



**MUNICIPAL AND INDUSTRIAL
DEWATERING APPLICATIONS**

ROTARY PRESS

OPTIMUM-CV





Fournier Industries Inc. has specialized in mechanical equipment manufacturing since 1960. The company's technical abilities and expertise involve product design, lab and pilot testing, commissioning and training.

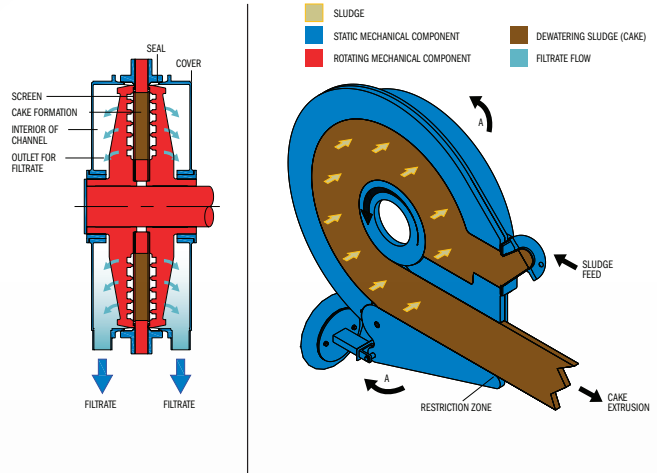
ROTARY PRESS TECHNOLOGY

Fournier Industries Rotary Press technology is at the forefront of municipal and industrial sludge dewatering, the result of continuous improvement and R&D.

Due to its reliability and simplicity, the Fournier Rotary Press requires minimal supervision. It is the only dewatering technology that is safe for stand-alone automatic operation and can be monitored and operated by remote control.

The benefits derived from using the Rotary Press have been well documented and result in lower operating costs for the customer through its high performance, easy operation, reduced polymer usage, low power consumption and low maintenance.

Principle of operation



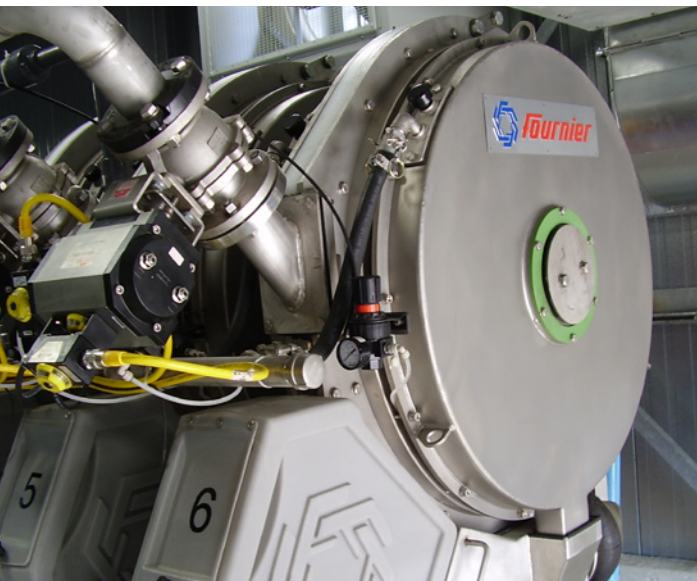
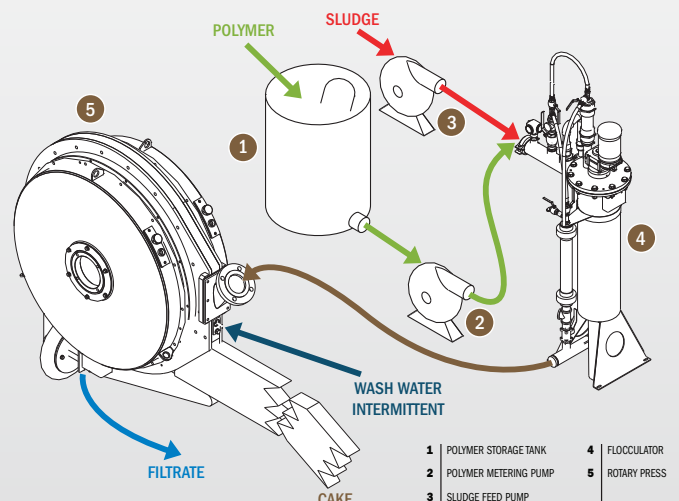
HOW IT WORKS...

