

HM 365.19

Vane 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 vane 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

Vane pump

- max. flow rate: 7,2m³/h
- max. head: 70m
- nominal speed: 1400min⁻¹
- transmission ratio: 1:1,44

LxWxH: 500x350x300mm

Weight: approx. 18kg

Scope of delivery

- 1 vane pump

Description

- investigation of the pumping behaviour of a vane pump
- part of the GUNT FEMLine

The vane pump is part of the group of positive displacement pumps. It consists of a housing, in which an eccentrically installed cylinder rotates. Rotary vanes are spring-mounted to radial guides inside the rotating cylinder. During operation, the spring-force ensures that the rotary vanes run along the inner wall of the housing, and an enclosed space is formed between them. The pumping medium is transported between the rotary vanes and the housing wall. Vane pumps are used where high delivery pressures are required.

HM 365.19 is a vane 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 pressures at the inlet and outlet of the vane 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

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