

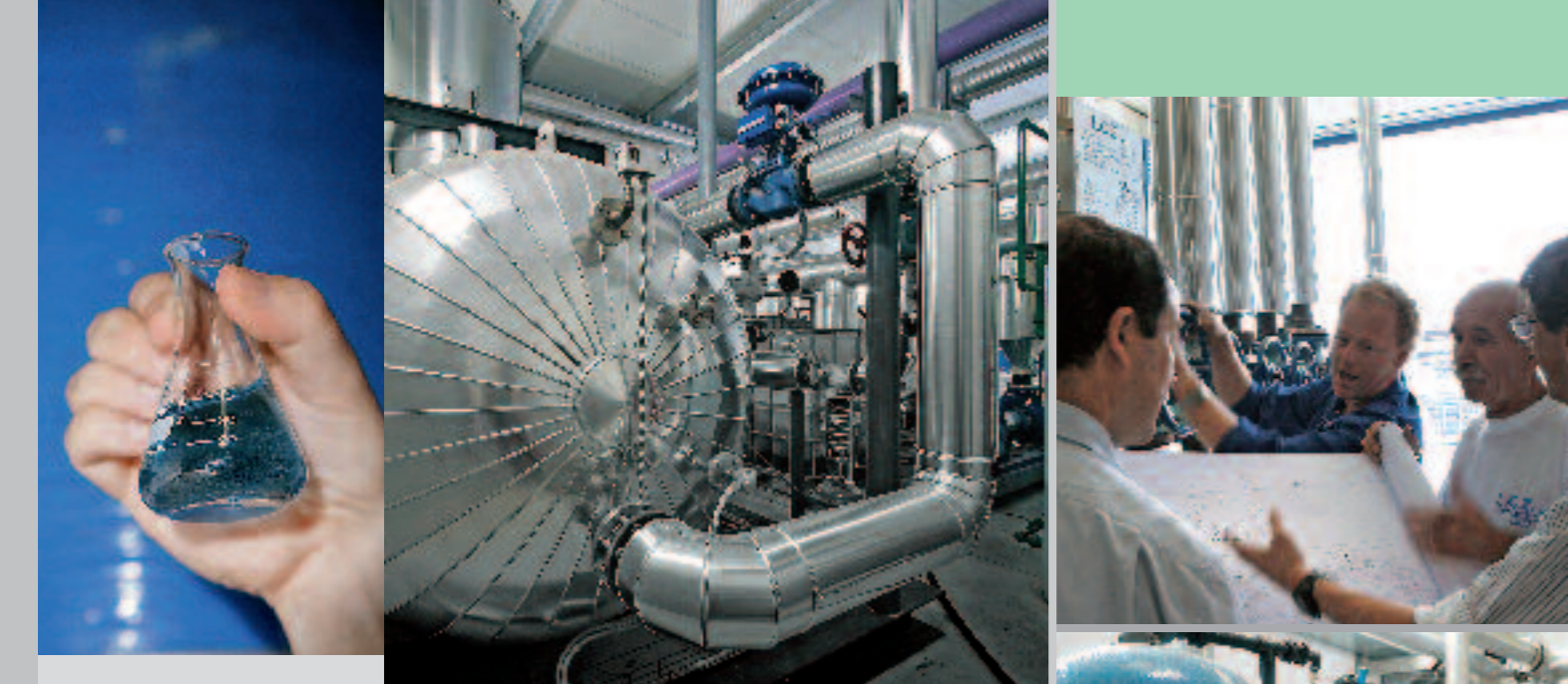
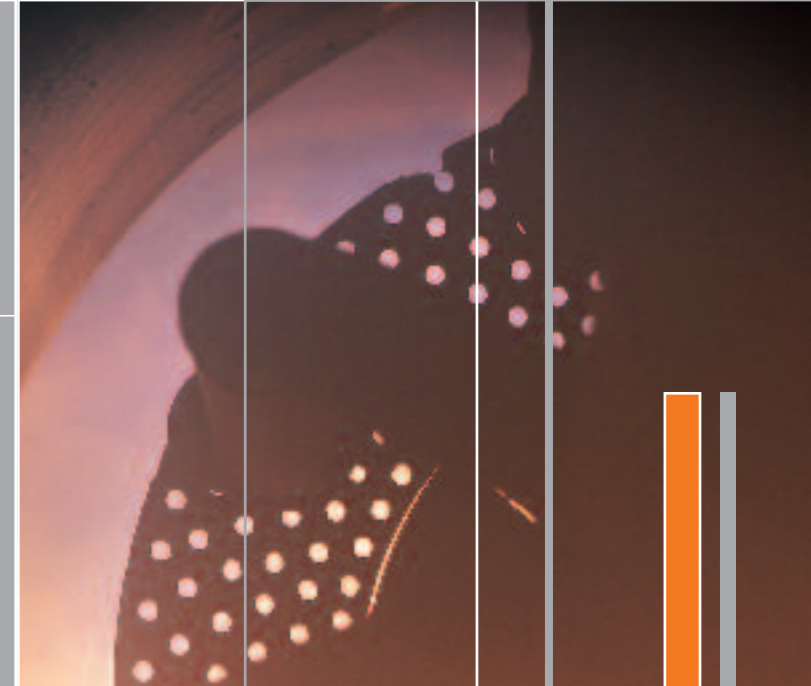
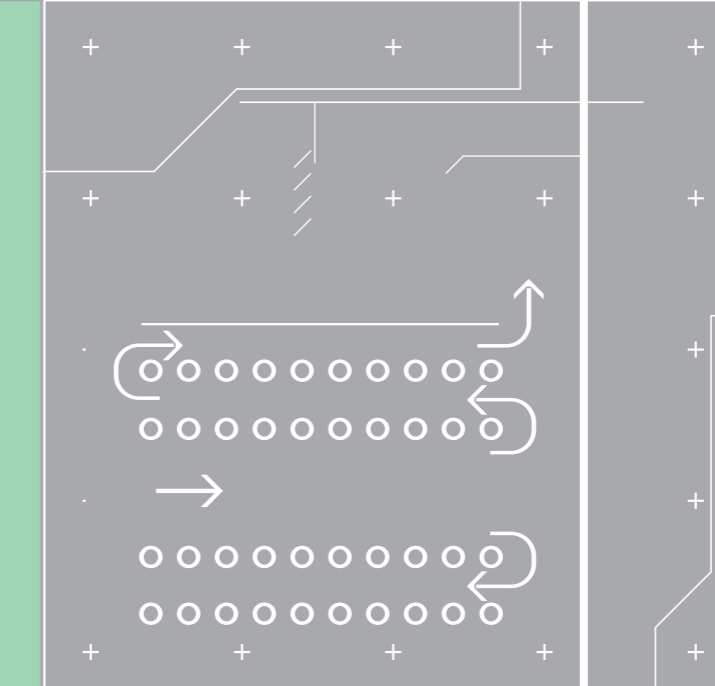
L.C.Z. was founded in 1971, with the aid of three partners who already had considerable expertise in the construction of Steam Generators, by a company established in the Forties.