The principle of operation is simple. Sludge is fed at low pressure into the channel and rotates between two parallel revolving stainless steel chrome plated filtering elements.

As free water passes through the screens, the sludge continues to dewater as it travels around the channel. The flocculated sludge builds up solids until enough pressure is generated against the outlet restricted arm.

The frictional force of the slow-moving filtering elements, coupled with controlled outlet restriction, generates enough back pressure to dewater the remaining solids, resulting in the extrusion of a very dry cake.

Process schematic



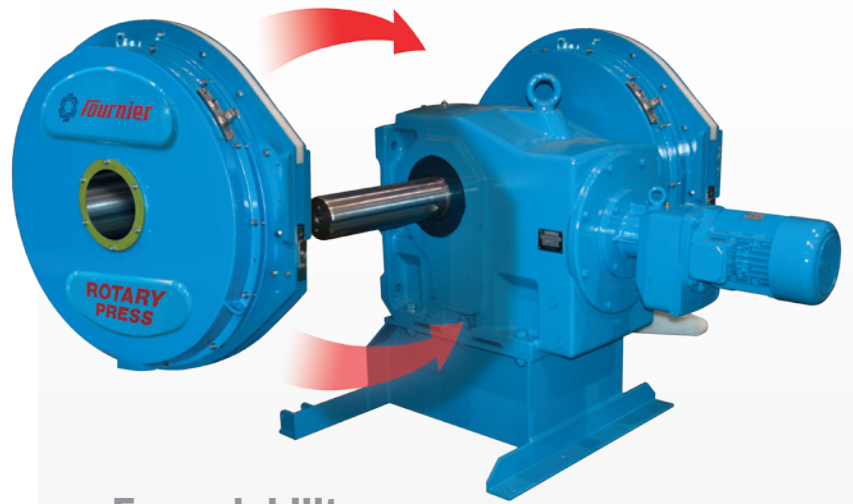
THE ROTARY PRESS CV-OPTIMUM

The Fournier Rotary Press, CV-optimum is the latest development in dewatering technology.

Winner of the 2002 WEF Innovative Technology Award, this Canadian invention has undergone several upgrades over the years.

A single-width channel is able to dewater all varieties of sludge, allowing a single press to be used anywhere, without any physical modification.

To ensure that our customers always get the parts they need quickly & affordably, Fournier Industries maintains a large inventory of spare parts.



