

ThemaClassic 25



Saunier Duval

il comfort e' un diritto

INSTRUCTIONS FOR USE

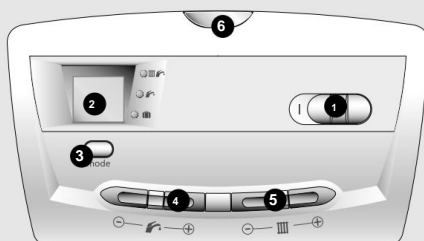
1 - ON/OFF 2

- Display : • pressure (bar) of the heating circuit • temperature (°C) of the water when the boiler is in heating request. • fault code 3 - Choice of operating mode.

4 and 5 - Hot water and heating temperature adjustment.

6 - Operating indicator : - Flashing red : fault signal.

- Steady yellow : indicates burner ignition

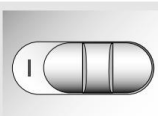


Ignition of the boiler

Make sure that: • the boiler is electrically powered

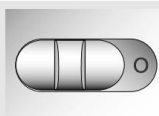
- the gas tap is open

Move the switch to the right to make I appear.



Turning off the water heater

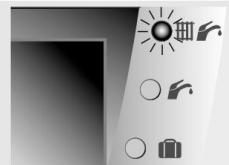
- Move the switch to the left to make O appear: the boiler is not powered • Close the gas tap in case of prolonged absence.



Choosing the operating MODE changes the

- By pressing the key **mode** operating mode of the boiler. The turning on of the green light indicates the selected mode:

- Heating + hot water
- Hot water only
- Boiler protection against freezing



Domestic hot water adjustment • Use the + and - buttons **(4)** to set the domestic hot water temperature between 38°C and 65°C.

Heating temperature adjustment • Use the + and - buttons **(5)** to set the heating flow temperature between 38°C and 87°C.

NB : Briefly pressing one of the + or - keys (4) or (5) will cause the previously selected temperature value to appear on the display.

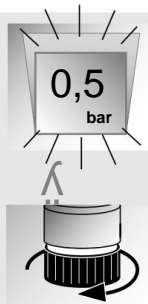
In the event of a fault, the red warning light **(6)** will flash and an **F code followed by** a digit will flash on the display **(2)**.



>> Attempt a reset: move the switch to stop the boiler (O will appear), wait **5 s** then turn the boiler back on (I will appear).

If the defect persists, contact the technical assistance service.

Filling the system If there is no water, the red light **(6)** and the pressure indication **(2)** flash.



In this case restore the pressure by opening the tap **(t)** positioned under the boiler until the value of 0.8 bar is read on the display.

INSTALLATION AND USER MANUAL

THEMACCLASSIC C 25 E, THEMACCLASSIC F 25 E, THEMACCLASSIC F 24 E NOx, THEMACCLASSIC C AS 25 E, THEMACCLASSIC F AS 25 E

Presentation of the boiler

Themaclassic

C boilers are natural draft and open chamber appliances; this means that the air required for combustion is taken directly from the room where the boiler is installed.

This room must be permanently ventilated according to the standards currently in force.

Themaclassic F are watertight fixtures; this means that both the intake of the combustion air and the evacuation of the burnt gases can be carried out with coaxial or separate ducts.

These systems offer

numerous advantages including:

- Possibility of installation in small rooms without the need for ventilation of the room.

- Multiple installation configurations according to the characteristics of the chosen room.

The NOx model is made with a particular technology which guarantees an almost total reduction of the nitrogen oxides (NOx) produced by the combustion process. The issue

of polluting products, the cause of phenomena such as the greenhouse effect, is therefore practically eliminated with the use of low NOx emission boilers.

Themaclassic C 25 E and Themaclassic F 24 E NOx Themaclassic F 25 E

Combination boilers (heating + domestic hot water) with adjustable output and electronic ignition.

Themaclassic C AS 25 E and Themaclassic F AS 25 E Heating only boilers with electronic ignition.

