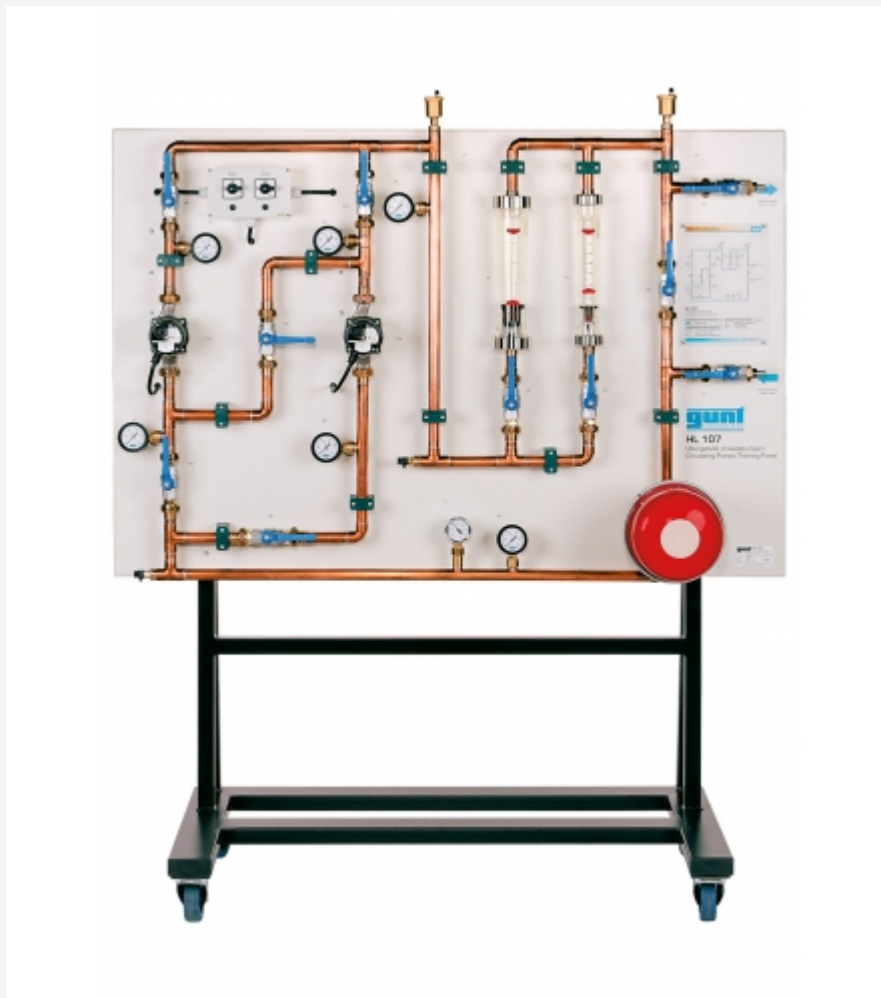


HL 107

Circulating pumps training panel



Learning objectives/experiments

- pump characteristics at varying speeds
- determination of pipework characteristics and operating points
- series operation of circulating pumps
- parallel operation of circulating pumps
- comparison of experiment and calculation

- in conjunction with other training panels in the HL 100 series, it is possible to set up a complete heating system.

Description

- **trainer on heating systems and plumbing**
- **function of circulating pumps, series and parallel operation**
- **in conjunction with other trainers in the HL 100 series, assembly of a complete heating system is possible**

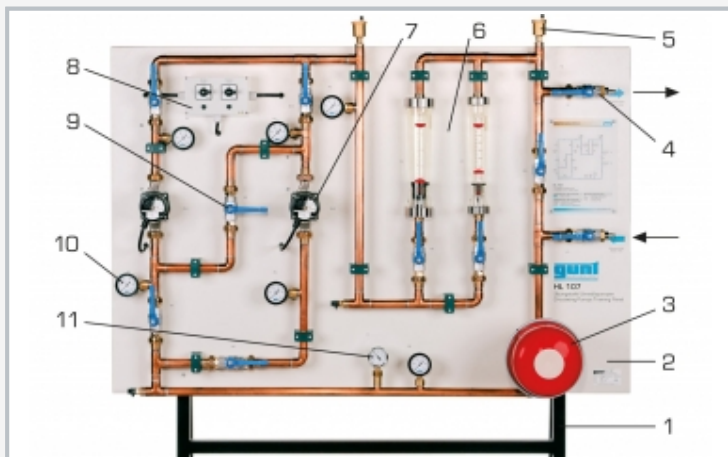
The trainer contains a pipe system with two circulating pumps. It is possible to switch between series and parallel operation using ball valves.

Two rotameters with different measuring ranges are provided for the measurement of the flow rate. Manometers indicate the pressure at all relevant points in the system. The temperature can be read on a bimetallic thermometer.

The trainer has a closed water circuit with expansion vessel and is thus independent of the water mains.

HL 107

Circulating pumps training panel



1 frame, 2 panel, 3 expansion vessel, 4 water connection, 5 bleed valve, 6 rotameter, 7 pump, 8 pump controller switch cabinet, 9 ball valve, 10 manometer, 11 bimetallic thermometer

Specification

- [1] series and parallel operation of 2 pumps
- [2] training panel can be changed to various operating modes using ball valves
- [3] 2 rotameters
- [4] pressure measurement with 6 Bourdon tube manometers
- [5] 1 bimetallic thermometer
- [6] water connections made using quick-release couplings

Technical data

- 2 pumps
 - power consumption: 70W
 - max. flow rate: 60L/min
 - max. head: 4m

Measuring ranges

- flow rate:
 - ▶ 1x 150...1600L/h
 - ▶ 1x 400...4000L/h
- temperature: 0...60°C
- pressure: 0...2,5bar

230V, 50Hz, 1 phase
 230V, 60Hz, 1 phase
 120V, 60Hz, 1 phase
 LxWxH: 1800x700x1780mm
 Weight: approx. 105kg

Scope of delivery

- 1 trainer
- 1 manual