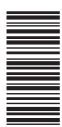
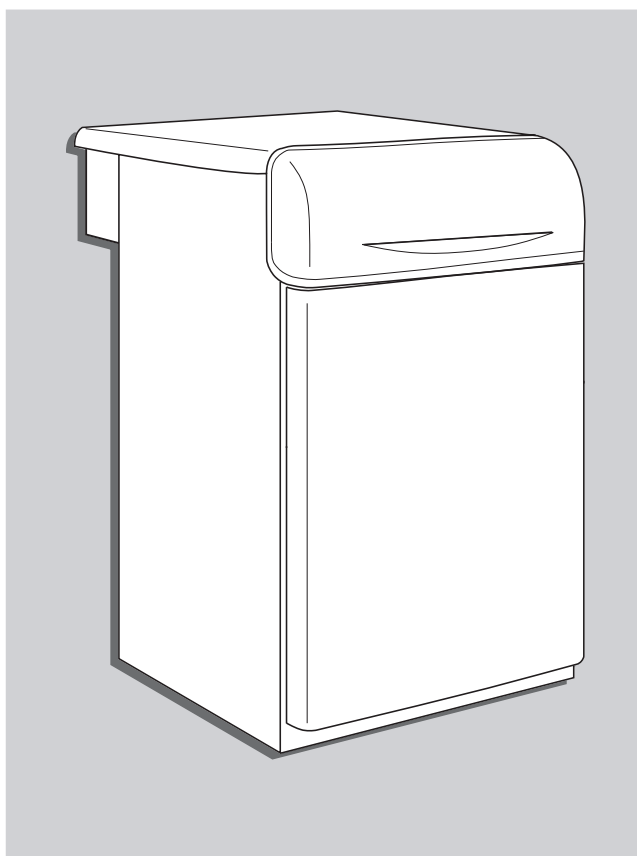


PEGASUS 56

ISO 9001 : 2000
CERTIFIED COMPANY



cod. 35405420 – 05/2010 (Rev. 00)

CE

ISTRUZIONE PER L'USO L'INSTALLAZIONE E LA MANUTENZIONE
INSTRUCCIONES DE USO, INSTALACIÓN Y MANTENIMIENTO
KULLANMA, KURULUM VE BAKIM TALIMATLARI
INSTRUCTIONS FOR USE, INSTALLATION AND MAINTENANCE
INSTRUCTIONS D'UTILISATION, D'INSTALLATION ET D'ENTRETIEN
РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ, МОНТАЖУ И ТЕХОБСЛУЖИВАНИЮ
ІНСТРУКЦІЯ З ЕКСПЛУАТАЦІЇ, МОНТАЖУ ТА ОБСЛУГОВУВАННЯ

EN

1. GENERAL INSTRUCTIONS

- Carefully read the instructions contained in this instruction booklet.
- After boiler installation, inform the user regarding its operation and give him this manual, which is an integral and essential part of the product and must be kept with care for future reference.
- Installation and maintenance must be carried out by professionally qualified personnel, according to current regulations and the manufacturer's instructions. Do not carry out any operation on the sealed control parts.
- Incorrect installation or inadequate maintenance can result in damage or injury. The Manufacturer declines any liability for damage due to errors in installation and use or failure to follow the instructions.
- Before carrying out any cleaning or maintenance operation, disconnect the unit from the power supply using the system switch and/or the special cut-off devices.
- In case of a fault and/or poor operation, deactivate the unit and do not attempt to repair it or directly intervene. Contact professionally qualified personnel. Repair/replacement of the products must only be carried out by professionally qualified using original spare parts. Failure to comply with the above could affect the safety of the unit.
- This unit must only be used for its intended purpose. Any other use is considered improper and therefore dangerous.
- The packing materials are potentially hazardous and must not be left within the reach of children.
- The images given in this manual are a simplified representation of the product. In this representation there may be slight and insignificant differences with respect to the product supplied.

2. OPERATING INSTRUCTIONS

2.1 Introduction

Dear Customer,

Thank you for choosing **PEGASUS 56**, a floor-standing boiler **FERROLI** featuring advanced design, cutting-edge technology, high reliability and quality construction. Please read this manual carefully and keep it for future reference.

PEGASUS 56 is a high-efficiency heat generator for central heating using natural gas or liquefied gas (configurable at the time of installation) and regulated by an advanced electronic control system.

The boiler shell consists of cast-iron elements whose particular shape guarantees high exchange efficiency under all operating conditions and an open-flue burner equipped with electronic ignition and ionization flame control.

The boiler is also equipped with a **temperature limiter** (safety thermostat) and a **fume evacuation control device** (fume thermostat).

Thanks to the electronic flame control and ignition system, boiler operation is mostly automatic.

The user only has to set the temperature required inside the home (by means of the optional room thermostat, whose installation is recommended) or adjust the temperature of the system.

2.2 Control panel

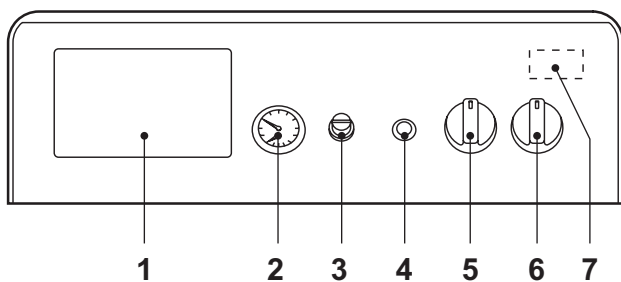


fig. 1 - Control panel

Key

- 1 Arrangement for Thermostatic Controller
- 2 Boiler pressure/temperature gauge
- 3 Fume thermostat cover
- 4 Flame controller reset button with shutdown light
- 5 Boiler control thermostat
- 6 0-1-Test switch
- 7 Automatic reset safety thermostat (located inside the panel)

2.3 Turning on and off

Lighting

- Open the gas cock ahead of the boiler
- Turn on the switch or insert the plug (if present) ahead of the boiler
- Turn the main switch "6" to position 1 (fig. 1).
- Turn the knob "5" to the selected temperature and that of the room thermostat (if present) to the required temperature value. The burner will light and the boiler begins to function automatically, controlled by its adjustment and safety devices.
- If the boiler is equipped with an electronic thermostatic controller fitted in position 1 of fig. 1, the user must also take into account the manufacturer's instructions.



If the burners do not light and the pushbutton-shutdown indicator 4 comes on after correctly carrying out the lighting procedures, wait about 15 seconds and then press the above pushbutton. The reset controller will repeat the lighting cycle. If the burners do not light even after several attempts, contact an authorised service centre or qualified personnel.

