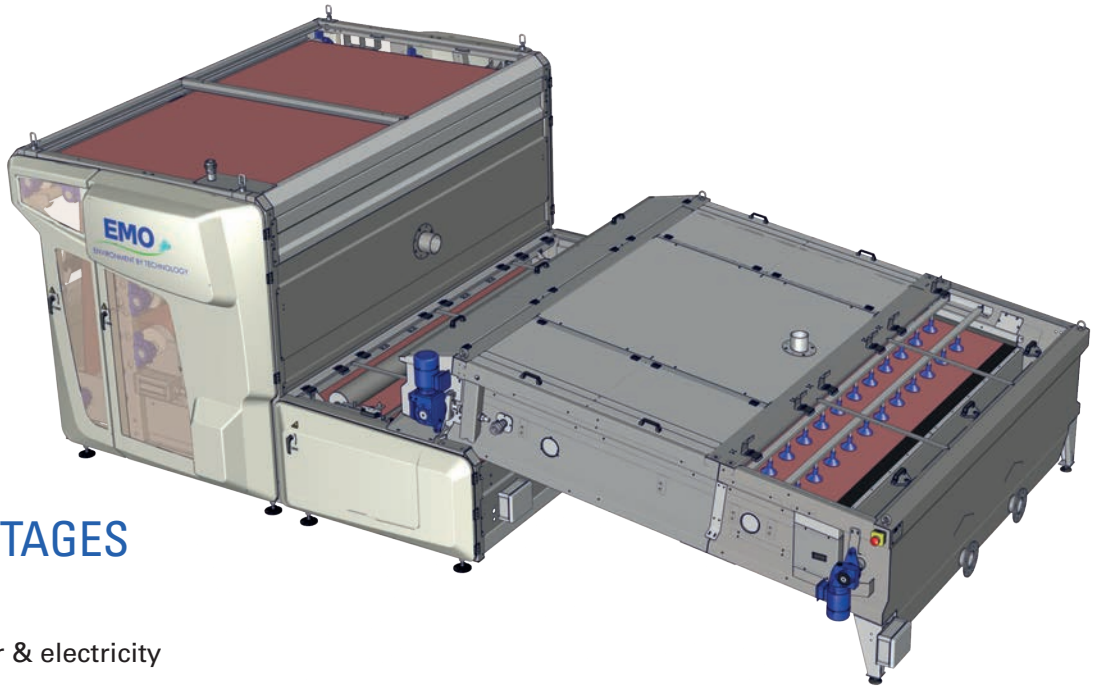
EMO
ENVIRONMENT BY TECHNOLOGY

OMEGA GBT NHP

Combined unit GBT/BFP

EMO worldwide famous combined unit is addition of a GBT and the BFP. It has been designed by EMO to suits perfectly any municipal or industrial with a low concentrated sludge.

EMO combined unit design is composed of 4 GBT types from 2 to 5 m to fit perfectly with the project data, requirement and belt press of equivalent GBT belt width.