Accessories

For more information on the accessories available, consult your trusted dealer or the website

www.saunierduval.it

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USER

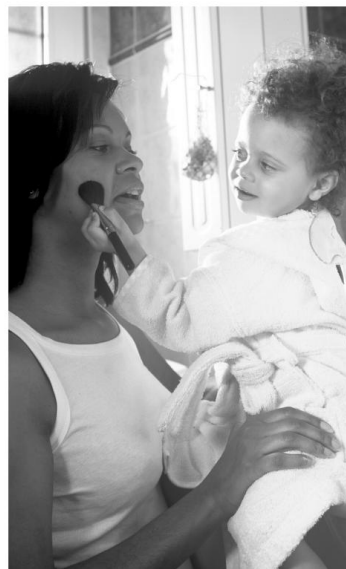
Welcome users

Dear user, First of all, a warm thank you for choosing a Saunier Duval wall-hung boiler. By giving your preference to this brand, you now have one of the most advanced devices of this category distributed on the European market. The materials, the construction and the tests are perfectly in line with the European and National Standards regulating the matter. The powers, performances and safety devices are guaranteed by tests carried out both on the single components and on the finished appliances according to the International Quality Control Standards. Finally, Saunier Duval boilers are checked one by one before being packed and shipped.

We invite you to carefully read the information regarding commissioning, as well as the maintenance instructions; in this way you will be able to avoid annoying inconveniences and prevent breakdowns. Keep this booklet carefully and consult it when you have any doubts about operation and maintenance.

Do not hesitate to contact our Authorized Technical Assistance Services for the appropriate periodic maintenance. They will place their proven experience at your complete disposal.

Vaillant Saunier Duval Italia SpA



Documents

Together with this booklet, we invite you to keep a copy of the declaration of conformity issued by the installer and a copy of the system booklet.

Free Initial Verification

Verification and first power up are completely free; We therefore invite you to call Saunier Duval authorized service centers to have these operations carried out.

Guarantee

The verification and the free first ignition carried out by an authorized Saunier Duval assistance center allow you to activate the Saunier Duval conventional guarantee.

For the conditions, see the last page of this booklet.



Warranty certificate

The European Directive 99/44/EC, concerning certain aspects of sales and guarantees for consumer goods, directly and exclusively involves the sales relationship between the seller and the consumer.

In the event of a lack of conformity, the consumer has the right to take action against the seller to obtain the restoration, free of charge, of the conformity of the goods for a period of 24 months from the date of purchase.

Vaillant Saunier Duval Italia Spa, while not being the final seller vis-à-vis the consumer, **nevertheless intends to support the installer's responsibilities with its own Conventional Warranty, supplied through its own technical assistance organization** (see the terms of the conventional warranty).

Routine cleaning and maintenance operations are not covered by the guarantee.

The assistance centres Saunier-Duval

Technical assistance centres Saunier Duval are made up of qualified professionals according to current standards

read constantly updated on Saunier Duval products, on sector standards, both technical and safety, and use original spare parts.

Free initial verification Once installation has been carried out by an authorized person, **Saunier Duval offers the initial verification free of charge provided that it is carried out by its authorized service centre.**

This operation, in addition to optimizing the operation of the appliance according to the characteristics of the system, is an indispensable condition for the activation of the Saunier Duval conventional guarantee described further on.

Legal and preventive maintenance
The technical regulations and the laws in force prescribe the obligation to contact a qualified person pursuant to law 46/90 for an annual inspection of the appliance and the analysis of the combustion every two years.

Therefore, in order to have a product that is always efficient and at maximum performance,

In compliance with the technical standards and laws in force, Saunier Duval recommends that you contact your network of authorized service centers to have your appliance carried out periodic maintenance at the end of each heating season. In this way, with a modest economic investment, it will be possible to contribute to a saving in fuel consumption, the probabilities of unforeseen and annoying technical stops during the heating season will be reduced, and, in the last analysis, the appliance will be placed in a condition of extend its operational life.

Saunier Duval authorized service centers are also available to propose scheduled maintenance contracts adapted to the needs of each individual user, at particularly advantageous conditions.

It is possible to contact the nearest Saunier Duval authorized technical assistance center by consulting the Yellow Pages under the heading gas boilers or by consulting the website www.saunierduval.it

USER

Maintenance: what you need to know



Cleaned and well adjusted, your boiler will consume less and last longer. an annual maintenance of the boiler, as well as a legal obligation, is essential for good functioning.

This makes it possible to lengthen the life of the appliance, reduce consumption and harmful emissions.

The stipulation of the maintenance contract with an authorized assistance center allows you to obtain optimal functioning of the boiler and to comply with the provisions of the law on the matter.

The cleaning of the external panels must be done with a wet rag and soapy water.

