

## HYDRAULICS BALANCING UNIT



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### Experimental capabilities

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- Identification of components of a heating system with balancing system
- Analysis of different radiators connection methods
- Commissioning and setting a heating circuit
- Measurement of the flow rates in the columns and balancing

## Operating principle

The TCF122 bench allows the study of a radiator circuit with balancing system

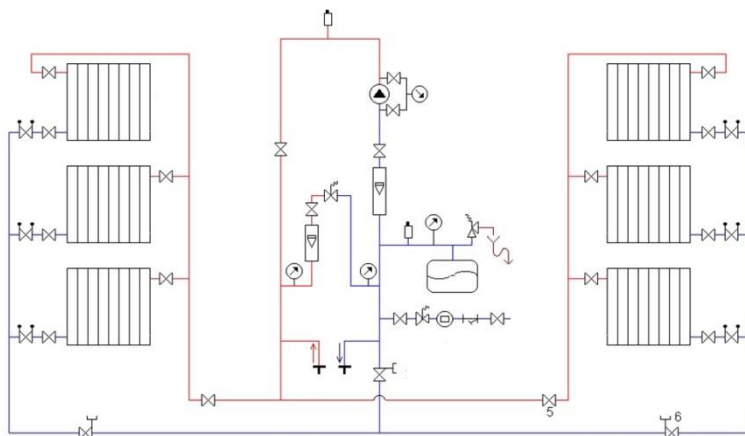
The user will have to commission the heating circuit (filling, power on) and adjust the various devices (balancing valve, radiator valve, circulator ...) in order to refine the balancing of the hydraulic circuit, the user will use a balancing briefcase dedicated (of TA brand). The briefcase is optionally available.

The robust design of this equipment makes it perfectly suited for use in schools.

Its anodized aluminum structure on wheels makes it extremely robust as well as a great flexibility of integration into your premises. The manufacturing of this equipment meets European machine directive.

This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

## Illustrations



## Technical specifications

1. Aluminum radiators  
Quantity: 6  
Thermostatic radiator valve at the inlet  
Angled radiator lockshield valve and measuring point compatible with the TA balancing briefcases at the outlet  
The radiators are connected in 2 columns of three radiators.
2. A balancing valve STAD-type for each column of radiators
3. A balancing valve STAD-type for the general flow rate
4. A filling system with shutoff valve, filter, meter and pressure reducer.
5. Components to control the pressure of the circuit: safety valve, manometer and expansion tank.
6. A variable speed circulator with manometer kit to measure the manometric head
7. An differential valve (to protect the circulator) with flowmeter on the bypass
8. A float flowmeter on the general circuit
9. An air trap at the highest point
10. Two self sealing quick couplings for the connection of a production system (boiler or tank)

## Services required

- Power supply: 230 Vac - 50 Hz - 6 A
- Electrical supply Type: 1 phase (s) + Neutral + Earth.
- Water supply: filling - 2 bars
- Dimensions: (LxWxH mm): 1600 x 800 x 1790
- weight (Kg): 180

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
- P&id diagram
- Certificate of conformity CE

## Options

- Balancing briefcase TA
- Ref : TCF 123

## Additional compatible equipment

DIDATEC production systems (oil boilers, gas, wood) and the storage tanks.