

# PRODUCT CATALOGUE



01 | 2019

 [icicaldaie.com](http://icicaldaie.com)







# HUMAN TECHNOLOGY

Specialists in excellent solutions

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Specialists in the design and production of complete high-tech thermal systems.

Our extensive experience has allowed us to develop a range of highly qualified services capable of meeting any requirements in terms of system management, monitoring and maintenance.

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[icicaldaie.com](http://icicaldaie.com)

# THE STRENGTH OF ICI CALDAIE

ICI Caldaie is a young and dynamic company, characterised by an indepth knowledge in the industrial field, great production capacity, customer support in the design phase and extreme flexibility in terms of design and production of non-standard boilers, entirely customised based on the customer's specific needs.

## Complete system Technical support and constultancy

Each non-standard project is developed by our Technical Department Engineers, and our cutting-edge Research and Development laboratory is entrusted with the development of new products compliant with the increasingly stringent European standards in terms of fuel consumption and emissions. All models produced by ICI Caldaie bear the CE mark and for many of them we have obtained different national certifications for export to Countries that require specific mechanical and hydraulic tests like the ASME - American Society for Mechanical Engineers - certificates.

The international success is the result of high quality standards. ICI Caldaie has obtained international product quality certifications that allow it to produce and distribute its boilers all over the world with top quality and safety features as required by the relevant specific regulations.



# CERTIFIED INNOVATION

The awarded certifications are an acknowledgement of our commitment to continual improvement proving the creation, application and maintenance of a Production, Management and Organisation System compliant with international regulations introduced to improve and standardise the internal processes as well as to enhance the effectiveness of the service to customers, thus increasing their satisfaction.

## Continued Customer satisfaction is a mark of the company's continual progress

ICI Caldaie has a strong quality culture, based around continual improvement resulting in obtaining system and product certifications such as ISO 9001 certification, CE certification and marks, the construction according to Directives on gas equipment and pressurised tanks, and by several national certifications on the export to Countries that require specific mechanical and hydraulic tests, such as the ASME - American Society for Mechanical Engineers - certificates.

Beside these certifications, the company policy of ICI Caldaie S.p.A. sets further objectives in terms of low environment impact and workers' health and safety. This on-going improvement philosophy has brought ICI Caldaie S.p.A. to obtain the environment certification according to the ISO 14001 standard and the certification on the workers' health and safety as per standard BS OHSAS 18001 (Occupational Health and Safety Assessment Series). ICI Caldaie believes that meeting the Customer needs is essential for the company's continual progress.



ISO 9001 QUALITY  
CERTIFICATION



OHSAS 18001 HEALTH AND SAFETY  
CERTIFICATION



ISO 14001 ENVIRONMENTAL  
CERTIFICATION







# COMMERCIAL AREA

With our experience ICI Caldaie S.p.A. Specialised technicians will support you from the initial study to the system sizing or renewal up to the test and monitoring activities of the plant room.

## Complete system Technical support and consultancy

We have a presence in countries all around the world, with headquarters and representative offices in Russia, Belarus, Kazakhstan, Romania, Great Britain, USA, China with products certified according to the specific local trade & technical regulations.

-  Commercial subsidiary
-  Representative offices
-  Official distributors

 **ITALY**  
Head Quarter

 **U.S.A.**  
Representative offices

 **GREAT BRITAIN**  
Commercial subsidiary

 **RUSSIA**  
Commercial subsidiary

 **ROMANIA**  
Commercial subsidiary





The international success is the result of high quality standards. ICI Caldaie has obtained international product quality certifications that allow it to produce and distribute its boilers all over the world with top quality and safety features as required by the relevant specific regulations.

## Product certifications



EUROPE



U.S.A.



RUSSIA  
BELARUS  
KAZAKHSTAN



CHINA



UKRAINE



**BELARUS**

Representative offices



**CHINA**

Representative offices



**KAZAKHSTAN**

Commercial subsidiary



**UKRAINE**

Representative offices









Integrated systems for the production of hot water with high water-volume boilers, satellite modules and control systems to optimise consumption and efficiency

## RESIDENTIAL AREA



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ICI CALDAIE SpA reserves the right to apply any modification it deems necessary to improve its products, without prior notice.



## MANAGEMENT SYSTEM **eterm**<sup>TM</sup>

The **eterm** management system is a system designed by ICI CALDAIE after several years of experience both in Italy and abroad on automation, management and remote control systems for the production of heat.

The result of the Know-how acquired over time in the electrical and automation field is a very simple, reliable and extremely versatile system compared to other systems available on the market.

# eterm™ Management System eterm™

Eterm is an automation and remote control system dedicated to the heating and climate control field. The different hardware equipment, interconnected via bus, interact for the complete management of a plant.

## - [www.eterm.it](http://www.eterm.it)

The new portal is available to all users of Eterm and Nereix equipment.

The site suggests **etermPCmanager** for the configuration of the plants that can be then recorded for the remote management via Internet.

On specific requests of the customer we provide remote controls on synoptic **etermE-ASYmanager** with recording of the equipment operating parameters.

By signing specific service agreements **etermWEBmanager** allows viewing and analysing the Nereix equipment consumption data.

Designers, managers and users can monitor, analyse and work to optimise performance, comfort and plant efficiency.



## - **etermPCmanager**

Windows software for PC that allows the configuration and remote management of all Eterm and Nereix equipment.

This software can be connected to the equipment by means of:

- direct USB connection to all equipment
  - RS232 (serial port) direct connection, Eterm Master equipment
  - GSM modem for eterm Master equipment and Boiler Control Board.
  - internet connection after free-of-charge registration of the plant on [www.eterm.it](http://www.eterm.it)
- Further information, download and use licence purchase options are available on [www.eterm.it](http://www.eterm.it)

## - **etermWEBmanager**

WEB application on [www.eterm.it](http://www.eterm.it) by means of which it is possible to read and export the consumption data of the Nereix equipment in the field.

After signing specific service agreements\*, the software can be used by the apartment administrator to allocate the costs and by the single users of Nereix heat interface units. etermWEBmanager provides charts and advanced graphs showing the daily measurements taken for the entire duration of the service agreement.

## - **etermEASYmanager**

WEB application on [www.eterm.it](http://www.eterm.it) through which it is possible to monitor one's own plant on synoptic diagram.

Further information on the plant configuration and the synoptic diagram is available on [www.eterm.it](http://www.eterm.it)

# MAINTAIN, CONTROL AND MANAGE YOUR SYSTEM



## - Generating heat with top efficiency

The Eterm boiler control panels allow optimising the operation of the burners according to the required temperature in each circuit.

The control equipment constantly checks the setpoint temperature necessary for all associated circuits, whether connected to the equipment itself or to other equipment of the same bus network.

## - Distributing Heat with minimum loss

To ensure overall high efficiency, the distribution must occur while minimising the losses. Eterm allows reaching this target by constantly monitoring the actual thermal requirement of the utility and working in real time on the heat generation and distribution. In particular, Eterm can adjust temperatures and flow rates according to the real requirements by checking the boiler pumps, the mixing valves and the distribution riser delivery pumps.



## - Using the heat with awareness

With the Nereix utility heat interface units the Heat can be regulated and used rationally by combining the handiness of the autonomous heating with the efficiency of the centralised one.

Every user can monitor the trend of their consumptions and adapt their behaviour in order to obtain the best compromise between comfort and expense.

If you wish, it is also possible to set, at the centralised level, some limits to the ambient temperature in different time intervals (in accordance with the prevailing standards and/or condominium regulations).

Each autonomous Eterm regulation can interact with the heating plant room and the distribution system by communicating its requirement. The plant and the distribution system will adapt fast to all actual requests to meet the needs of the tenants while limiting possible waste.

The plant and the distribution system will adapt fast to all actual requests to meet the needs of the tenants while limiting possible waste.



## - Keeping the control of the whole system

Eterm allows monitoring and setting, both locally and remotely, all connected system equipment.

