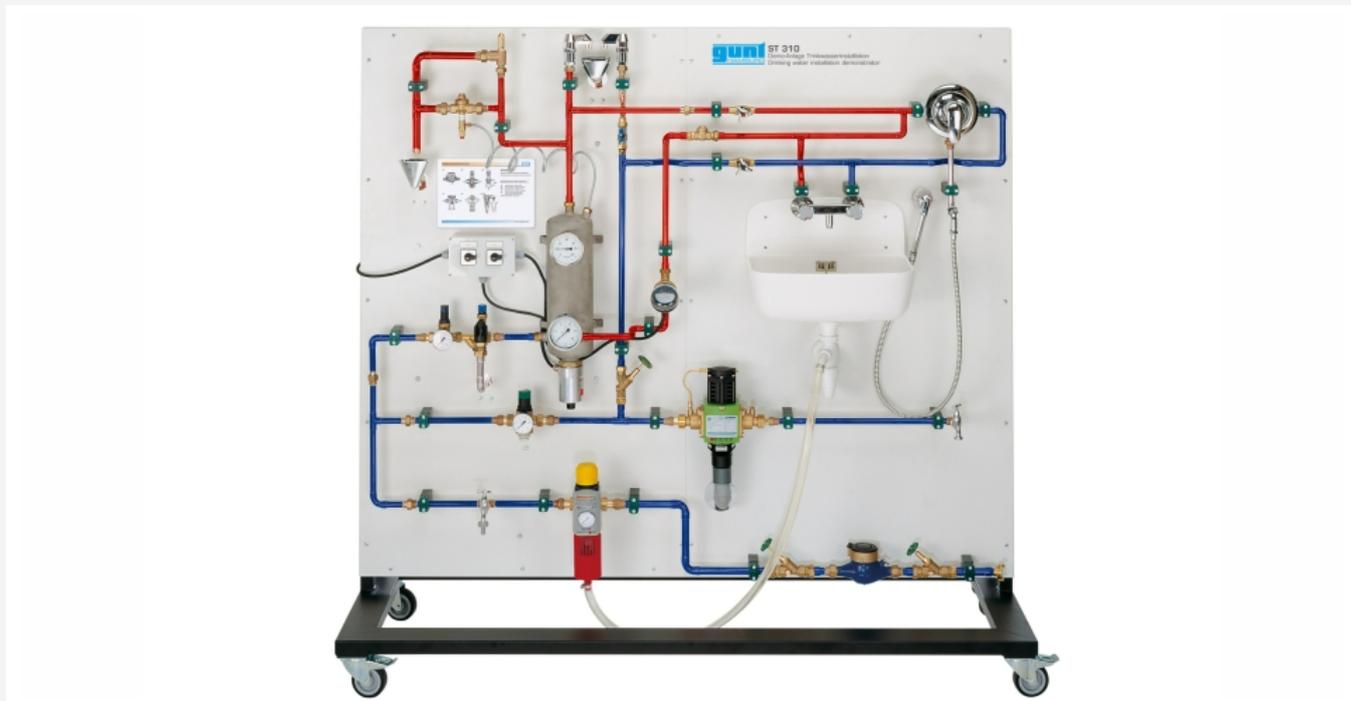


# ST 310

## Drinking water installation demonstrator



### Description

- **trainer with all components common in a drinking water installation**
- **designed for training in the plumbing sector**

A typical household drinking water installation is fitted to the panel. A small electrical boiler for hot water and a circulation pipe with the related components demonstrate the heating of domestic hot water from the cold water supplied.

Safety devices show how the drinking water pipework is protected against the backflow of waste water.

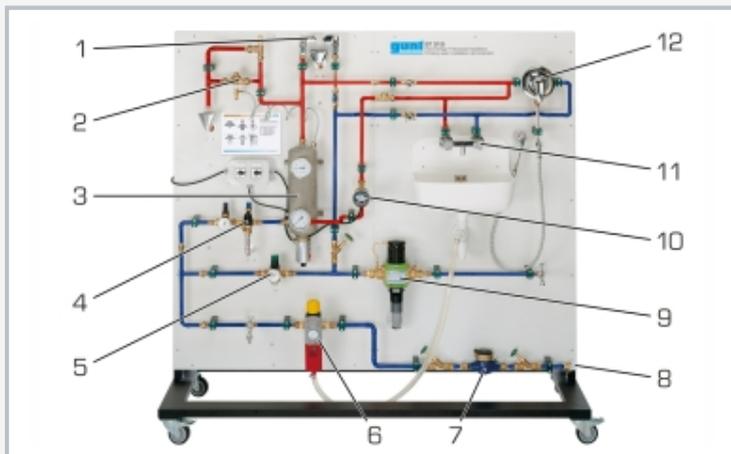
A pipe system for draining the waste water is mounted on the back of the panel.