Turning off

Close the gas cock ahead of the boiler, turn knob "6" to 0 and disconnect the power to the unit.



To avoid damage caused by freezing during long idle periods in winter, it is advisable to drain all water from the boiler and system; or add a suitable antifreeze to the heating system.

The boiler switch 6 has 3 positions "0-1-TEST"; the first two have the on-off function, the third (unstable) must only be used for service and maintenance purposes.

2.4 Adjustments

System temperature adjustment

Turn the knob 5 of fig. 1 clockwise to increase the heating water temperature, or anticlockwise to decrease the temperature. The temperature can be varied from a minimum of 30°C to a maximum of 90°C. However, it is advisable not to operate the boiler below 45°C.

Room temperature adjustment (with optional room thermostat)

Using the room thermostat, set the required room temperature. Controlled by the room thermostat, the boiler lights and brings the system water to the temperature set by boiler control thermostat 5 of fig. 1. The generator turns off when the required temperature in the rooms is reached.

If the room thermostat is not present, the boiler will keep the system at the temperature set by the boiler control thermostat.

Water system pressure adjustment

The filling pressure with system cold, read on the boiler water gauge detail 2 of fig. 1, must be approx. 1.0 bar. If, during operation, the system pressure falls (due to the evaporation of gases dissolved in the water) to values below the minimum described above, the User must bring it to the initial value by operating the filling cock. At the end of the operation always close the filling cock.

2.5 Maintenance

The user must have the heating system serviced by qualified personnel at least once a year and combustion checked at least every two years. Consult sec. 4.3 of this manual for more information.

The boiler casing, panel and aesthetic parts can be cleaned with a damp soft cloth, if necessary soaked in soapy water. Do not use abrasive detergents and solvents.

2.6 Faults

Given below are the faults that can be caused by simple, user-solvable problems.



Before calling the after-sales service, check that the problem is not due to no gas or power.

Symbol	Fault	Cure
	Boiler shutdown by the flame controller	Make sure the gas cocks ahead of the boiler and on the meter are open. Press the lit pushbutton-indicator. In case of repeated boiler shutdowns, contact the nearest after-sales service centre.
	Boiler shutdown due to insufficient system pressure (only if a water pressure switch is installed)	Fill the system to 1-1.5 bar cold by means of the system filling cock. Close the cock after use.
	Boiler shutdown due to insufficient evacuation of fumes	Unscrew the fume thermostat cover and press the button below. In case of repeated boiler shutdowns, contact the nearest after-sales service centre.

3. INSTALLATION

3.1 General Instructions

! This unit must only be used for its intended purpose.
 This unit is designed to heat water to a temperature below boiling point at atmospheric pressure and must be connected to a heating system and/or a water supply system for domestic use, compatible with its performance, characteristics and its heating capacity. Any other use is considered improper.

THE BOILER MUST ONLY BE INSTALLED BY QUALIFIED PERSONNEL, IN ACCORDANCE WITH ALL THE INSTRUCTIONS GIVEN IN THIS TECHNICAL MANUAL, THE PROVISIONS OF CURRENT LAW, ANY LOCAL REGULATIONS AND THE RULES OF PROPER WORKMANSHIP.

The Manufacturer declines any liability for damage or injury caused by incorrect installation.

3.2 Place of installation

This unit is an "open chamber" type and can only be installed and operated in permanently ventilated rooms. An insufficient flow of combustion air to the boiler will affect its normal operation and fume evacuation. Also, the fumes forming in these conditions (oxides) are extremely harmful to the health if dispersed in the domestic environment.

Therefore the place of installation must be free of dust, flammable materials or objects or corrosive gases. The room must be dry and not subject to freezing.

When positioning the boiler, leave sufficient space around it for normal maintenance activities.

3.3 Plumbing connections

The heating capacity of the unit must be previously established by calculating the building's heat requirement according to current regulations. For good operation and long life of the boiler, the plumbing system must be adequate and always complete with all accessories that guarantee regular operation and running.

If the delivery and return pipes follow a path where air pockets could form in certain places, it is advisable to install vent valves at these points. Also, install a discharge device at the lowest point in the system to allow its complete emptying.

If the boiler is installed at a lower level than the system, it is advisable to provide a flow-stop valve to prevent the natural circulation of water in the system.

The temperature drop between the delivery manifold and the return to the boiler should not exceed 20°C.

! Do not use the water system pipes to earth electrical appliances.

Before installation, carefully wash all the pipes of the system to remove any residuals or impurities that could affect proper operation of the unit.

Carry out the relevant connections as indicated in fig. 2.

It is advisable to install on-off valves between the boiler and heating system, allowing the boiler to be isolated from the system if necessary.

! Make the boiler connection in such a way that its internal pipes are free of stress.

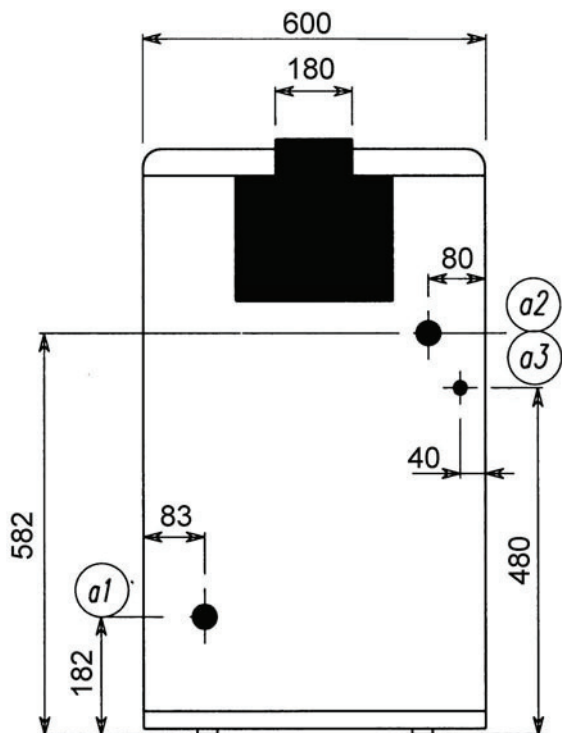


fig. 2 - Rear view - connections

- Key
 a1 Heating delivery 1"
 a2 Heating return 1"
 a3 Gas inlet 1/2"

Water system characteristics

In the presence of water harder than 25° Fr, it is advisable to use suitably treated water, in order to avoid possible scaling in the boiler caused by hard water, or corrosion produced by aggressive water. It should be remembered that, because of its low thermal conductivity, even scaling of just a few mm thick causes significant overheating of the boiler walls with consequent serious problems.