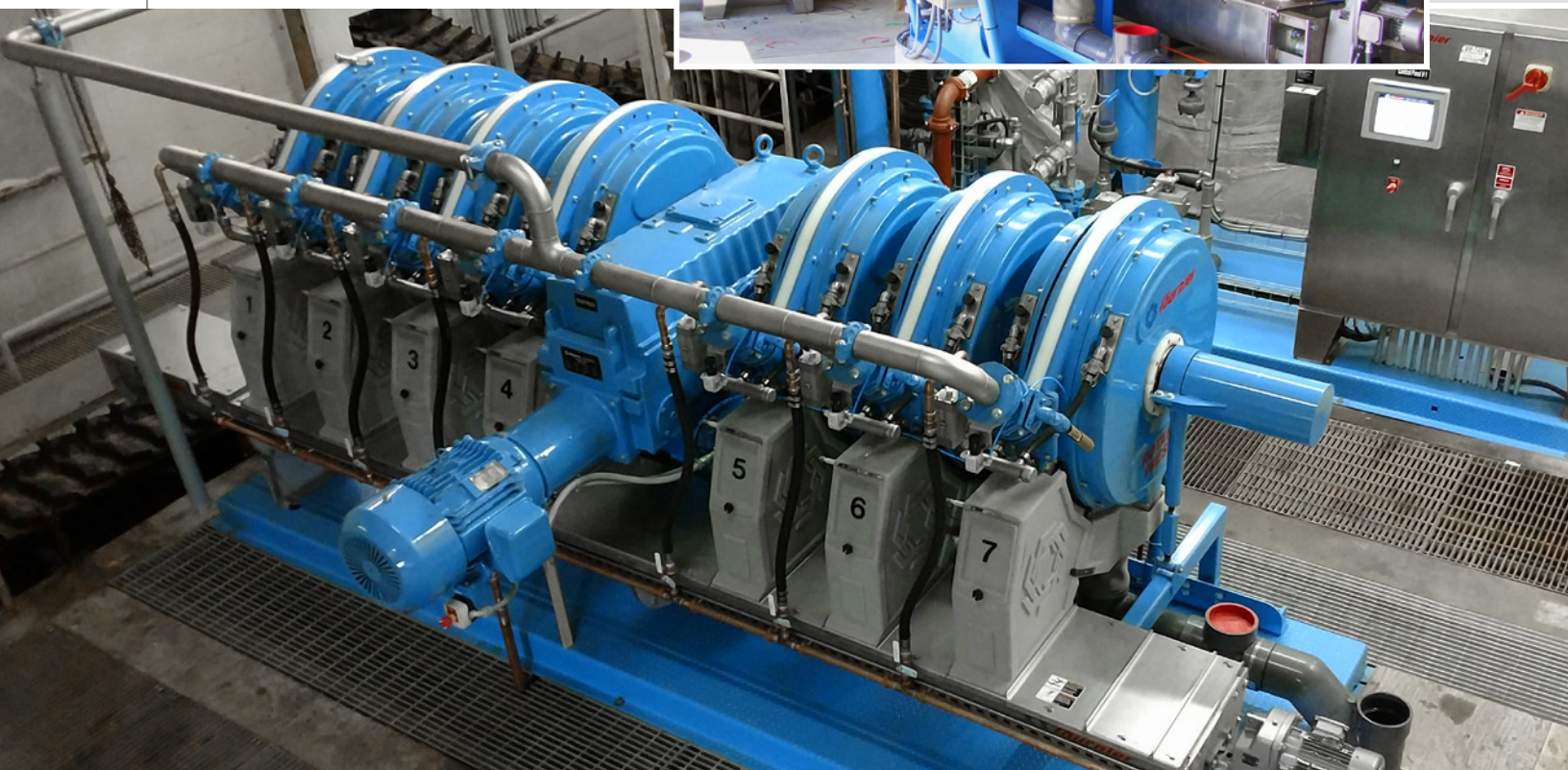
Expandability

Another unique feature of the Rotary Press is the ability to order units that can be expanded at a future date. This allows customers to benefit from lower capital costs at time of purchase and expand according to need. Any combination of channels can be obtained, up to maximum of 8 channels per press.



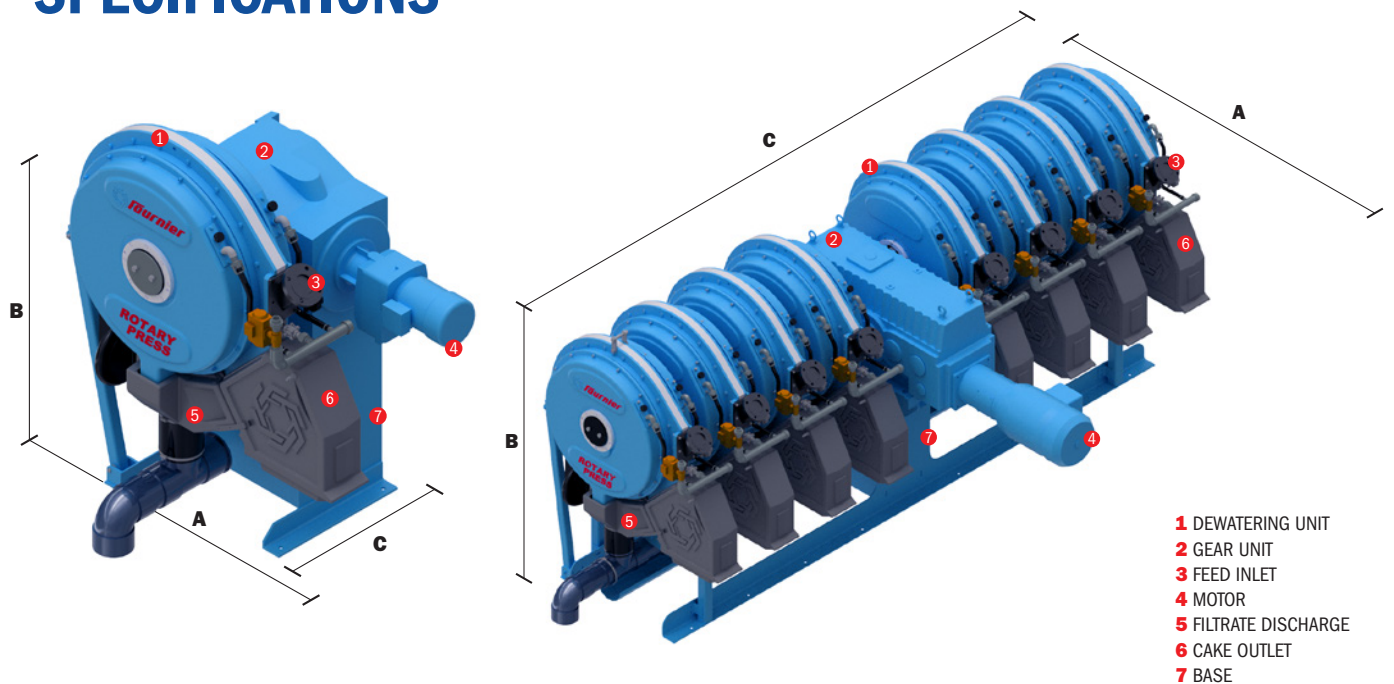
**MORE THAN 450 INSTALLATIONS
WORLDWIDE**