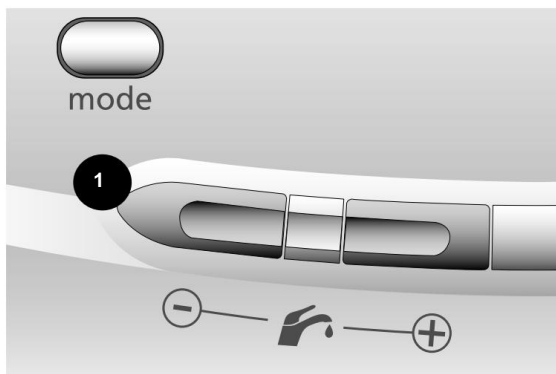
Do not use abrasive or solvent-based products as they could damage the paneling.

Regulation: source of economy


Domestic hot water temperature adjustment (except AS models): 1 - The

+ and - keys above allow
you to vary the domestic
hot water temperature from
38°C to 65°C in
order to obtain the optimum
temperature for your needs.

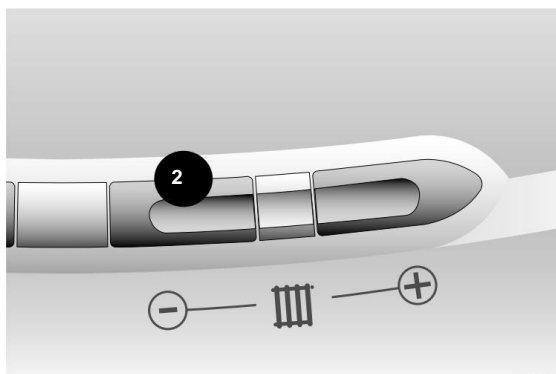
NB : A short press
displays the previously
selected temperature.



Heating temperature adjustment: 2 -

The + and - keys  we
above allow the heating
circuit water temperature
to be varied from the
minimum (38°C) to the
maximum allowed.
You will have to
resort to regulation if
your system lacks a room
thermostat or to regulate
the temperature of the
water inside the radiators.

NB : A short press
displays the previously
selected temperature.



USER

Your questions...

When I open the hot water tap fully it seems to me that the water is less hot !

Indeed, the water temperature depends on the required flow rate.

The more water flow drawn, the less hot the water is. In this case, it is necessary to reduce the flow rate at the tap until the desired temperature is reached.

Since I installed the room thermostat, the radiators sometimes stay cold for a long time.

The task of the room thermostat is not to operate the boiler when the external conditions, such as a sunny day, allow the desired temperature to be maintained in the room.

I would like to close the ventilation opening where the boiler is installed because cold air enters. I can do it? ABSOLUTELY NOT!

It is extremely dangerous! It is essential for the operation of your boiler.

The obstruction would prevent

good evacuation of burnt gases : this leads to the stagnation of harmful gases.

Before the hot water reaches the bathroom I have to wait a long time !

The arrival of hot water depends on the quantity of cold water contained in the pipes. If the bathroom is 10 meters from your boiler, the seconds needed for the heat to arrive will seem endless...!

I hear the sound of water inside the radiators.

There may be air in the pipes. proceed to bleed the radiators by opening the appropriate cock.

After bleeding, check the pressure and restore it if necessary. If the anomaly persists, contact the assistance centre.



My boiler has stopped, the red light and the pressure indicator are flashing!

The boiler has stopped because it has detected a lack of water in the system. It is therefore necessary to restore the pressure by opening the appropriate blue tap located under the boiler until the pressure of 0.8 bar is read on the display.



If the filling has to be done too frequently, there could be a leak in the system.

In this case consult your installer.

**I have to be away
for a few days.
Can frost damage my
system?**

In case of absence
for a few days,
simply lower the setting
temperature
on your room thermostat.

Choose a temperature that
will allow you to
quickly find a comfortable
temperature on
your return.

Note that a programmable
room thermostat will allow
you to ideally select the
days, time slots and
temperatures of the
heating.

If your installation does
not have a room
thermostat, select the
minimum temperature
in heating and set
it on the display of your
boiler.

In homes that are
not occupied for long
periods, evaluate
the possible emptying of
the system, or better, insert
a specific antifreeze liquid
available from your installer.

