

#### **DESCRIPTION**

The waste-heat boilers of the WH range recover energy from hot flue gases as heat source without any supplementary combustion. These boilers are of the monobloc type, with fully automatic operation and are provided with all accessories required for quick commissioning. The WH range is characterized by a great flexibility of design and use; the boilers are designed specifically to meet any particular requirements.

#### **FEATURES**

| 3 | design press |
|---|--------------|
| 5 | Heat Output  |

ure from 1 to 25 bar 100 ÷ 20000 kW

#### **ADVANTAGES**

#### Modular versions (+)

The boiler is available as flexible modular sections dependant on the range of required power.



#### Easy, fast and safe installation

The installation is very easy: you just need to connect the system to the electric, hydraulic, steam and discharge lines.

High water content



Assembly and test performed in the factory

High operating flexibility (+

Minimum operating costs (+)

# Waste heat recovery boiler

#### MODELS



#### WHB

Design pressure: 1 ÷ 25 bar Steam capacity: 50 ÷ 32000 kg/h



WHS Design pressure: 4,9 ÷ 12 bar Heat output: 233 ÷ 17000 kW



WHO Design pressure: 10 bar Heat output: 116 ÷ 9300 kW



WHC Design pressure: 6 ÷ 25 bar Heat output: 3000 ÷ 25000 kW **Steam boiler** with fire tubes, waste heat recovery and monobloc type, compliant with the PED Directive 2014/68/EU for indoor or outdoor installations. Complete with regulation and safety accessories for the automatic operation and control panel certified to manage the safety links of the entire boiler.

**Super-heated water boiler** with fire tubes, waste heat recovery and monobloc type, compliant with the PED Directive 2014/68/EU for indoor or outdoor installations. Complete with regulation and safety accessories for the automatic operation and control panel certified to manage the safety links of the entire boiler.

**Thermal oil heater** with water finned pipes, waste heat recovery and monobloc type, compliant with the PED Directive 2014/68/EU for indoor or outdoor installation. Complete with regulation and safety accessories for the automatic operation and control panel certified to manage the safety links of the entire boiler.

**Hot water boiler** with fire tubes, waste heat recovery and monobloc type, compliant with the PED Directive 2014/68/EU for indoor or outdoor installations. Complete with regulation and safety accessories for the automatic operation and control panel certified to manage the safety links of the entire boiler.

#### **AVAILABLE CERTIFICATIONS**





#### **RECOMMENDED TECHNOLOGIES**



### **APPLICATIONS**

#### INDUSTRIAL PROCESSES

- Furnaces
- Post-combustion chamber
- Incinerators
- Industrial processes with flue gas at high temperature

#### COGENERATORS

#### - Diesel engines

- Gas and biogas engines
- Vegetable oil engines



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POWER PLANTS - Turbogas plants



## INDUSTRIAL PROCESSES

- Furnaces
- Post-combustion chamber
- IncineratorsIndustrial processes with flue gas at high temperature

#### **AVAILABLE ACCESSORIES**

| Code                         | Description  | WH |   |   |   |
|------------------------------|--|----|---|---|---|
|                              |  | В  | S | 0 | С |
| See "Accessories"<br>section | Automatic blowdown system for boilers of the SIXEN and GX series | -  |   |   |   |
| 17090037                     | Salinity control unit (pneumatic TDS)                            |    |   |   |   |
| 17090035                     | Salinity control unit (electric TDS)                             |    |   |   |   |
| 38040100                     | Sample cooler  |    |   |   |   |
| See "Accessories"<br>section | Standby feed water pump  | -  |   |   |   |
| See "Accessories"<br>section | Modulating level regulation with electric valve                  |    |   |   |   |
| See "Accessories"<br>section | Modulating level regulation with pump/s + inverter               | -  |   |   |   |
| See "Accessories"<br>section | Modulating level regulation, panel + inverter for 1 pump         |    |   |   |   |
| See "Accessories"<br>section | Modulating level regulation, panel + inverter for 2 pumps        | -  |   |   |   |
| 90060010                     | High level safety kit  |    |   |   |   |
| 90060040                     | Self-checking High level safety unit                             |    |   |   |   |
| 90060050                     | Self-checkingLow level safety units                              |    |   |   |   |
| 86900071                     | GSS72/WH global safety system                                    |    |   |   |   |
| 90060061                     | Ladder and handrail  |    |   |   |   |
| 90060090                     | Side platform  |    |   |   |   |
| 90060070                     | 2nd stage regulation pressure switch                             |    |   |   |   |
| 90060078                     | Cascade control panel for steam boilers                          |    |   |   |   |
| QCTETERM                     | Eterm Easy manager panel   |    |   |   |   |

### COMPATIBLE COMPONENTS FOR HEATING PLANT ROOM



ECXV Vertical energy saver



VEX Steam accumulator



VRC Condensate collection tank



DEG Atmospheric deaerator



DEG/P



Pressurised deaerator

ADD Feed water treatment unit for steam boilers



Blowdown vessel





VEO Thermal oil expansion vessel



VEA Super-heated water expansion vessel





EVX Indirect steam boiler

STORAGE TANK Thermal oil