### Learning objectives/experiments

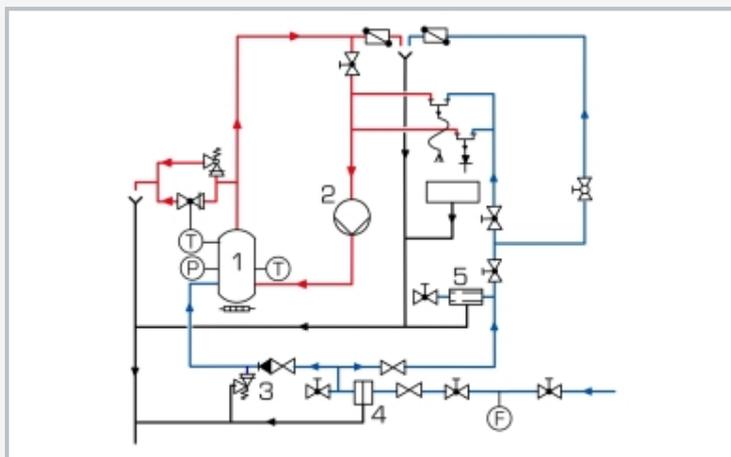
- **function and operation of components**
  - ▶ water meter
  - ▶ pressure reducing valve with and without reversible flow filter
  - ▶ backflow preventer / system separator
  - ▶ system of safety devices
  - ▶ pressure vessel with heater
  - ▶ circulating pump
  - ▶ thermal discharge safety device

# ST 310

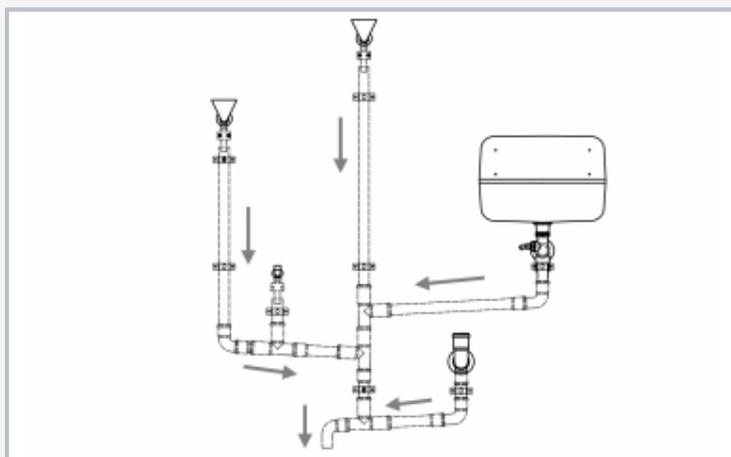
## Drinking water installation demonstrator



1 pipe ventilation, 2 thermal discharge safety device, 3 pressure vessel with heater, 4 system of safety devices, 5 pressure reducing valve, 6 reversible flow filter with pressure reducing valve, 7 water meter, 8 water connection, 9 system separator, 10 pump, 11 two handle mixer, 12 single handle mixer



Process schematic: 1 pressure vessel with heater, 2 pump, 3 system of safety devices, 4 reversible flow filter with pressure reducing valve, 5 system separator  
blue: cold water, red: warm water



Drain system system at the rear brings together and discharges the waste water produced by the reversible flow filter, safety devices, pipe ventilation as well as the sinks

### Specification

- [1] familiarisation with the most important components in a drinking water installation
- [2] system divided into cold water side, hot water side, drain system
- [3] cold water circuit with water meter, pressure reducing valve, angle-seat valve, system separator, outlets
- [4] hot water circuit with system of safety devices, pressure vessel with heater, pressure reducing valve, non-return valve, circulating pump with timer, outlets
- [5] drain system on rear of panel, drain pipe DN 40 with high temperature stability
- [6] single handle mixer, two handle mixer, shower sprinkler, pipe vents

### Technical data

Vane impeller water meter DN20: 2.5m<sup>3</sup>/h  
Euro system separator BA, hazard class 4  
System of safety devices, 6bar

- backflow preventer
- pressure reducing valve
- shut-off valve

Thermal discharge safety device: 95°C  
Threaded heater element 3kW (in pressure vessel)

Pump

- power consumption: 20W
- max. flow rate: 640L/h
- max. head: 1,4m
- max. operating temperature: 110°C

Measuring ranges  
pressure: 3x 0...10bar

230V, 50Hz, 1 phase  
230V, 60Hz, 1 phase  
230V, 60Hz, 3 phases  
LxWxH: 2000x700x1900mm  
Weight: approx. 163kg

### Required for operation

cold water connection: 1,5bar, drain

### Scope of delivery

- 1 trainer
- 1 manual