

HL 110

Expansion vessel training panel



The illustration shows a similar unit

Learning objectives/experiments

- function and operation of a diaphragm expansion vessel
- displacement volume of an expansion vessel as a function of the pressure

Description

- **trainer on heating systems and plumbing**
- **function of an expansion vessel**

Using this trainer the function of a normal expansion vessel is examined and a pressure-volume characteristic recorded.

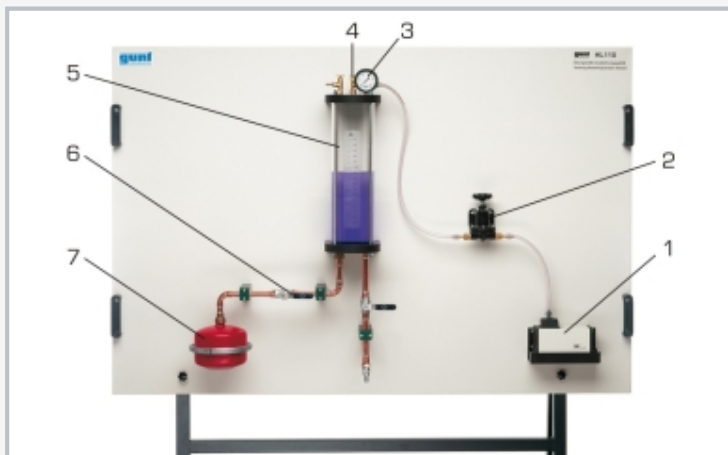
The expansion vessel is filled with water from a supply tank.

The pressure is generated using a small compressor and adjusted using a pressure regulating valve.

The amount of water taken up by the expansion vessel is read on a scale on the supply tank.

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1 compressor, 2 pressure controller, 3 manometer, 4 safety valve, 5 measuring tank, 6 ball valve, 7 expansion vessel

Specification

- [1] trainer on heating systems and plumbing
- [2] small compressor for pressure generation
- [3] measuring tank with scale
- [4] expansion vessel
- [5] manometer
- [6] ball valve in connecting pipe between measuring tank and expansion vessel
- [7] adjustable safety valve
- [8] pressure controller for air with overpressure protection
- [9] cutaway model of an expansion vessel

Technical data

Expansion vessel

- volume: 2L
- filling pressure: 1,4bar

Measuring tank

- volume: 3,75L
- max. pressure: 2,5bar

Compressor

- power consumption: 65W
- max. flow rate: 11,5L/min
- max. pressure: 2bar
- final vacuum: 240mbar

Pressure controller for air, adjustable: 0,06...2bar

Measuring ranges

- pressure: 0...2,5bar

230V, 50Hz, 1 phase
LxWxH: 1650x700x1850mm
Weight: approx. 95kg

Scope of delivery

- 1 trainer
- 1 cutaway model "expansion vessel"
- 1 manual