The system results in:

- the reduction of the used power
- great energy saving
- longer duration of the system components
- low environmental impact

# Eterm™ PLANT ROOM MANAGEMENT SYSTEM

## Benefits

### Easy installation:

- Guided selection of necessary components
- Typical personalised wiring diagrams
- Remote configuration by ICI Caldaie specialised technicians

### Optimisation of heat generation system:

- Burner modulation
- Progressive temperature
- Hourly programming
- Remote modification of settings depending on weather
- Cascade control
- Integrated management of adjustment and distribution circuits
- Water heater management

### Better service to the final user:

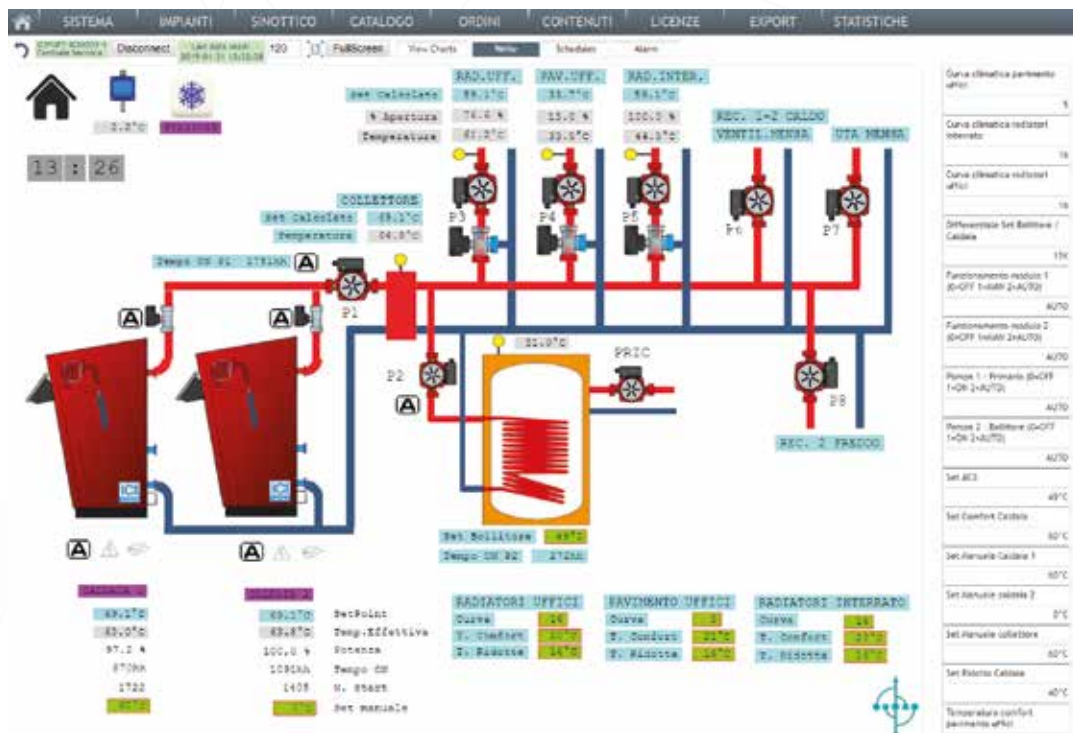
- Control and adjustment of the flow temperature
- Alarm signalling to solve malfunctions before breakdown occurs
- Possibility of consumption reduction

### Speed and easy management:

- System manageable from any device equipped with browser (computer, tablet, smartphone)
- Possibility to remotely change settings
- Possibility to understand the nature of the intervention required

### Minimisation of unexpected events:

- It avoids the need to physically go the heating plant room
- It eliminates unexpected events due to handling to perform the operation



## Savings for the maintenance technician

- No intervention costs to change settings for climatic reasons or requests by the user
- No intervention costs for incorrect reports by the user (false alarms)
- Possibility to program interventions on the basis of alarm signalling
- No cost for any consulting or supervision by ICI Caldaie personnel (remotely).

## Historical data consultation

- To optimise adjustment
- To demonstrate quality and continuity of the service provided to the user



## Where can it be installed?

In all heating plant rooms with any type of boiler that has a forced air burner.

## What can it control?

- Forced air burners of any type
- Circulation pumps
- Zone valves
- Cascade valves
- Mixing valves
- Water heaters
- Solar panels and relevant accessories

## How is the system configured?

At the preliminary stage, a simple hydraulic diagram of the system will be provided, based on this the required accessories and panels as well as typical electrical connection diagrams will be indicated.

Once control panels are installed and electrically connected, device configuration is performed from remote by ICI Caldaie personnel.

Within a few hours the internet page dedicated to the customers will be available for the management of their system.



## System components

Components are proposed based on the plant room diagram and essentially are:

Boiler control panel **master** equipped with modem and data SIM  
Boiler control panel **slave**



Code	QETERM01CE*
	QETERM01CEM

\* Slave control panel

Controller for system management  
(Mixed circuits, solar plant, etc.)



Code	QETERM02
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External probe



Code	17020012
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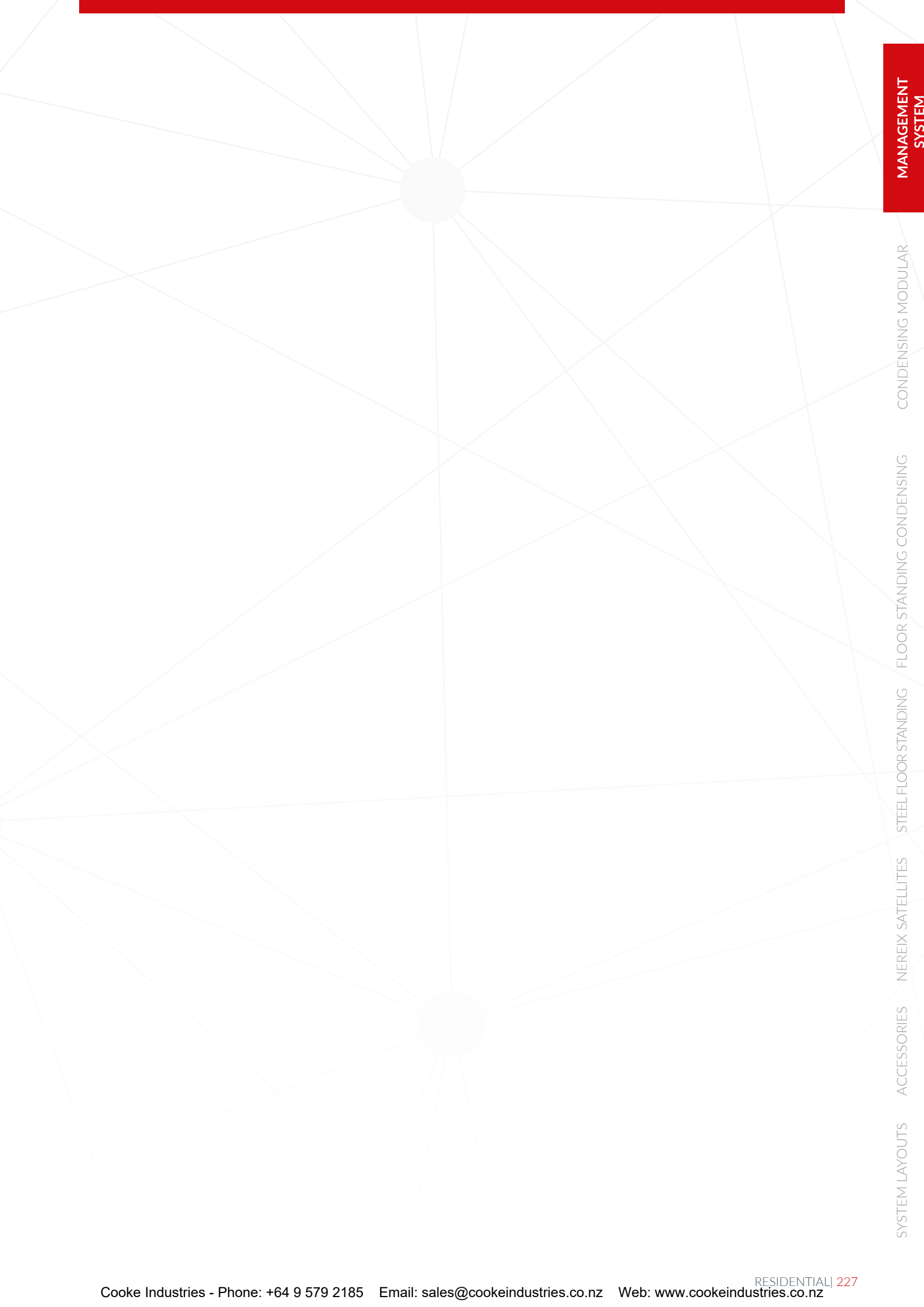
PT1000 supplementary probes (Water Heater, mixed circuits, solar plant, etc.)



Code	16111247
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Annual service including data SIM and dedicated internet page (free for the first year)









# **FLOOR STANDING CONDENSING BOILERS**

The condensing boilers represent the most efficient and advanced combustion technology for space heating. The floor standing solutions are characterised by reduced overall dimensions and ease of installation, for power outputs between 120 kW and 3000 kW

# MONOLITE GT



## DESCRIPTION

Condensing boiler, made from AISI 316 Ti stainless steel with single pass furnace and vertical exchange surfaces, designed to produce hot water at a maximum temperature of 110°C.

It is provided with pre-mixed, modulated burner for gaseous fuels with cylindrical, heat radiating combustion head and low NOx emissions.

## FEATURES



**Design pressure: 5 bar**



**Heat output: 120 ÷ 850 kW**



**Efficiency: > 107,0 %**

## ADVANTAGES



### High efficiency and large exchange surfaces

Extremely high energy efficiency thanks to the large exchange surfaces allowing top efficiency values under all operating conditions.



### Noble materials

All parts in contact with the flue gases are made of STAINLESS steel due to its high resistance to the corrosion caused by acidic condensate.



### High reliability in continuous operation

The construction features are such to make it particularly suitable to high working loads and long working periods.



### Reliability and durability

Maximum reliability and durability guaranteed through design with low surface heat losses.



### Maximum security

The generator has been designed in accordance with the strictest international safety regulations in force.



