

Putzmeister pumps

for industrial applications



Putzmeister

Industrial Technology

Mining · Energy · Environment · Oil & Gas

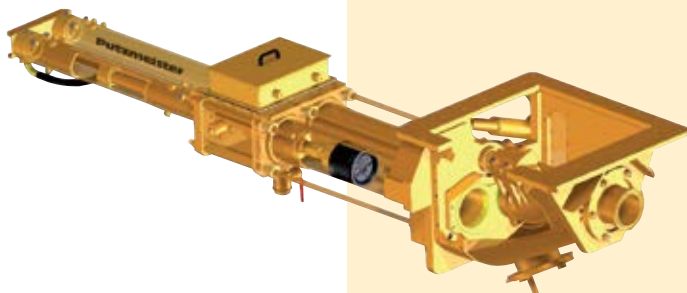
The KOS series – Solids pumps without valves with transfer tube control

In the KOS series the intake and delivery cylinders are connected by an S-transfer tube. This means that material can be pumped straight through without interruptions or mechanical obstacles. No valves of any kind are used. Foreign bodies within the material can therefore be conveyed without any problem up to a maximum particle size of 2/3 of the delivery pipeline diameter.

The KOS pump is particularly suitable for conveying highly viscous sludges and other material with a high proportion of coarse solids. The KOS series finds its principle application with those materials which present the most extreme requirements, such as dewatered sludges which contain solids, oil sludges, high-viscosity solids and so on. A wide range of application specific components and functions are available from Putzmeister.

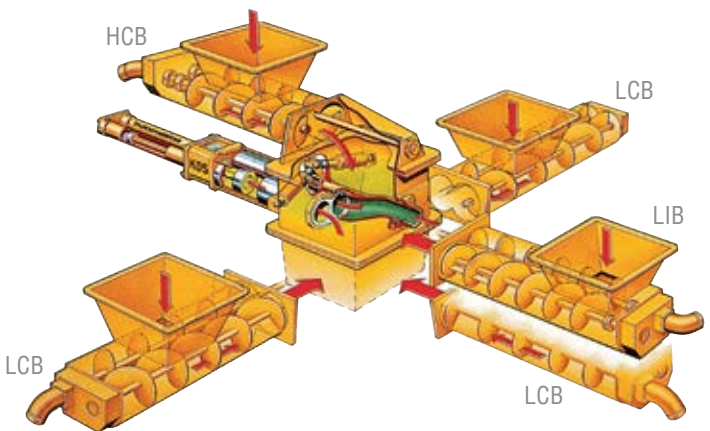
Features and advantages

- **High availability**
- **Continuous material flow due to the large discharge diameter**
- **Long service life**
- **Low maintenance and operating costs**
- **Service-friendly**
- **Lower water requirements**
- **Reduced risk of embankment failures**
- **Reduced water loss due to seepage and evaporation**
- **Reduced fresh water usage**
- **Reduced dust potential**
- **Reduced footprint size of the embankment facility**
- **Outputs up to 400 m³/h**
- **Delivery pressures up to 150 bar**



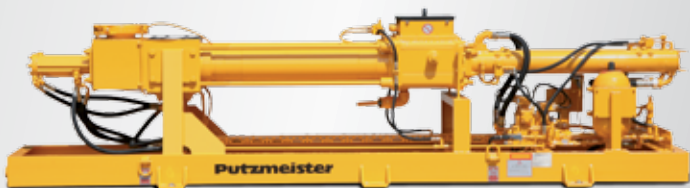


LIB Low Inline Booster
HCB High Cross Booster
LCB Low Cross Booster



Highly-viscous sludges have to be fed to the pump if they cannot flow by themselves into the pump. The latter will generate a pressure in order to fill the pump better with the material to be conveyed.

