

TCF 100

Wall boiler unit



- The unit consists of 4 boilers of different types widely used in the market.
- The boilers are supported in an aluminium extruded frame.
- The boilers function independently. The heat is dispersed by a unit heater or a heat exchanger (depending on user's choice).
- The cold water line also connects to a sink fixed on the unit.
- This unit can be connected to the TCF 120 heat radiator in order to test different types of radiators with different kinds of boilers.
- The instruments provided allow for the measurement of consumed energy and produced heat energy.
- The unit is delivered complete with an instruction manual and is designed for use in an energy engineering training program.

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Suggested Applications

➤ Practical experience with real heating elements

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- Choice of equipment
- Installation
- Research and identification of the components
- Starting
- Adjustment
- Balancing
- Preventive maintenance and solving problems
- Safety elements

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➤ Use of the instrumentation

- Flow rate, pressure and temperature measurements
- Fuel Consumption
- Measurement of the emissions in chimney (optional)
- Balancing with instruments (optional)

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➤ Key Ideas covered

- Thermal transfers
- Thermal power
- ECS heater power
- Balances
- Outputs
- Balancing
- Adjustment on 3-way valves

Description

- 1 GAS FIRED HEATING BOILER WITH AIR VALVE + TANK FOR WARM WATER FOR DOMESTIC USE - 50L
- 2 GAS FIRED HEATING BOILER WITH CHIMNEY + IMMEDIATE WARM WATER
- 3 GAS FIRED HEATING BOILER WITH AIR VALVE AND COMPRESSION + INSTANT ECS
- 4 ELECTRIC STEAM BOILER – ONLY HEATING
- 5 DISSIPATOR (UNIT HEATER OR EXCHANGER)
- 6 ECS DRAWING ACTION AND COLD WATER ON SINK
- 7 GAS METER
- 8 WATER METER
- 9 SUPPLY METER
- 10 MANOMETER
- 11 FLOW METER
- 12 BALANCING AND MEASUREMENT VALVE (CHOICE OF THE BRAND)
- 13 BYPASS VALVE
- 14 PLUG FOR FUMES ANALYSIS
- 15 SPEED COUPLER FOR CONNECTIONS WITH THE TCF 120 UNIT
- 16 LIMITATION 3-WAY VALVE OF BUCK TEMPERATURE
- 17 DECOUPLING BOTTLE
- 18 DISCONNECTOR
- 19 UNIT HEATER CIRCUIT PUMP OR EXCHANGER

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Options

The unit can be equipped with the following:

- Differential pressure guage for computation of the output on sleeve teeb (type TA HYDRONICS, COMAP, QUITUS...)
- Combustion analyser for analysis of chimney flu gases (with or without the NO and NO₂ measurements)
- Contact thermometer
- Energy meter(s)

The unit works well with the TCF 120 which can be used to dissipate the heat energy.

It is possible to adapt other types of boilers for use with this unit..

Balancing material is QUITUS one, for other brands, contact us.

Dimensions

| | |
|--------|---------------------------|
| Length | 4 m |
| Width | 1 m |
| Height | 2,3 m |
| Weight | 500 kg (without water) |

The unit is adjustable to different configurations.

Utilities

WATER : network 3 bars

NATURAL GAS : 20 mbar or propane 37 mbar

(3 times 23kW of useful power)
ELECTRICITY : Triphased - 380V
(electric steam boiler of 5KW)

FUMES (standards) : 1 outlet with air valve (maxi 3m), 2 chimneys, outlets Ø 125 mm

All services must be at a maximum of 2.5 m

Provide a drain for the used water

Shipping

Packing size :

| | |
|---------------|-------|
| Length | 5 m |
| Width | 1.5 m |
| Height | 2.5 m |
| Global weight | 700kg |

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