



**Diemme  
Filtration**



SOLID-LIQUID SEPARATION TECHNOLOGIES FOR INDUSTRIAL PROCESSES

# **SIDE BEAM FILTER PRESS AUTOMAT**

**A brand of  
Aqseptence Group**

**User friendly  
and flexible**



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## Characteristics

The AUTOMAT filter press is a new-generation machine that combines the following features: user-friendliness, reliability, flexibility, safety and structural simplicity. The AUTOMAT is Diemme® Filtration's side-beam filter press designed specifically for biological and industrial products with low filterability.

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## Design

All of the filter components are optimally designed using advanced engineering software tools thereby minimizing stresses and preventing deformation. The frame of the machine is fabricated from high-quality construction steels.

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## Automation

Depending on the needs of the filter plant, the functioning of the AUTOMAT filter can be semi-automatic with limited need of operator intervention, or fully automatic.



Model	Exercise Pressure (bar)		N. of installed plates		Cake Volume (l)		Filtration Area (m <sup>2</sup> )		Length (mm)		Empty Weight (kg)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1000	15		68 ÷ 136		1300 ÷ 2700		95 ÷ 200		4000 ÷ 8000		6500 ÷ 16500	
1200	15		94 ÷ 156		2500 ÷ 4220		200 ÷ 330		6000 ÷ 10000		13500 ÷ 23000	
1500	15		85 ÷ 155		3700 ÷ 6850		335 ÷ 530		6000 ÷ 11000		20000 ÷ 38000	

**Note:** The Max values reported in the table refer to plates with 25 mm chamber thickness and full plate packs.

# Construction details and safety

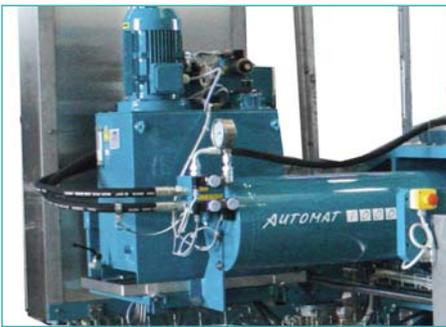


## Plate-shifting device



The plate-shifting mechanism allows the cake to discharge by opening each plate. The device is made up of two trolleys equipped with automatic hooks that anchor and shift the plates one by one. The trolleys move by means of toothed drive belts providing smooth and quiet operation. The belts are protected inside the trolley guide mechanism.

## Plate-pack closing control unit



A push-to-close hydraulic jack, controlled by a special hydraulic power unit installed on the machine, performs the closing and sealing of the plate pack. The pressure control system is connected directly to the jack ensuring safe operation.

## Safety protections and photoelectric barriers



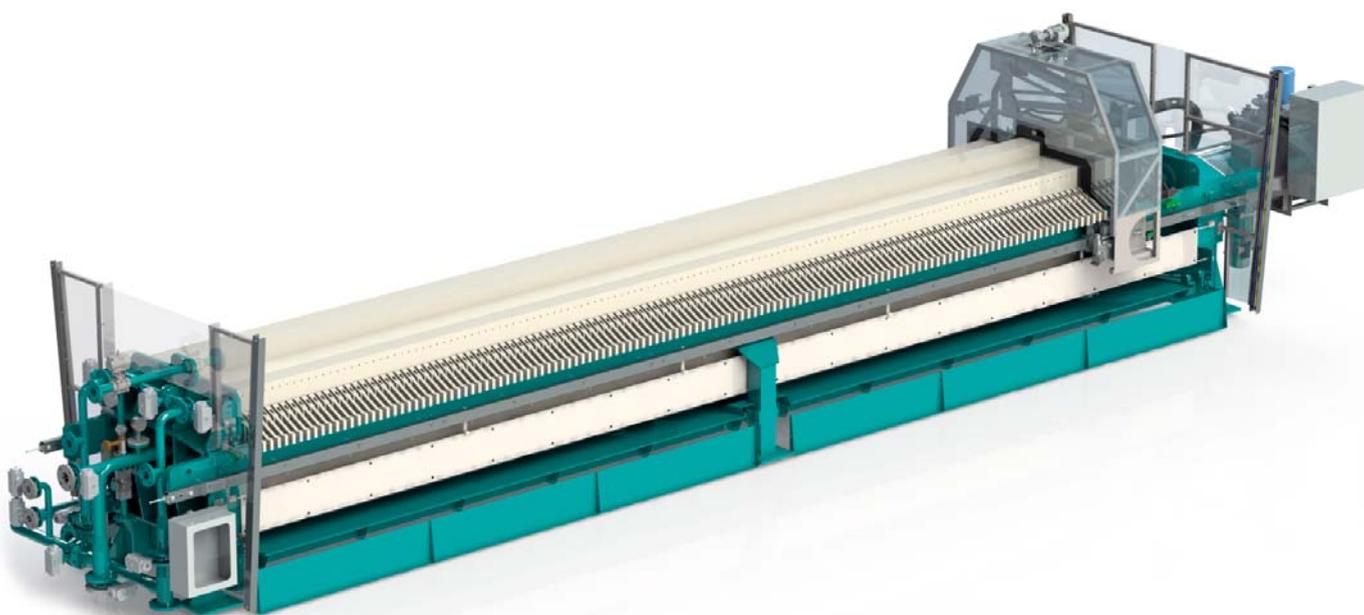
In order to maximize the accessibility of the machine and make it more user-friendly for operators and maintenance staff, we designed safety protections comprising of fixed barriers on the headers and light curtains that allow the operator to laterally access the plate pack without stopping the machine.