Water treatment is indispensable in the case of very large systems (containing large amounts of water) or with frequent introduction of replenishing water in the system. If partial or total emptying of the system becomes necessary in these cases, it is advisable to refill with treated water.

Filling boiler and system

The filling pressure with the system cold system must be approx. 1 bar. If, during operation, the system pressure falls (due to the evaporation of gases dissolved in the water) to values below the minimum described above, the user must bring it to the initial value. For correct operation of the boiler when hot, its pressure must be approx. 1.5-2 bar.

3.4 Gas connection

! Before carrying out the connection, make sure the unit is arranged for operation with the type of fuel available and carefully clean all the pipes of the gas system to remove any residues that could affect proper operation of the boiler.

The gas must be connected to the relevant connection (see fig. 2) in conformity with current standards, with a rigid metal pipe or with a continuous surface flexible s/steel tube, installing a gas cock between the system and boiler. Make sure all the gas connections are tight.

The capacity of the gas meter must be sufficient for the simultaneous use of all appliances connected to it. The diameter of the gas pipe leaving the boiler does not determine the diameter of the pipe between the unit and the meter; it must be chosen according to its length and pressure losses, in conformity with current standards.

! Do not use the gas pipes to earth electrical appliances.

3.5 Electrical connections

The boiler must be connected to a single-phase 230 Volt-50 Hz electric line.

! Unit electrical safety is guaranteed only when it is correctly connected to an efficient earthing system complying with the current safety standards. Have the efficiency and suitability of the earthing system checked by professionally qualified personnel; the Manufacturer declines any liability for damage caused by failure to earth the system. Also make sure the electrical system is adequate for the maximum power absorbed by the unit, specified on the boiler dataplate, in particular ensuring that the section of the system's cables is suitable for the power input.

The boiler is wired and supplied with a cable for connection to the power supply, and a connector located inside the control panel, arranged for connection to an electronic thermostatic controller (see wiring diagrams). The connections to the mains must be made with a permanent connection and a double-pole switch with contact opening distance of at least 3 mm, installing fuses of max. 3A between the boiler and the line. Make sure to respect the polarities (LINE: brown wire / NEUTRAL: blue wire / EARTH: yellow/green wire) when making connections to the electric line.

Accessing the electrical terminal block and components inside the control panel

To access the electrical components inside the control panel, carry out the steps in fig. 3.

The layout of the terminals for the various connections is given in the wiring diagrams in cap. 5.

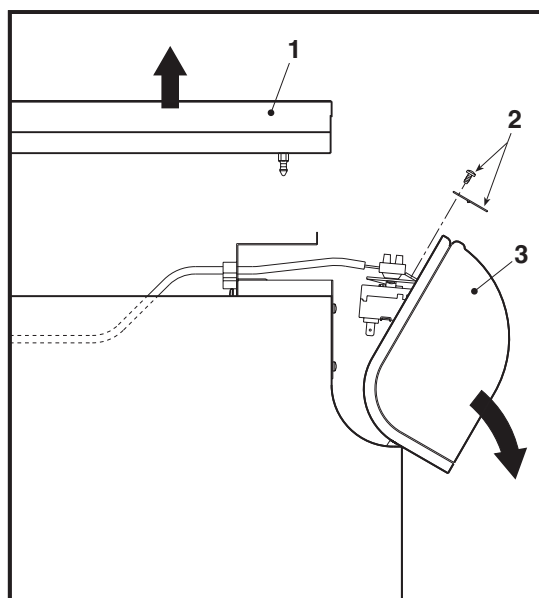


fig. 3 - Control panel opening

- Key / sequence
 1 Boiler cover
 2 Fixing plate and screw
 3 Control panel

3.6 Connection to the flue

The flue connection pipe diameter must not be less than that of the connection on the anti-backflow device. Starting from the anti-backflow device it must have a vertical section at least 50 cm long. Comply with the current standards regarding installation and sizes of the flues and connection pipe.

4. SERVICE AND MAINTENANCE

4.1 Adjustments

All adjustment and conversion operations must be carried out by Qualified Personnel.

The Manufacturer declines any liability for damage or injury caused by unqualified and unauthorised people tampering with the unit.

Heating system output adjustment

This operation is carried out with the boiler working.

Connect a manometer to the pressure point **2** (fig. 4) located downstream of the gas valve, and turn the boiler thermostat knob (ref. 5 - fig. 1) to the maximum value.

After removing the protection cap **5** (fig. 4), adjust the gas pressure at the burner by turning the screw **6** to the required value (see technical data table and output variability diagrams given in cap. 5).

Then turn the burner on and off 2 or 3 times by means of the control thermostat and check that the pressure value is that just set; otherwise, another adjustment must be made to bring the pressure to the correct value.

Gas conversion

The unit can operate on natural gas (G20-G25) or liquefied gas (G30-G31) and is factory-set for use with one of these two gases, as clearly shown on the packing and on the dataplate. Whenever a different gas to that for which the unit is preset has to be used, the special conversion kit will be required, proceeding as follows:

1. Replace the nozzles at the main burner and pilot burner, fitting the nozzles specified in the technical data table in cap. 5, according to the type of gas used
2. Remove the small protection cap **3** (fig. 4) from the gas valve. Using a small screwdriver, adjust the ignition step for the required gas (**G20-G25** position **D** fig. 4 or **G30-G31** position **E** fig. 4); then refit the cap.
3. Adjust the gas pressure at the burner, setting the values given in the technical data table for the type of gas used.
4. Apply the sticker contained in the conversion kit, near the dataplate as proof of the conversion.

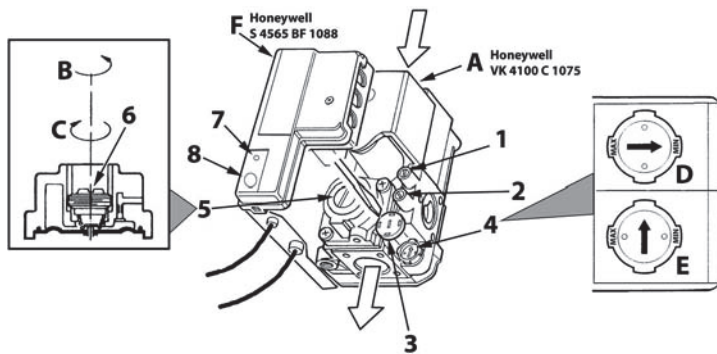


fig. 4 - Pressure adjustment

- A Gas valve
- B Decrease pressure
- C Increase pressure
- D Ignition step adjustment for **G20-G25 NATURAL** gas
- E Ignition step adjustment for **G30-G31 LIQUEFIED** gas
- F Electronic controller
- 1 Pressure point upstream
- 2 Pressure point downstream
- 3 Protection cap
- 4 Ignition step regulator
- 5 Protection cap
- 6 Pressure adjustment screw
- 7 Alarm LED
- 8 RESET button

