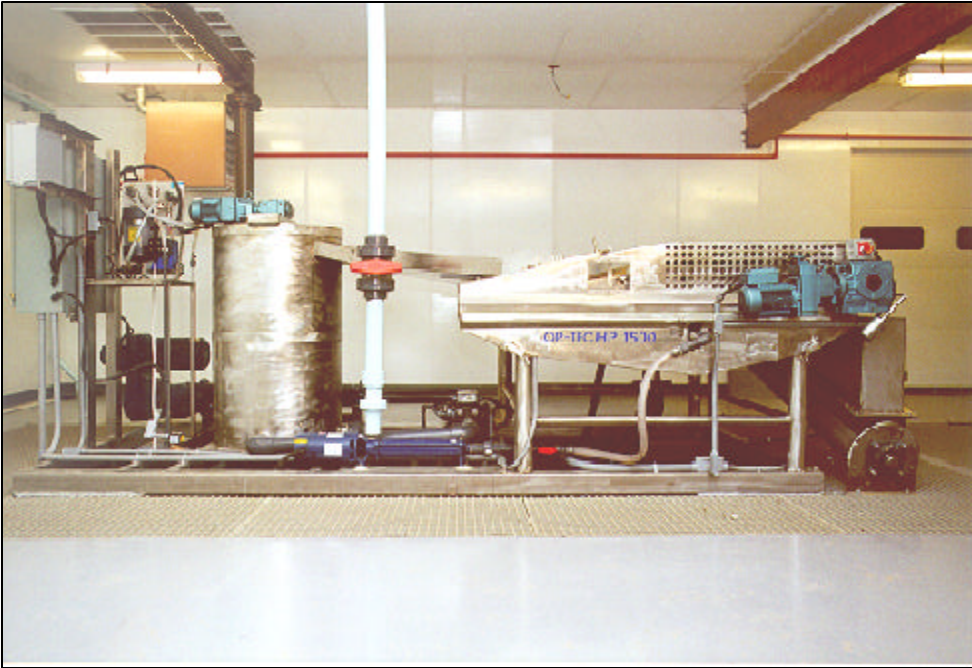


OR-TEC BELT PRESS

HP 1000 / HP 1500 Series



The days of enormous drying beds, noisy centrifuges and cumbersome belt presses for sludge dewatering are over! Meet the HP Series Belt Press from **OR-TEC**. This rugged, easily operated equipment readily adapts to current operating systems.

Since 1980 we have serviced customers throughout the U.S. and Mexico, providing quality equipment, personalized service and "turn key" solutions to sludge dewatering or thickening problems.

OR-TEC can also provide: skid mounted systems, pre-piped and wired with all equipment on board and ready for operation.

OR-TEC's highly regarded HP Series Belt Presses offer you:

- Outstanding performance
- Stainless Steel construction
- Quality workmanship
- Personalized customer service
- 1.0 or 1.5 meter capacity
- Low maintenance
- Greatly reduced sludge removal costs
- Easy adaptability to existing systems



HP Series Belt Press & Flocculation Tank

A premier manufacturer of quality equipment in the Municipal, Industrial, Food Processing and Agricultural Marketplace

267 Northfield Road
Bedford, OH 44146
Phone: 440-232-4224
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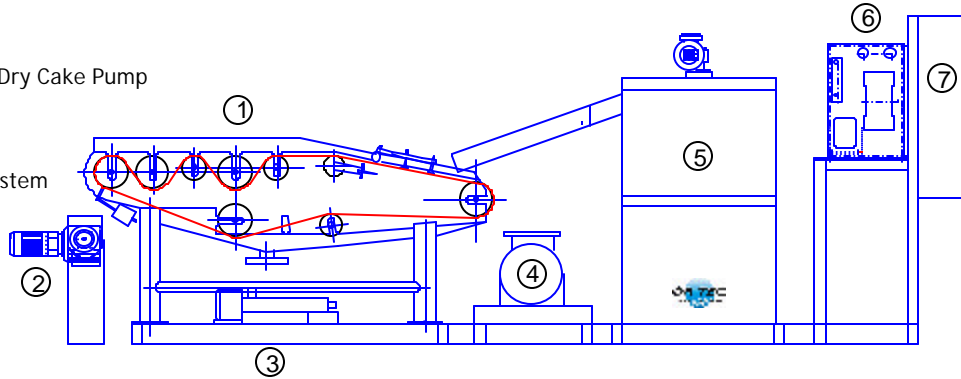
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OR-TEC HP SERIES BELT PRESS

