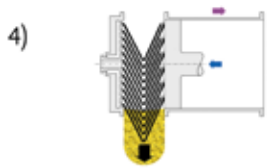
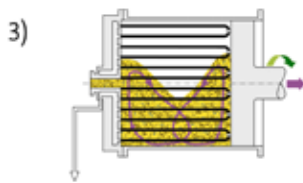
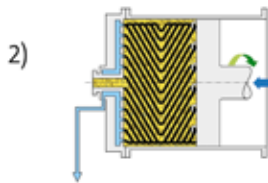
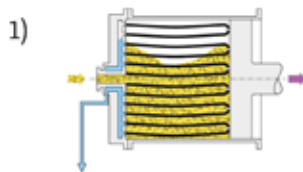
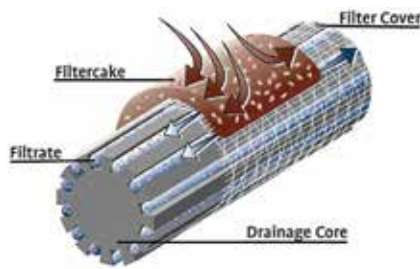


Bucher HPS 12007



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 solidliquid 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 (*sludge dependent)

Throughput kg DR/h*	400–800
Filter area	82
Empty weight in kg	29'500
Filled weight in kg	41'500
Dimensions (L X B x H)	9'950 x 3'550 x 3'120
Power consumption kW*	18

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Products and Services

Process technology for fruit and vegetable processing to juices, concentrates and puree production, for brewing solutions, for filtration, for milk powder production, for the vacuum drying of liquid and solid products, for freeze drying of coffee, tea, fruits, vegetable, etc. Technology for municipal and industrial sludge dewatering and drinking water filtration

Products

Fruit reception lines, mills, mash heaters, hydraulic presses, membrane filtration equipment, cold block equipment, adsorber, ion exchanger, evaporators and aroma plants, pasteurizers, CIP systems, vacuum and freeze drying cabinets and belt dryer, zeolite adsorber, complete processing lines

Services

Process development and project engineering; assembly and commissioning; technical support; original spare parts; inspection; service contracts; retrofits; training; service and maintenance; NetService