

EMO strong of its long history of designing and manufacturing dewatering technology, has developed its own range of **sludge screw presses**: more efficient and maintenance friendly machines.

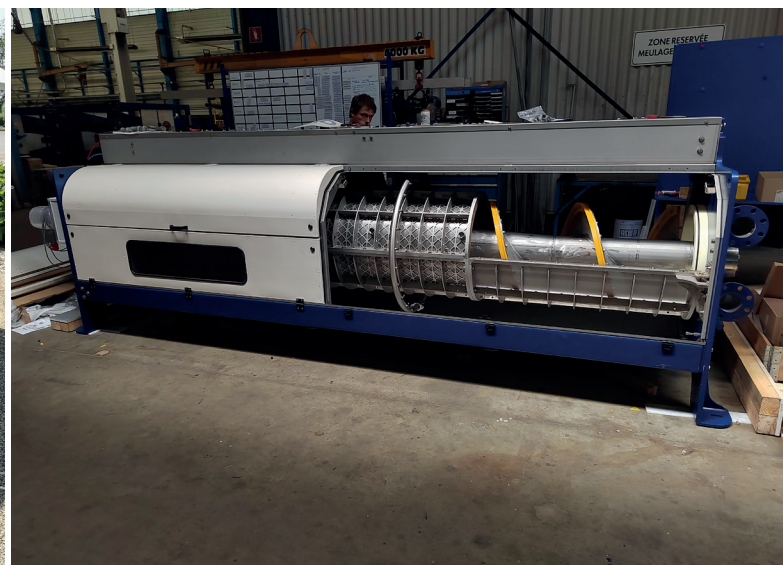
All **sludge screw presses OMEGA SSP** conception has been given to equipment life time, performance, low operational cost and easiest parts replacement.

Sludge screw presses OMEGA SSP as per all other dewatering technology is design to dewater any industrial or municipal thickened sludge.



ADVANTAGES

- Carbon steel or stainless & robust manufacture
- Wide adjustable pressure for more application
- Low rotation speed (<1 tr/min)
- Low power consumption (< à 10 kW for the biggest machines)
- Low washwater consumption
- Smart conception of easiest maintenance
- Small foot print
- Fits in same location than decanter centrifuge for replacement





OPERATING PRINCIPLE

Polymer is injected into the main feed pipe upstream of the screw press. Preliminary **flocculated sludge** is fed into vertical flocculation tank properly designed to assure required contact time. From this floc tank equipped with pressure sensor to regulate screw press operation, flocs are fed to the screw press feed side.

First part of the screw press is under a small pressure to help the free water to go through the perforated plate of the drum. When the screw rotates, **screw seal** cleans the hole of the drum grid.

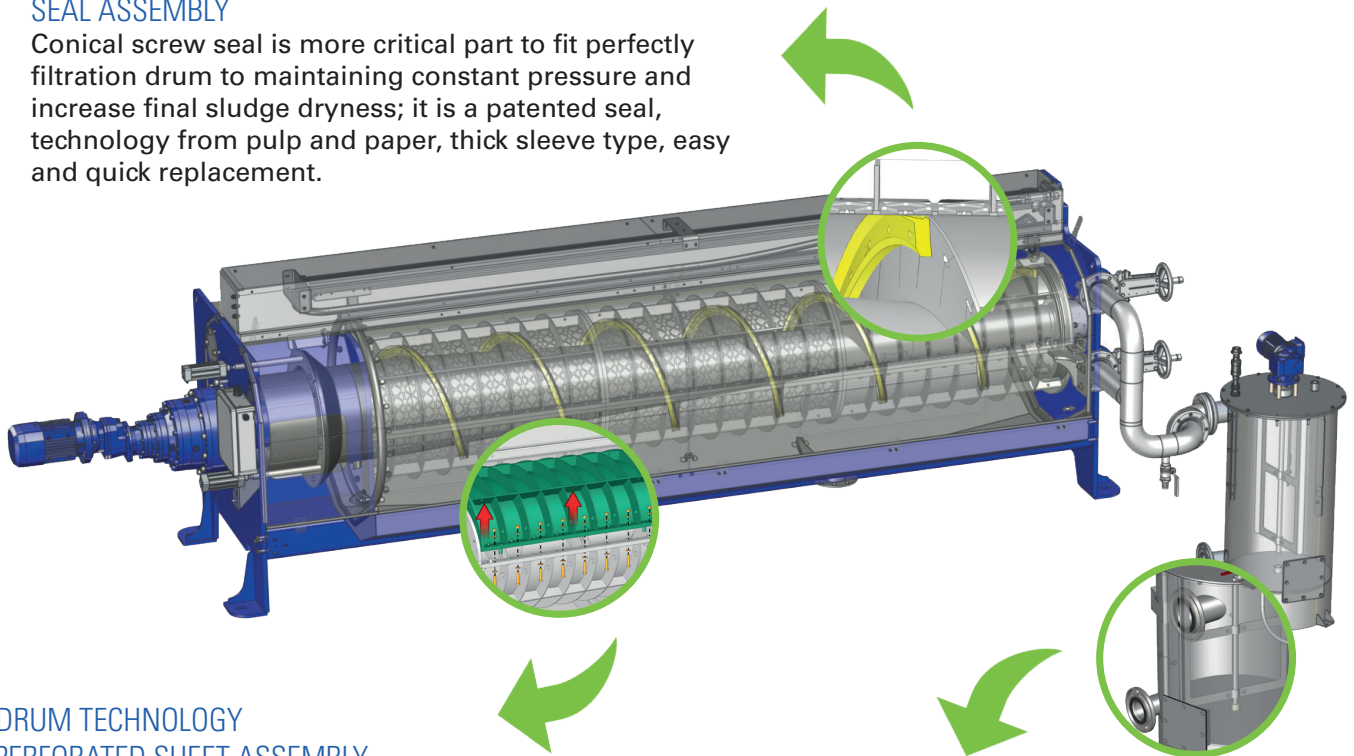
Screw shaft is conical all along the length and reduces the space between the filtering grid and the screw shaft along the dewatering process. Seal, in the last dewatering section of the screw, helps the cake to not flush back into the drum, and forces sludge to the end discharge end.

At the end of the dewatering process, a **pressure adjustable conical ring** comes to apply pressure on dewatered sludge to reach the final dryness. Sludge falls from this conical ring.

Note: feed pressure and discharge counter pressure are adjustable.

SEAL ASSEMBLY

Conical screw seal is more critical part to fit perfectly filtration drum to maintaining constant pressure and increase final sludge dryness; it is a patented seal, technology from pulp and paper, thick sleeve type, easy and quick replacement.



FREE DRUM TECHNOLOGY AND PERFORATED SHEET ASSEMBLY

Innovating drum assembly: drum is fixed only at discharge side of the frame, so half drum can be easily dismantled without any other action on main frame. Half drum frame are equipped with perforated sheet without welding, each perforated stainless steel sheet can be replace independently of the half drum frame.

Drum diameter from 400 to 1000 mm

ADJUSTABLE POLYMER INJECTION POINT

Flocculator is equipped with adjustable height injection pipe for most advance sludge flocculation. All feed pipe are designed with large diameter to keep flocs speed low till the screw press feed.



RANGE & SELECTION TABLE

Modèle	Drum length	Power
OMEGA SSP 400	2500 mm	0,75 kW
OMEGA SSP 600	3750 mm	2,2 kW
OMEGA SSP 800	5000 mm	3 kW
OMEGA SSP 1000	6000 mm	4 kW

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