### 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.

# Condensing boiler

## MODELS

### MONOLITE GT

Design pressure: **5 bar**

Heat output: **120 ÷ 850 kW**

100% efficiency (ref. NCV)

- average temperature at 70°C: **98,5 %**
- del./ret. temperature 50°/30°C: **107,8 %**

30% efficiency (ref. NCV)

- average temperature at 70°C: **98,5 %**
- del./ret. temperature 50°/30°C: **109 %**

## AVAILABLE CERTIFICATIONS



## RECOMMENDED TECHNOLOGIES

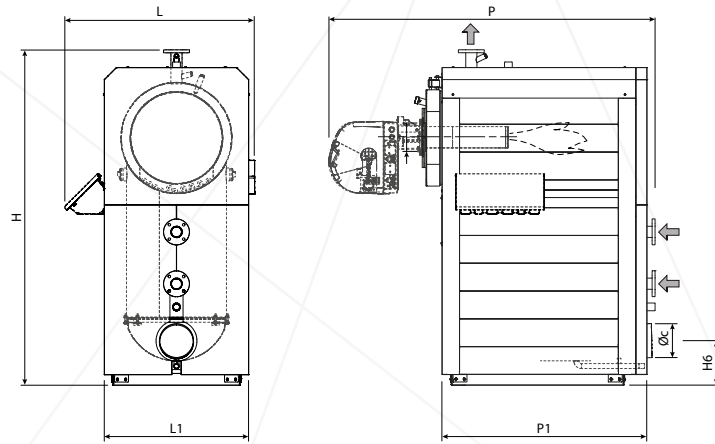


## MAIN APPLICATIONS

- ⊕ Commercial facilities
- ⊕ Hospitals
- ⊕ District heating
- ⊕ Heavy industry
- ⊕ Residential buildings
- ⊕ Industrial heating systems
- ⊕ Sports centers
- ⊕ Swimming pools and water parks

## TECHNICAL DATA

Model	Heat output, average temp. 70°C	Heat output, del./ret. temp. 50°/30°C	Flow thermal	Flue gas pressure drop	Hydraulic pressure drop	H2O volume	Total weight
MONOLITE GT	kW	kW	kW	mbar	mbar	l	kg
120 GT	110	120	111	1.4	19	150	340
140 GT	128	140	130	1.4	26	204	430
180 GT	165	180	167	1.4	43	204	430
250 GT	228	250	232	2.3	29	288	655
320 GT	292	320	297	2.9	47	288	711
420 GT	384	420	390	3.2	35	347	847
555 GT	507	555	515	3.6	25	469	1201
700 GT	640	700	649	3.9	40	440	1237
780 GT	713	780	724	3.4	50	506	1381
850 GT	777	850	789	4	59	506	1381



## DIMENSIONS

Model	H	H6	L	L1	P	P1	Øc
MONOLITE GT	mm	mm	mm	mm	mm	mm	mm
120 GT	1811	241	994	780	1270	851	180
140 GT	1811	241	994	780	1587	1106	180
180 GT	1811	241	994	780	1760	1106	180
250 GT	2140	358	1104	890	1765	1041	200
320 GT	2140	358	1104	890	2005	1281	200
420 GT	2185	358	1104	890	2300	1536	200
555 GT	2294	310	1188	974	2452	1560	250
700 GT	2294	310	1188	974	2452	1560	250
780 GT	2294	310	1188	974	2695	1810	250
850 GT	2294	310	1188	974	2695	1810	250

## STANDARD EQUIPMENT

Complete insulation casing  
Pre-mixed modulating burner for gaseous fuels

## PRODUCT CODES

Model	Code
MONOLITE 120 GT	81037120
MONOLITE 140 GT	81037140
MONOLITE 180 GT	81037180
MONOLITE 250 GT	81037250
MONOLITE 320 GT	81037320
MONOLITE 420 GT	81037420
MONOLITE 555 GT	81037555
MONOLITE 700 GT	81037700
MONOLITE 780 GT	81037780
MONOLITE 850 GT	81037850

## AVAILABLE ACCESSORIES

Code	Description	Monolite GT
81020001	Neutraliser	■
81020002	Neutraliser with pump	■
QCOND01ELMCE	Thermostatic control panel	■
QETERM01CE	Eterm boiler management control panel	■
QETERM01RU2	Eterm boiler management control panel - only for Russia and the former Soviet Union	■
QETERM02	Eterm system control panel	■
QCTETERM	Eterm Easy manager panel	■





MANAGEMENT SYSTEM

CONDENSING MODULAR

**FLOOR STANDING CONDENSING**

STEEL FLOOR STANDING

NEREIX SATELLITES

ACCESSORIES

SYSTEM LAYOUTS



## **ACCESSORIES**

Components designed to be used with residential boilers to further improve their performance; products designed for high-performance integrated systems.

# Eterm BOILER MANAGEMENT CONTROL PANEL



The QETERM01CE boiler management control panels can work independently to control one burner or with other panels of the same type for a centralised management of several boilers.

A modem can be connected to the single panel or the master panel of a series for the remote control.

The QETERM01CE panels (maximum 16) can be connected to one another through suitable bus connection.

If the system features a Master unit, it is possible to control/manage in remote the QETERM01CE panels suitably connected via bus.

A QETERM01CE panel can be the master unit of other boiler panels and at the same time the slave unit of a Master one (first and second level bus).

## Accessory codes

QETERM01CE
QETERM01RU2*

\* Available only for markets in: Russia, Belarus, Ukraine, Georgia and Kazakhstan

## STANDARD EQUIPMENT

Main switch  
Burner operation switch (Manual / Off / Automatic)  
2 programmable output operation switch (Manual / Off / Automatic)  
2 Regulation thermostats  
Safety thermostat  
Thermometer  
Microprocessor board  
Boiler probe

## Electronic board main functions:

- Single-stage - two-stage - three-stage burner management
- Progressive two-stage burner management
- Management of 0-10 or 4-20 mA three-point modulating burner
- Delivery temperature climate control (with optional external probe)
- 2 programmable outputs (230 Vac. / 2 A) that can be configured for:
- Management of the boiler circulation pump (with optional probe or thermostat)
- Management of the boiler circulation pump
- Management of the direct zone system circulation pump
- Management of the mixed zone circulation pump
- Management of the cascade header circulation pump
- Boiler probe input
- 2 programmable inputs that can be configured for:
- PT1000 probe input
- Digital input
- Programmable input that can be configured for:
- NTC probe input
- Digital input
- Management of the mixing valve with 0-10 V control (if no modulating burner with 0-10 Volt control)
- Management of three-point valve (if there is a single-stage or modulating burner with 0-10 Volt control)
- 0-10 Volt input that can be programmed for:
- Digital control
- Boiler temperature modulation
- Display of 0-10 Volt transducers
- Cascade management (with master or slave function)
- Pump anti-seize function
- Anti-freeze protection
- Replenishment water meter input with programmable alarm
- Flue gases temperature probe input with programmable burner stop and alarm

## Communication

- Modem connector
- USB socket
- RS485 to connect the board to any Master unit (boiler or Master board)
- RS485 connection to connect the board to any slave units (boiler boards or system management)

## Supply

- 230 vac.

## Dimensions

- 170 x 170 x 500 mm.

## AVAILABLE ACCESSORIES

OPTIONAL ACCESSORY	CODE
External probe	17120012
PT1000 temperature probe (immersion type for water heaters, mixed area, solar panels, etc.)	16111247
NTC temperature probe (immersion type for water heaters, mixed area, solar panels, etc.)	18022218
PT1000 flue gas temperature probe	CB1093
PT1000 temperature probe for ventilation channel	CB1091
NTC temperature probe for ventilation channel	CB1092
GSM antenna with 10 m cable	CB913
Eterm 2G modem kit (MMCX antenna)	MODETERM01
Eterm 3G modem kit (SMA antenna)	MODETERM02
GSM/GPRS modem (for PC station)	CB916
Eterm master with GSM/GPRS modem	QMASTER01
Eterm master with LAN Ethernet RJ45	QMASTER02
24 Vdc power supply for Eterm Master	ALQMASTER
Eterm ModBus interface with GSM/GPRS modem	QMBET01
Eterm ModBus interface with LAN Ethernet RJ45	QMBET02

# Eterm SYSTEM CONTROL PANEL



Accessory codes

QETERM02

The QETERM02 system control panel can communicate with boiler and Eterm Master panels.

QETERM02 can be programmed with suitable software and remotely controlled using an Eterm boiler or an Eterm Master panel as communication interface.

It is possible to connect up to 16 QETERM02 panels in a bus to increase the input and output availability.

Control panel for the management of equipment in the heating plant room; it can be used to control:

- pumps
- modulating pumps with analogue signals
- shut-off valves
- regulation valves
- mixing valves
- solar plants
- etc.

It allows the monitoring of the following for logic management or alarm communication:

- operating status
- temperatures
- analogue signals

## Main logic functions:

- Output enabling based on:
  - the season
  - one of the three timers
  - a digital input
  - a temperature threshold
  - a temperature differential
  - an analogue signal threshold
  - the request of Nereix utility modules connected to the same bus
- Mixing valve management:
  - 0/10 Volt control
  - 4/20 mA control
  - three-point control
- Analogue outputs (0/10 Volt and 40/20 mA) proportional to:
  - temperatures
  - temperature differentials
  - the request of Nereix utility modules connected to the same bus

## Programmable outputs

- 2 dry contact outputs (230 Vac 1 A)
- Dry contact output / phase cut (230 Vac 1 A)
- 2 switching outputs that can be used also for three-point control mixing valves (230 Vac 1 A)

## Analogue outputs

- 0-10 Volt
- 4-20 mA

## Inputs for temperature or digital probes

- 3 PT 1000 / digital programmable inputs
- NTC / digital programmable input

## Analogue inputs 0/-10 Volt and 4/-20 mA - Communication

- USB socket
- RS485 to connect the board to any Master unit (boiler or Eterm Master board)

## Supply

- 230 vac.

