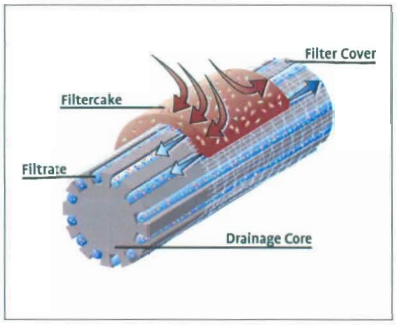
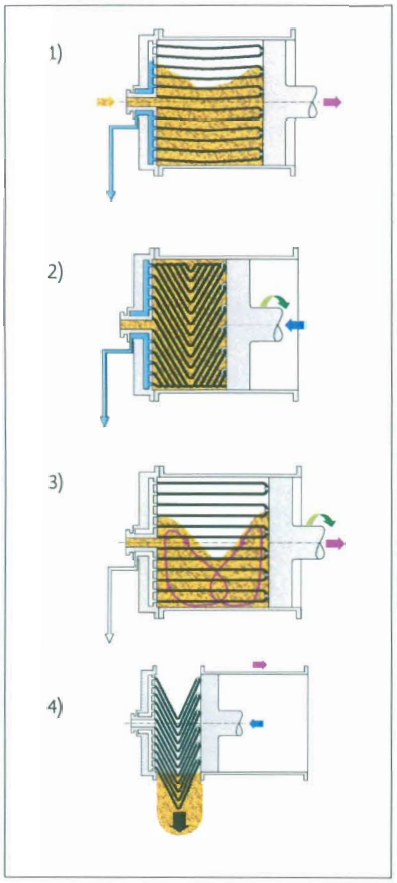
BUCHER
drytech

Bucher HPS 3007

Hydraulic filter press for dewatering of municipal and industrial sludge

- High degree of dewatering
- Low disposal and drying costs
- Reliable process and control system
- Self-optimising process operation
- Continuous operation without supervision
- Minimal labour costs
- Minimal maintenance costs





Application The HPS-Press was developed for the solid-liquid separation of biological substances. This machine is the effective solution for dewatering of communal and industrial sludge. The solid content of a suspension may be between 2 and 10%. For several performance requirements there are two machine sizes provided.

Structure and Working Principle The press is designed as a rotating cylinder-piston system with hydraulic drive. Between bottoms of cylinder and piston flexible drainage elements are fixed that lets the filtrate off the press interior.
The press process is composed of the steps sludge feeding, dewatering by cyclic press and bulking loops and discharge of the filter cake.
A complete press process lasts between 70 - 120 minutes depending on the sludge's capability for dewatering.

1) The press is filled by a pump.
2) The hydraulic driven piston presses the liquid through the filter covers. The filtrate is let off the press interior via channels in drain cores and filtrate collecting chamber. Through an outlet stud the filtrate will be discharged.
3) The hydraulic system pulls the piston back. Thereby the drainage elements are tensioned and the filter cake is dissipated. At the same time the low pressure caused in the cylinder's internal effects a filter cover's cleaning by counter flow. By mean of low speed rotation of the cylinder the filter cake is aerated. The filter cake pieces arising from that act as filtration agents during next pressing-/filtration step.
   The process steps 2 and 3 are repeated until the required dewatering is reached. The high dewatering degree is particularly a result of the short flow way to the filter caused by frequent pressing and aeration steps.
4) At the end of the press cycle the press housing opens hydraulically and the piston pushes the filter cake out.

Technical Data

Throughput	130-200 kg DR/h
Dry residue	up to 50 %
Cylinder volume	3'300 litres
Filter area	20 m^2 (68 filter elements)
Empty weight	11'300 kg
Dimensions	5'598 x 2'834 x 2'458
	(L X W x H in mm)
Electr. power	22 kW to be connected

(technical modifications reserved)

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Products and Services

Bucher Process is the leading manufacturer of plants and components for fruit juice and wine production and a recognized supplier for sludge dewatering and vacuum drying plants.

Bucher Vaslin grape reception lines, squeezing mills, mash pumps, mazeration- and fermentation tanks, pneumatic tank presses, basket presses, cross flow filtration plants, reverse osmosis plants, heating and cooling units,
waste water treatment plants for vineyards.

Bucher Drytech hydraulic sludge presses, vacuum drying cabinets and vacuum belt drying plants, zeolite adsorbers, sterilisation plants, vacuum an condensnsate systems, evaporator plants

Bucher Foodtech fruit reception lines, grinding an squeezing mills, mash heaters, hydraulic fruit juice presses, cross flow filtration plants, adsorber and ion exchangers, evaporator and
Aroma recovery column.