**TURNKEY SYSTEMS DELIVERED ON SKID, FOR SIMPLE,
FAST AND ECONOMIC INSTALLATION**





SPECIFICATIONS



MODEL NO.	MODEL	DIMENSIONS In. (mm)			WEIGHT Lb (kg)	MOTOR HP (kW)
	CHANNEL	A	B	0.9788 IN		
1-900/1000CV	1	70.3 (1785)	72.0 (1830)	40.5 (1028)	3966 (1799)	5.0 (3.7)
2-900/2000CV	2	77.5 (1969)	72.0 (1830)	64.8 (1646)	6854 (3109)	7.5 (5.6)
3-900/3000CV	3	79.0 (2007)	72.0 (1830)	85.8 (2180)	8498 (3855)	10.0 (7.5)
4-900/4000CV	4	91.3 (2320)	75.4 (1915)	101.6 (2580)	10280 (4663)	15.0 (11.1)
5-900/5000CV	5	92.8 (2358)	75.4 (1915)	123.0 (3124)	12235 (5550)	20.0 (15.0)
6-900/6000CV	6	92.8 (2358)	75.4 (1915)	144.4 (3668)	13649 (6191)	20.0 (15.0)
7-900/7000CV	7	94 (2388)	79 (2007)	176 (4471)	17409 (7913)	30.0 (22.5)
8-900/8000CV	8	94 (2388)	79 (2007)	187 (4750)	18820 (8555)	30.0 (22.5)

*VARIES AS PER INSTALLATION LAYOUT



Advantages of operation

- Continuous process
- Equipment totally enclosed, reduced airborne contaminants & odors
- Easy start-up and shut-down procedures
- Very simple to operate
- Minimal supervision required
- Completely automated and can be remotely controlled

Maintenance

- Robust construction
- Small number of mechanical parts
- Slow rotation speed (0.2-2 rpm)
- Reduced corrosive exposure to nearby equipment
- Automated self-cleaning cycle
- Little maintenance

Economy

- Savings on final disposal costs (high dryness)
- Minimal space requirements (small footprint)
- Low maintenance costs
- Reduced labor costs
- Low energy consumption
- Low water usage



ACCESSORIES & MORE

We have developed a wide variety of **customized accessories** for virtually any layout.

Custom-engineered systems for **total plant automation**, catering to every customer's individual needs.

Our engineering team will tackle any project and provide **complete package solutions** for any biosolid handling.

With a host of features tailored to your requirements, Fournier allows you to optimize your business operations.

■ Containerized & skid mounted units

- Complete turnkey projects
- Containerized projects

■ Polymer feed systems

- Liquid or dry-feed polymer
- Manual or fully automated

■ Shaftless screw conveyors

- Screw sizes from 9" to 18"
- Lengths from 5ft to 200ft

■ Sludge pumps & other accessories

- Equipment of any size can be quickly assembled and shipped to your site.





LABORATORY AND PILOT TESTING

In order to determine the size that meets your needs, we strongly recommend taking advantage of our **Free** laboratory tests.

