

DIEMME
FILTRATION



**OVERHEAD BEAM
FILTER PRESS
GHT 4x4**

DIEMME
FILTRATION

Solutions and Systems

World wide leader in solid-liquid separation technology
for industrial processes



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DIEMME S.p.A. reserves the right to bring any alteration at any time which is deemed to be necessary in order to improve its production

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GHT 4x4

GHT 4x4 is the total traction filter press with high reliability and performance



Performance

The GHT 4x4 is a 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 press 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 unfavourable working conditions. Effectively guarded moving parts and the use of state-of-the-art electronic interlock systems mean that the GHT 4x4 conforms to the highest operator health and safety regulations. Routine maintenance operations are simple, thanks to easy access to the filter plates, both for inspection and for filter cloth replacement.

Model	Plate size [mm]	Working pressure [bar]		No. of installed plates		Cake volume [l]		Filtration area [m ²]		Length [mm]		Empty weight [Kg]	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1200	1200 x 1200	15	30	38	187	1251	6500	100	400	7000	16000	15000	30700
1500	1500 x 1500	15	30	81	182	5000	11000	300	700	11500	17500	31500	46000
2000	2000 x 2000	15	30	80	246	9000	25000	600	1650	11700	24700	55000	105000
2500	2500 x 2600	15	30	85	218	10000	40500	850	2300	12000	24000	79000	175000



GHT 2500

GHT 2500 is the biggest filter press currently available in the world. This machine is able to dewater huge volumes of slurry reaching very low values of residual moisture thanks to its exceptional chamber volume and filtration area. The picture on the left shows a man between the biggest and the smallest filter press of the DIEMME range to demonstrate the difference in size.

GHT 4x4

A filter press with world leading technology

Automatic cloth washing system

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

Protection of the shifting device

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.

Anti-releasing device

The unique anti-releasing device prevents the simultaneous and premature plate pack release during the filter press opening and it allows a perfect and sequential cake discharge.

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.