4.2 Start-up

System start-up must be carried out by Qualified Personnel. Checks to be made at first lighting, and after all maintenance operations that involved disconnecting from the systems or work on safety devices or parts of the boiler:

Before lighting the boiler:

- Open any on-off valves between the boiler and the system.
- Check the tightness of the gas system, proceeding with caution and using a soap and water solution to detect any leaks in connections.
- Fill the water system and make sure all air contained in the boiler and the system has been vented.
- Make sure there are no water leaks in the system or boiler.
- Check the correct connection of the electrical system.
- Make sure the unit is connected to an efficient earthing system.
- Make sure the pressure and gas flow values are those required for heating.
- Make sure there are no flammable liquids or materials in the immediate vicinity of the boiler

Lighting the boiler

- Open the gas cock ahead of the boiler.
- Vent the air from the pipe ahead of the gas valve.
- Turn on the switch or insert the plug (if present) ahead of the boiler
- Turn the boiler switch (ref. 6 - fig. 1) to position 1.
- Turn the knob **5** (fig. 1) to a value above 50°C and that of the room thermostat (if present) to the required temperature value. The burner will light and the boiler begins to function automatically, controlled by its adjustment and safety devices.



If the burners do not light and the pushbutton indicator comes on after correctly carrying out the lighting procedure, wait about 15 seconds and then press the above pushbutton. The reset controller will repeat the lighting cycle. If the burners do not light after the second attempt, refer to par. 3.4 "Troubleshooting".

The boiler switch **6** has 3 positions "0-1-TEST"; the first two have the on-off function, the third (unstable) must only be used for service and maintenance purposes (see wiring diagrams).



In case of a power failure while the boiler is working, the burners will go out and relight automatically when the power is restored.

Checks during operation

- Make sure the fuel circuit and water systems are tight.
- Check the efficiency of the flue and fume ducts while the boiler is working.
- Make sure the water is circulating properly between the boiler and the system.
- Check correct lighting of the boiler, by turning it on and off several times using the room thermostat or boiler thermostat.
- Make sure the fuel consumption indicated on the meter matches that given in the technical data table in cap. 5.

Turning off

To temporarily turn the boiler off, just the turn main switch **6** (fig. 1) to 0.

To shut down the boiler for prolonged periods:

- Turn knob of the main switch **6** (fig. 1) to 0;
- Close the gas cock ahead of the boiler;
- Disconnect the power to the unit;



To avoid damage caused by freezing during long idle periods in winter, it is advisable to drain all water from the boiler and system; or add a suitable antifreeze to the heating system.

4.3 Maintenance



The following operations must only be carried out by Qualified Personnel.

Seasonal inspection of the boiler and flue

It is advisable to carry out the following checks at least once a year:

- The control and safety devices (gas valve, thermostats, etc.) must function correctly.
- The fume ducts must be free of obstructions and leaks.
- The gas and water systems must be tight.
- The burner and boiler shell must be clean. Follow the instructions in the next section.
- The electrodes must be free of deposits and properly positioned (see fig. 10).
- The water pressure in the system when cold must be approx. 1 bar; otherwise bring it to that value.
- The expansion tank, if present, must be filled.
- The gas delivery and pressure must correspond to that given in the technical data table (see cap. 5).
- The circulating pumps must not be blocked.

Safety devices

The boiler **PEGASUS 56** is equipped with devices that guarantee safety in case of operation faults.

Automatic reset temperature limiter (safety thermostat)

This device prevents the water temperature in the system from exceeding boiling point. The maximum activation temperature is 110°C.

Automatic reset of the temperature limiter can only occur with cooling of the boiler (the temperature must drop by at least 10°C) and identification and subsequent elimination of the problem that caused the shutdown. The safety thermostat (detail 7 of fig. 1) is located inside the control panel.

Fume sensor (fume thermostat) safety device

The boiler is equipped with a fume evacuation control device (fume sensor - ref. 3 of fig. 1) In case of anomalies in the fume exhaust system with return of burnt gases in the room, the unit shuts down. The hood is equipped with a temperature sensor bulb for measuring and controlling the fume temperature.

Any leaks of burnt gases into the room cause an increase in the temperature detected by the bulb, which causes the boiler to turn off within 2 minutes, shutting off the gas to the burner. If the fume sensor cuts in, unscrew the protection cover (ref. 3 of fig. 1) located on the control panel and manually reset the device. The boiler will resume operation.

If the sensor has to be replaced due to a fault, only use original accessories and make sure the electrical connections and bulb positioning are correctly carried out.



The fume sensor must not be excluded for any reason!

Opening the front casing

To open the front casing, see the sequence in fig. 5.



fig. 5 - Front panel opening

! Before carrying out any operation inside the boiler, disconnect the power supply and close the gas cock upstream.

Cleaning the boiler and flue

For proper cleaning of the boiler (see fig. 6):

- Close the gas cock ahead of the boiler and disconnect the power supply
- Remove the front panel of the boiler (fig. 5).
- Lift the casing cover by pressing upwards.
- Remove the insulation 5 covering the anti-backflow device.
- Remove the fume chamber closing plate.
- Remove the burner assembly (see next section).
- Clean from the top downwards, using a flue brush. The same operation can be carried out from the bottom upwards.
- Clean the fume evacuation ducts between the cast iron elements of the boiler shell with a vacuum cleaner.
- Carefully refit all the previously removed parts and check the tightness of the gas circuit and the combustion ducts.
- During cleaning operations take care not to damage the fume thermostat bulb at the back of the fume chamber.

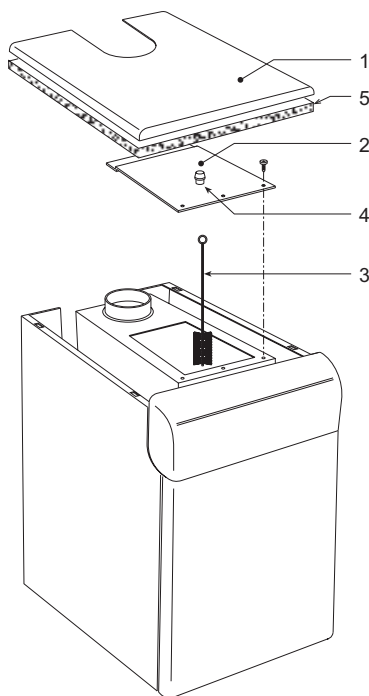


fig. 6 - Boiler cleaning

- 1 Casing cover
- 2 Fume chamber closing plate
- 3 Flue brush
- 4 Combustion analysis plug
- 5 Insulation

Combustion analysis

A fume sampling point has been included in the upper part of the anti-backflow device inside the boiler (see fig. 7).