**How can I check the
heating circuit pressure
when the temperature
appears on the
display?**

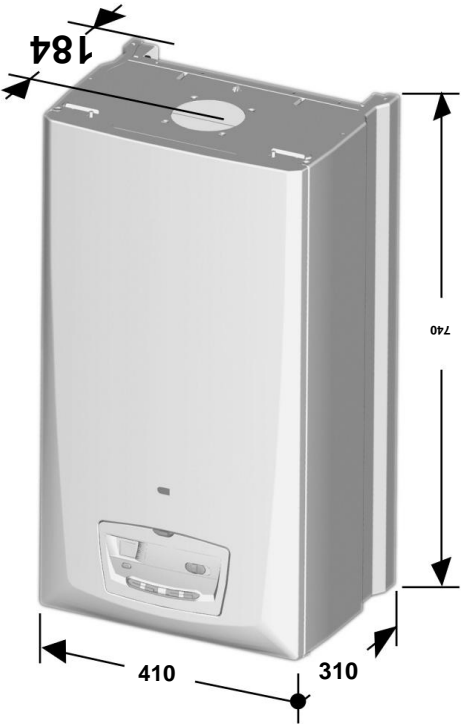
When the boiler is in
heating request, the
water temperature
actually appears on the
display. To verify

the pressure, it is sufficient
to put the boiler on the
hot water only position ()
in order to
interrupt the heating
request and the pressure
can be read on the
display. Then put it
back in the heating
position.



INSTALLATION

Dimensions



Themaclassic		C 25 E C AS 25 E F 25 E/F 24 E NOx F AS 25 E		
Net weight	(kg)	31	30	34
Gross weight	(kg)	32	31	35

Heating circuit

Thema classic boilers can be integrated into any type of system: twin-pipe, single-pipe in series or derivative...

The heating surfaces can consist of radiators, convectors or air heaters.

Warning: if the materials used are of a different nature, corrosion phenomena may occur.

In this case, it is recommended to add an inhibitor to the water in the heating circuit, in the proportion indicated by the supplier of the product: this will prevent the production of gases and oxides.

The section of the pipes will be determined according to the usual methods based on the flow rate/pressure curve. The distribution network must be calculated according to the flow rate corresponding to the power actually required, without taking into account the maximum power

that the boiler is able to supply. However, it is advisable to provide for a sufficient flow rate so that the temperature difference between the flow and return is less than or equal to 20°C. The minimum flow rate is 500 l/h.

The routing of the pipes

must be designed taking all necessary precautions to avoid the formation of air pockets and to facilitate permanent degassing of the installation.

It will be necessary to provide for the installation of bleeders at each high point of the ducting, as well as on all the radiators.

The permissible total water volume for the heating circuit will depend, among other things, on the cold static load. The expansion vessel incorporated in the boiler is delivered at a pressure of 0.5 bar (i.e. with a static load equal to 5 mCE) and allows a maximum volume of **110 liters** for a

average temperature of the radiator circuit of 75°C and a maximum service pressure of 3 bar. When starting up the system, it is possible to change this inflation pressure in the event of a different static load.

Provide a drain cock at the lowest point of the system.

When using thermostatic taps, pay particular attention so that they are not installed on all the radiators, that taps are installed in rooms with a high free supply and that instead they are never installed in the room where the room thermostat is fitted .

If it is an old system, it is essential to flush the radiator circuit before installing the new boiler.

Sanitary circuit

The distribution circuit must be made with suitable material.

Avoid pressure drops as much as possible: limit the number of bends, use

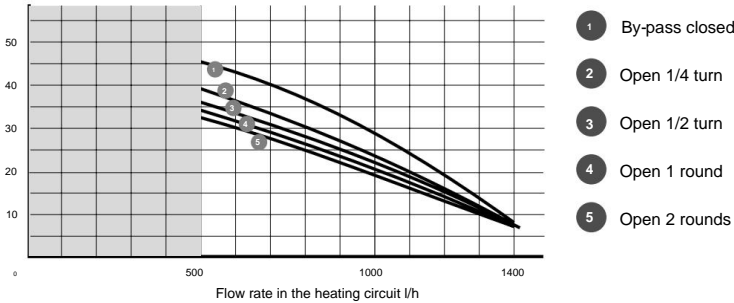
taps with a large passage section, in order to allow sufficient flow.

