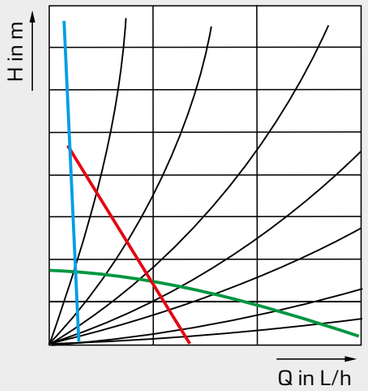
HM 362 Comparison of pumps

In order to properly use a pump, it is important to know the pump's operating behaviour. The HM 362 trainer offers students the opportunity to compare the operating behaviour of three different types of pumps. The trainer includes two centrifugal pumps, a piston pump as positive displacement pump and a self-priming side channel pump. The side channel pump primarily works as a centrifugal pump and, depending on the fill level, may also act as a positive displacement pump. This means a special feature of the side channel pump is the ability to convey gases.

Investigations on series and parallel configurations can be conducted with the two identical centrifugal pumps.

The trainer provides a ready-prepared place for experiments with its own pump. This space is fitted with a variable speed three-phase motor, whose direction of rotation is reversible.

The measurements are supported and visualised by the GUNT data acquisition software.



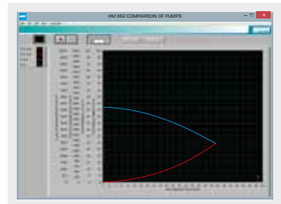
Compare operating behaviour of different types of pumps

green centrifugal pump, red side channel pump, blue piston pump, black system characteristics; **Q** flow, **H** head

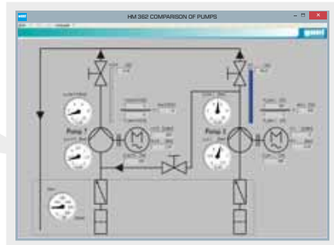
Each pump testing station has a measuring device for detecting the drive torque

Each pump has an inlet and outlet above pressure sensors

Sensors for flow measurement



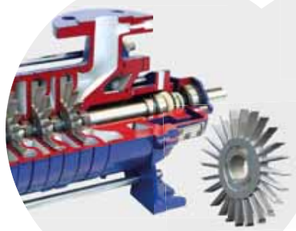
Record characteristic curves



Display of measured data on displays on the trainer and in the GUNT software on a PC

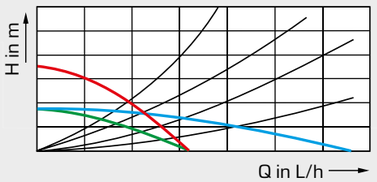
Piston pump

Free space for investigation of additional pumps



Side channel pump

Two centrifugal pumps



green single pump, red series configuration, blue parallel configuration, black system characteristics; **Q** flow, **H** head