## Dimensions

- 200 x 250 x 100 mm.

## AVAILABLE ACCESSORIES

OPTIONAL ACCESSORY	CODE
External probe	17120012
PT1000 temperature probe (immersion type for water heaters, mixed area, solar panels, etc.)	16111247
NTC temperature probe (immersion type for water heaters, mixed area, solar panels, etc.)	18022218
PT1000 flue gas temperature probe	CB1093
PT1000 temperature probe for ventilation channel	CB1091
NTC temperature probe for ventilation channel	CB1092

# MASTER Eterm



Communication interface for eterm equipment and Nereix modules:  
 By means of a Bus system (proprietary protocol) it is possible to connect:  
 Nereix Climate and Nereix Metering heat interface units  
 Meter Bus Centralisers  
 Boiler management control panels  
 System management control panels  
 With eterm Bus it is possible to manage from PC all devices either in local or remote mode:  
 RS232  
 USB  
 Modem GSM/GPRS (code QMASTERET01)  
 LAN Ethernet RJ45 (code QMASTERET02)  
 The data can be managed with:  
 etermPCmanager, program to be installed on PC that can be connected  
 Via USB or RS232  
 Via Modem (optional for PC)  
 Via internet  
 etermEASYmanager, WEB program available on [www.eterm.it](http://www.eterm.it) to view the system synoptic diagram

Accessory codes	QMASTERET01
	QMASTERET02
	ALQMASTER

### The Eterm Master unit is also provided with:

- 4 inputs for meters provided with pulse output installed in the heating plant room: Gas, Hot water, Cold water, Electric energy
- NTC input for external probe, such information will be available to all system slave units
- digital output (closed contact if at least one heat interface unit module is in request mode)

### Master ModBus function

- With suitable configuration, the Eterm Master can manage as Master unit the ModBus slave devices, in order to transmit on etermEASYmanager web application the data acquired by these ModBus devices. ModBus two-wire RTU RS485 connection.

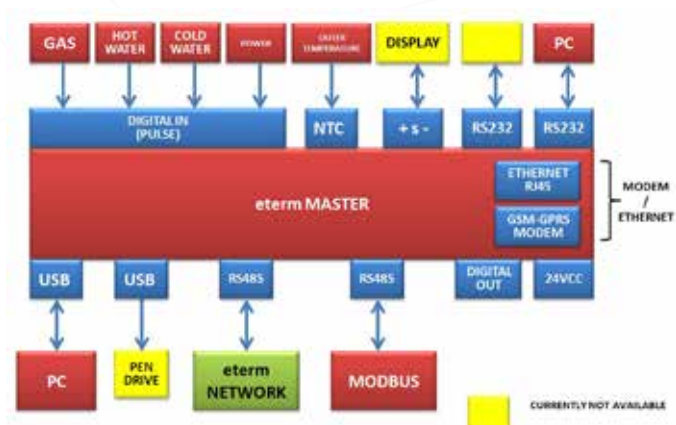
### Slave ModBus function

- With suitable configuration, the Eterm Master can become the slave unit of a ModBus data acquisition device. In this way, all eterm equipment connected to the master can be managed via ModBus (both in reading and writing based on the type of parameter). ModBus two-wire RTU RS485 connection.

### Supply

- 24 Vdc (ALQMASTER supply unit code)

### Connections:





# Eterm MODBUS INTERFACE



Communication interface for eterm equipment:  
 By means of a Bus system (proprietary protocol) it is possible to connect:  
 Meter Bus Centralisers  
 Boiler management control panels  
 System management control panels  
 With eterm Bus it is possible to manage from PC all devices either in local or remote mode:  
 RS232  
 USB  
 Modem GSM/GPRS (code QMASTER01)  
 LAN Ethernet RJ45 (code QMASTER02)  
 The data can be managed with:  
 etermPCmanager, program to be installed on PC that can be connected  
 Via USB or RS232  
 Via Modem (optional for PC)  
 Via internet  
 etermEASYmanager, WEB program available on [www.eterm.it](http://www.eterm.it) to view the system synoptic diagram

Accessory codes	QMBET01
	QMBET02
	ALQMASTER

### The Eterm Master unit is also provided with:

- 4 inputs for meters provided with pulse output installed in the heating plant room:
- Gas
- Hot water
- Cold water
- Electric energy
- NTC input for external probe, such information will be available to all system slave units
- digital output (not used)

### Master ModBus function

- With suitable configuration, the Eterm Master can manage as Master unit the ModBus slave devices, in order to transmit on etermEASYmanager web application the data acquired by these devices. ModBus two-wire RTU RS485 connection.

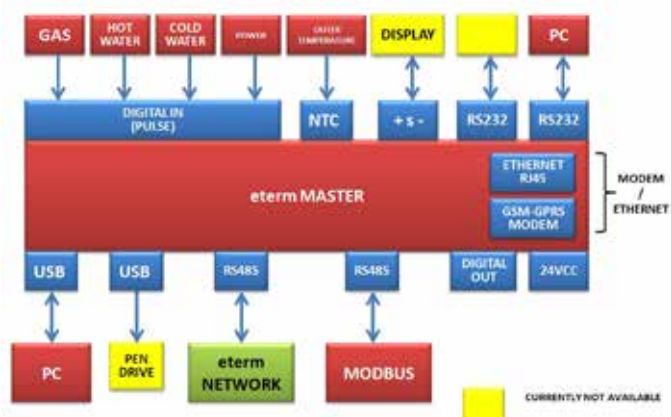
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### Supply

- 24 Vdc (ALQMASTER supply unit code)

### Connections:



# THERMOSTATIC CONTROL PANELS

## For MONOLITE GT, CODEX and CODEX GT boilers



- Panel complete with:
- illuminated main switch
- 2 boiler regulation thermostats
- manual reset safety thermostat
- system circulation pump enabling thermostat
- burner switch
- system circulation pump switch
- boiler thermometer

Code	Boiler reg. thermostat	Safety thermostat
QCOND01ELMCE	0° - 100° C	110° C
QEST03110*	55° - 110° C	115° C

\* Available only for markets in: Russia, Belarus, Ukraine, Georgia and Kazakhstan

## For GREENOX BT COND boilers



- Panel complete with:**
- voltage presence light indicator
- voltage presence light indicator
- manual reset safety thermostat
- burner switch
- system circulation pump switch
- boiler thermometer
- system circulation pump enabling thermostat

Code	Boiler reg. thermostat	Safety thermostat
QACCBT01ELMCE	0° - 100° C	110° C
QEST03110*	55° - 110° C	115° C

\* Available only for markets in: Russia, Belarus, Ukraine, Georgia and Kazakhstan

## ETERM BOILER MANAGEMENT CONTROL PANEL



### Standard equipment:

- main switch
- manual or automatic burner operation switch
- INAIL regulation twin thermostat
- INAIL safety thermostat
- INAIL thermometer
- microprocessor board
- boiler probe

Type	Code	Boiler reg. thermostat	Safety thermostat
Boiler management control panel	QETERM01CE	0° -100° C	110° C
Boiler management control panel	QETERM01RU2*	55° - 110° C	115° C

Optional accessories	Code
External probe	17120012
Immersion temperature probe (boiler, water heater, mixed zone)	16111247
GSM modem	CB955
Flat cable for GSM modem	CB926
GSM antenna with 10 m cable	CB913

## ETERM SYSTEM CONTROL BOARD

### PLC



### Main functions:

#### Output enabling based on:

- the season
- with time schedule
- with digital input
- with temperature thresholds
- temperature differentials
- analogue signal thresholds
- with requests of Nereix line utility modules of ICI Caldaie connected to the same bus

Type	Code
System control board	QETERM02

Optional accessories	Code
External probe	17120012
PT1000 temperature probe	16111247

## ACID CONDENSATE NEUTRALISATION SYSTEM



The condensate neutralisation system is an accessory for the condensing boilers. The acid condensate must be neutralised with calcium carbonate to bringing the pH values above 7 thus allowing the discharge together with the domestic water according to the prevailing laws. It is available in two versions with container and 25 kg of calcium carbonate beads.

