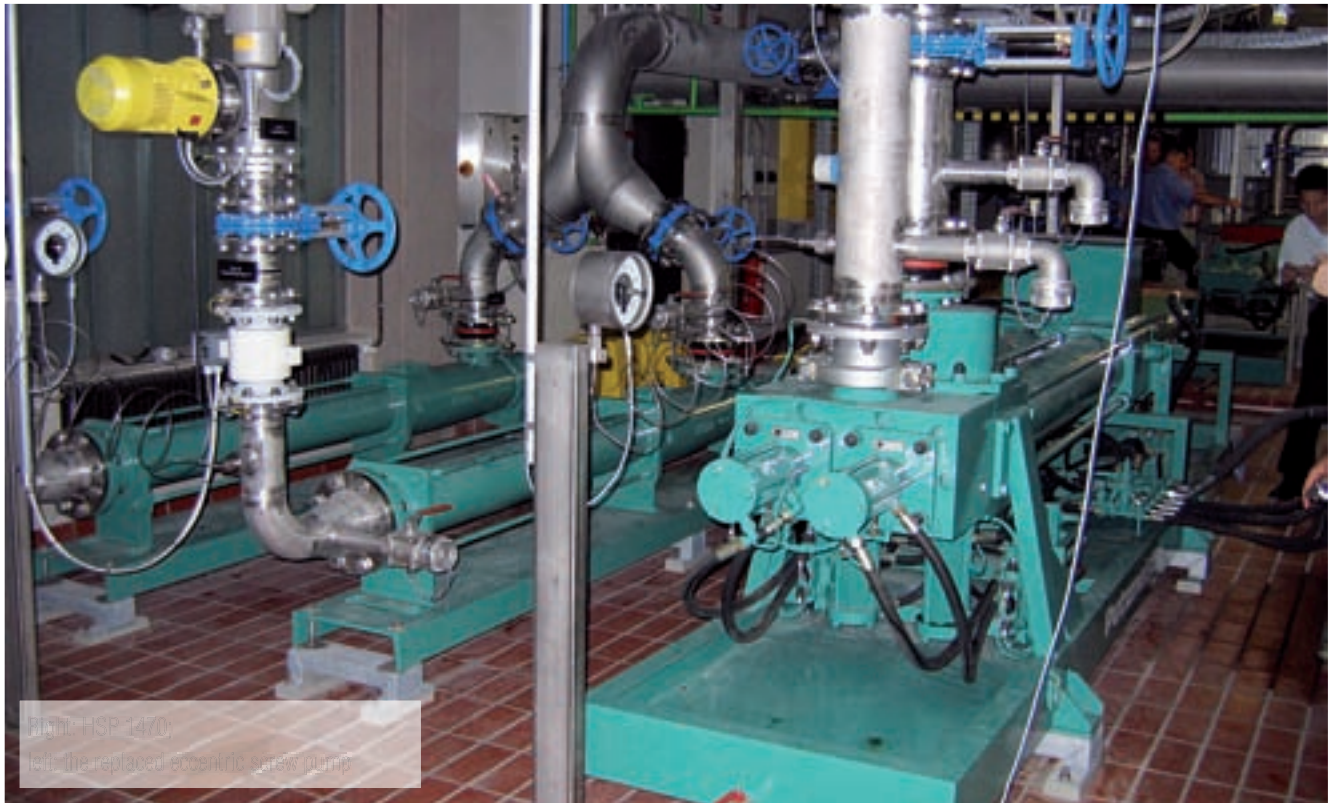


## Site report

# Feeding chamber filter presses using HSP valve pumps at the Augsburg sewage treatment plant

**Putzmeister**



**Using high pressure for the optimum result**

The Augsburg sewage treatment plant is designed to cope with 800,000 residents, including a population equivalent of approx. 450,000 from industry and business, and has an average daily influx of 150,000 m<sup>3</sup> of waste water.

In the drive to use the most up-to-date technology in sludge treatment, in 2003, 2005 and 2006, Putzmeister type HSP 1470 valve pumps, offering a charging pressure of 3 MPa (435 psi), were installed to feed three high-pressure chamber filter presses.

Previously, the flocked sewage sludge (5 – 7 % dry solids) was imported at a



Chamber filter press with feed supply line, NP 150 / NP 40, max. 3 MPa (435 psi)

maximum of 1.8 MPa (216 psi) using eccentric screw pumps, thus achieving a dry solids content of 25 to a maximum of 28 %. The 36,000 t/a of mechanically dewatered sewage sludge is then

conveyed to a thermal recycling process for co-incineration, so that an increase in the dry solids content to up to 35 % was projected. This objective is achieved by using the HSP pumps and new chamber

filter presses.

