

Piston™

Pump for viscous sludge



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The **Piston™** pump is an efficient and reliable solution for transporting viscous sludge. The **Piston™** is a hydraulically driven piston pump for demanding applications in agriculture and industry. The simple stainless steel design can withstand the most demanding conditions. The high pressure of the **Piston™** piston pump makes it possible to pump sludge over very long distances.



Reliable and simple design



High pump pressure



Very low maintenance costs



Easy to install



Worry-free operation



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Pros

- The high pressure makes it possible to pump viscous sludge over long distances.
- Thanks to piston technology, the flow of the **Piston™** pump is only marginally affected by viscous sludge.
- Especially for viscous sludge, the **Piston™** is more energy efficient than conventional centrifugal pumps.
- The reliable and simple design ensures carefree pumping.
- The **Piston™** pump has no rotating wear parts other than the hydraulic power unit, unlike centrifugal pumps.



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Applications

- Pumping of sludge in agriculture
- Pumping of liquid substrate and digestate in biogas plants
- Pumping of industrial sludge
- Pumping of municipal sewage sludge
- Pumping sludge over long distances



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Features

- Model for immersion in a well (SM).
- Self-priming pumping from a well via suction line (DM).
- High pump pressure, up to 14.5 bar.
- Intelligent control centre with scheduled pumping times.
- Hydraulic butterfly valves as an option, e.g. for time-controlled circulation of sludge.
- Optional level control automates pumping according to the sludge level.

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Feature description

Piston technology

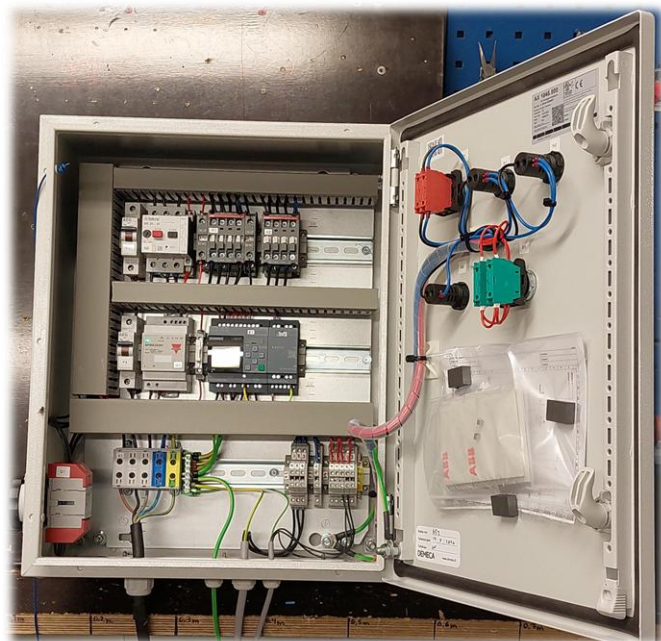
- The piston pump works with a cyclic piston movement.
- SM (single-acting): the hydraulic cylinder drives the pumping stroke. During one stroke, the pump fills with sludge through the piston's check valve. During the pumping stroke, the piston check valve closes and the ball check valve opens, allowing sludge to flow into the pressure line.
- DM (double-acting): pumps in both directions thanks to several non-return valves. The DM model is mounted on dry ground and sucks via a suction line.

Control centre

- Weekly timer and manual operation.
- Weekly timer with a maximum of 12 pumping times per day.
- Three programmable stirring times per day with hydraulic butterfly valves.
- Monitors hydraulic oil level and temperature as well as motor overload.
- In the event of a fault, the pumping will stop and the fault light will come on.

Level measurement (optional)

- Two limit values for the sludge level. Pumping starts when the level exceeds the upper limit.
- Pumping continues until the level falls below the lower limit. After that, the pump waits for the next start.



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Pump models and accessories

The pump is available in three pressure versions. LP provides high flow and high pump pressure. MP is an all-round model for more demanding applications. HP is intended for installations with requirements for the highest pump pressure. The pump is available in single and double acting versions. The double acting model is mounted on dry ground and provides slightly higher flow. The piston pump requires a control center and can be supplemented with a level sensor and a set of hydraulic butterfly valves.

Product	Full description	Delivery content
LK3200-1-SM-LP	Piston Single 200 SM-LP pump (6.4 bar)	- Mounted pump with 2 m hydraulic hoses - Pressure line with accessories (standing pipe 1.5 m, hose 1 m, hose fittings, flanges) - Wall or suspension bracket - Hydraulic power unit with 2 m hoses, incl. oil - 6 m hydraulic line (2 × 6 m pipes, hose fittings, 4 angle couplings) - Double pipe clamps, excl. fixing screws
LK3200-1-SM-MP	Piston Single 200 SM-MP pump (10 bar)	
LK3200-1-SM-HP	Piston Single 200 SM-HP pump (14.5 bar)	
LK3200-2-DM-LP	Piston Double 200 DM-LP pump (6.4 bar)	
LK3200-2-DM-MP	Piston Double 200 DM-MP pump (10 bar)	
LK3200-2-DM-HP	Piston Double 200 DM-HP pump (14.5 bar)	
SA-2011	Control centre for Piston pump (MCC M1)	- Control center with manual operation and programmable weekly timer - 5 m cables between the control centre and power unit, with quick couplings - Prepared for level measurement, excl. sensors
LK3900-0100	Piston Hydraulic Pipe Extension Kit +6 m	- 12 m hydraulic pipe, 2 splice couplings, 2 angle couplings - Double pipe clamps, excl. fixing screws
LK3900-0110	Piston Level Sensor	- Level sensor with 30 m cable and holder, excl. fixing screws
LK3900-0120	Piston Butterfly Valves (2 pcs.)	- 2 hydraulic butterfly valves DN150 - 6 m hydraulic line (2 × 6 m pipes, hose fittings, 4 angle couplings) - 2 m hydraulic hoses for the head - 2 m hydraulic hoses for the valves - Double pipe clamps, excl. fixing screws

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Technical data

Height/Length	2.9 m
Pump diameter	0.6 m
Weight	350 kg
Power supply	3-phase 16 A / 400 V
Pump pressure pipe connection	Flange connection DN150 PN10/16
Power of the hydraulic power unit	5.5 kW
Pump displacement	194 litres
Pump and piston materials	Stainless steel
Hydraulic Cylinder Material	Painted steel
Piston rod material	Chrome-plated steel
Maximum oil pressure	200 bar

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Pressure and flow per model

		Single (SM)		Double (DM)	
Model	Usage	Maximum pressure	Flow	Maximum pressure	Flow
LP	High flow and high pressure for efficient pumping when the maximum pressure of the MP or HP model is not required.	6.4 bar	15 m³/h	6.4 bar	17.5 m³/h
MP	All-round model for longer pumping distances and more demanding applications.	10 bar	10 m³/h	10 bar	11 m³/h
HP	Highest pump pressure for very long distances and high back pressure.	14.5 bar	7 m³/h	14.5 bar	8 m³/h

Request a quote for a **Piston™** piston pump!



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