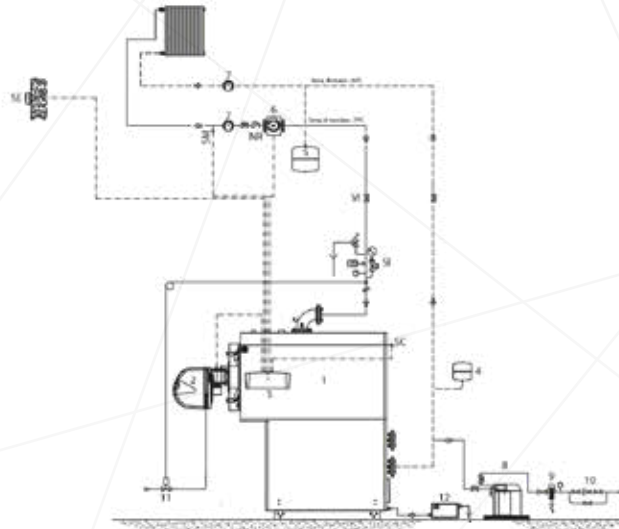
Type	Code
Neutraliser	81020001
Neutraliser with pump	81020002



# SYSTEM LAYOUTS

# SYSTEM LAYOUTS

System layout for MONOLITE GT and CODEX boilers:  
1 direct zone, 1 boiler



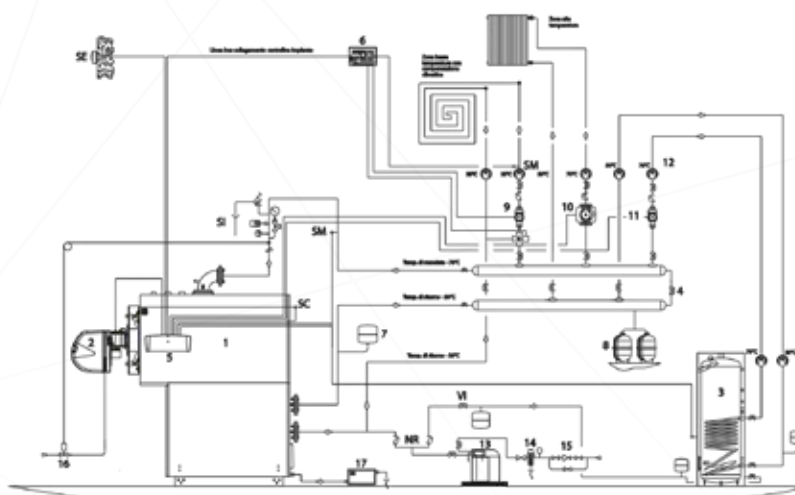
## Description

- 1.Boiler
- 2.Burner
- 3.Eterm control panel
- 4.Expansion vessel
- 5.System expansion vessel
- 6.System pump

- 7.Thermometer
- 8.Water treatment
- 9.Filter
- 10.Water feed system
- 11.Fuel shut-off valve
- 12.Condensate neutraliser

- SE** External probe  
**SM** Water delivery probe  
**SC** Boiler probe  
**NR** Non-return valve  
**VI** Shut-off valve  
**SI** I.S.P.E.S.L safety

System layout for MONOLITE GT and CODEX boilers:  
1 direct zone, 1 mixed zone, 1 boiler, 1 water heater



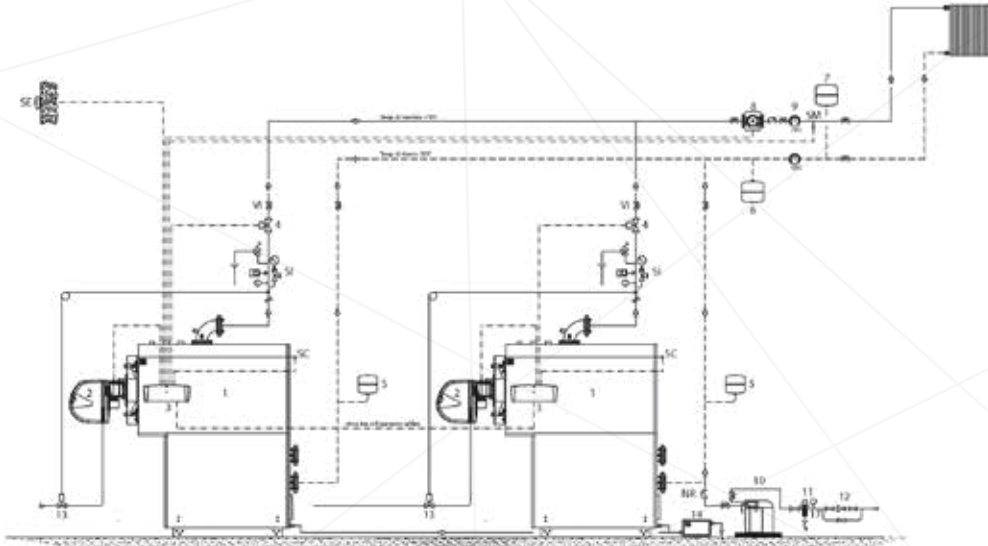
## Description

- 1.Boiler
- 2.Burner
- 3.Water heater
- 4.By-pass valve
- 5.Eterm control panel
- 6.System management board
- 7.Boiler expansion vessel
- 8.System expansion vessel

- 9.Thermometer
- 10.Water treatment
- 11.Filter
- 12.Water feed system
- 13.Fuel shut-off valve
- 14.Condensate neutraliser

- 17.Condensate neutraliser
- SE** External probe  
**SM** Water delivery probe  
**NR** Non-return valve  
**VI** Shut-off valve  
**SI** I.S.P.E.S.L safety

**System layout for MONOLITE GT and CODEX boilers:  
1 direct zone, 2 cascade boilers**



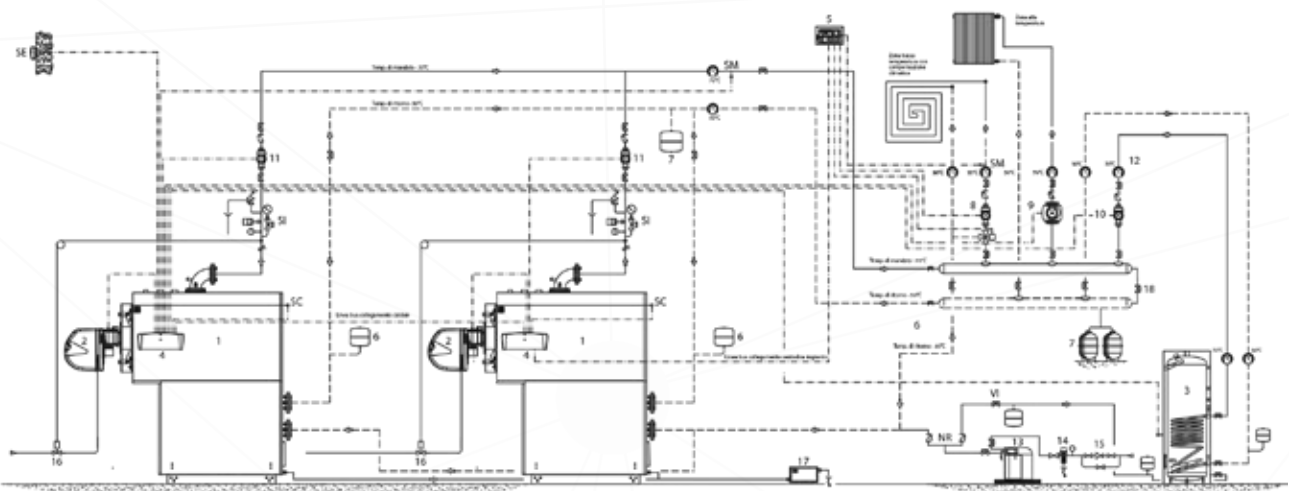
**Description**

- 1.Boiler
- 2.Burner
- 3.Eterm control panel
- 4.Shut-off valve
- 5.Boiler expansion vessel
- 6.System expansion vessel
- 8.System pump

- 9.Thermometer
- 10.Water treatment
- 11.Filter
- 12.Water feed system
- 13.Fuel shut-off valve
- 14.Condensate neutraliser

- SE External probe
- SM Water delivery probe
- SC Boiler probe
- NR Non-return valve
- VI Shut-off valve
- SI I.S.P.E.S.L safety

**System layout for MONOLITE GT and CODEX boilers:  
1 direct zone, 1 mixed zone, 2 cascade boilers, 1 water heater**



**Description**

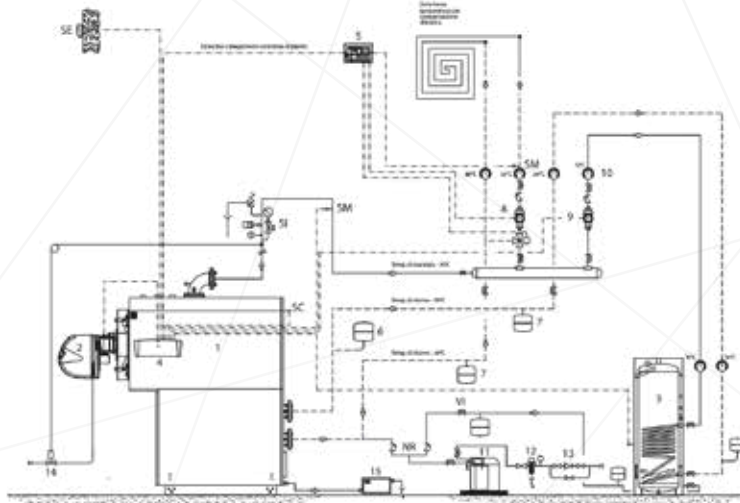
- 1.Boiler
- 2.Burner
- 3.Water heater
- 4.Eterm control panel
- 5.System management board
- 6.Boiler expansion vessel
- 7.System expansion vessel
- 8.Low temperature system pump

- 9.High temperature system pump
- 10.Water heater pump
- 11.Boiler circuit pump
- 12.Thermometer
- 13.Water treatment
- 14.Filter
- 15.Water feed system
- 16.Fuel shut-off valve