In time, the company has specialized in the construction of steam generators, pressure equipment, heating systems and industrial installation, developing a complete range of products and installations for every industry, from food processing to packaging, from chemicals to apparel, from systems for industrial laundries to complete installations for processing milk and producing cheese.

L.C.Z. has become a reference at the national level in the design and construction of industrial steam systems.

Illustrations and technical specifications should be considered for reference purpose only. LCZ srl, constantly focused ongoing production, reserves the right to modify these without prior notice.

CFH April 2009



ACCESSORIES AND COMPLEMENTS

- **Installation and startup:** L.C.Z. installs and starts the equipment supplied, ensuring maximum efficiency and proper use. The professional skill gained in the sector by our structure guarantees the client prompt intervention with the maximum assurance of perfect function.
- **Design:** our technical department can solve any design problem indicating the most appropriate solutions for the type of industrial process you need to realize.
- **Assistance and spare parts:** our client need only do his own job. This philosophy has led L.C.Z. to develop over the years a service network with capabilities ranging from simple tune-up and adjustment to analysis of the waters, scheduled inspections and prompt replacement of malfunctioning equipment, from our well-stocked spare parts warehouse.
- **Heating systems:** for over thirty years we have been constructing steam heating systems on a turnkey basis. Our experience enables us to supply and install all the equipment in a steam heating system so as to provide the most efficient possible use of the generator.



L.C.Z. srl - Via Canvelli 21 - 43015 Noceto Parma - Italy
 Tel. +39 0521 258723/4 - Fax +39 0521 258717 - info@lcz.it - www.lcz.it

Morandini-Zerbiniato - ph. Mendini



FORCED CIRCULATION RAPID STEAM GENERATORS



Control panel

SERIES EQUIPMENT

Generator supplied in monoblock installed on a unique basement complete with general control panel with connections to the various devices.