To take the sample:

1. Remove the top panel of the boiler
2. Remove the insulation covering the anti-backflow device
3. Open the fume sampling point;
4. Insert the probe;
5. Adjust the boiler temperature to maximum.
6. Wait 10-15 minutes for the boiler to stabilise*
7. Take the measurement.

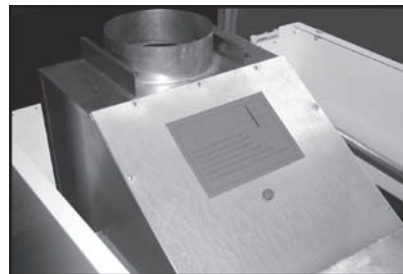


fig. 7 - Combustion analysis

! Analyses made with a non-stabilised boiler can cause measurement errors.

Burner assembly removal and cleaning

To remove the burner assembly:

1. Disconnect the power supply and turn off the gas ahead of the boiler;
2. Remove the gas valve electronic controller (fig. 8);
3. Disconnect the cables of the electrode assembly;
4. Unscrew the ring fixing the gas pipe ahead of the gas valve;
5. Undo the two nuts fixing the combustion chamber door to the cast iron elements of the boiler (fig. 9)
6. Remove the burner assembly and combustion chamber door.

Check and clean the burners. Only use a non-metal brush or compressed air to clean the burners; never use chemical products.

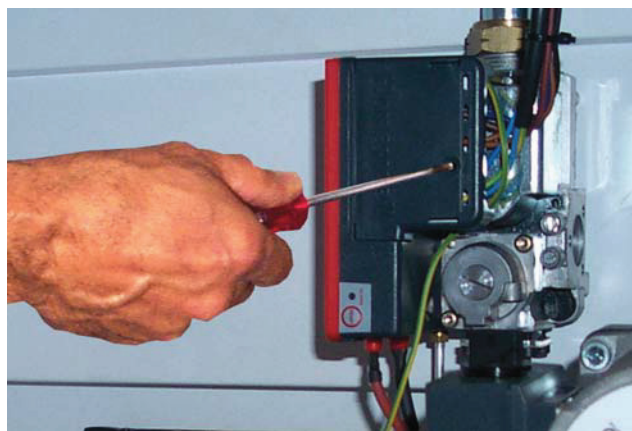


fig. 8



fig. 9

Pilot burner assembly

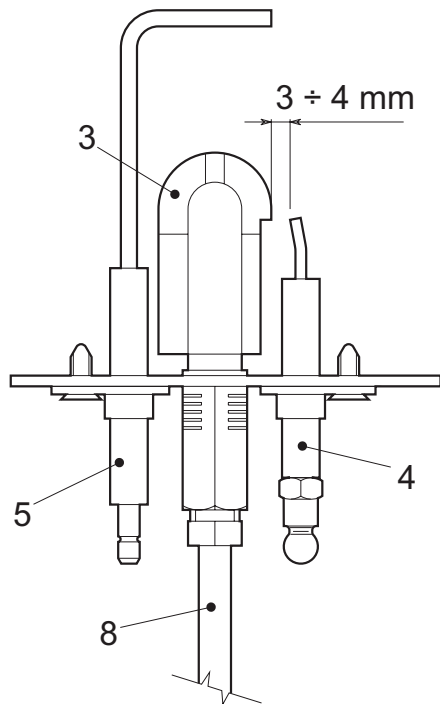
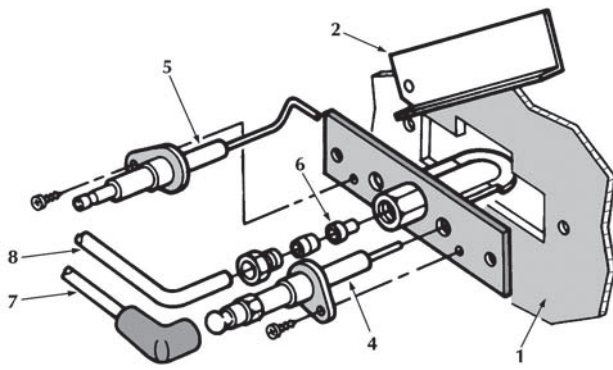


fig. 10 - Pilot burner

- 1 Combustion chamber door
- 2 Inspection door
- 3 Pilot burner
- 4 Ignition electrode
- 5 Detection electrode
- 6 Pilot nozzle
- 7 High voltage cable
- 8 Gas supply pipe

4.4 Troubleshooting

Table. 1 - Fault list

Fault	Cause	Cure
After several lighting attempts, the electronic controller shuts down the boiler	Pilot burner nozzle dirty	Clean the nozzle with compressed air
	Air in gas pipes	Check the regular gas flow to the boiler and that the air has been eliminated from the pipes
	No discharge between electrodes	Make sure the electrodes are correctly positioned, integral, free of any deposits and that the spark is regular (see fig. 10) Check the electrical connections at the ignition and ionisation electrodes
	Faulty gas valve	Replace the valve
The boiler does not start	Electric mains trouble	Make sure the boiler is connected to the mains rated voltage and to an efficient earth connection
	Electric mains trouble	Make sure the LINE and NEUTRAL are not inverted and that the earth contacts are efficient
	Wiring fault	Check the connections to the electronic flame controller
	No gas	Check the inlet gas pressure and any open gas pressure switches
	Fume thermostat activation	Reset the fume thermostat
	Room thermostat open	Make sure the room thermostat is closed in call
The burner burns poorly: flames too high, too low or too yellow	Gas pressure too low	Check the gas supply pressure
	Gas nozzles dirty or wrong	Check the nozzles and clean if necessary
	Poor ventilation	Make sure the ventilation in the room where the unit is located is sufficient for proper combustion
Smell of unburnt gas	Boiler dirty	Check and clean the boiler shell
	Poor flue draught	Check the efficiency of the flue draught
	Incorrect excess flame adjustment	Make sure the gas consumption is not excessive (gas pressure switch nozzles or diameter)
The boiler works but the temperature fails to increase	Incorrect control thermostat setting	Check correct operation of the control thermostat
	Incorrect flame adjustment	Make sure gas consumption is not less than that provided for
	Boiler dirty	Make sure the boiler is perfectly clean
	Boiler inefficient	Make sure the boiler is adequate for the system
	No water circulation in the system	Make sure the heating pump is not blocked and that the plumbing circuit is not dirty
Temperature of water towards the system too high	Incorrect thermostat setting	Check operation of the control thermostat
	Incorrect thermostat positioning	Check the bulb position
Explosion at burner Ignition delays	Excess gas	Check the main burner gas pressure
	Boiler dirty	Check and clean the boiler shell
	Burner dirty	Check and clean the burner
The boiler produces condensation water	Wrong nozzles	Check the nozzles
	Incorrect thermostat setting	Make sure the boiler is not operating at too low temperatures (below 40°C)
The boiler shuts down for no apparent reason	Insufficient gas consumption	Make sure gas consumption is regular
	Fume thermostat activation	Check for any obstructions in the flue and manually reset the fume thermostat