- 17.Condensate neutraliser
- 18.By-pass valve
- SE External probe
- SM Water delivery probe
- NR Non-return valve
- VI Shut-off valve
- SI I.S.P.E.S.L safety



**System layout for MONOLITE GT and CODEX boilers:  
1 mixed zone, 1 boiler, 1 water heater**



**Description**

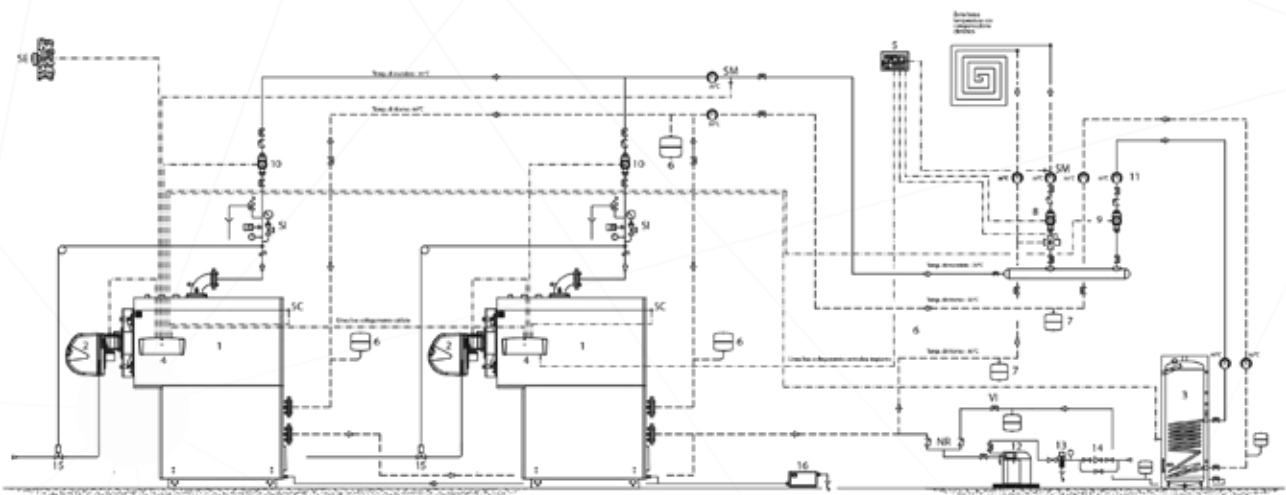
- 1.Boiler
- 2.Burner
- 3.Water heater
- 4.Boiler control panel
- 5.System management board
- 6.Boiler expansion vessel
- 7.System expansion vessel

- 8.Low temperature system pump
- 9.Water heater pump
- 10.Thermometer
- 11.Water treatment
- 12.Filter
- 13.Water feed system
- 14.Fuel shut-off valve

- 15.Condensate neutraliser

- SE** External probe
- SM** Water delivery probe
- NR** Non-return valve
- VI** Shut-off valve
- SI** I.S.P.E.S.L safety

**System layout for MONOLITE GT and CODEX boilers:  
1 mixed zone, 2 cascade boilers, 1 water heater**



**Description**

- 1.Boiler
- 2.Burner
- 3.Water heater
- 4.Boiler control panel
- 5.System management board
- 6.Boiler expansion vessel
- 7.System expansion vessel

- 8.Thermometer
- 9.Water treatment
- 10.Filter
- 11.Water feed system
- 12.Fuel shut-off valve
- 13.Condensate neutraliser

- 15.Fuel shut-off valve
- 16.Condensate neutraliser

- SE** External probe
- SM** Water delivery probe
- NR** Non-return valve
- VI** Shut-off valve
- SI** I.S.P.E.S.L safety



Highly-qualified services capable of meeting the requirements of the the heat and energy saving fields.

## SERVICE AREA

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### ⊕ SERVICES

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The provided figures and data are for reference only.

**ICI CALDAIE SpA** reserves the right to apply any modification it deems necessary to improve its products, without prior notice.



## INDUSTRIAL AREA

The services on this page are available for:

### Industrial start-up

The start-up assistance of an industrial line boiler (steam, super-heated water and waste-heat boilers) is divided into the following categories.

- Start-up assistance of boilers without GSS
- Start-up assistance of boilers with GSS24/GSS 72 module B+D
- Hot functional test of boilers with GSS24/GSS 72 module F
- Industrial start-up assistance abroad
- Industrial start-up assistance with performance test

#### Start-up assistance of boilers without GSS

The start-up assistance of a boiler without GSS is provided by specialised technicians of ICI Caldaie or authorised service centres at the customer's heating plant room.

During the start-up, the presence of a technician is not compulsory, but it is very useful as a training occasion for the maintenance technician.

With regard to boilers installed in Italy, the only obligation of the customer is the request of the boiler commissioning to the competent INAIL office as per Ministerial Decree No. 329 of 1 December 2004.

#### Start-up assistance of boilers with GSS24/GSS72

The start-up assistance of a boiler with GSS 24/72 is provided by specialised technicians of ICI Caldaie or authorised service centres at the customer's heating plant room.

During the start-up, the presence of qualified technicians is very useful as a training occasion.

Boilers with GSS 24/72 are supplied by ICI Caldaie already certified according to modules B+D as per PED Directive 2014/68/EU. With regard to boilers installed in Italy, the only obligation of the customer is the request of the boiler commissioning to the competent INAIL office as per Ministerial Decree No. 329 of 1 December 2004.

#### Hot functional test of boilers with GSS24/GSS 72 module F

The assembly test of a boiler with GSS 24/72 can be performed in the presence of an appointed Notified Body at the ICI Caldaie facilities or customer's heating plant room.

If the assembly test is performed at the ICI Caldaie facilities, the presence of a technician, after the installation of a boiler, is not compulsory, but it is useful as a training occasion for the maintenance technician.

Boilers with GSS 24/72 are certified by ICI Caldaie according to modules B+D as per PED Directive 2014/68/EU. The customer does not have to request the commissioning since the product is compliant with art. 5, letter D of the Ministerial Decree No. 329 of 1 December 2004. The only obligation of the customer is to notify boiler commissioning to the competent INAIL office.

#### Industrial start-up assistance abroad

Assistance activities during start-up will be carried out by an Italian technician appointed by ICI CALDAIE, who does not own licences or local permits to operate on steam generators.

During assistance activities the customer will have to ensure the presence of personnel authorised to operate on the above-mentioned boilers.

The activity will only have technical-functional valence but not regulatory valence.

The technician in charge cannot sign the documents having this kind of valence.

The start-up of the burner is not included, and will have to be carried out by the local service centre authorised by the manufacturer of the burner and appointed directly by the customer.

The burner technician will have to be present during the carrying out of all the assistance activities performed by the ICI CALDAIE technician.

#### Start-up Assistance with performance test

The performance test is performed by specialised technicians of ICI Caldaie or authorised service centres at the customer's heating plant room. It involves testing of noise and/or efficiency and/or performance values agreed at the time of sale.



## INDUSTRIAL AREA

The services on this page are available for:

### Preventive maintenance of steam, superheated water and WHB boilers

The customer can at any time sign with ICI an ordinary maintenance agreement that, thanks to the scheduled inspections, guarantees the boiler control and the purchased product trouble-free operation over time. The preventive maintenance requires an annual inspection by our authorised Technical Service Centres (CAT) including the following operations:

- Cleaning and visually checking the level probes
- Checking the instrument train
- Checking the safety device operation
- Checking the flue gas side
- Checking the supply pump operation through the sight glasses
- Checking the seals for any leak and replacing them if needed (material not included)
- Checking the turbulator conditions (if any)
- Checking the main control panel
- Checking the boiler functionality
- Checking the access door internal coating

### Requalification of the boilers to avoid constant surveillance for 72 or 24 hours

The steam and super-heated water boilers, during their operation in a heating plant room, must be monitored by duly authorised control personnel. ICI Caldaie offers the possibility of requalification of said boilers and to extend such obligation to 72 or 24 hours by installing a Global Safety System (GSS72 or GSS24) for steam and super-heated water boilers; this system allows leaving the operating heating plant room “unattended” for maximum 72 or 24 operating hours. Such operation has a variable cost according to the accessories already present in the boiler.

### Retubing Boilers

The service involves the replacement of the fire tubes of boilers by ICI Caldaie or third parties, where the presence of leaks was ascertained. The job involves the mechanical removal of the broken tube and subsequent replacement involving welding. Upon each step of the procedure, the necessary non-destructive tests required by law will be carried out to ensure the success of the work.



INDUSTRIAL AREA



RESIDENTIAL AREA

The services on this page are available for:

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## Warranty extension

ICI Caldaie allows extending the commercial warranty according to the selected duration, starting from the delivery date. The base warranty extension provides only the warranty extension.

No warranty is provided if the damage is caused by:

- improper or unsuitable use
- installation or first start-up performed by the purchaser or third parties in a wrong way
- use or presence of chemical substances, electro-chemical or electric flow, not due to us
- failure to comply with the instructions provided in the user manual, improper changes or modifications, in any case performed by the purchaser or third parties
- faults of the elements not supplied by ICI Caldaie
- aggressive or halogen vapours in the environment (combustion air)
- corrosion due to oxygen
- presence of limestone
- use of the product even if faulty
- wrong electric power supply or connections
- pressure or gas type different from the ones specified for the product

Warranty application is granted by ICI CALDAIE SPA and is subjected to standard conditions of sale shown in the PRODUCT CATALOGUE.