These steps allow us to characterize sludge samples and to anticipate the performance of your Rotary Press, based on previous results in the same operation field.



WHAT YOU SEE IS WHAT YOU GET!

Fournier Rotary Press performance testing can be demonstrated by means of our mobile units. Our use of a full-scale pilot unit defines the performance of the Rotary Press on your typical sludge. Using the information from the pilot gives us the exact performance data needed for any final installation design.



ISO-9001:2015

Fournier Industries Inc. is an ISO-registered manufacturer, ensuring the highest level of quality control.



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US Patent 7,166,229



**140 YEARS OF
EXPERIENCE**

FULL **AUTO**
FILTER PRESS

 ***Fournier***

FULLAUTO

FILTER PRESS



FACTS

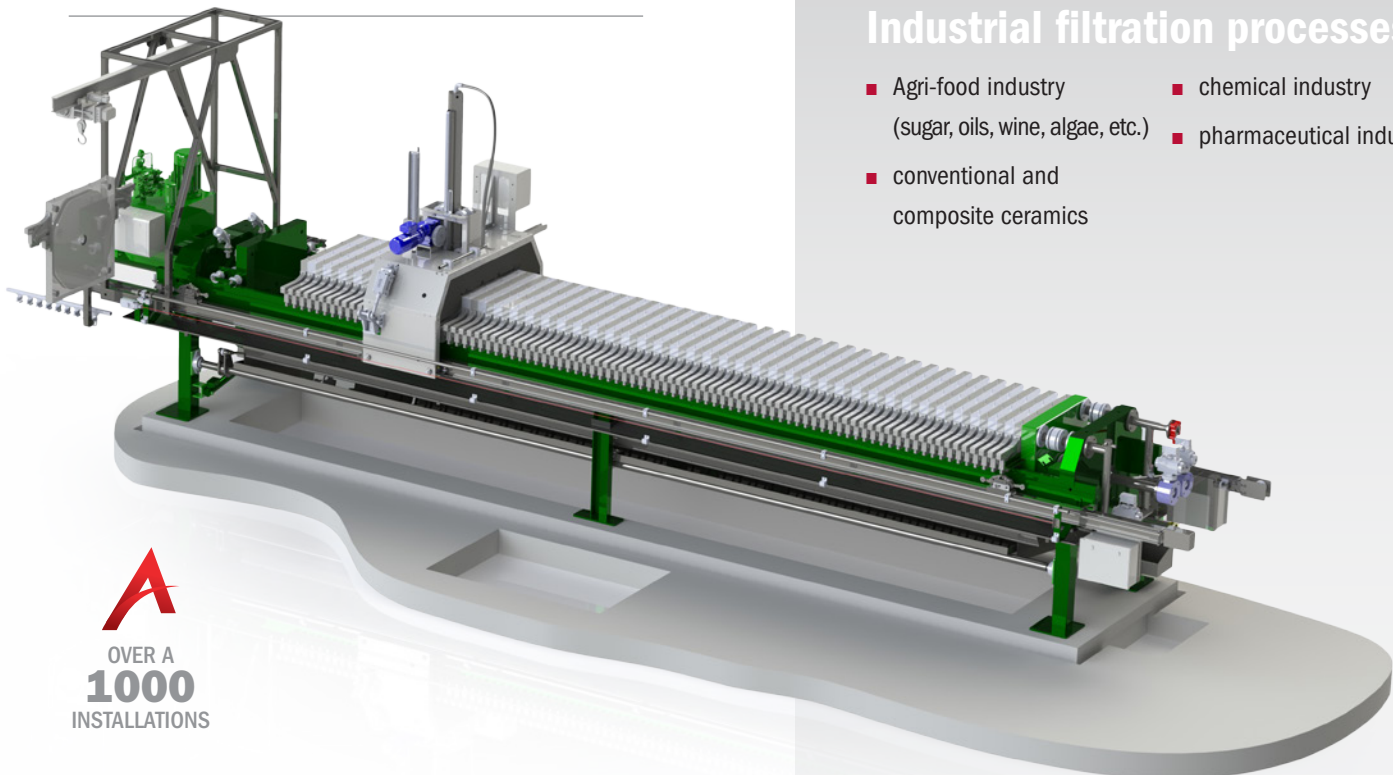
Runs 24h/7 without operator intervention

Integration into continuous automatic processes

Simple, robust and reliable

High performance cake dryness

Municipal & Industrial applications



A
OVER A
1000
INSTALLATIONS

AREAS OF APPLICATION

Dewatering of sludges from:

Municipal sludges, drinking water plants, industrial slurry

- Aggressive media

Industrial effluent

- Agri-food industry
- Mines and quarries
- Hydrometallurgy
- Surface treatment
- Exhaust gas scrubbing
- Chemicals and pigments
- etc.