5. TECHNICAL DATA AND CHARACTERISTICS

5.1 Dimensions and connections

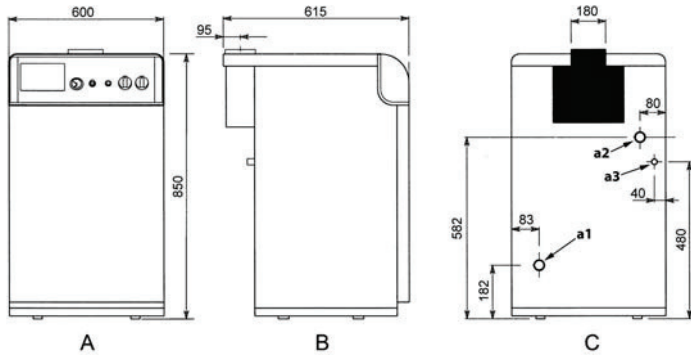


fig. 11 - Dimensions and connections

- a1 Heating delivery - 1"
- a2 Heating return - 1"
- a3 Gas inlet - 1/2"
- A Front view
- B Side view
- C Rear View

5.2 General view and main components

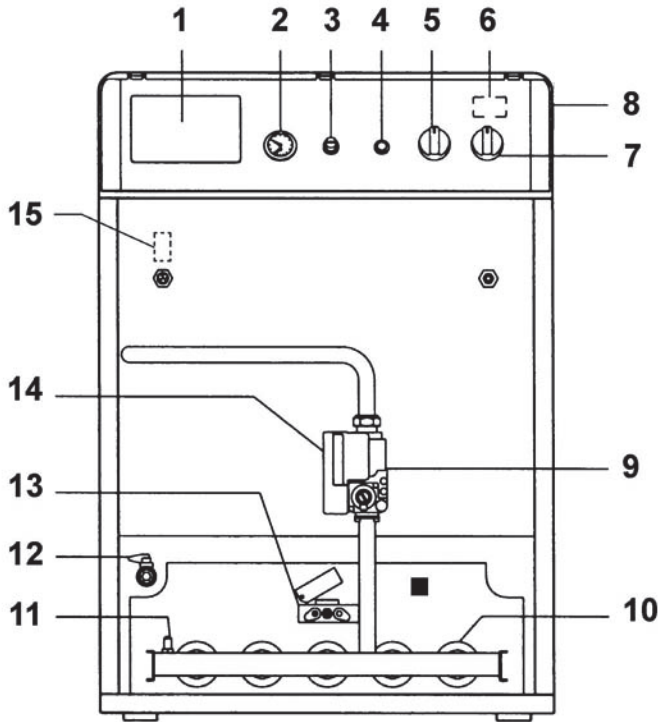


fig. 12 - General view

- 1 Prearrangement for fitting a thermostatic controller
- 2 Boiler pressure/temperature gauge
- 3 Fume thermostat reset cover
- 4 Flame controller reset button
- 5 Control thermostat
- 6 Automatic reset safety thermostat (inside control panel)
- 7 Switch with test button (Test)
- 8 Control panel with front door raised
- 9 Gas valve
- 10 Main burner
- 11 Pressure point on gas manifold
- 12 Boiler drain cock
- 13 Pilot burner assembly
- 14 Flame controller
- 15 Automatic air vent valve (inside boiler)

5.3 Technical data table

Powers		Pmax	Pmin
Heating capacity (Net Heat Value - Hi)	kW	61.6	24.5
Available Heat Output 80°C - 60°C	kW	56.0	21.6

Gas supply		Pmax	Pmin
Pilot nozzle G20 - G25	mm	1 x 0.40	
Pilot nozzle G31	mm	1 x 0.24	
Main nozzles G20	mm	5 x 2.80	
Supply pressure G20	mbar	20	
Pressure at burner G20	mbar	15.0	2.5
Delivery G20	m ³ /h	6.52	2.59
Main nozzles G31	mm	5 x 1.75	
Supply pressure G31	mbar	37	
Pressure at burner G31	mbar	35.0	6
Delivery G31	kg/h	4.82	1.92

Heating		
Max. working temperature	°C	95
Max. working pressure in heating	bar	6
No. elements		6
Min. working pressure in heating	bar	0.3
No. burner trains		5
Boiler water content	litres	16.6

Dimensions, weights, connections		
Height	mm	850
Width	mm	600
Depth	mm	615
Empty weight	kg	191
Gas system connection	inches	1/2"
Heating system delivery	inches	1"
Heating system return	inches	1"

Electrical power supply		
Max. electrical absorption	W	15
Power supply voltage/frequency	V/Hz	230/50
Electrical protection rating	IP	X0D

