



**Diemme  
Filtration**



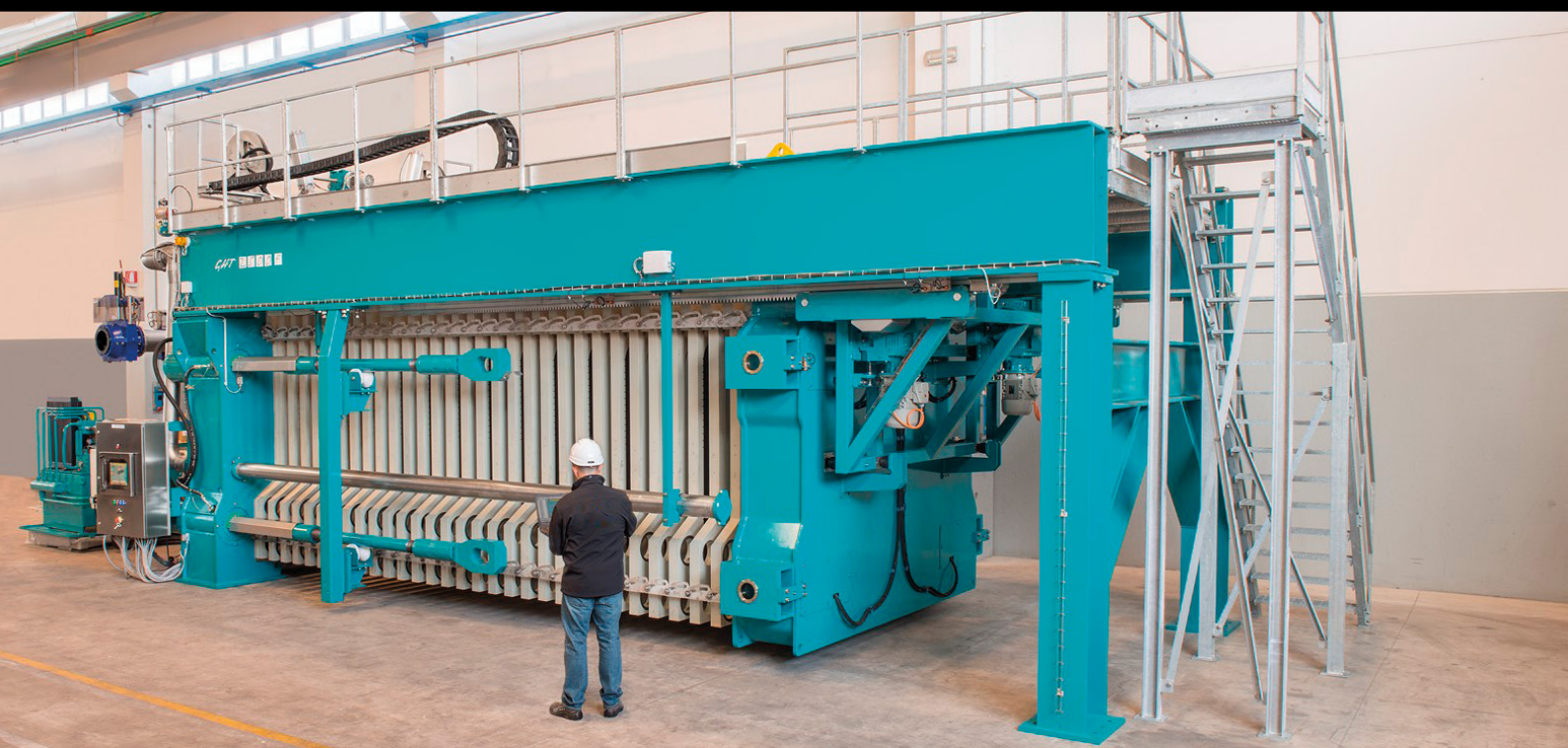
Solid-liquid separation technology for industrial processes

# **FAST CYCLING FILTER PRESS GHT F**

**A brand of  
Aqseptence Group**

# GHT F

## The perfect machine for high filterability products





## Performance

The GHT F is a Diemme® Filtration filter press specifically developed for large throughput, high filterability products such as mining concentrates and tailings. The electrically-driven movement of the mobile header and the resulting accordion-style opening of the plate pack considerably reduces the cake discharge time and the entire opening-closing sequence of the filter. The result is a fast cycling filter press which allows increased production per unit area of the filter.

