

HM 365.12

Centrifugal pump, self-priming



The illustration shows a similar unit

Description

- operating behaviour of a self-priming centrifugal pump
- part of the GUNT FEMLine

Self-priming pumps are able to suck in and transport air and water. In contrast to a simple centrifugal pump, they can also be started if there is air in the intake line. This is possible because of an additional side-channel suction stage that removes the air from the intake line and creates the negative pressure that is needed to suck in the fluid.

HM 365.12 is a self-priming pump that is delivered ready for installation, mounted on a plate. The centrifugal pump is installed in the supply unit HM 365.10 with just a few simple steps and connected via hoses with quick-release couplings and attached with clamping levers. 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 centrifugal 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.

Learning objectives/experiments

- in combination with HM 365 and HM 365.10
 - ▶ recording of pump characteristics
 - ▶ determination of the power requirement and the hydraulic power
 - ▶ determination of the pump efficiency
 - ▶ determination of the system characteristics and the operating point of the pump
 - ▶ checking of the necessary NPSH value of the pump

Specification

- [1] investigation of a self-priming centrifugal 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

Self-priming centrifugal pump

- max. flow rate: 18m³/h
- max. head: 18m
- nominal speed: 2900min⁻¹

LxWxH: 640x300x420mm
Weight: approx. 44kg

Scope of delivery

- 1 centrifugal pump

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Required accessories

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