

HM 365.22

External gear pump



Learning objectives/experiments

- in combination with HM 365 and HM 365.20
 - ▶ recording of pump and system characteristics, operating point
 - ▶ power requirement, hydraulic power, pump efficiency

Specification

- [1] investigation of an external gear pump
- [2] operation with HM 365.20 Oil Pump Supply Unit
- [3] powered by HM 365 Universal Drive and Brake Unit
- [4] safety valve protects against over-pressure in the system
- [5] display of temperature, pressures and flow rate on the display unit of HM 365.20

Technical data

- External gear pump
- flow rate per rotation: 2cm^3
 - max. pressure: 210bar
 - safety valve 110bar
 - nominal speed: 3000min^{-1}

LxWxH: 460x250x280mm
Weight: approx. ca. 15kg

Scope of delivery

- 1 external gear pump

Description

- investigation of the pumping behaviour of an external gear pump
- part of the GUNT-FEMLine

Gear pumps are often used as oil pumps in motor vehicles. In an external gear pump, two gears rotate in opposite directions in a housing. The pumping medium is transported between the gears and the housing.

HM 365.22 is an external gear pump that is delivered ready for installation, mounted on a plate. The pump is installed in the supply unit HM 365.20 with just a few simple steps and connected via hydraulic hoses. A safety valve protects the pump against positive pressure. If the pressure becomes too high, a bypass is opened and the pressure is released to the low pressure side. For power supply, the pump is connected to the drive unit HM 365 with a V-belt.

The pressure, temperature, and flow sensors are located in the closed oil circuit of supply unit HM 365.20. 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.