Adjustment accessories:

- electronic regulator of steam pressure
- inverter for regulation of feeding water flow
- electronic pressure transmitter

Control accessories:

- steam pressure gauge
- water pressure gauge
- steam temperature electronic indicator
- steam pressure electronic indicator

Safety accessories:

- safety pressure switch
- PED safety valve
- n° 2 high steam temperature thermostat
- high smokes temperature thermostat
- feeding water lack fluxmeter
- clogged tube bundle pressure switch

Set valves and connections:

- steam outlet valve
- pressure gauge holder
- starting discharge valve
- backwashing valve with position switch.

Feeding group:

- three-piston electric pump
- interception valve
- check valve
- anti-cavitation pump (on demand)

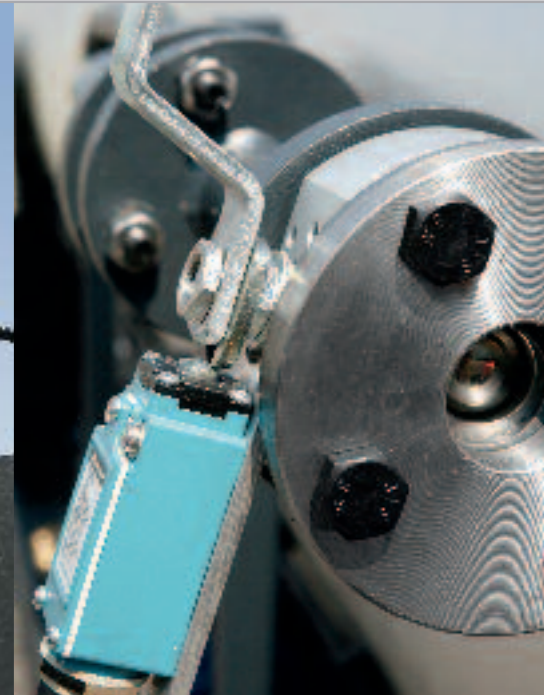
Steam outlet and safety valve



Safety and control tools



limit switch for backwashing system



CFH series steam generators are three effective smoke turns forced circulation boilers with monoblock structure on unique basement.

The possibility of obtaining steam in few minutes and the reduced overall dimensions make them the best choice in a wide range of use.

The functioning is completely automatic and is directly controlled by the control panel installed on board. The insulating shell is formed by mineral wool airbeds with external finish in sheet-aluminium.

The high qualitative standard used in the planning phases and in the choice of materials used results either at performance level, with 90% efficiency and low NOx values, or in terms of reliability and duration in time.

Generators are supplied with CE Verification Certification of unique product (assembly) according to the directive 97/23 EC (PED) notified by a Certification Body.

The advantages of the CFH forced circulation generators are:

- 90% warranted efficiency
- Execution of three effective smoke turns in horizontal and vertical version
- High title of steam thanks to the particular structure of the tube bundle, of the condensation separator in the steam collector and to the possibility of adjusting the water flow
- Exemption from the obligation of assistance of the enabled conductor
- Reduced emissions of pollutants thanks to the generous reduction of the combustion chamber