Fixed header - 4 cylinders

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

Laser

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

Membrane GHT 4x4

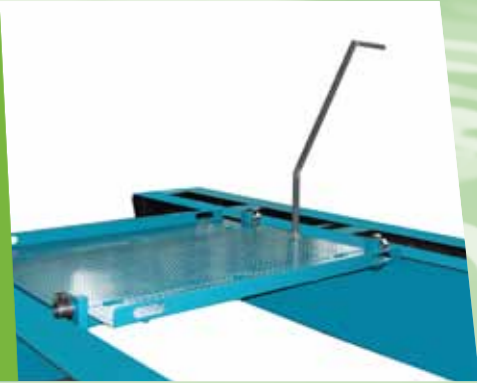
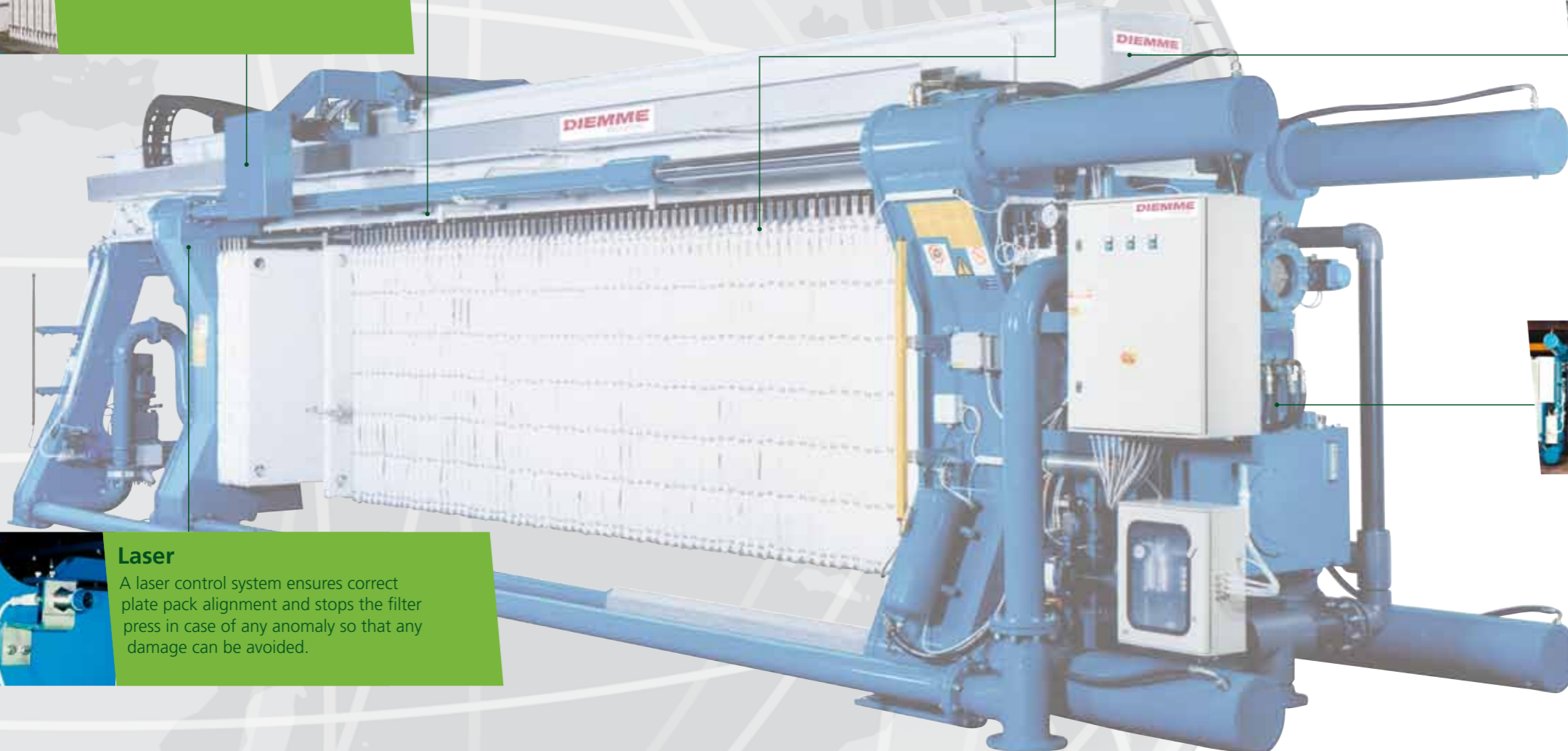
In special applications, when the production process requires cake washing stages with solvents or cake drying stages with compressed air, the use of membrane plates allow these operations to be executed prior to discharging the cake.

Mobile hoist

A mobile hoist is provided to reduce downtime in the rare event of plate removal.

