



Ostwald Filtration Systems GmbH



**FILTRATION IS  
OUR PASSION !**

## **OFS - FILTER PRESSES**

Maximum dewatering at  
minimum process expenses



[www.ofs-filtration.com](http://www.ofs-filtration.com)



# Maximum cake dry solid

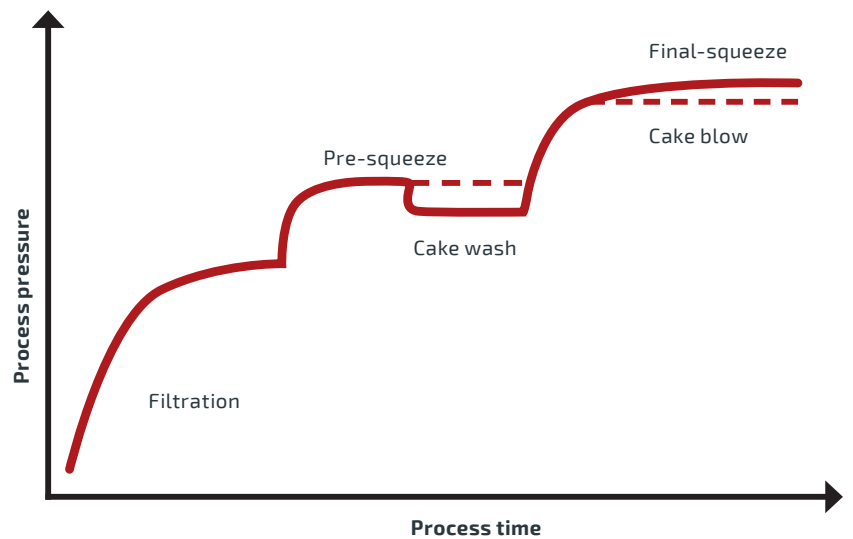
at optimum separation quality  
and minimum expenses

Filter presses are discontinuous working pressure filters for the solid liquid separation of slurries. They are distinguished by their excellent separation quality and high achievable solid content in the filter cake.

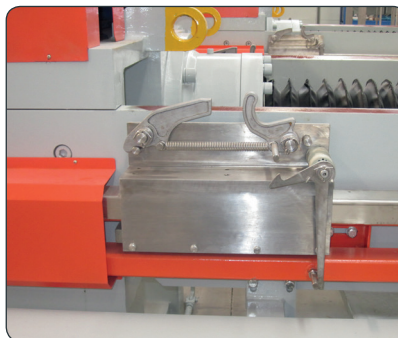
A filter plate pack, formed by single filter plates, is arranged in a frame. The plate pack is closed and tightened by a hydraulic cylinder. Filter cloth are mounted on each individual plate, which form a filter chamber by their recessed body. Through a feed channel the slurry gets pumped into the filter chamber. While the solids remain on the filter cloth, the liquid departs through the drainage surface of the filter plate. The continuous feeding of the filter raises the solid concentration in the filter

chamber and the filtration pressure. The feeding and the feeding pressure is maintained until a cake with the requested solid content is formed. Finally the filtration pressure gets released, the plate pack is opened and the filter cake gets discharged by separation of the filter plates with the plate transport mechanism.

Depending on the slurry characteristic and the process requirement it may be appropriate to use membrane filter elements. Here, the feeding of the filter press is stopped after approximately 70 % of the filling degree of the filter chamber. By inflating an elastic element (membrane) the chamber volume gets reduced and the required residual moisture is obtained by mechanical squeezing.



