

# HM 365.18

## Gear 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 gear 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

Gear pump

- max. flow rate: 4,2m<sup>3</sup>/h
- max. head: 70m
- nominal speed: 1700min<sup>-1</sup>
- transmission ratio: 1:1,6

LxWxH: 570x300x315mm

Weight: approx. 17kg

### Scope of delivery

- 1 gear pump

### Description

- **onvestigation of the pumping behaviour of a gear pump**
- **part of the GUNT-FEMLine**

A gear pump is characterised by a steady flow rate. Its compact structural shape allows for a small housing. We distinguish between external and internal gear pumps. The external gear pump consists of a housing in which two gears rotate in opposite directions, transporting the pumping medium between the gears and the housing.

HM 365.18 is an external gear 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. 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 gear 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

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