FAURE
ÉQUIPEMENTS

Filter Presses

Leading mechanical dewatering system: the filter press.

Advantages of filter presses:

- High performance in terms of dryness (30 to 80%)
- Simplicity, robustness, reliability
- Low operating costs
- Standardisation of automatic filter presses. Automatic operation up to 24 h/24

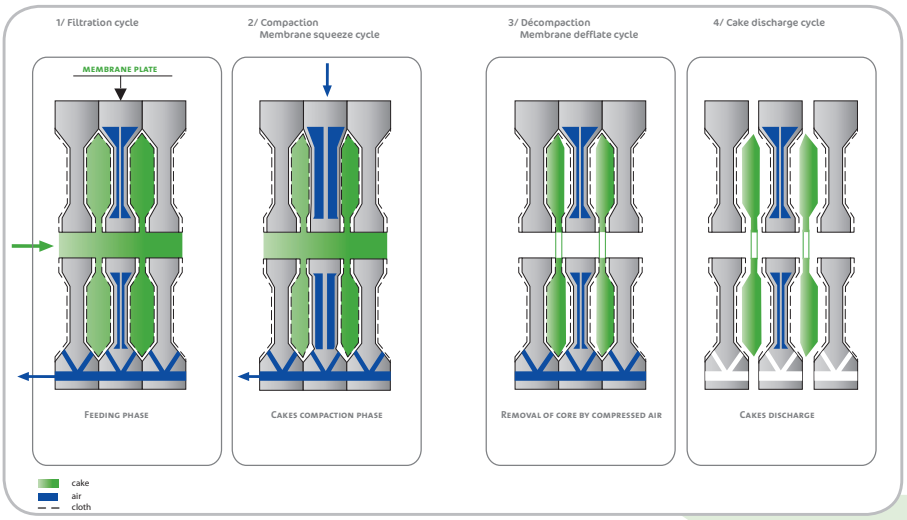
TITAN automatic filter press

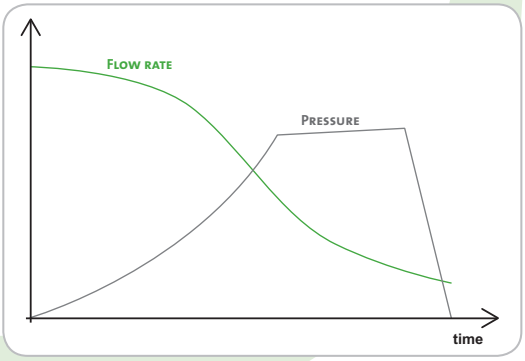
Filter cake discharge

Cake storage

Description

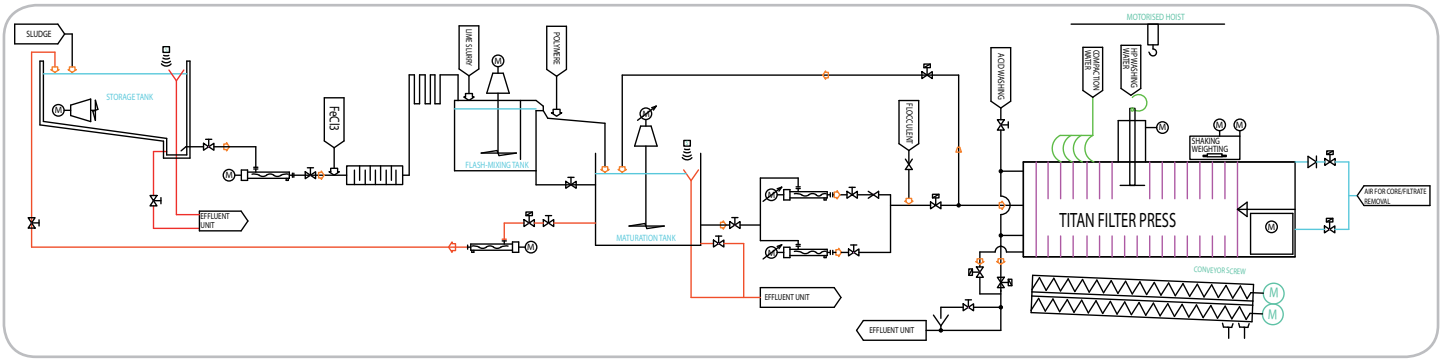
Filter presses are used to filter suspensions to separate liquid and solid phases.
They comprise a set of plates covered with filter cloths, creating watertight chambers into which the product to be filtered is injected under pressure.
Under this pressure, the liquids pass through the cloths, which retain the solid particles. The filtrates are evacuated throughout the pressing cycle. The cakes formed between the plates are released in the discharge phase. Membrane plate (mixed pack) technology combines the conventional filtration phase with a compression phase at the end of the pressing cycle. Membrane filter press technology improves filter press productivity by 20 to 50% and increases the dryness of the cake.
Cake discharge is automated, using combined shaking and automatic weight-monitoring systems developed by us.