Medium adapted **Corrosion protection**



**Plate transport mechanism**  
in stainless steel

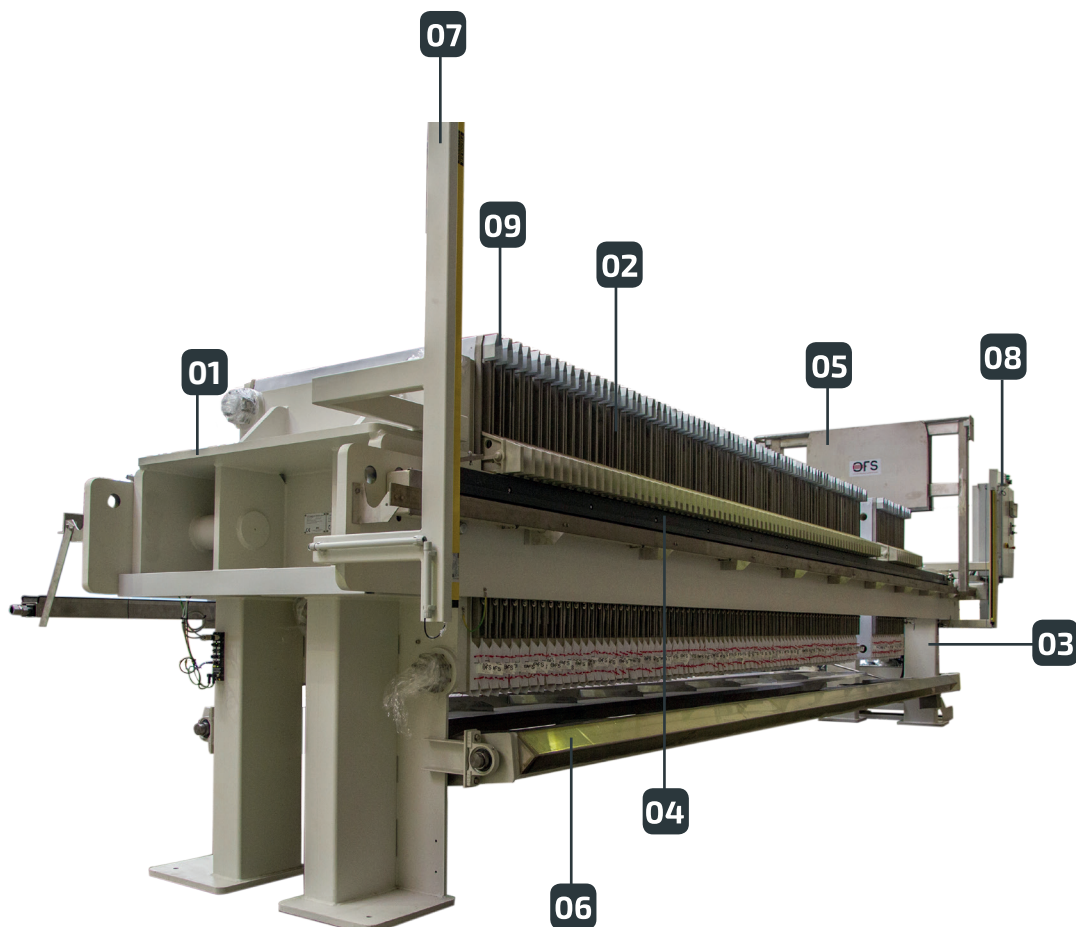


**Cake discharge device**  
in stainless steel

Several processes require a washing of the filter cake, i.e. displacement of mother liquor. Where appropriate the filter cake capillary liquid gets removed by cake blowing. Thus a maximum cake dry solid could be achieved. Beside the mechanical

dewatering the membrane elements support the filter cake to balance any shrinking during washing and blowing, as well as facilitate a uniform distribution of the washing liquid and drying gas.

- 01** Solid Frame for Filtration-/ Squeezing pressure from 6 to 30 bar
- 02** Filter plates in process adapted Chamber- or Membrane technology
- 03** Hydraulic closure with automatic pressure regulation
- 04** enclosed Filter plate transport with plate retention
- 05** Filter cloth cleaning device Cleaning pressure up to 100 bar for continuous throughput
- 06** Drip trays for drainage of wash water and drip filtrate
- 07** Light curtain for operator safety
- 08** Machine and Process control with operator friendly user interface
- 09** Cake discharge device for operator assistance or automatic operation



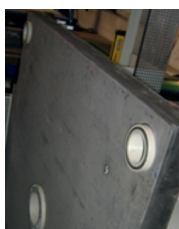
# Filter press model

OS 470 - OS 2000

Model	Plate format [mm x mm]	Electro hydr. Closure	Sliding shoe at hydraulic side	Chamber/ membrane filter plates	Plate transport	Aut. filter cloth cleaning device	Drip tray
OS 470	470 x 470	•	-	•/○	○	-	○
OS 630	630 x 630	•	-	•/○	○	-	○
OS 800	800 x 800	•	•	•/○	○	○	○
OS 1000	1000 x 1000	•	•	•/○	○	○	○
OS 1200	1200 x 1200	•	•	•/○	○	○	○
OS 1500	1500 x 2000	•	•	•/○	•	○	○
OS 1520	1500 x 1500	•	•	•/○	•	○	○
OS 2000	2000 x 2000	•	•	• ○	•	○	○

• Standard    ○ Optional    - nicht verfügbar

## Additional options



### Corrosion protection of wetted parts with

- Polypropylene
- Stainless steel
- Rubber coating



### Auxiliaries:

- Membrane inflation system
- Process control
- Pumps
- Valves | Conveyor
- Instrumentation
- Process air

## Applications



### Water and waste water treatment:

- Municipal waste water
- Industrial waste water
- Waterworks
- Bio gas



### Chemicals:

- Pigments
- Titanium dioxide
- Magnesium hydroxide
- Silica
- Acid production
- Petrochemicals
- Catalysts
- Special chemicals



### Minerals & Mining:

- Sand and gravel
- Kaolin
- Cement
- Bauxite
- Coal
- Concentrates
- Rare earth
- Tailings
- Metallurgical processes



### Food:

- Beer | Wine | Juice | Coffee
- Sugar
- Oils and fats
- Yeast
- Bioethanol
- Flavourings
- Enzyme