5.4 Diagram

Pressure loss

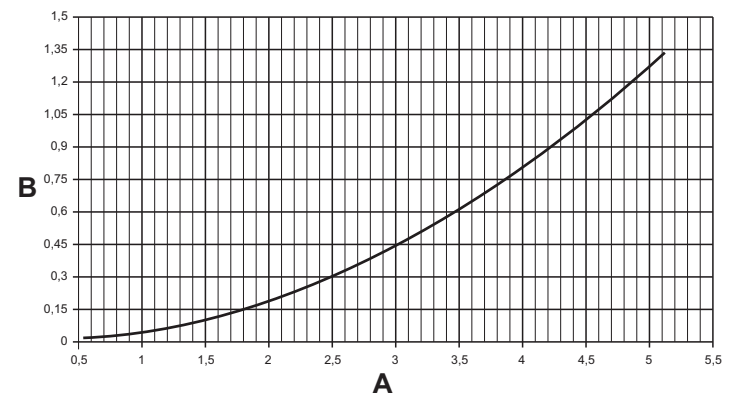


fig. 13 - Diagram of pressure losses

- A m³/h
- B m. water column

5.5 Wiring diagrams

Main wiring diagram

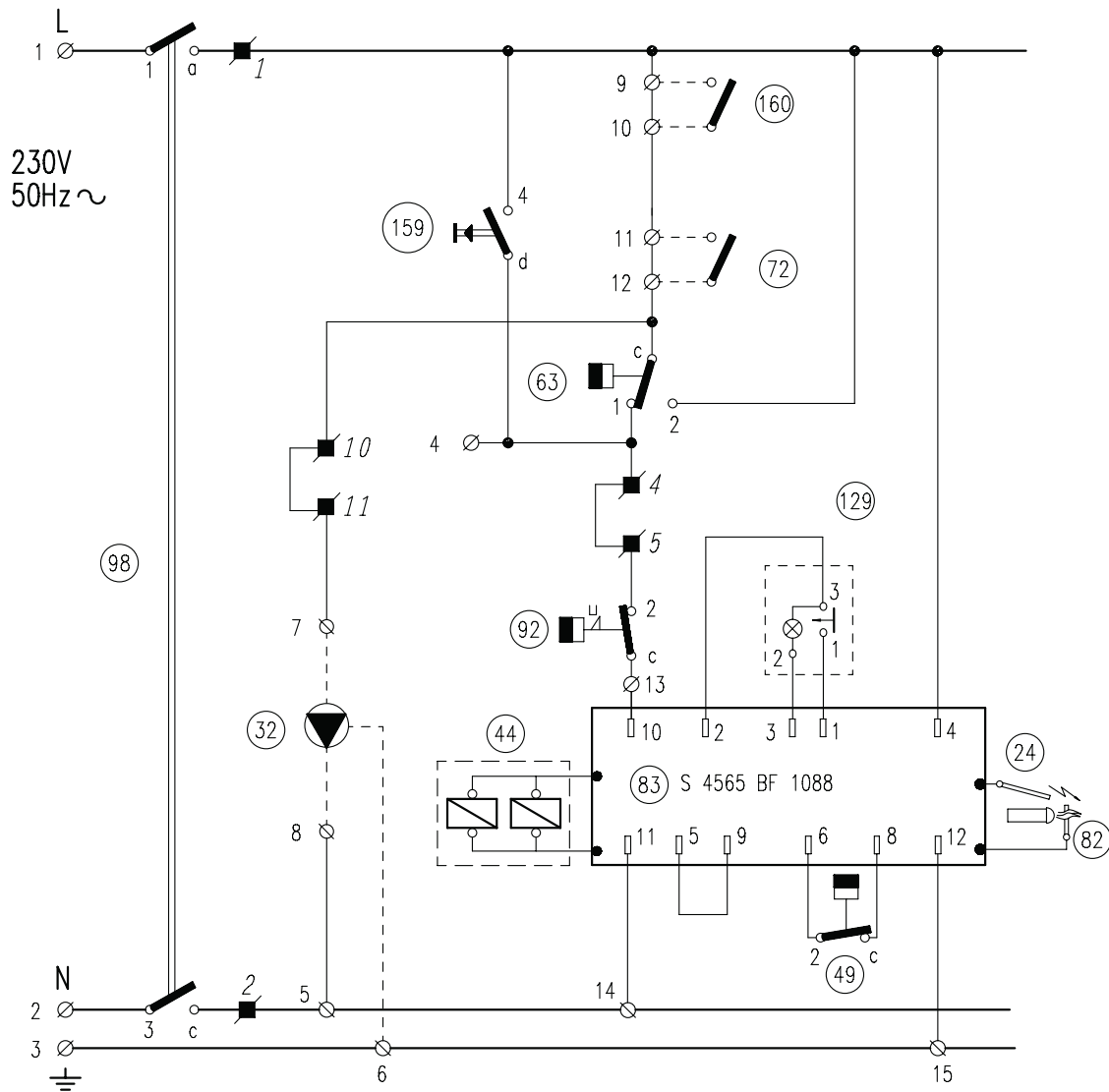


fig. 14 - Main wiring diagram

- 24 Ignition electrode
- 32 Heating circulating pump
- 44 Gas valve
- 49 Safety thermostat
- 63 Boiler control thermostat
- 72 Room thermostat (not supplied)
- 82 Detection electrode
- 83 Electronic controller
- 92 Fume thermostat
- 98 Switch
- 129 Reset button with indicator lamp
- 159 Test button
- 160 Auxiliary contact