PACKAGED BOILER HOUSE

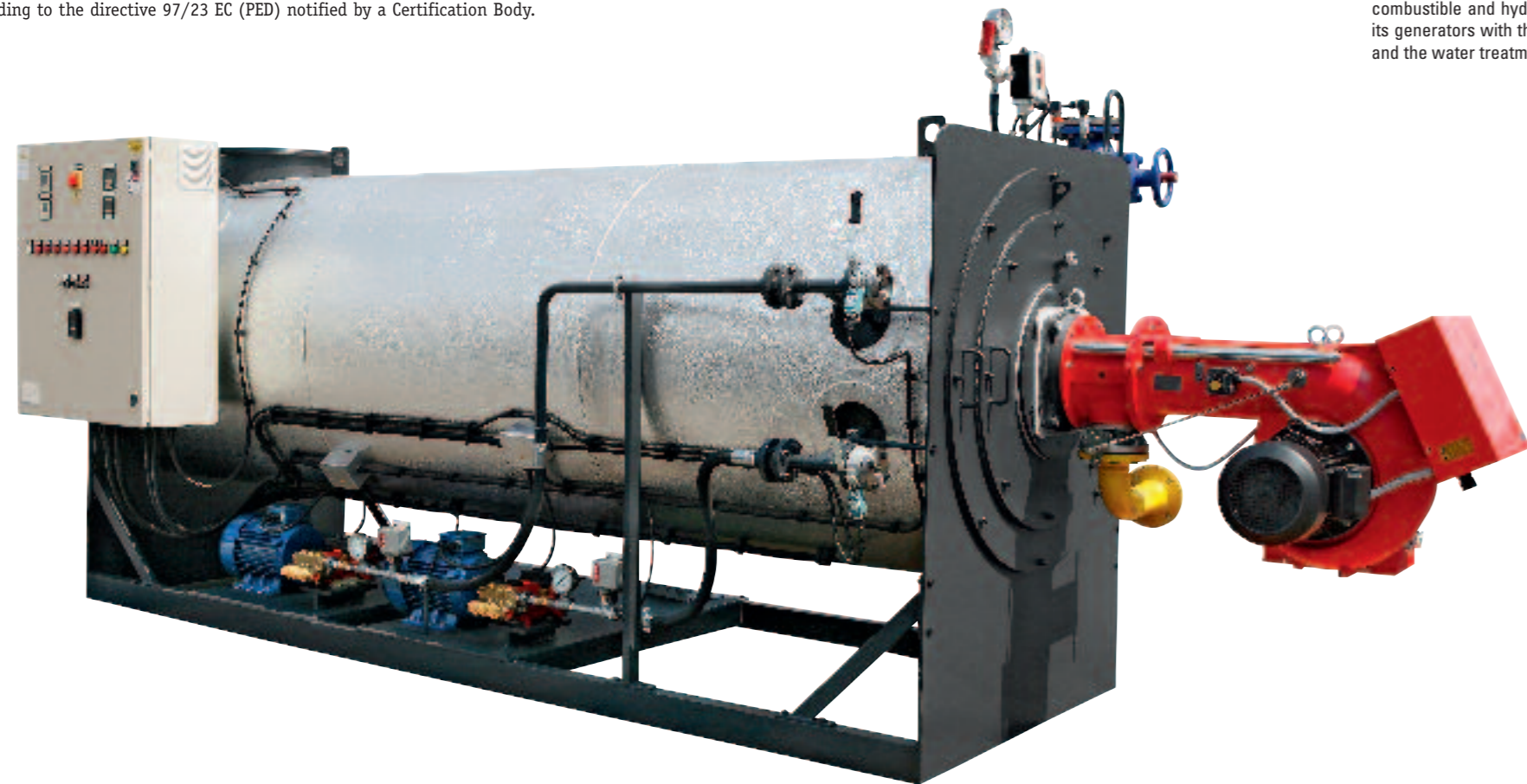
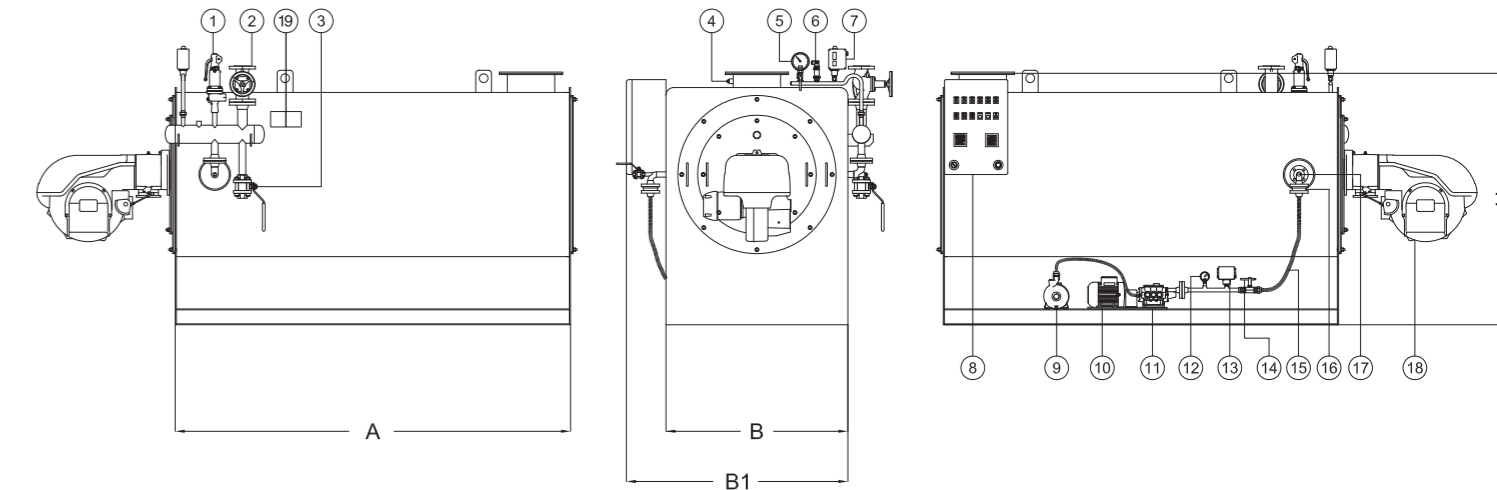
Packaged boiler house are equipped with all the fittings necessary to the functioning, the compact structure allows the positioning in the ideal place, near the building or on the roof.

