

WATER SOFTENER TRAINER



Experimental capabilities

- Identification of the components of a water treatment installation with softener
- Setting of a softener (regeneration cycle, treated water hardness ...)
- Role of the different components
- Use of different methods of water analysis (strips and colorimetric analysis)

Operating principle

The TAD 100 trainer allows the study of the treatment of water by softener.

The water of the network (hard water) is first filtered, and then softened (volumetric resin softener with regeneration). The bench is equipped with all the necessary instrumentation to the characterization of the softener (input flowmeter, raw water meter, manometer, bypass flowmeter, water meter softened)

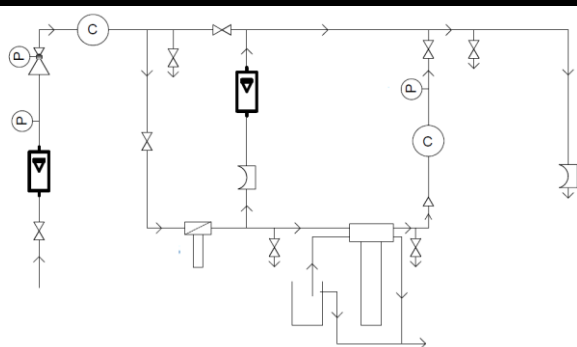
The installation is carried out as an industrial installation with a bypass circuit, and any necessary valves to the operation and to the sampling valves.

The network is made of copper pipe. Sample valve (PE) are provided at different points of the circuit.

The robust design of this equipment makes it perfectly suited for use in a school environment. Its anodized aluminum structure on wheels makes it very robust as well as a great flexibility of integration into your premises.

The manufacture of this equipment meets the European machine directive.

Illustrations



The bench consists of the following elements:

1. A softener:

- Resin volume: 18 L
- Volumetric electronic control with daily programming
- Salt bin for regeneration with bottom grate and water level regulator

2. A water supply circuit of the softener comprising:

- An input stop valve
- A float flowmeter of the 100-1000L/h
- A pressure gauge of the network scale: 0-10bars
- An adjustable water pressure reducer
- A pressure manometer after reducer of the scale: 0-6bars

Technical specifications

- A volumetric meter of raw water
 - An intermediate stop valve
 - A 25µm filter cartridge
 - A sampling valve with ¼ turn valve
3. A bypass line with stop valve ¼ turn
4. A setting line of the Th residual including scale:
- A membrane water flow rate adjustment valve
 - A float flowmeter of the 15-150L/h
5. A water output line softened comprising:
- A sampling valve with ¼ turn valve
 - A volumetric water meter for the soft water
 - A membrane water flow rate adjustment valve
6. A power supply box comprising:
- A differential circuit breaker
 - An emergency stop button
 - An electrical energy meter
 - Two electrical plugs
7. The bench comes with the following accessories:
- Two bags of salt for regeneration of 25kg each
 - A set of connecting hose
 - A water testing kit including a toolkit with colorimetric analysis kit, a box of Th test strips and pH paper roll.

Services required

- Electrical supply : 230 Vac – 50 Hz – 6 A
- Electrical network : 4 phase(s) + Neutral + Earth.
- Water supply : 15 L/min – 3 bars
- Water drain : on the floor
- Dimensions: (LxWxH mm): 1650 x 665 x 1600
- weight (Kg): 140

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Wiring diagram
- Hydraulic diagram
- Certificate of conformity CE