

BENCH OF WALL-MOUNTED BOILERS



PEDAGOGICAL APPLICATIONS

- Identification of the components of a wall-mounted gas boiler and the associated circuits (DHW and heating)
- Visualization of the boilers implementation
- Commissioning and configuration of each boiler regulations
- Measurement of flow rates and temperature and calculate the thermal power of the heating circuit
- Study of the DHW circuit and flow rates measurement and temperature
- Study of the boiler and measuring of the gas consumption

PRINCIPLE OF OPERATION

The TCF101 bench allows the study of two wall-mounted gas boilers.

The first boiler is basic, it includes a DHW circuit and a direct heating circuit. The second boiler is more advanced and has a DHW circuit, a direct heating circuit and a heating circuit with control by three-way valve (integrated control in the boiler).

The trainees must firstly identify the components of each boiler then proceed to commissioning thereof.

When the circuit will be at temperature, then they can make the calculations of thermal power and of consumption (gas).

Each module is also equipped with a DHW circuit instrumented in order to measure the flow rates and the operating temperatures.

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

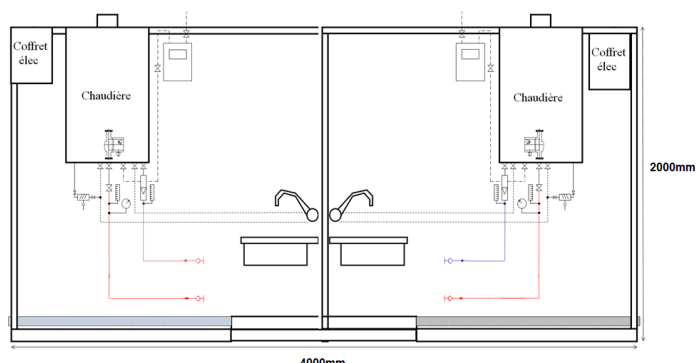
Its anodized aluminum structure with wheels gives it great strength as well as a great flexibility of integration into your premises. The manufacturing of this equipment meets European machine directive

The wall-mounted boilers bench requires a dissipation unit (connection on the network of the establishment or optional modules DIDATEC)

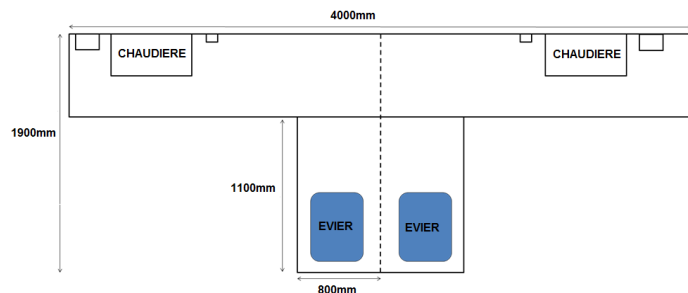
This equipment can be used alone or with other compatible equipments in our range (see last section of this document).

Illustrations

Technical specifications



Vue de face



Vue de dessus

The bench is divided into two modules. Each module includes at least:

1. A power supply electrical box with white LED and a power supply breaker
2. A boiler:

Boiler 1:

Type: mixed, heating and instant DHW

Heating: 1 direct start

Burner: Natural gas with a power of 25 KW

Fumes exhaust: suction cup

Boiler 2:

Type: Condensing mixed, heating and DHW micro accumulated

Heating: 1 direct start and 1 start with three-way valve

Burner: Natural gas with a power of 25 KW

Fumes exhaust: suction cup

3. A mixer tap sink and siphon

4. A water supply circuit comprising a meter, a filter, an anti-pollution valve, a backflow preventer and a pressure manometer.

5. DHW circuit comprising two thermometers and two manometers (hot and cold water)

6. A heating circuit comprising a flow meter, two thermometers, a balancing valve, a differential valve and a manometer

7. A regulated heating circuit comprising a flow meter, two thermometers, a balancing valve, a differential valve, a manometer, a circulator, a three-way valve and a safety thermostat (only for the boiler 2)

8. A gas supply circuit comprising stop valves, a pressure manometer and a meter

9. A white magnetic board with erasable surface (display of the documentation of the boiler and reading of measurements)

Specifications of the installation

Documentation

- Electrical supply: 230Vac – 50 Hz – 10 A
- Electrical power supply type: 1 phase (s) + Neutral + Earth.
- Water supply: 15 L/min – 3 bars
- Water disposal: at ground level
- Evacuation of Fumes: Suction cup 100/60mm x2
- Fuel supply : Natural gas
- Dimensions (LxWxH mm):
- Weight (Kg): 400

- Instruction handbook
- Technical file
- Practical work
- CE certificate of conformity

Note: As part of an equipment installation by our services, all connections to networks must be at least 2m from the machine

Options

- Combustion Analyzer
- Ref : KIG100

Additional compatible equipments

- Bench of dissipation heated floor
- Bench of dissipation radiators with balancing
- Dissipation bench of unit heater
- Ref : TCF121
- Ref : TCF122
- Ref : AER033