Each packaged boiler house, before the construction, is designed by our technical office in order to obtain an installation according to the needs of the customer.

The installation is easy and rapid with the help of lift truck or of a crane for the positioning, it is necessary to have the connection of the power supply lines, combustible and hydraulic, moreover LCZ as unique interlock puts together its generators with the combustion installation, the smoke evacuation chimney and the water treatment.

- 1 safety valve
- 2 steam outlet valve
- 3 starting discharge valve
- 4 smokes thermostat
- 5 steam pressure gauge
- 6 pressure transmitter
- 7 Safety pressure switch
- 8 Control panel
- 9 anti-cavitation pump (on demand)
- 10 electric engine

- 11 feeding pump
- 12 pressure gauge group feeding
- 13 water pressure switch
- 14 fluxmeter
- 15 high pressure flexible
- 16 check valve
- 17 backwashing valve
- 18 burner
- 19 N° 2 steam safety thermostats



| Model | Useful potential | | Steam Prod. kg/h | Backpressure mm | P bar | Connection | | Weight Kg | Dimensions in mm | | | |
|----------|------------------|-------|------------------|-----------------|-------|------------|-------|-----------|------------------|------|------|------|
| | Kcal/h | kW | | | | steam | water | | A | B | B1 | H |
| CFH100 | 60.000 | 70 | 100 | 20 | 11,76 | DN25 | 1" | 600 | 1250 | 850 | 1100 | 1400 |
| CFH200 | 120.000 | 140 | 200 | 25 | 11,76 | DN25 | 1" | 650 | 1250 | 850 | 1100 | 1400 |
| CFH300 | 180.000 | 209 | 300 | 25 | 11,76 | DN25 | 1" | 700 | 1500 | 850 | 1100 | 1400 |
| CFH400 | 240.000 | 278 | 400 | 30 | 11,76 | DN25 | 1" | 800 | 1500 | 850 | 1100 | 1400 |
| CFH500 | 300.000 | 350 | 500 | 30 | 11,76 | DN25 | 1" | 900 | 1500 | 850 | 1100 | 1400 |
| CFH600 | 360.000 | 418 | 600 | 40 | 11,76 | DN32 | 1"1/4 | 1100 | 1750 | 1000 | 1250 | 1600 |
| CFH800 | 480.000 | 557 | 800 | 45 | 11,76 | DN40 | 1"1/4 | 1250 | 2000 | 1000 | 1250 | 1600 |
| CFH1000 | 600.000 | 698 | 1000 | 50 | 11,76 | DN50 | 1"1/2 | 1500 | 2250 | 1000 | 1250 | 1600 |
| CFH1250 | 750.000 | 872 | 1250 | 55 | 11,76 | DN50 | 1"1/2 | 1750 | 2500 | 1150 | 1400 | 1600 |
| CFH1500 | 900.000 | 1.047 | 1500 | 60 | 11,76 | DN65 | 2" | 2000 | 2750 | 1250 | 1500 | 1600 |
| CFH2000 | 1.200.000 | 1.395 | 2000 | 70 | 11,76 | DN65 | 2" | 2350 | 3100 | 1250 | 1500 | 1650 |
| CFH2500* | 1.500.000 | 1.744 | 2500 | 80 | 11,76 | DN80 | 2"1/2 | 2950 | 3500 | 1300 | 1600 | 1850 |
| CFH3000* | 1.800.000 | 2.093 | 3000 | 85 | 11,76 | DN100 | 2"1/2 | 3350 | 3750 | 1300 | 1600 | 1850 |
| CFH4000* | 2.400.000 | 2.795 | 4000 | 90 | 9,81 | DN100 | 3" | 4000 | 4000 | 1300 | 1600 | 1850 |

* From CFH2000 the steam generator is realized with two coils and two supply systems. Availability of vertical models CFV up to steam production of 2000 kg/h.