Industrial filtration processes

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



THE UNIQUE AND FULLY AUTOMATIC ROBOT



The Robot takes care of:

Plate weighing

For sticky material, plates are automatically weighed during the cake discharge cycle. A plate over weight detection will generate a shaking cycle.

Automatic Core Blower

Robot may also be equipped with a core cleaning mechanism.

Plate shaking

Plates will be shaken automatically if required by the nature of the sludge or by the command of the plate weighing device.

Automatic wash

Robot can be equipped with a mobile wash manifold to be used with high pressure water or in some specific applications, acid solution.



«This simple and inexpensive solution leaves the cloths untouched and ensures that they remain intact.»

PROCESS COMPONENTS



Filter press peripherals

The following units can be offered as an option to produce a turn key plant operation: conveyors, transfer pumps, dosage pumps, agitators, flocculation tank, settlement tank, reactor, etc.



Cake collection

- Direct drop can be used or conveyors can be supplied to accommodate customer needs.



Protection of personnel

- Light curtains, pull cords and barriers which comply with UL, CSA or other regulations can be provided.

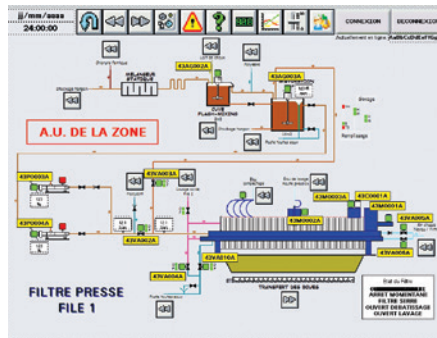


High-pressure cloth washing

- For a larger size press and for automation purposes, a booster pump can be supplied.

Acid washing

- Acid dilution and feeding system can be supplied when needed by the application.



Electrical control cabinets

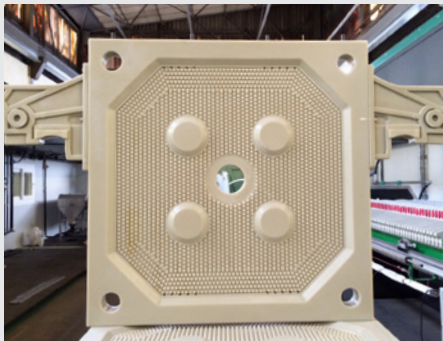
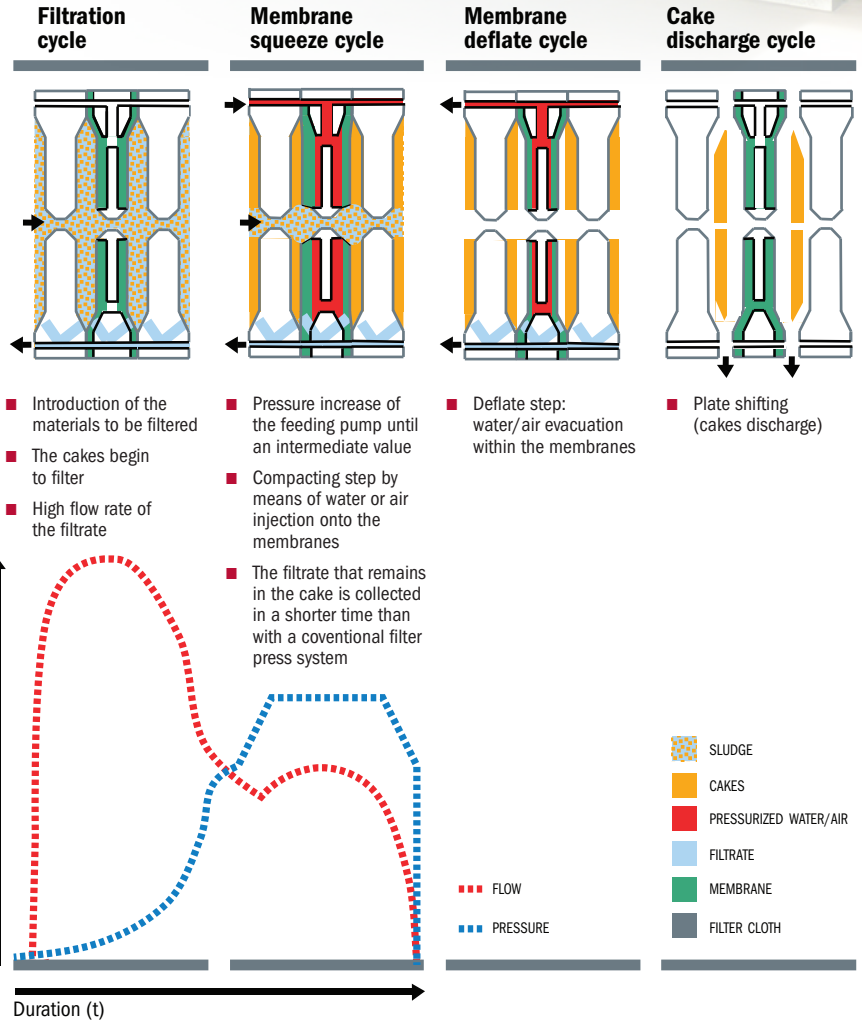
- Operator interface allowing friendly operation and control provided with PLC as per the customer requirements.



