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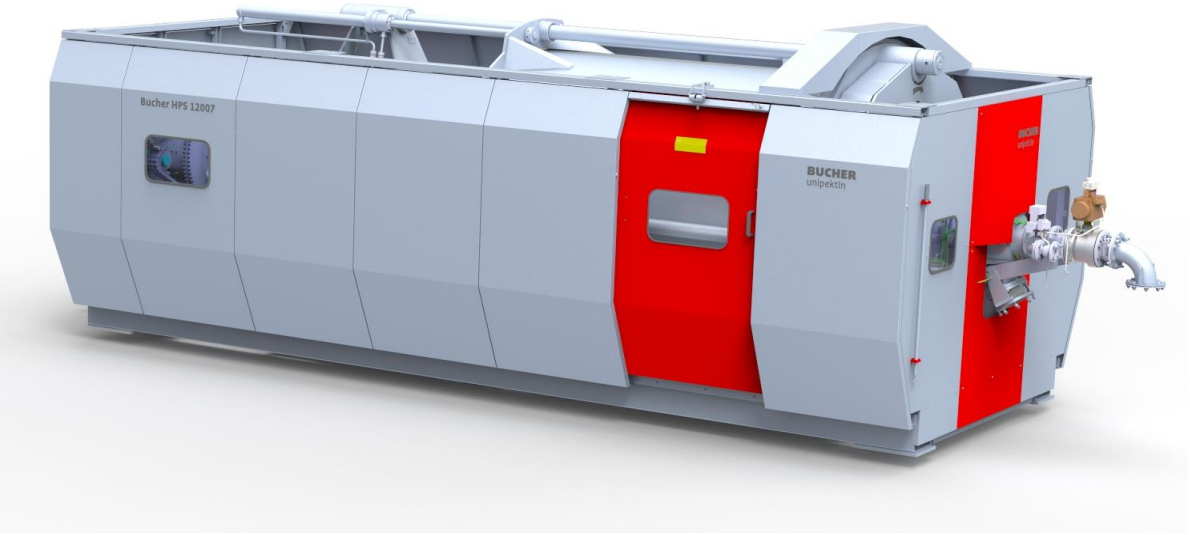
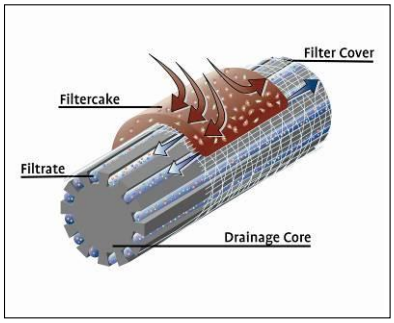
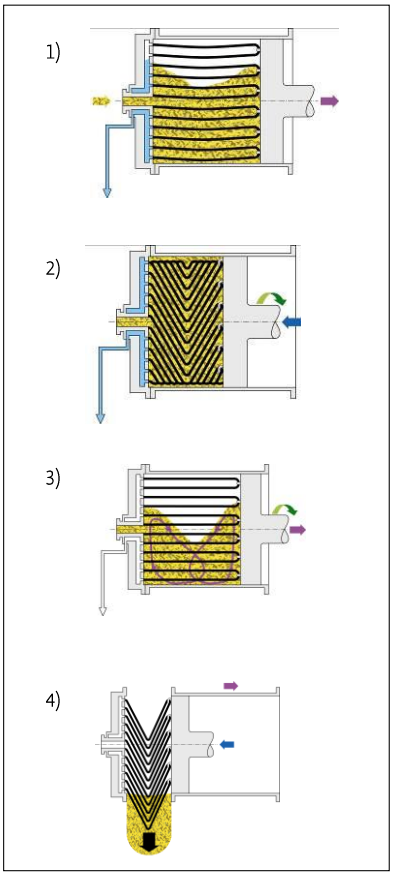
# Bucher HPS 12007




## 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 several 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 hydraulically 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 is 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 inside 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 out the filter cake.

## Technical Data

| | |
|---|---|
| Throughput | 540-800 kg DS/h |
| Dry residue | up to 50 % |
| Cylinder volume | 12'000 litres |
| Filter area | 82 $m^2$ (180 filter elements) |
| Empty weight | 29500 kg |
| Dimensions | 9'950 x 3'550 x 3'120 (L X W x H in mm) |
| Electr. power | 48 kW to be connected |

(technical modifications reserved)

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**Products and Services**

Process technology for the fruit and vegetable juice, beer filtration, concentrate and puree production, for the production of milk powder, for the vacuum or freeze drying of malt, coffee and other extracts. Process technology for the dewatering of municipal and industrial sludge as well as industrial process waste water.

**Produkte** Hydraulic, pneumatic and helix filter presses, fruit reception lines, mills, mash heaters
Membrane filtration equipment, ion exchangers, mazeration- and fermentation tanks, reverse osmosis plants, heating and cooling units, vacuum drying cabinets, vacuum belt drying plants, zeolite adsorbers

**Services** Process development and engineering
Assembly and start-up
Service and maintenance, NetService

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