## PLC



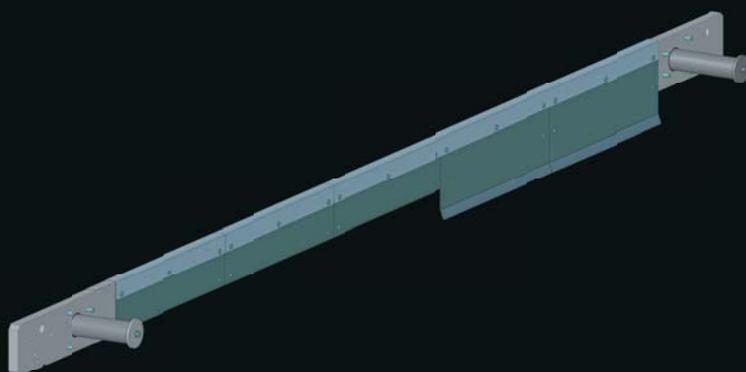
AUTOMAT filters are equipped with a PLC-based automation system with human-machine interface (HMI) that facilitates the monitoring of the filter functioning, fault diagnostics and allows the continuous adjustment of the filtration parameters in order to optimize the variable process requirements.

# Options and customization

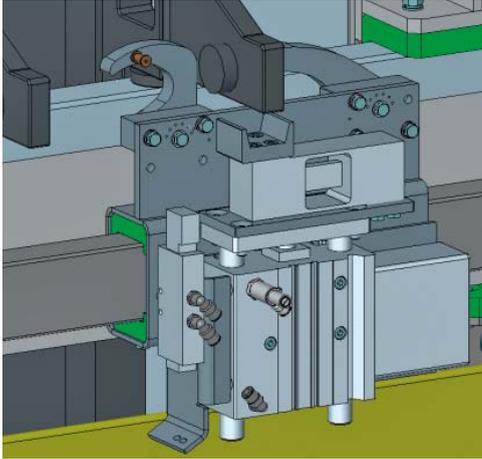


## Use of customized materials

Depending on the characteristics of the product to be treated, it is possible to customize the side beams with special coatings in AISI 316 stainless steel or polypropylene.



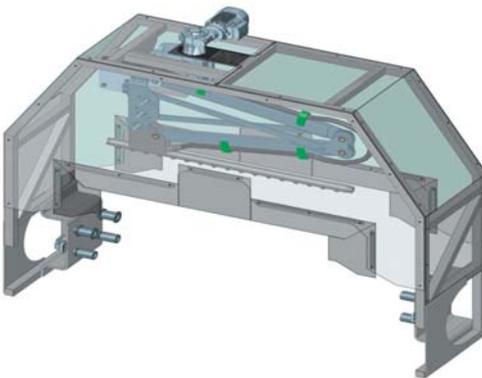
## Weighing system and plate shaking



A weight-control and plate-shaking system can be installed on the plate shifting device allowing the machine to operate automatically. This system lifts the plate and measures its weight by means of a load cell. This value is compared with the preset plate weight and, according to this measure, the system decides whether to shake and weigh the plate again or to continue with the plate shifting.

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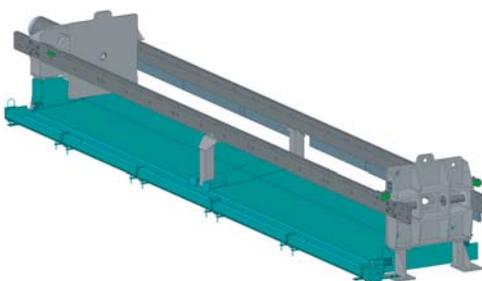
## High-pressure cloth washing



In order to increase the useful life of the filter cloths, the machine can be equipped with a high-pressure cloth washing device. This system will periodically perform a deep cleansing of the cloth to restore its performance characteristics.

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## Drip Tray



The drip tray, installed between the feet of the machine, is a downward-opening device that, when closed, collects wash water and other drips and discharges via a launder. The drip tray opens completely at the end of the filtration cycle to allow the discharge of the filter cakes.

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