HM 365.16
Lobe pump

Learning objectives/experiments

- in combination with HM 365 and HM 365.10
  - recording of pump characteristics, system characteristics, 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

Lobe pump
- max. flow rate: 1.8m^3/h
- max. head: 120m
- transmission ratio: 1:2
- nominal speed: 1450min^{-1}

LxWxH: 660x360x310mm
Weight: approx. 25kg

Scope of delivery

1 lobe pump

Description

- **investigation of the pumping behaviour of a lobe pump**
- **part of the GUNT FEMLine**

In contrast to rotodynamic pumps, a positive displacement pump moves the medium by means of closed conveying chambers. In a lobe pump two non-contact pistons rotate in two cylindrical chambers. With each revolution, they deliver the same volume. Lobe pumps are used for delivering highly viscous and highly abrasive media.

HM 365.16 is a lobe 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 and 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. For power supply, the pump is connected to the drive unit HM 365 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 lobe pump are recorded with 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

HM 365	Universal drive and brake unit
HM 365.10	Supply unit for water pumps