Description	Plates size (mm)	Max nbr of plates	Filtering surface (m^2)	Max volume (l)
207	250*250	10	0.85	98
212	500*500	50	21	290
211	630*630	70	47	658

Description	Plates size (mm)	Max nbr of plates	Filtering surface (m^2)	Max volume (l)	Hydraulic unit power rating (Kw)
TITAN 217	800*800	110	107	1450	4
TITAN 218	1000*1000	125	205	2800	5.5
TITAN 219	1200*1200	140	325	4200	4
TITAN 219B	1300*1300	145	385	5100	4
TITAN 220	1500*1500	160	590	8000	7.5
TITAN 220B	1500*2000	170	840	10660	11
TITAN 226	2000*2000	180	1140	17800	15



Design

Robust construction ensures a perfect distribution of forces.

Lateral beams support the plate pack as well as the standard and automatic cake discharge equipment.

The chamber or membrane (mixed pack) plates can range from 250*250 to 2000*2000 in size.

The hydraulic unit is used to open and close the filter press and to keep it under pressure.

Automatic cake discharge boom

Cake discharge

- 100% automatic: the device for shaking the plates is connected to a weighing system which ensures that the cakes are discharged **without operator intervention.**

- anti-corrosion mechanised cake discharge: this accurate and reliable device enables the chambers to open without operator intervention. The stainless steel material ensures that they remain in perfect condition over time.

High-pressure cloth washing

High-pressure cloth washing

An automatic washing robot is connected to the cake discharge system to optimise the cleaning process.

Acid washing

An acidified water solution is injected into the filter press, using a controlled dosage unit.

Cake collection

Cake collection

- Directly into a skip positioned under the filter press, using a guide funnel. Automatic shutters close the trap

- By conveyor (conveyor belt or continuous screw) to skips or a storage area.

Electrical control cabinets

Electrical control cabinets

Designed by our electrical equipment department, these control all or part of the dewatering plant (remote control and power supply). They also incorporate the latest technology and meet the strictest specifications (standards, materials, etc.).

Protection of personnel

Protection of personnel

This is provided by light curtains and grating panels which comply with the current regulations (CE as a standard).

Filter press peripherals

Filter press peripherals

The following units can be added to our equipment to produce a turnkey plant: transfer pumps, dosage pumps, agitators, flocculation tank, settlement tank, reactor, etc.

Advantages of filter presses:

- High performance in terms of dryness (30 to 80%)
- Simplicity, robustness, reliability
- Low operating costs
- Very low consumption of energy and reagents
- Greatly reduced labour requirements
- Adaptable to changes in production, concentration, conditioning requirements.
- Standardisation of automatic filter presses. Cake discharge without operator intervention. Continuous operation 24 h/24
- Adaptable to different effluent treatment methods: physical-chemical, biological, electroflocculation, etc.
- Excellent capture rate for suspended matter
- Low maintenance costs
- Fast and profitable return on investment
- High level of flexibility in operation

Areas of application

Dewatering of sludges from:

• Urban effluent and effluent from drinking water plants

• Industrial effluent:
examples:
- Agri-food industry
- Mines and quarries
- Pollution treatment
- Hydrometallurgy
- Surface treatment
- Exhaust gas scrubbing
- etc.

Industrial filtration processes

- Agri-food industry (sugar, oils, wine, algae, etc.)
- conventional and composite ceramics
- chemical industry
- pharmaceutical industry

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Faure equipements sa - Registered office and factory - ZI Magré - 21, rue Santos-Dumont - BP 52 - F-87002 LIMOGES CEDEX 1 - FRANCE - Tel.: +33 (0)5 55 30 12 60 - Fax: +33 (0)5 55 06 16 03 - Email: mail@faureequip.com