## Reliability

The overhead side-beam structure of the filter facilitates the installation of different performance-improving devices such as the cloth rinsing system and the plate-shaking device. Additionally, routine maintenance operations are made easier thanks to an integrated platform enabling access from above the machine.

The filter plate pack is sealed closed by means of 4 hydraulic cylinders. This system provides the correct functioning of the machine and compensates for possible misalignments of the plate pack.

## Membrane technology

When the application requires washing stages with solvents or drying stages with compressed air, special plates with variable-volume chambers are necessary.

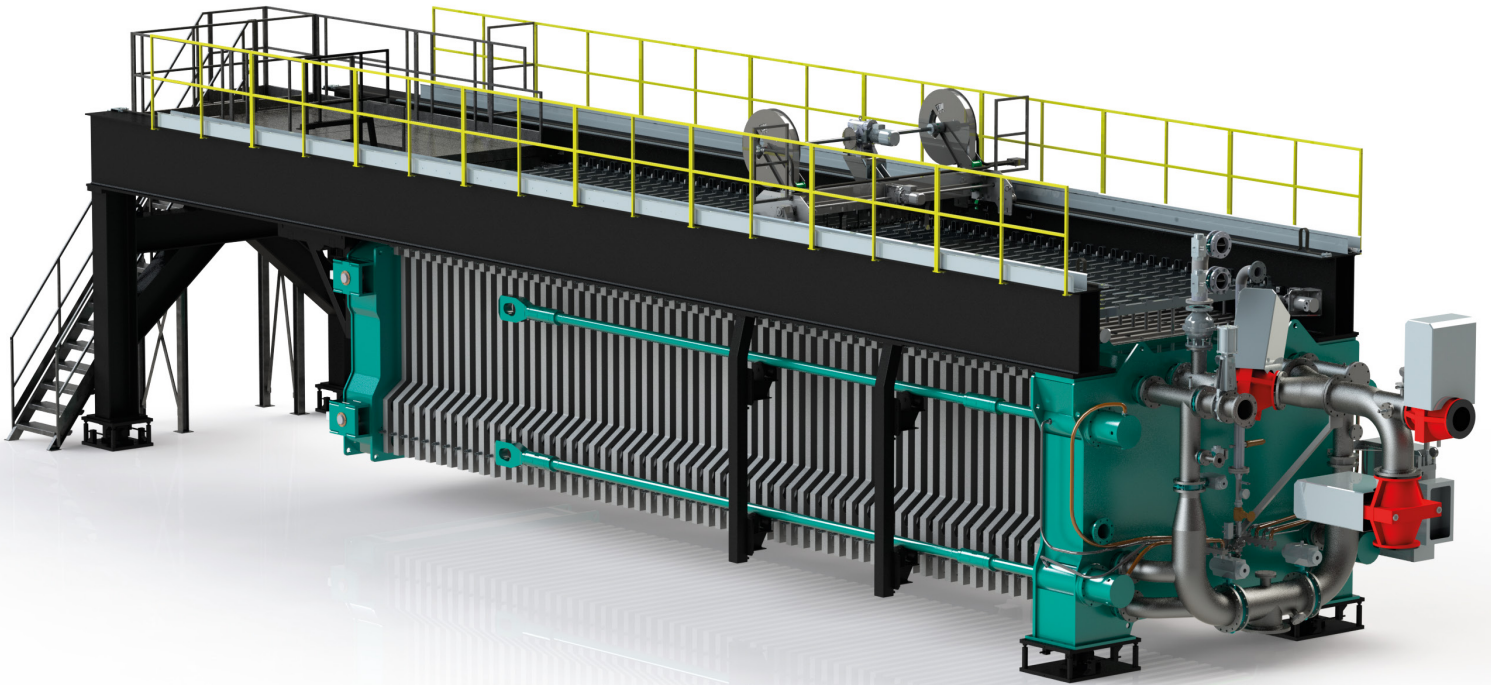
The plate construction material varies depending on the process temperature and of the chemical composition of the product to be filtered.