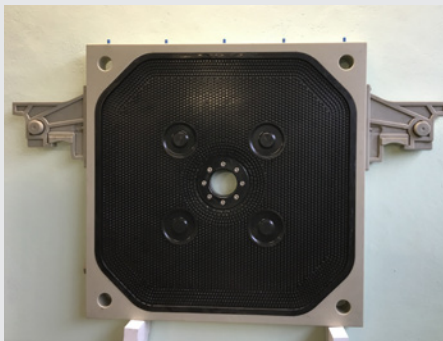
Cake discharge

- **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 mechanized 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.

Membrane filter press operating principles



Recessed plate



Membrane plate



Plate with cloth

DESCRIPTION	PLATES SIZES (INCHES/MM)	MAX NBR OF PLATES	MAX FILTERING SURFACE (FT ² /M ²)
207	10 x 10 / 250 x 250	10	9,15 / 0,85
212	20 x 20 / 500 x 500	50	226 / 21
211	24 x 24 / 630 x 630	70	505 / 47
217	32 x 32 / 800 x 800	110	1152 / 107
218	40 x 40 / 1000 x 1000	125	2206 / 205
219	47 x 47 / 1200 x 1200	140	3498 / 325
219-B	51 x 51 / 1300 x 1300	145	4144 / 385
220	59 x 59 / 1500 x 1500	160	6351 / 590
220-B	59 x 79 / 1500 x 2000	170	9041 / 840
226	79 x 79 / 2000 x 2000	180	12 271 / 1140



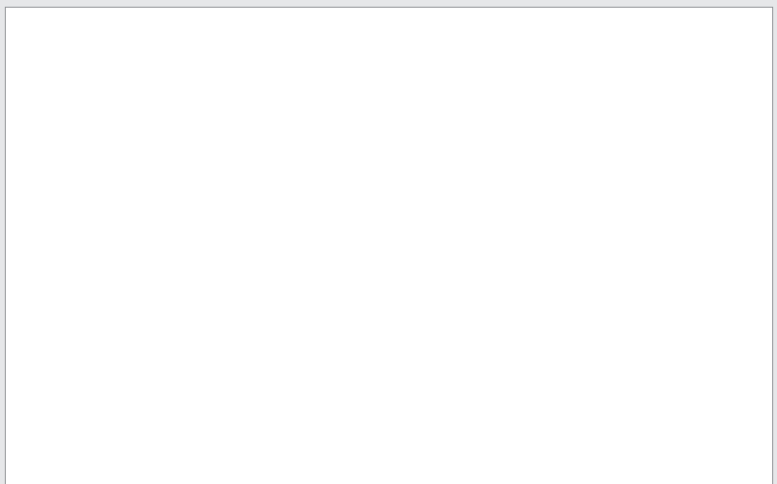
Technology partnership



Ask us about
our Pilot unit...
Or Lab analysis



Your local representative



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