### Machine equipment

3 HSP 1470 type valve pumps  
3 HA 30 CE type hydraulic power packs  
3 control cabinets with  
PLC 314 C – 2 DP controller

### Delivery rates / Delivery pressures

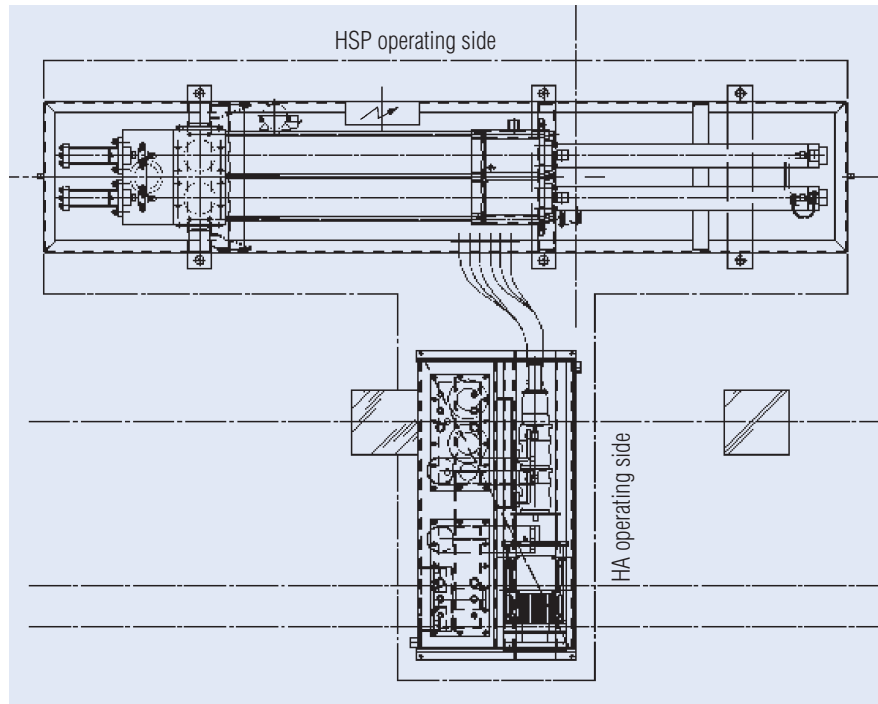
Control range	5 – 25 m³/h
Output max. against 0.8 MPa (116 psi) (filling phase)	25 m³/h
Output min. against 3 MPa (435 psi) (holding phase)	5 m³/h
Piston stroke	1400 mm
Filling level	95 %

### Know how

- Putzmeister controller with smoothed pumping flow path, which achieves pressure fluctuations of less than  $\pm 0.05$  MPa (7.3 psi)
- Dual-circuit control with a travel sensor in the drive cylinders
- Hydraulically actuated poppet valves

### Conclusion

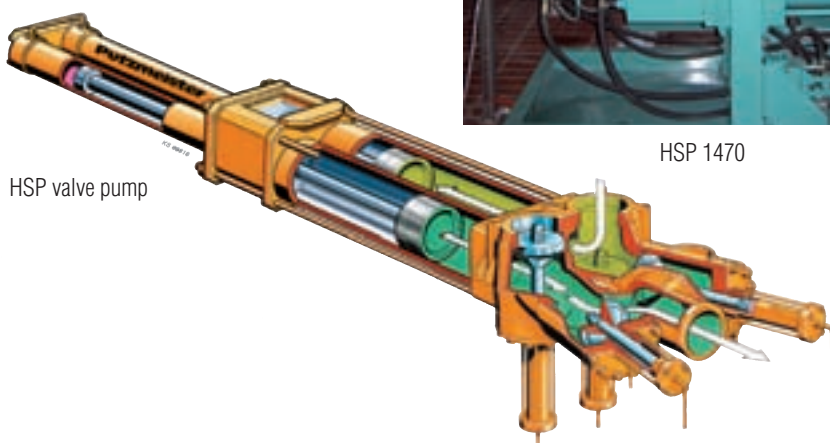
When feeding high-pressure chamber filter presses, HSP valve pumps with a controller developed by Putzmeister guarantee low-fluctuation and flock-conserving pumping of the conditioned sewage sludge.



HA 30 CE, HSP 1470 in the background



HSP 1470



HSP valve pump

### The Putzmeister Group

Concrete Technology PCT · Mortar Technology PMT  
Pipe Technology PPT · Water Technology PWT  
Industrial Technology PIT · Belt Technology PBT  
Underground Technology PUC

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Printed in Germany (10810Sc)

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