The boiler can operate with minimal pressure

supply pressure of 0.6 bar. A better comfort of use will be obtained starting from 0.8 bar of supply pressure.

gas category	C25E F25E F24ENox CAS25E FAS25E				
	I12H3+ I12H3+	I2H	I12H3+ I12H3+		
Natural gas (G 20) - (ref. 15°C - 1013 mbar) C25E F25E F24ENox CAS25E FAS25E Ø burner nozzle					
	(mm) 1,20 1,20	0,85	1,20	1,20	
Supply pressure	(mbar) 20	20	20	20	20
Maximum pressure at the burner	(mbar) 12,4 13	12,2	12,4	13	
Minimum pressure at the burner	(mbar) 2,1	2,1	3,5	2,1	2,1
Consumption at maximum power	(m3 / h) 2,84 2,8	2,74	2,84	2,8	
Consumption at minimum power	(m3 / h) 1,05 1,12	1,32	1,05	1,12	
Butane (G 30)					
C25E F25E F24ENox CAS25E FAS25E					
Ø burner nozzle	(mm) 0,73 0,73	-	0,73	0,73	
Supply pressure	(mbar) 29	29	29	29	
Maximum pressure at the burner	(mbar) 24,6 25,8	-	24,6	25,8	
Minimum pressure at the burner	(mbar) 3,6	4,3	3,6	4,8	
Consumption at maximum power	(kg/h) 2,11 2,09	-	2,11	2,09	
Consumption at minimum power	(kg/h) 0,78 0,83	-	0,78	0,83	
Propane (G 31) Ø					
C25E F25E F24ENox CAS25E FAS25E					
burner nozzle	(mm) 0,73 0,73	-	0,73	0,73	
Supply pressure	(mbar) 37	37	37	37	
Maximum pressure at the burner	(mbar) 31,4 32,7	-	31,4	32,7	
Minimum pressure at the burner	(mbar) 4,3	5,3	4,3	5,3	
Consumption at maximum power	(kg/h) 2,08 2,05	-	2,08	2,05	
Consumption at minimum power	(kg/h) 0,77 0,82	-	0,77	0,82	

Flow/pressure curve available



INSTALLATION

Hydraulic circuit

Themaclassic C

1 - Low temperature fume backflow safety.

2 - High smoke anti-reflux safety temperature.

3 - Fume hood 4 - Heating circuit exchanger 5 - Combustion

chamber 6 - Overheating safety thermostat 7 - Expansion vessel

8 - Flame detection

electrode 9 - Burner

10 - Ignition electrode

11 - Pump

12 - Temperature sensor heating

13 - Ignition board

14 - By-pass

15 - Pressure sensor

16 - DHW circuit exchanger (*)

17 - 3-way valve (*)

18 - Gas mechanism

19 - Drain cock

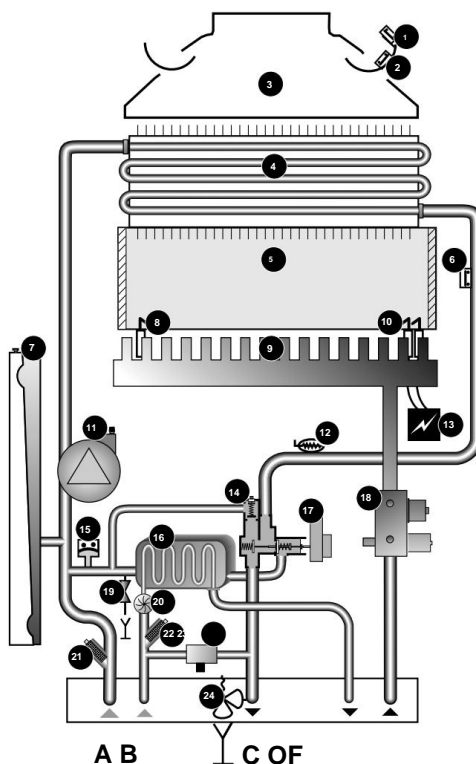
20 - DHW flow detector (*)

21 - Heating circuit filter

22 - Cold water inlet filter (*)

23 - Filling cock (*)

24 - 3 bar safety valve



A - Heating return

B - Cold water inlet (*)

C - Heating flow

D - Sanitary water outlet (*)