The HSP series Valve pumps

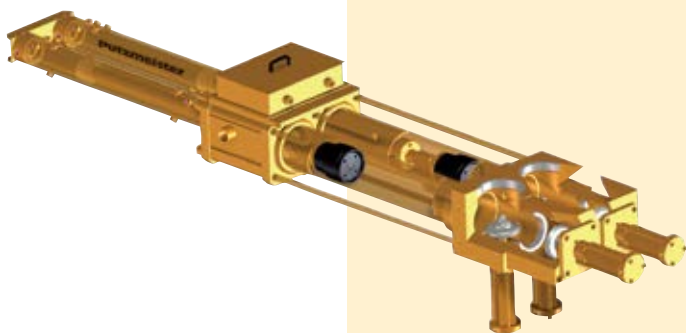


The HSP series is used with paste-like and highly viscous material with a low content of foreign bodies and small particle sizes (< 8 mm).

Precise sealing of the valves means that extremely high pumping pressures can be achieved. The principle behind the design of the hydraulic and pumping pistons is the same as in the Putzmeister KOS and KOV series. This ensures the maximum reliability and availability.

Features and advantages

- **For conveying fine-grained sludges or slurries**
- **Switchover without short cut**
- **No backflow at high pressures**
- **Easy to install dampers**
- **More effective with material containing a high proportion of air**
- **Outputs up to 250 m³/h**
- **Delivery pressures up to 150 bar**



The KOV series

Solids pumps with ball valves

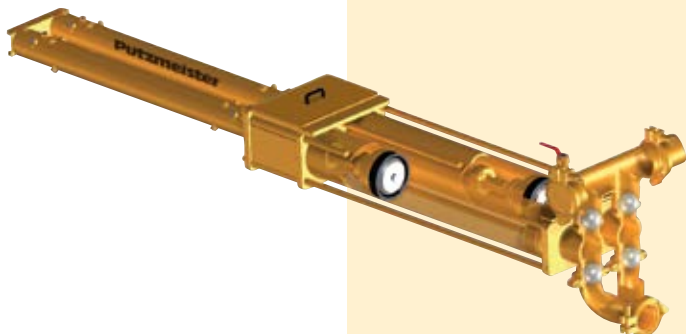


The KOV series is characterized by its straightforward design and high reliability. The suction and delivery cylinders are connected by indirectly operated ball valves.

The fact that no actively driven elements are used means an inexpensive pump with the maximum availability. No problems arise with pumping paste-like material such as mortar or bentonite, even when they contain foreign bodies up to 10 mm in size. Pumping pressures up to 80 bar and an output of as much as 70 m³/h apply.

Features and advantages

- **For conveying fine-grained pastes**
- **Simple design**
- **A minimum of moving parts**
- **Very easy to maintain**
- **Outputs up to 70 m³/h**
- **Delivery pressures up to 80 bar**



The EKO series

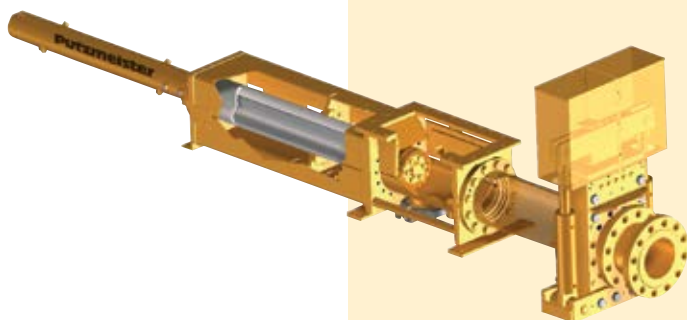
Single-piston pump



The EKO series is designed for the most extreme pumping tasks. The open filling hoppers mean that extremely dry material, which may also contain a high proportion of foreign bodies, can be fed to the pump. Materials which until now could not be pumped, such as highly dewatered paper sludges, are thrust by the hydraulically driven piston into the delivery line.