### WARRANTY

Any faults detected must be reported immediately by registered letter sent to ICI CALDAIE which reserves the right to carry out an inspection using its own personnel (direct or appointed) at the heating plant room where the problem has arisen. The part to be tested must be sent, carriage paid, to the ICI CALDAIE SPA Service to be examined. Only after this inspection, it will be possible to establish whether the fault is due to faulty material and/or manufacture, or whether it is due to an external cause. After this verification, the customer will be informed of whether or not the fault is covered by the warranty.

Furthermore, the water circulating in the system must be analysed 2 or 3 weeks after the boiler has started operation. This analysis is to be carried out by the installing company which will also bear the relative costs and the results must be attached to the plant register and communicated to ICI Caldaie within two months following the start-up of the boiler. The analysis must comply with the characteristics identified in technical manuals.

The warranty will cover only the defective part; any other expense, for example labour used for the replacement, will be charged to the person requesting the replacement.

The services on this page are available for:



INDUSTRIAL AREA



RESIDENTIAL AREA

## Warranty extension

### WARRANTY LIMITATIONS

Defects due to different causes not resulting from manufacturing defects are excluded from this warranty, and in particular:

- Tampering or improper adjustment of the boiler performed by the purchaser or third parties who are not part of the network of authorised Technical Assistance Centres on behalf of ICI CALDAIE SPA.
- Conditions of use not envisaged in the instructions and warnings provided on the instruction booklets of ICI CALDAIE SPA supplied with the boiler.
- Use of non-original ICI CALDAIE SPA spare parts.
- System faults, installation errors or non-conformity of the system in relation to the instructions, warnings, Laws, Regulations and applicable Technical Standards (for example: incorrect regulation, boiler supplied with incorrect gas or electrical power, use outside of the boiler type-approval field).
- Absence of exchanger between the primary circuit and the secondary one.
- Thermal shocks due for example to sudden and continuous filling of cold water into the system.
- In the event of operation with pressure below or exceeding the pressure indicated on the data plate of the boiler.
- In the event of clogging from limestone, deposits and sludge, presence of corrosion, overheating of the boiler body.
- No water in the system.
- Use of a fuel other than the indicated one to supply the boiler.
- In the case of inappropriate installations, operation or maintenance which cause damage to the boiler installed, for example poor regulation of the burner, absence of the safety elements required by current Regulations such as safety valves or suitable expansion system, or inappropriate chemical cleaning of the system.
- Use of an unsuitable product for treating the water in the system or an anti-freeze which is incompatible with the construction materials of the system.
- Failure to remove the processing waste and residues in the case of new system or removal of sludge and subsequent cleaning in pre-existing system. In both cases, the operations recommended must be carried out before the boiler of ICI CALDAIE SPA is assembled.
- Wrongful or negligent behaviour, attributable to a seller or other person unrelated to ICI CALDAIE SPA, during the transportation, handling, storage, assembly, installation and adjustment of the boiler.
- The warranty extension only refers to the boiler and excludes the accessories and materials used for the construction of the system and electrical parts.
- Failure to perform the ordinary maintenance as required by current regulations in force for the type of system and as required by the product user manual.
- Events of force majeure (for example: lightning, floods, earthquakes) or vandalism.
- Normal wear of parts (electrodes, refractory products, gaskets, knobs, indicator lights...).

Any technical assistance required to eliminate defects or faults attributable to one of the exclusion causes indicated above must be agreed separately from this Warranty and all related charges and costs will be charged to the applicant according to the price list in force of ICI Caldaie.

The ICI CALDAIE SPA warranty on the manufactured products is limited to the replacement or repair of parts of the boiler identified as being faulty and it does not extend to the repair of other materials present in the system or damage which could be caused or be related to, directly or indirectly, with the faulty part, and not even if the faulty part, or part of it, is unavailable.



INDUSTRIAL AREA



RESIDENTIAL AREA

The services on this page are available for:

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## Assistance for positioning and/or accessory assembly

This service includes the assistance by one of our specialised technicians during the positioning phases of the boiler in the heating plant room or during the accessory installation in the boiler.

## Accessory assembly

The service includes the assembly of the accessories to the boiler once the latter is positioned in the plant room. In this case, for transport reasons, for the boiler introduction in the plant room, or because of specific needs of the customer, the accessories are installed only once the boiler is in its final position.

The following are excluded:

- Connection to the control panel and cable ducts
- Hydraulic connections to the system
- Any building and civil works
- Any crane, platforms and machinery for handling rental

## Synoptic diagram

ICI Caldaie can set up a synoptic diagram for all boiler panels already connected to the Internet, allowing the remote reading and management of the systems. The dedicated web page or pages will be created based on the supplied plant layout. The synoptic diagram will be available to be viewed on any PC, tablet or Smartphone connected to the Internet (with compatible browser). For a demo, visit the website <http://www.eterm.it/ita/sinottico/lista> by entering MCE2016 as username and password.

### Operation

- Saving the log data.
- Exporting the log data in tables.
- Displaying of log data on graphs (histograms, lines, pie charts, etc.). It is also possible to have more variables on a same graph or graphs of variables that cannot be measured directly but need to be calculated with mathematical formulas.
- Checking the functionality of the panel and accessories connected to it.
- Personalised alarms.
- E-mail service activation for configured alarms.
- Possibility to request one year of remote service for configuration checks and changes.

## Flue gas analysis

This service includes the combustion analysis using a certified instrument; at the end of the analysis, the plant register is filled in.

## Welding

We can provide assistance for repairs and/or modifications on the boilers using professional and qualified wire, electrode and TIG welders.

This service can be combined with non-destructive tests in case the repairs or changes are requested or have to be performed with the presence of third-party supervisors.



The services on this page are available for:



INDUSTRIAL AREA



RESIDENTIAL AREA

## Endoscopy

Our technicians can perform endoscopic visits on ICI products in order to detect any sludge deposit or scale build-ups that can be found on the internal surfaces over time thus reducing the efficiency and performance of the boilers and leading to possible failure. We always recommend a suitable water treatment to avoid the formation of deposits and build-ups.

## Burner start-up

In Italy, the start-up of the burner is normally included in the burner price whereas abroad is to be listed separately depending on the country of destination of the parts.

## Maintenance of hot water and WHC boiler

The customer can at any time sign with ICI an ordinary maintenance agreement that, thanks to the scheduled inspections, guarantees the boiler control and the purchased product trouble-free operation over time. The preventive maintenance requires an annual inspection by our authorised Technical Service Centres (CAT) including the following operations:

- Visual inspection of the flue gas side;
- Checking the turbulator conditions (if any);
- Checking the main control panel;
- Inspection of the boiler insulation;
- Inspection of the gate operation (only for WHC boilers).

## Software license Eterm™

Eterm™PCmanager is a Windows software for PC that allows the configuration and remote control of all Eterm™ and Nereix equipment. This software can be connected to the equipment by means of:

- Direct USB connection to all equipment;
- RS232 (serial port) direct connection to eterm™ Master equipment;
- GSM modem for eterm™ Master equipment and Boiler Control Board;
- Internet connection after free-of-charge registration of the system on [www.eterm.it](http://www.eterm.it).

Software licenses are available in three versions:

### Eterm™PCmanager base version:

- permanent base version that allows configuration, management and remote control according to the above-mentioned methods. It does not allow reading, storing and processing consumption data.

### Level 2 Eterm™PCmanager version:

- in addition to configuration, management and remote control according to the above-mentioned methods, this version allows reading, storing and processing consumption data. In order to be able to exploit the advantages of this software, it is advisable to participate in the training courses (subject to payment) that ICI Caldaie organises at its headquarters at 38 Via Giovanni Pascoli, situated in Zevio (Verona). Software license can be installed on a single computer and it provides for the management of a single system.

### Synoptic configurator version:

- this software version enables the user to create a synoptic of the system, that is a scheme through which it is possible to view the system and data detected by the installed equipment. The whole process can be made via WEB without installing the eterm™PCmanager software.

The eterm™PCmanager software requires Windows operating system.



## RESIDENTIAL AREA

The services on this page are available for:

### Assembly

Some boilers can be assembled directly in the plant room. This service is provided for all those situations where it is impossible or too difficult and expensive to introduce the whole boiler in the plant room because of its dimensions or too limited access.

The assembly operations are performed by our reliable welders on site and consequently travelling expenses are excluded. With reliable welders we mean expert professional welders already certified to perform such delicate operation.

Some boilers can be assembled directly in the plant room.

### Basic service Nereix (BSN)

The service is dedicated to condominiums where ICI Nereix modules are installed and tested.

It can be applied to residential buildings with heat meters with Meter Bus output, by installing the suitable centraliser.

The service consists in loading and saving on the website [www.eterm.it](http://www.eterm.it) the consumption data transmitted automatically by the system. On the website there is a web application (etermEASYmanager) that allows the users and administrator to view and download the consumption data.

#### This service does not include:

- allocation calculations;
- checking the data consistency;
- alarms for faults, errors and tampering;
- ordinary and extraordinary maintenance;
- warranty extension.