Model	Working 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
1500	0 ÷ 15		31 ÷ 81		2000 ÷ 7700		105 ÷ 208		12250 ÷ 22250		25000 ÷ 40000	
2500	0 ÷ 15		31 ÷ 141		5600 ÷ 37550		285 ÷ 1337		14000 ÷ 36000		59000 ÷ 154000	
5000	0 ÷ 15		51 ÷ 141		25000 ÷ 70000		1000 ÷ 2828		19000 ÷ 37000		200000 ÷ 400000	

# GHT F

## Technical Details



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### Cloth-shaking device



The automatic cloth-shaking device, which is programmed to occur after the plate pack fully opens, ensures the filter cakes are properly discharged and removes possible cake fragments from the cloths. This system, along with the cloth rinsing system, allows the filter to run automatically and without operator assistance.

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### Cloth rinsing system



On the GHT F, filter cloths are rinsed after each cycle to prevent the accumulation of cake fragments and dust. Furthermore, the rinsing ensures the sealing surfaces of the filter cloth are clean providing a tight seal upon closing. The cloth rinsing system, comprised of wash pipes located at the top and lower portion of the plates on both sides of the filter, provide a thorough rinsing of the filter cloths while leaving the upper area of the machine free to perform routine maintenance operations.

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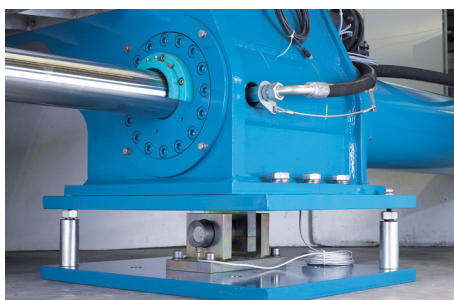
### Automatic cloth washing



The automatic in-situ cloth washing system, which is programmable according to the user's needs, uses high pressure wash water and directional sprays to effectively regenerate the filter cloth permeability. The results are filter cloths with more consistent filtration performance and longer life.

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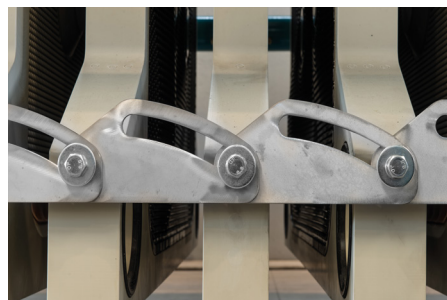
### Load cells



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.

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### Simultaneous opening of the plate pack



The cake discharge time is significantly reduced compared to traditional plate opening-closing systems with the use of an accordion-style plate pack opening and closing system. This fast operation increases the filter's throughput production.

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### Plc



GHT F filter presses are provided with a PLC-based automation system complete with a human-machine interface (HMI) which simplifies monitoring of the filter operation and diagnosis of faults. Additionally, it allows for continuous adjustment of filtration parameters in order to optimize the variable requirements of the process.

