

HM 365.17

Reciprocating piston pump



Learning objectives/experiments

- in combination with HM 365 and HM 365.10
 - ▶ recording of pump characteristics, system characteristics and operating point
 - ▶ power requirement, hydraulic power, pump efficiency

Specification

- [1] investigation of a lobe pump
- [2] operation with HM 365.10 Supply Unit for Water Pumps
- [3] powered by HM 365 Universal Drive and Brake Unit
- [4] pressure sensors at the inlet and outlet of the pump
- [5] pressure display on the display unit of HM 365.10

Technical data

- reciprocating piston pump
- maximum flow rate: $1,5\text{m}^3/\text{h}$
 - maximum head 60m
 - number of strokes: 337min^{-1}
 - total transmission ratio: 1:6,88

LxWxH: 690x500x410mm
Weight: approx. 24kg

Scope of delivery

- 1 reciprocating piston pump

Description

- investigation of the pumping behaviour of a reciprocating piston pump
- part of the GUNT-FEMLine

Piston pumps are part of the group of positive displacement pumps. The most simple type of reciprocating piston pump consists of a piston that moves in a cylinder with one inlet and one outlet valve. Depending on the internal cylinder pressure, the valves open the inlet and outlet to the stroke chamber.

HM 365.17 is a reciprocating piston pump that is delivered ready for installation, mounted on a plate. The pump is installed in the HM 365.10 supply unit with just a few simple steps, connected via hoses with quick-release couplings, and attached with clamping levers. The pump has an internal bypass that opens if the pressure is too high and releases pressure to the low pressure side. The

pump is connected to the HM 365 Universal Drive and Brake Unit with a V-belt. The pump speed is reduced by the transmission ratio of the belt.

The pressures at the inlet and outlet of the reciprocating piston pump are recorded by sensors. The measured values are read from digital displays on the supply unit and can be transmitted simultaneously via USB directly to a PC, where they can be analysed using the included software.

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Required accessories

070.36500	HM 365	Universal Drive and Brake Unit
070.36510	HM 365.10	Supply Unit for Water Pumps