Features and advantages

- For conveying large-sized and coarse foreign bodies
- For conveying extremely stiff material
- Crown version – pumping and cutting in one stroke
- Simple design
- Delivery pressures up to 60 bar
- Cutting force up to 80 t
- Outputs up to 14 m³/h



System Engineering

Receiving, conditioning, pumping

Putzmeister silos have been designed especially for highly dewatered and highly viscous sludges. Pump and silo working in perfect harmony: Since both pump and silo come from the same manufacturer, the customer enjoys important benefits.



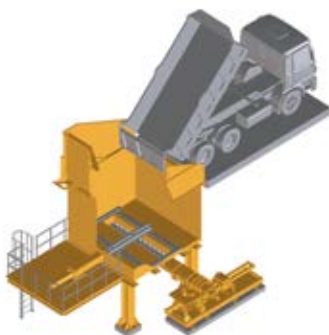
Storage silo with double rectangular sliding frames and pump charging



Storage silo with truck loading

Features and advantages

- **The shared silo discharge and pump feeding auger reduces costs and increases availability**
- **The perfect matching of pump and silo results in an optimized overall concept**
- **The fact that pump and silo share certain components means the need for fewer spares and also simplifies maintenance work**
- **The customer is not troubled with sub-system interfacing problems**
- **Receiving bunker size up to 200 m³**
- **Storage silo size up to 1000 m³**
- **Accessories: level measurement, ventilation, ex-proofed versions**



Receiving bunker discharging directly into pump

Putzmeister Solid Pumps GmbH applied technology

Economical, effective, environmentally safe and reliable. Putzmeister technology provides municipalities and industry with advantages in conveying various difficult sludges and slurries.



Co-incineration of alternative fuels in the cement plant at Le Teil Lafarge (France)



EKO 1060 PP at the biomethanisation plant in Kössen (Austria) for the transportation and de-wrapping of expired food



Solids pumps KOS 1050 in sewage works ProReno (Basel, Switzerland)



Three huge piston pumps KOS 25100 und 25200 are pumping silt out of the sea for arising an artifical island in front of the japanese coast line



Co-incineration of sewage sludge in the coal-fuelled power station Zolling (Germany): solids pump KOS 2180



Two tailings pumps HSP 25100 at the Bulyanhulu goldmine (Tanzania)

Components – custom made for perfect operation



Hydraulic Power Unit
with inline hydraulic pump section



Local control panel at the wastewater treatment plant
Gulpocheon South Korea

Putzmeister's flexible modular system and proven manufacturing methods and materials create superior pumps. Examples are the Putzmeister hydraulic drive with infinitely variable capacity control, high-tech hydraulic components such as the free flow hydraulic drive,

electrical and hydraulic controls and fully hydraulic controls. In-line tandem mounted oil pumps all contribute to rugged reliability. Electric or diesel hydraulic drives are offered ranging from 5 kW to over 1000 kW.

Accessories – designed for
slurry, paste and cake



Putzmeister Accessories

The total Putzmeister package includes pipeline solutions with high pressure coupling systems, gate valves, mechanical or electronic pressure gauges, cleaning pigs and much more. All Putzmeister accessories are robust and reliable. Please contact Putzmeister for a custom engineered pump system – solutions from experience.



ZX 150 IP line in incinerator plant

Putzmeister headquarter in Aichtal – good ideas become successful products



Putzmeister Aichtal



Test bench in Aichtal for standard voltages and medium high-voltages



World headquarter in Aichtal – 7 km south of the Stuttgart Airport, also the corporate center for two additional manufacturing facilities, 4 branch offices and wholly owned subsidiaries, domestic and abroad. Our customer's high solids pumping problems create Putzmeister's "better ideas".

Our experienced application engineers and world class design and manufacturing team turn the ideas

into a solution – a pump system to solve our customer's problem. Putzmeister works with the customer every step of the way including after-market technical support, spare parts and service.

Please contact Putzmeister to get our better ideas and worldwide resource working to solve your pumping problems.

Putzmeister Solid Pumps GmbH in various applications



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