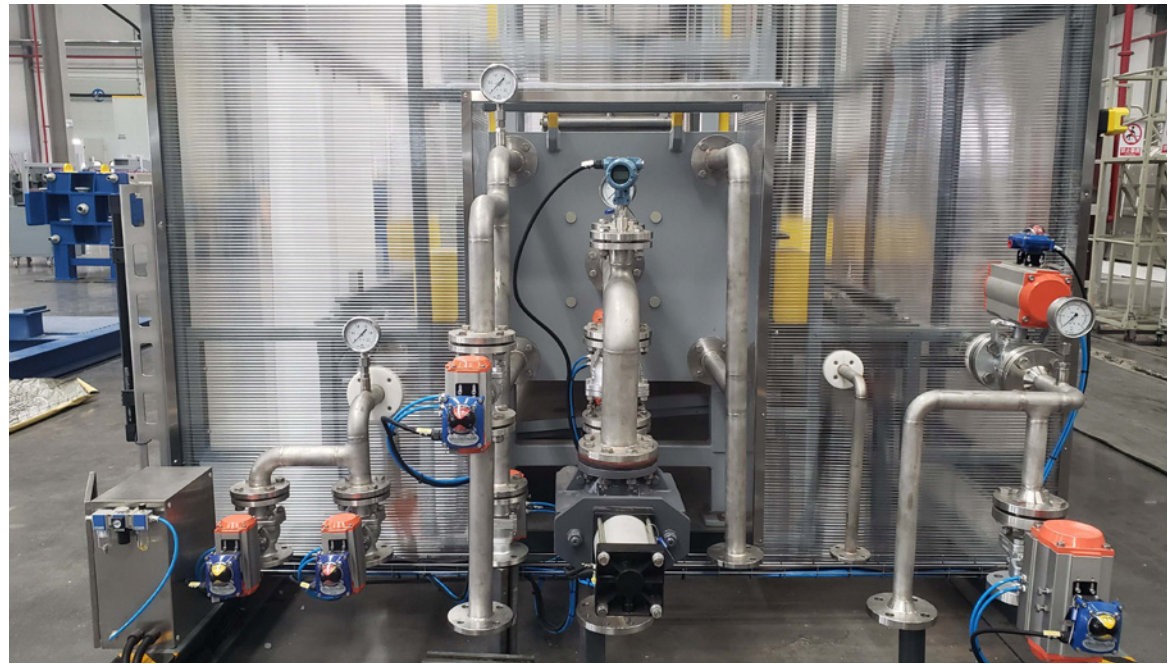
Plate shifter for overhead beam



Hydraulic power unit (HPU)



Cloth washing device for side bar



Head piping with valves and instruments



Cloth washing device for overhead beam



Head piping with valves and instruments

Designed for safe and reliable operation

Safety devices

The Metso FPS filter press is available with a variety of different safety device options, including light curtains, a pull-wire switch as protection against mechanical movements, and movable or fixed splash guards to protect against splashing water.

Electrical control system

The filter press features Siemens S7 series control and an HMI system for easy, stable operation. The system can be customized according to the operating condition and process requirements.



Fixed splash guard



Siemens automation system and HMI



Light curtain and pull-wire switch



Movable splash guard

Technical data

FPS filter - side bar

Metso FPS side-bar filter presses offer proven and reliable technology for most standard applications. The fit-for-purpose design combines exceptional component lifetimes with minimum maintenance. Operations, especially with extended filtration times, minimize the effect of long technical times on the specific filter capacity. The standard range includes plate sizes of 800, 1000, 1250, 1500, and 2000 mm.

Type	Metso FPS filter press - side bar					
Plate dimensions	mm	800x800	1000x1000	1250x1250	1500x1500	2000x2000
Max. operating pressure	bar	16	16	16	16	16
Filter width	mm	2990	3150	3420	4010	6400
Filter length	mm	5080-6580	6720-8340	8200-10210	10380-14380	16425-20425
Filter height (washing device included)	mm	3730	4030	4620	5600	6785
Filtration area, min-max	m ²	9-40	36-103	107-234	208-460	486-880
Filtration volume (max.), 30 mm chamber depth	m ³	0.59	1.43	3.44	6.52	13.6
Filtration volume (max.), 40 mm chamber depth	m ³	0.68	1.62	3.72	7.77	15.9
Weight, min-max	ton	6.5-8	11-14	19-23	37-49	66-84
Installed power, hydraulic unit	kW	5.5	5.5	5.5	11.0+2.2	22.0+2.2
Installed power, washing device	kW	0.85+0.55	0.85+0.55	0.85+0.55	0.85+0.55	1.8+0.55+0.55

Technical data

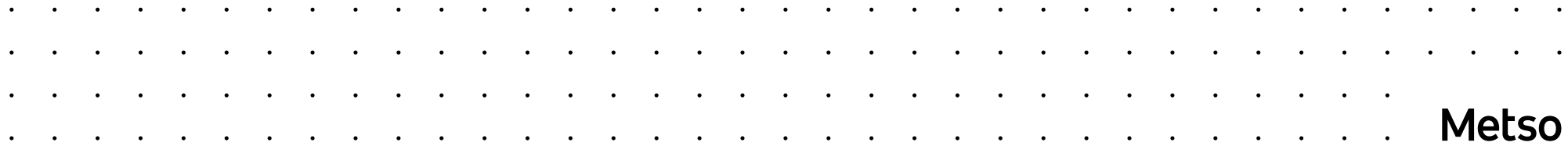
FPS filter - overhead beam

Metso FPS overhead beam filter presses offer proven and reliable technology for highly corrosive applications. The fit-for-purpose design combines exceptional component lifetimes with minimum maintenance. Operations, especially with extended filtration times, minimize the effect of long technical times on the specific filter capacity. The standard range includes plate sizes of 1000, 1200, 1500 mm.

Type	Metso FPS filter press - overhead beam			
Plate dimensions	mm	1000x1000	1200x1200	1500x1500
Max. operating pressure	bar	16	16	16
Filter width	mm	2500	2395	3145
Filter length	mm	7815-11815	10020-13020	11305-14305
Filter height (washing device included)	mm	3200	3300	4050
Filtration area, min-max	m ²	45-133	120-237	201-402
Filtration volume (max.), 30 mm chamber depth	m ³	1.88	3.82	5.67
Filtration volume (max.), 40 mm chamber depth	m ³	2.09	4.17	6.45
Weight, min-max	ton	14-20	22-30	39-50
Installed power, hydraulic unit	kW	5.5	5.5	11.0+2.2
Installed power, washing device	kW	0.55+0.55	0.55+0.55	0.55+0.75

Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change**.

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