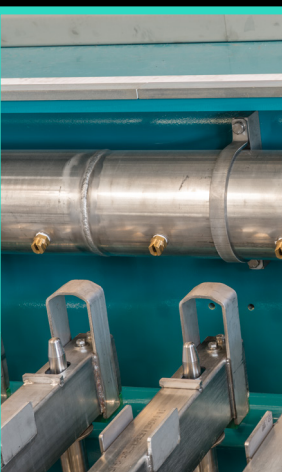


# GHT F Features



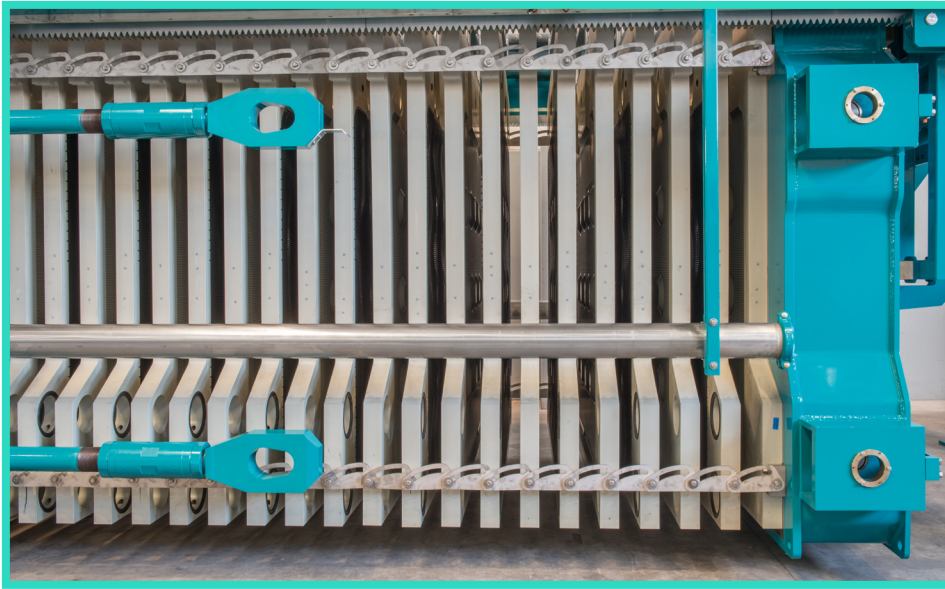
## Stairs to reach the filter top and integrated platform for maintenance

This allows easy access to the top of the machine for cloth maintenance operations. The integrated design prevents the need of additional floors to the filter load-bearing structure.



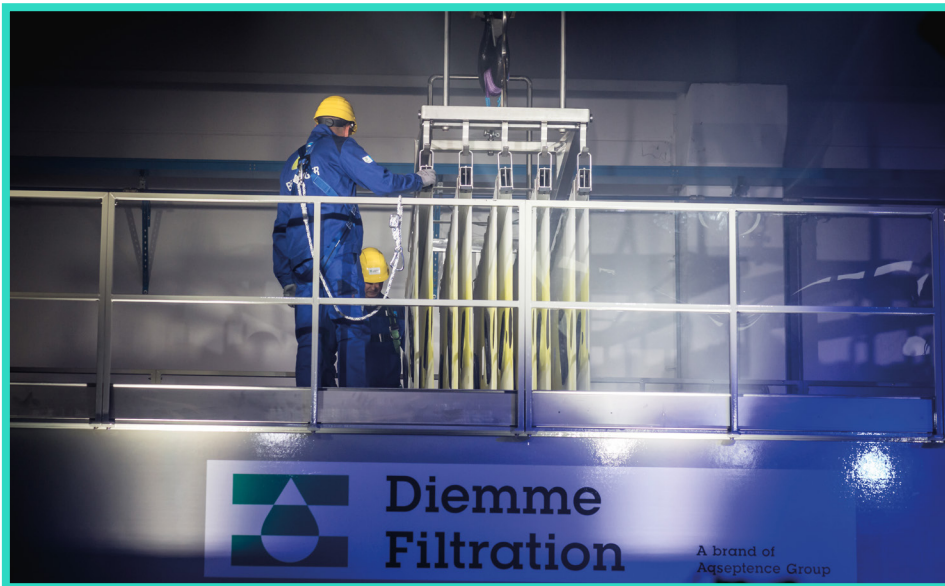
## Double washing system

The automatic cloth washing system, along with the cloth rinse system, improves the machine efficiency and performance by preventing accumulation of cake fragments and allowing a tight seal of the plate pack.



### Optimized fluid dynamics

The innovative design of the GHT F filter press provides optimized fluid distribution inside the machine, improving performance and reducing abrasion of filter elements and of those components that are in contact with the product.



### Rapid cloth changing system

The unique design of the filter cloth provides for its installation from above for ease of maintenance. Furthermore, filter cloths are simple and fast to replace reducing down time.



### Multiple feeding system

The multiple feeding system efficiently distributes the slurry in order to reduce its speed and for uniform filling of the plates.

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