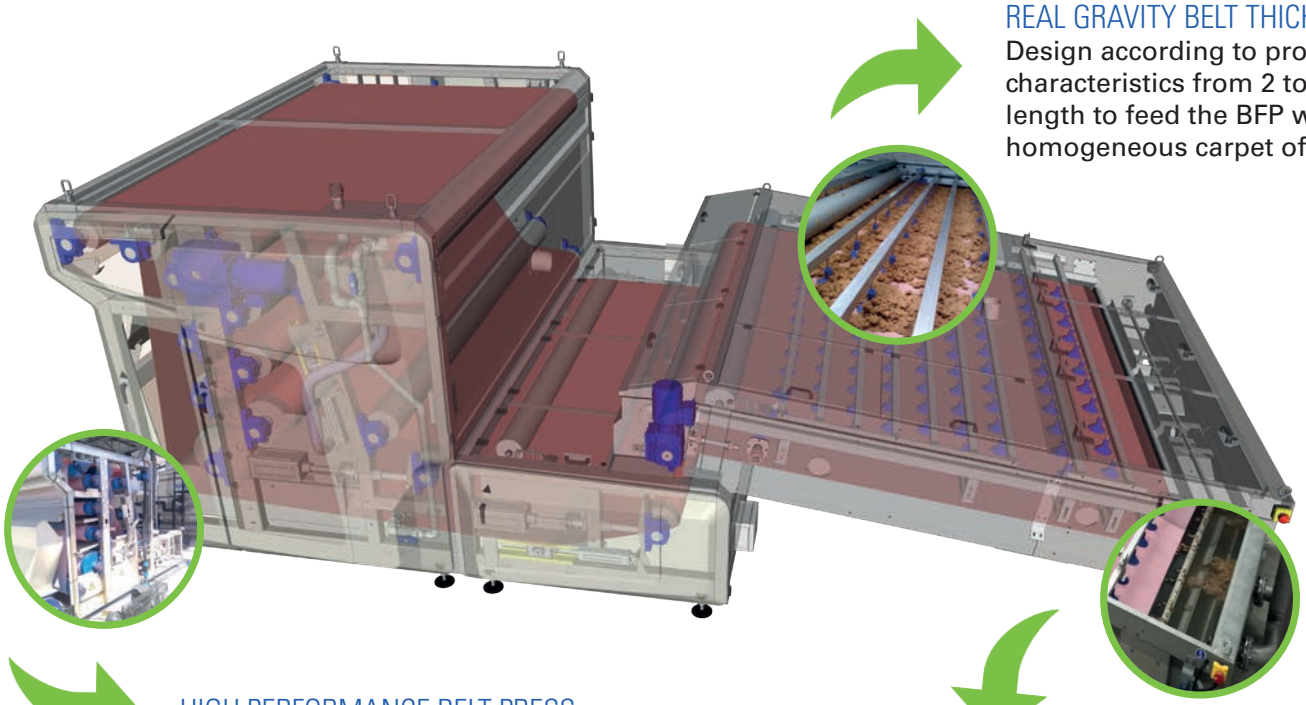
ADVANTAGES

- Lowest polymer & electricity consumption
- High capture rate with efficient thickening area
- Continuous and smooth sludge processing
- Low rotating parts for longest life time
- No particular components for easy maintenance
- No noise or vibration
- No special civil basement
- Long version: no operation platform needed

EMOPRD00480-DPR00-A-EN

OPERATING PRINCIPLE

Polymer is injected into the main feed pipe upstream of the combined unit. Preliminary flocculated sludge is fed into the horizontal & integrated flocculation tank of the GBT to finalize and mature flocs. Prepared flocs overflow smoothly on the full width of the GBT; then starts the thickening process with help of blade, drainage ploughs and surface pressing roller. When thickened sludge is removed from the belt, roughly 70% of the free water is removed and sludge reaches about 6%. The thickened sludge slides from the belt scrapper to the BFP feed.
When the carpet of thickened sludge is equalized by a first surface pressing and then equalizing by the surface roller of the BFP feed, sludge is squeezed between the two BFP belts, the dewatering starts. BFP roller diameter decreases along the pressing stage to increase the pressure on sludge in order to reach the final sludge dewatering dryness (which can be from 20 up to 40%) according to sludge characteristics. Dewatering cake is scrapped out from the belt with the blade and falls into any conveyor.
Note: throughout the process, attention is given not to weaken the flocs at any stage in order to give the lowest polymer consumption but the highest capture rate and final dryness.



REAL GRAVITY BELT THICKENER

Design according to project characteristics from 2 to 5 m length to feed the BFP with homogeneous carpet of 6% mini.

HIGH PERFORMANCE BELT PRESS

Design from 1 to 3 m wide to fit with project sludge loading in Dry Solids, resulting dryness can reach 30% depending on sludge characteristics.
Complete system efficiency with 95%-97% solids capture rate.

FLOCCULATION WITH HORIZONTAL MIXER

For highest flocculation efficiency and sludge best flocs distribution.

RANGE & SELECTION TABLE

Model	Maximum flow capacity	Belt width	Power
OMEGA SD/NHP	10-25 m³/h	1 to 3 m	2 kW
OMEGA MD/NHP	15-60 m³/h	1 to 3 m	2 kW
OMEGA LD/NHP	20-90 m³/h	1 to 3 m	3 kW
OMEGA TH/NHP	30-160 m³/h	1 to 4 m	5 kW

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Certification ISO9001 - ISO14001