Legend

1. Belt Press
2. Conveyor/Auger/Dry Cake Pump
3. Wash Water Pump
4. Sludge Pump
5. Flocculator
6. Polymer Dosing System
7. Control Panel



Dimensions:
 Max Height 6'
 Max Length 14'
 Max Width 7'5" (1.5 meter)
 Max Width 5'8" (1.0 meter)
 (HP System shown as turnkey, skid mounted)

Some typical results....

Type of sludge	Feed Sludge Conc %	Sludge Feed Rate (gph)	Dry Solids Feed Rate (1 lb./hr)	Poly Conc %	Poly Feed Rate (lbs/ton d.s.)	Final Cake %
Activated Sludge from Municipal WWTP	1.5	1687 (1.0m)	210 (1.0m)	0.25	8-10	14.5 plus
		2530 (1.5m)	315 (1.5m)			
Activated Sludge from Anaerobic WWTP	3.6	923 (1.0m)	276 (1.0m)	0.25	8-12	19 plus
		1385 (1.5m)	414 (1.5m)			
Primary and Secondary Activated Sludge from Municipal WWTP	3.25	1189 (1.0m)	321 (1.0m)	0.25	8-10	22.5
		1783 (1.5m)	481 (1.5m)			
Tannery Sludge	2.4	792 (1.0m)	158 (1.0m)	0.17	4-8	18
		1190 (1.5m)	237 (1.5m)			
Flotation Skimmings	8.2	613 (1.0m)	418 (1.0m)	0.20	10-12	30
		921 (1.5m)	627 (1.5m)			
Oil and Grease Sludge	3.0	1997 (1.0m)	498 (1.0m)	0.20	8-10	36
		3000 (1.5m)	747 (1.5m)			

Process Description....

CHEMICAL DOSING

An OR-TEC Blend polymer feed system automatically makes up and delivers the polymer and water solution to the injection site.

FLOCCULATION

Sludge is pumped to a stainless steel flocculation tank by a variable capacity pump. Prepared polymer is simultaneously injected into the inlet of the flocculation tank by the polymer dosing system. Here thorough mixing occurs, aided by a variable speed flocculator fitted in the tank.

GRAVITY DRAINAGE AREA

Flocculated sludge flows from the flocculator down a sludge feed chute. This chute provides a gentle, even distribution of sludge over the gravity drainage section and a uniform thickness on the dewatering belt.

The drainage area allows for the separation of the free water contained within the sludge and its consequent discharge into the drainage tray. Capillary action takes place as the dewatering belt moves across tracking and pressure rollers. The drainage area is sealed by polypropylene skirting that is bolted to the top trays and rests on the filter cloth.

ROLLER PRESSURE DEWATERING ZONE

Further liquid removal is achieved as the belt and sludge are pressed between a series of rubber covered rollers. Gradually the sludge is squeezed by adjustable rollers that have been preset during commissioning.

SLUDGE DISCHARGE

Dewatered sludge is continuously removed by a fixed scraper blade acting against the final roller and allowed to fall into a horizontal stainless steel conveyor. The conveyor can transport the sludge cake to the outside of the building. Sludge cake can also be elevated with a stainless steel inclined screw auger for discharge to a waste hauling vehicle for removal off site. A dry cake pump can be used as an alternative to the conveyor or auger.

FILTER BELT WASHING

The filter belt is continually washed by pump generated high pressure water sprayed through fine nozzles. Belt wash water and filtrate are collected in a stainless steel drainage tray. This runoff is funneled to the customer's drainage system via the supplied 4" diameter flanged outlet in the tray. In most cases, the filtrate is acceptable as reuse for wash water, as is the final effluent of the W.W.T.P.

CONTROLS

The system can be operated in automatic or manual modes. Start-up is simple and requires a minimum of time. A PLC monitors the system at all time during operation. Emergency systems and a No Sludge Cake monitoring system help to ensure trouble free, easy operation.