

Trust Never Ends.

Overhead Beam Filter Press GHT

Solid-liquid separation technology for industrial processes

A brand of Aqseptence Group

High Reliability and Performance







Membrane technology

When the application requires washing stages with solvents or drying stages with compressed air, special plates with variable-volume chambers are necessary. The plate construction material varies depending on the process temperature and of the chemical composition of the product to be filtered.

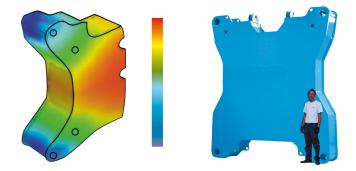
Performance

The GHT 4x4 is a Diemme® Filtration filter press with high productivity. The filter plates, which are hung from the upper beam, are moved automatically by a rapid shifting device equipped with a carousel system which reduces the filter presses' opening and closing sequence to the minimum.

Reliability

Four hydraulic cylinders placed on the plate pack corners ensure perfect operation and limited structural stress, even in the most unfavorable working conditions.

Model	Working Pressure	N. of installed	Cake Volume	Filtration Area	Length	Empty Weight
	(bar) Min Max	plates Min Max	(l) Min Max	(m²) Min Max	(mm) Min Max	(kg) Min Max
1200	15 ÷ 30	38 ÷ 187	1251 ÷ 6500	100 ÷ 400	7000 ÷ 16000	15000 ÷ 30700
1500	15 ÷ 30	81 ÷ 182	5000 ÷ 11000	300 ÷ 700	11500 ÷ 17500	31500 ÷ 46000
2000	15 ÷ 30	80 ÷ 246	9000 ÷ 25000	600 ÷ 1650	11700 ÷ 24700	55000 ÷ 105000
2500	15 ÷ 30	85 ÷231	10000 ÷ 43000	850 ÷ 2200	12000 ÷ 26000	79000 ÷ 200000



A filter press with world-leading technology

Carousel type plate shifting



The carousel plate shifting device assures quick and sequential plate movement by means of an automatic transport system controlled by an inverter.

Automatic cloth washing



Reliable cloth cleaning using a robotic device ensures that optimum filtration rates are maintained.



A laser control system ensures correct plate pack alignment and stops the filter press in case of an anomaly, so that any damage can be avoided.

Carousel greasing system



This device ensures the perfect operation of the shifting device, thanks to two brushes that lubricate the carousel chain preventing friction and jams.

Fixed header 4 cylinders



The fixed header is made of a high-tensile steel "cellular" structure in order to best resist stress and it supports 4 hydraulic jacks which are responsible for holding the plate pack closed.

Load cells

Laser



Placed under the supporting feet, load cells constantly monitor the machine weight to ensure all cakes are discharged. The throughput of each load can also be recorded for accurate production tracking.

Automatic lifting platform

Protection of the shifting device



Developed for large machines, the sliding hydraulic platform allows inspection of filtering elements and routine machine maintenance in a convenient, quick and safe way



The plate-shifting mechanism, located inside the upper beam, is effectively protected from sludge, dust and corrosive chemicals by a continuous belt of rubber-lined cloth.

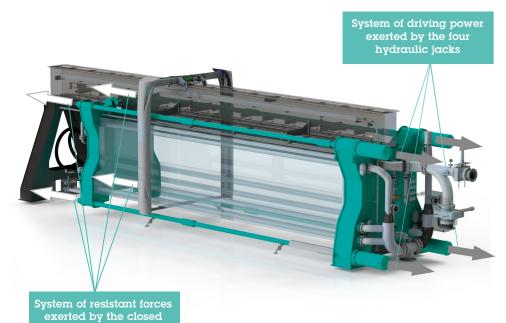


Plc



The GHT is provided with a sophisticated automation system equipped with a human-machine interface (HMI) that simplifies the monitoring of the filter operation, enables quick diagnosis of faults and allows the continual adjustment of filtration parameters in order to optimise the process to suit variable feed conditions.

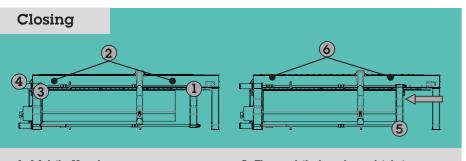
A structure designed for long life



Total traction

Different from the traditional pushtype system, the "total traction" system does not transmit any stress to the upper beam, which is only subjected to the weight of plates supported from it. In fact, the forces applied by the closing device are subjecting the tie beams to tension, which avoids stress on the frame and consequently, the risk of structural deformation.

Maximum safety



- 1. Mobile Header
- 2. Open plate pack

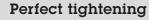
plate pack

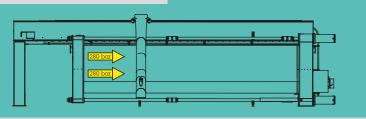
- 3.Fix header
- 4. Hydraulic Jack

- 5. The mobile header, which is pulled by hydraulic jacks, closes the plate pack
- 6. Closed plate pack

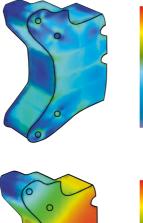
The frame is conservatively designed so that the safety threshold of the material is far above the maximum stress experienced during normal operation.

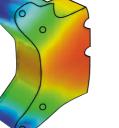
The upper beam is non-deformable and its maximum deflection is equal to 1/1000 of its span, even in the most severe working





The pressure exerted by the closing device is uniformly distributed on each plate, thanks to the four hydraulic jacks. The jacks are equipped with an automatic control system and each one adjusts its length according to the exerted pressure, in order to assure perfect closure of the plate pack.







AIDA is the IIoT solution of Diemme Filtration, to produce valuable information for assertive decision making.

AIDA that allows our customer to enhance optimize processes and enhance machine performance through data collection, and advanced data processing by our team of experts. to produce valuable information for assertive decision making.



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