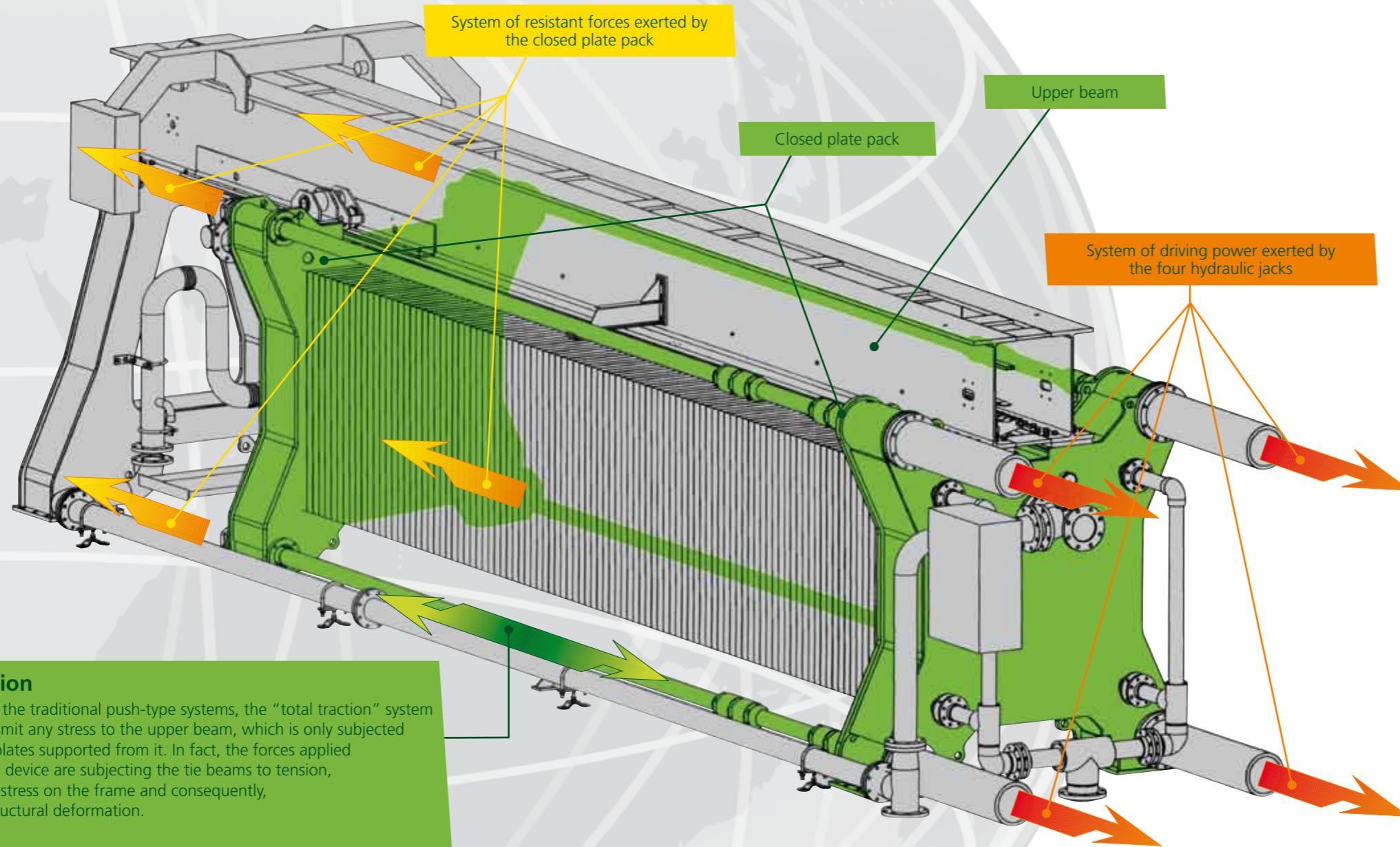
Maintenance platform

Sliding platform, positioned under the plate pack for inspection and replacement of cloths.



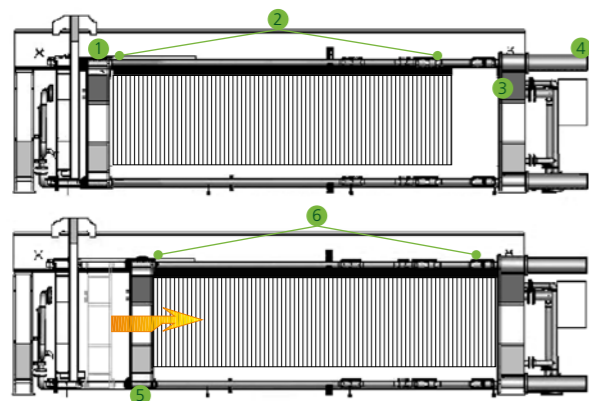
GHT 4x4

A Structure designed for Long Life



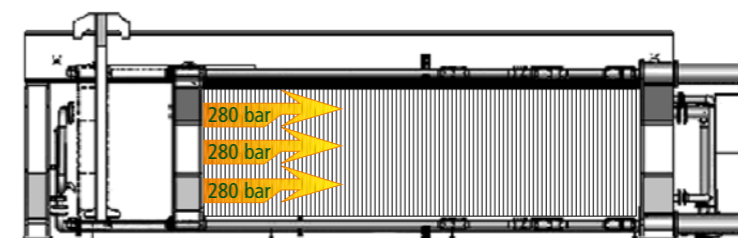
Total Traction

Different from the traditional push-type systems, the "total traction" system does not transmit any stress to the upper beam, which is only subjected to 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.



Closing

1. Mobile header
2. Open plate pack
3. Fix header
4. Hydraulic jack
5. The mobile header, that is dragged by the four hydraulic jacks, closes the plate pack
6. Closed plate pack



Perfect tightening

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 adjusts its length according to the exerted pressure, in order to assure perfect closure of the plate pack.

Maximum safety

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 conditions.