#### Advantages for the condominium:

- reading of consumptions and monitoring of historical data using graphs;
- sending of commands to the ICI Kronos and e-Kronos environment unit (if any).

#### Advantages for the administrator:

- reading and storing on the web the consumption data of all residential buildings;
- exporting the consumptions in Excel tables.

Should it be not technically possible to connect or configure the system from remote, ICI Caldaie will perform an on-site operation that will be invoiced in accordance with the rate book.

ICI Caldaie reserves the right to examine whether it is possible to provide the service, that is, network coverage GSM – GPRS, presence of the “master” control unit with modem and a bus network correctly wired and functioning.

### Start-up of Nereix modules

In Italy, the start-up of Nereix modules is a necessary condition before drawing up a Basic Service Nereix (BSN) contract

The described service could be unavailable in some Countries.  
Please, contact our commercial department for confirmation.

# GENERAL CONDITIONS OF SALE

## 1) INTRODUCTION

The sale is carried out under the following general conditions, which form an integral part of the contract drawn up between the Parties. Entering into the contract decrees approval of the conditions below and any modifications of the aforesaid must be carried out exclusively in writing.

## 2) COMPLETION OF THE CONTRACT

The contract is completed when, after receiving a purchase order, the seller confirms its acceptance to the purchaser. This acceptance can be made by a sale confirmation or by the commencement of the contract without any obligation of having to give notice to the other party.

## 3) DESCRIPTIVE DOCUMENTS AND STRUCTURAL CHANGES

The weights, dimensions, capacity, price, performance, and any other data represented in catalogues, lists, circulars, advertisements, illustrations and price lists are for information purposes only and are not obligatory.

The seller reserves the right to make any structural changes to his products at any time, which is deemed necessary in order to guarantee operation and efficiency.

## 4) PACKAGING

Unless otherwise agreed upon, the prices listed in the offers also include standard packaging of the goods;

Maritime, wood, or any other type of non-standard packaging is deemed not included in the sale price, and is to be borne by the purchaser.

## 5) RISK TRANSFER

Unless otherwise agreed upon in writing, the goods are sold "ex works" with reference to the EXW Incoterms® 2010 clause.

In particular, the risk, transport expenses and other relative expenses to load the goods onto the vehicle are to be borne by the purchaser from the time in which the goods are made available in compliance with the contract, provided that the seller notifies the purchaser in writing with regard to the date from which the goods can be collected

## 6) DELIVERY

Unless otherwise agreed upon, the delivery period shall start from the later date from the following:

- the date of completion of the contract as stipulated in Art. 2;

- the date of receipt of any payment on account or deposit made by the seller, which is provided for in the contract prior to delivery of the goods;

Unless otherwise agreed upon in writing, the delivery conditions of the said goods to be sold are deemed estimated.

If, for whatever reason, which is not an action or negligence by the seller, the purchaser fails to collect the goods at the time and place agreed upon in the contract, he shall in any case effect all payment established in the contract as though the goods were delivered. In this case, when the goods are identified, the seller shall store them at the expense and risk of the purchaser.

The seller also has the right to reimbursement of all expenses incurred to enforce the contract and not covered by any payments received, with the exception of the right to compensation for damages.

## 7) PRICE AND PAYMENT

Unless otherwise agreed upon, the price for the goods is agreed upon as "Ex Works". Therefore, transport expenses and any additional expenses are therefore excluded, including taxes due as local taxes.

Payment is due by the date established in the contract, without any other request or formality by the seller. Delay in payment shall result in interest accrued pursuant to Italian Legislative Decree 231/2002, which adopts and implements EU directive 2000/35/EC.

If the purchaser delays any payment whatsoever, the seller, at his discretion, shall:

- suspend or postpone obligations held;

- declare the contract terminated by way of simple written notice without prejudice to his right to be reimbursed for all expenses incurred in the performance of the contract, except for the right to compensation for damages.

## 8) WARRANTY AND EXCLUSIONS

The seller shall undertake to repair faults resulting from design, material or processing defects, exclusively within the following limits.

The obligation undertaken by the seller is limited to defects that occur during the period called "warranty period", which shall come into effect from risk transfer, which corresponds to the provisions of Art. 5, until the expiry of the terms set forth below;

The parties agree that the warranty includes repairs or replacement of parts, which, at the discretion of the seller, are necessary for the proper operation of the product, within the said warranty conditions, in particular, the seller recognises each construction defect found, in the following terms, for:

- Commercial range steel boiler body 36 months

- Industrial range steel boiler body 12 months

- Condensing range boiler body 36 months

Storage tank body 12 months

- Electrical and electronic parts and/or accessories 12 months

from the aforesaid date of risk transfer.

The warranty does not include maintenance operations of the devices regarding the contract of sale, which shall be borne by the purchaser;

In order to make use of the warranty as indicated in this article, the purchaser shall, without delay, give notice in writing not later than eight days, under penalty of invalidation, from the date of delivery, the defects that were detected. This action is barred after a period of one year, or other period as indicated above;

The aforesaid notification shall not release the purchaser from his obligation of payment under the terms agreed upon. Delay, failure, or incorrect payment shall result in a disclaimer of the warranty referred to in this article.

Execution of the warranty shall take place upon technical verification and recognition of the alleged defect at the premises of the seller, and according to company procedure. The purchaser of the device is to pay the fixed minimum charge for any intervention required, of the cost of transport of the pieces to be replaced, of labour costs, with the exception of those related to any repairs and any travel, food and accommodation expenses of the seller's personnel using the rate in force. Technical personnel shall be sent within the time granted by organisational requirements.

Any replacements or repairs shall not modify the start date and duration of the warranty established in the sales contract or in these general conditions. The replaced parts and components shall be the property of ICI CALDAIE S.p.a. and must be returned by, and at the expense of, the purchaser.

The seller's responsibility is solely extended to defects that emerge in the operating conditions provided by the contract and used correctly, as specified in the relative user instructions in the installation manual that always precedes or accompanies the delivery of the product. The seller's responsibility is excluded for defects resulting from faulty installation, maintenance, and use; due to insufficient capacity or abnormality of hydraulic systems, fuel supply; for use that differs from what the product was built for; for unsuitability or otherwise erroneous and incorrect supply water treatment; for corrosion caused by water condensation and aggressiveness; for badly conducted treatments; for stray currents; for negligence or inability of use; due to frost; due to lack of water; for inefficiency of the chimneys or discharges; for tampering by unqualified or unauthorised personnel; for parts subject to normal wear and tear of use, for anodes, refractories, gaskets, knobs, warning lights, etc., and in any case, for reasons not to be ascribed to ICI CALDAIE S.p.A.

In the event of failure to find the manual of use mentioned in the previous point, the purchaser shall submit a notice in writing to the seller within a period of eight days from delivery of the product. Failure to submit the said notice shall imply the manual was delivered with one of the products.

Subject to what is provided in this article, from the risk transfer of the goods and also for defects whose cause is prior to the said transfer, the seller shall not undertake other responsibilities. It expressly provides that the purchaser cannot raise any claim for injury to persons or damage to property

The parties can also establish to limit the seller's responsibility of gross negligence, unwavering the significance of all references in this regard made in these general conditions.

After the warranty duration terms, technical assistance can be carried out by charging the purchaser for any replaced parts or for expenses related to repairs, provided that all labour and travelling expenses of personnel and transport of materials are to be borne by the purchaser according to the rate in force by the seller.

## 9) INSTALLATION AND OPERATION

ICI sells a product.

Installation is to be carried out by the purchaser, who must execute the provided technical provisions by the laws and regulations in force and, in any case, by the relative technical manual, including assembly, start-up, and operation.

## 10) REASONS FOR EXEMPTION FROM EXECUTION

A party is not responsible for the failed execution of any of its obligations should:

- Failed execution be due to an impediment beyond his control;

- The party, upon concluding the contract, could not be reasonably held to envisage the said impediment and its effects on the position to execute the contract;

- The party could not have reasonably avoided or overcome such an impediment or its effects;

A cause of exemption from liability pursuant to this article exempts the defaulting party from payment of damages, penalties and other contractual sanctions.

It also suspends the terms of execution of the contract for a reasonable period, excluding any counter-party's right to cancel or terminate it.

Each party can retain what he has held from execution of the contract before it was ended. The final payment must be effected without delay.

## 11) AMENDMENTS

Any amendment to these General Conditions of Sale can be effective only if made by means of a written act

## 12) APPLICABLE LAW AND PLACE OF JURISDICTION

With regard to any disputes, the parties agree that the contract shall be governed by the United Nations Convention on contracts for the international sale of goods, concluded in Vienna on 11 April 1980, signed by the Italian State on 30 September 1981, ratified by Law No. 765 on 11 December 1985, and entered into force on 1 January 1988.

The right to apply Italian law with regard to what is not expressly governed by the United Nations Convention on contracts for the international sale of goods shall be valid.

For any dispute or litigation that may arise or result from this provision, the Court of Verona shall have jurisdiction.





**ICI Caldaie S.p.A.**

Via G. Pascoli 38 - 37059  
Campagnola di Zevio (Verona) Italy  
Tel. +39 045 8738511  
Fax +39 045 8731148  
**icicaldaie.com**