Connections in broken lines carried out by the installer

Electrical connection diagram

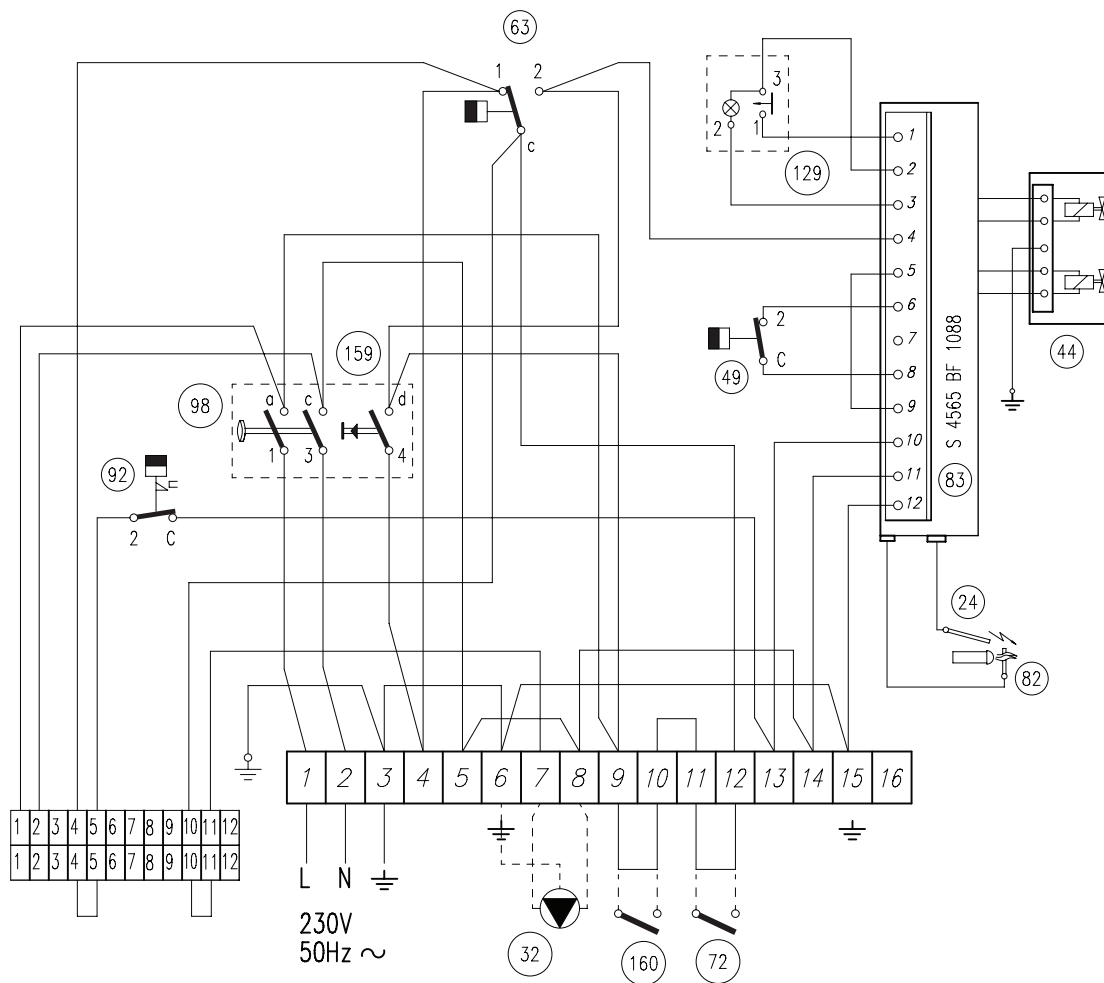


fig. 15 - Electrical connection diagram

- 24 Ignition electrode
- 32 Heating circulating pump
- 44 Gas valve
- 49 Safety thermostat
- 63 Boiler control thermostat
- 72 Room thermostat (not supplied)
- 82 Detection electrode
- 83 Electronic controller
- 92 Fume thermostat
- 98 Switch
- 129 Reset button with indicator lamp
- 159 Test button
- 160 Auxiliary contact

Connections in broken lines carried out by the installer

IT

Dichiarazione di conformità

Il costruttore: FERROLI S.p.A.

Indirizzo: Via Ritonda 78/a 37047 San Bonifacio VR

dichiara che questo apparecchio è conforme alle seguenti direttive CEE:

- Direttiva Apparecchi a Gas 90/396
- Direttiva Rendimenti 92/42
- Direttiva Bassa Tensione 73/23 (modificata dalla 93/68)
- Direttiva Compatibilità Elettromagnetica 89/336 (modificata dalla 93/68)

Presidente e Legale rappresentante

Cav. del Lavoro

Dante Ferrolì

**CE****ES**

Declaración de conformidad

El fabricante: FERROLI S.p.A.

Dirección: Via Ritonda 78/a 37047 San Bonifacio (Verona)

declara que este equipo satisface las siguientes directivas CEE:

- Directiva de Aparatos de Gas 90/396
- Directiva de Rendimientos 92/42
- Directiva de Baja Tensión 73/23 (modificada por la 93/68)
- Directiva de Compatibilidad Electromagnética 89/336 (modificada por la 93/68)

Presidente y representante legal

Caballero del Trabajo

Dante Ferrolì

**CE****TR**

Uygunluk beyanı

İmalatçı: FERROLI S.p.A.

Adres: Via Ritonda 78/a 37047 San Bonifacio VR

bu cihazın; aşağıda yer alan AET(EEC) yönergelerine uygunluk içinde olduğunu beyan etmektedir:

- 90/396 Gazla çalıştırılan üniteler için Yönetmelik
- 92/42 Randıman/Verimlilik Yönetmeliği
- Yönerge 73/23, Düşük Voltaj (93/68 nolu direktifle değişikliğe uğratıldı)
- 89/336 Elektromanyetik Uygunluk Yönetmeliği (93/68 ile değişiklik yapılmıştır)

Baskan ve yasal temsilci

İş. Dep.

Dante Ferrolì

**CE****EN**

Declaration of conformity

Manufacturer: FERROLI S.p.A.

Address: Via Ritonda 78/a 37047 San Bonifacio VR Italy

declares that this unit complies with the following EU directives:

- Gas Appliance Directive 90/396
- Efficiency Directive 92/42
- Low Voltage Directive 73/23 (amended by 93/68)
- Electromagnetic Compatibility Directive 89/336 (amended by 93/68)

President and Legal Representative

Cav. del Lavoro

Dante Ferrolì

**CE**

FR

Дéclaration de conformité

CE

Le constructeur : FERROLI S.p.A.

Adresse: Via Ritonda 78/a 37047 San Bonifacio VR

déclare que cet appareil est conforme aux directives CEE ci-dessous:

- Directives appareils à gaz 90/396
- Directive rendements 92/42
- Directive basse tension 73/23 (modifiée 93/68)
- Directive Compatibilité Electromagnétique 89/336 (modifiée 93/68)

Président et fondé de pouvoirs

Cav. du travail

Dante Ferrolì

**RU**

Декларация соответствия

CE

Изготовитель: FERROLI S.p.A.,

адрес: Via Ritonda 78/a 37047 San Bonifacio VR,

заявляет, что настоящее изделие соответствует следующим директивам CEE:

- Директива по газовым приборам 90/396
- Директива по К.П.Д. 92/42
- Директива по низкому напряжению 73/23 (с изменениями, внесенными директивой 93/68)
- Директива по электромагнитной совместимости 89/336 (с изменениями, внесенными директивой 93/68).

Президент и уполномоченный представитель

Кавальере дель лаворо (почетный титул, присуждаемый государством за заслуги в руководстве промышленностью)

Dante Ferrolì

**UK**

Декларация про відповідність

CE

Виробник: компанія FERROLI S.p.A.

за адресою: Via Ritonda 78/a 37047 San Bonifacio VR

заявляє, що цей апарат відповідає усім наступним Директивам ЄС:

- Директива ЄС 90/396 (Директива про зближення правових норм країн-членів ЄС для газо-розхідних установок)
- Директива ЄС 92/42 (Директива про вимоги КПД для нових водогрійних котлів, працюючих на рідинному і газоподібному паливі)
- Директива ЄС 73/23 (Директива про зближення правових норм країн-членів ЄС, що стосуються електрообладнання, яке використовується в певних межах напруги) (змінена Директивою ЄС 93/68)
- Директива ЄС 89/336 (Директива про приведення у відповідність законодавств країн-членів в області електромагнітної сумісності) (змінена Директивою ЄС 93/68).

Президент і законний представник

Кавалер праці

Dante Ferrolì



The logo features the word "ferroli" in a bold, lowercase, sans-serif font. A grey, curved graphic element arches over the top of the letters "e" and "r".

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