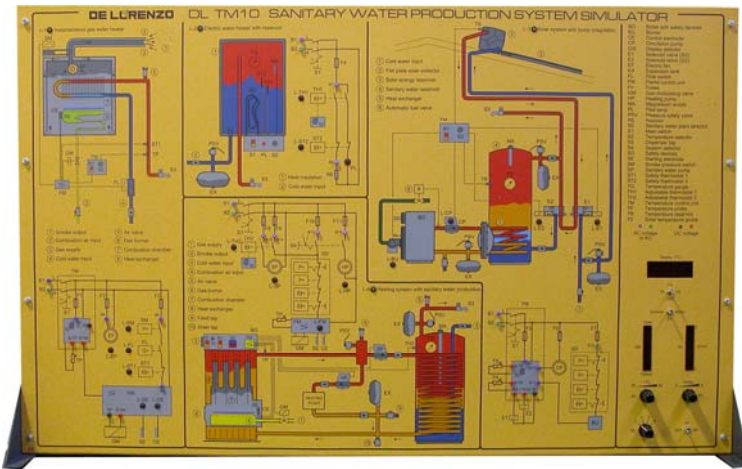


## SANITARY WATER PRODUCTION SYSTEMS



**DL TM10**

The simulator allows the study, the performing of experiments and the troubleshooting for the following systems:

- Instantaneous geyser;
- Store electric water heater;
- Solar system for sanitary water production with boiler integration;
- Central system for heating and sanitary water production

These systems are reproduced on the panel, through a colour representation which allows a complete analysis of the fluid circuit, of its components and of the electrical/electronic circuit for control and regulation.

### TRAINING OBJECTIVES

It is possible to simulate the behaviour of components and systems, on the basis of the operating conditions which can be monitored directly on the panel or through Personal Computer by teacher and students.

The Personal Computer constantly keeps under control the simulation in progress and displays its behaviour through analog and digital signals and meters; in this way the student, through measurements and tests, can go on with the troubleshooting.

Average training hours: 10h (including 2h for fault finding).  
 Dimensions: 0.66 x 1.04 x 0.35 m.  
 Net weight: 16 kg.

The system is supplied with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.

Moreover, the Student Navigator is provided with an interface to the Laboratory Management software.

The instantaneous geyser is composed of the following main elements:

- Forced draught gas-fired wall boiler
- Flame control device
- Sanitary water regulation thermostat and safety thermostat
- Sanitary water flow meter
- Smoke pressure switch
- Modulating valve for gas capacity

The store electric water heater is composed of the following main elements:

- Steel boiler with insulation
- Electric resistance
- Sanitary water regulation thermostat and safety thermostat
- Safety valves
- Magnesium anode
- Sanitary water thermometer
- Pilot light for electric resistance insertion

### TECHNICAL DESCRIPTION

The solar system for sanitary water production with boiler integration is composed of the following main elements:

- Solar panel with natural circulation, with tank for sanitary water storage
- Boiler and relevant gas burner
- Safety and regulation devices for the boiler
- Boiler for sanitary water storage
- Boiler pump
- Sanitary water regulation thermostat
- Probe for boiler temperature and boiler sanitary water thermometer
- Probe for stored sanitary water temperature through solar panels
- Safety valve
- Electrovalve for control of the heating through solar panel or through solar panel with boiler integration
- Sanitary water with heating through boiler

The central system for heating and sanitary water production is composed of the following main elements:

- Gas boiler
- Safety and regulation devices for the boiler
- Flame control device
- Modulating valve for gas capacity
- Heating circulation pump
- Expansion tank
- Air exhaust valve
- Boiler for sanitary water storage
- Boiler pump
- Sanitary water regulation thermostat
- Probe for boiler temperature and boiler sanitary water thermometer
- Safety valves
- Magnesium anode