E - Gas inlet

(*) except for AS models

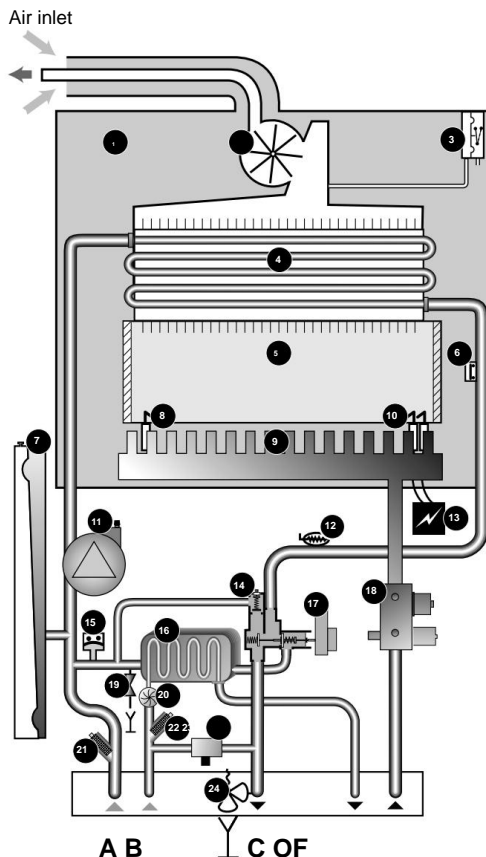
Hydraulic circuit

Themaclassic F

- 1 - Sealed chamber
- 2 - Extractor
- 3 - Air pressure switch
- 4 - Heating circuit exchanger
- 5 - Combustion chamber
- 6 - Overheating safety thermostat
- 7 - Expansion tank
- 8 - Flame detection electrode
- 9 - Burner
- 10 - Ignition electrode
- 11 - Pump
- 12 - Temperature sensor heating
- 13 - Ignition card
- 14 - By-pass
- 15 - Pressure sensor
- 16 - DHW circuit exchanger (*)
- 17 - 3-way valve (*)
- 18 - Gas mechanism
- 19 - Drain cock
- 20 - DHW flow detector (*)
- 21 - Heating circuit filter
- 22 - Cold water inlet filter (*)
- 23 - Filling cock (*)
- 24 - 3 bar safety valve

- A - Heating return
- B - Cold water inlet (*)
- C - Heating delivery
- D - Sanitary water outlet (*)
- E - Gas inlet

(*) except for AS models



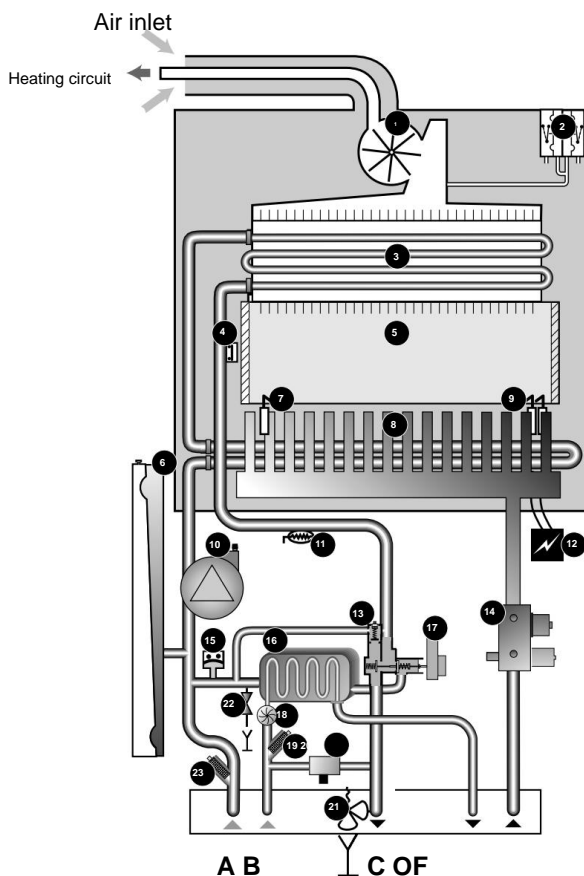
INSTALLATION

Hydraulic circuit

Themaclassic F Nox

- 1 - Extractor
- 2 - Air pressure switch
- 3 - Exchanger burnt gases
- 4 - Overheating safety thermostat
- 5 - Combustion chamber
- 6 - Expansion tank
- 7 - Flame detection electrode
- 8 - Burner
- 9 - Ignition electrode
- 10 - Pump
- 11 - Temperature sensor
- 12 - Ignition card
- 13 - By-pass
- 14 - Gas mechanism
- 15 - Pressure sensor
- 16 - DHW circuit exchanger
- 17 - 3-way valve
- 18 - DHW flow detector
- 19 - Filter on the cold water inlet
- 20 - Filling cock
- 21 - 3 bar safety valve
- 22 - Drain cock
- 23 - Heating circuit filter

- A - Heating return
- B - Cold water inlet
- C - Heating delivery
- D - Sanitary water outlet
- E - Gas inlet



Positioning of the boiler

Determine the position of the boiler, remembering

to: •

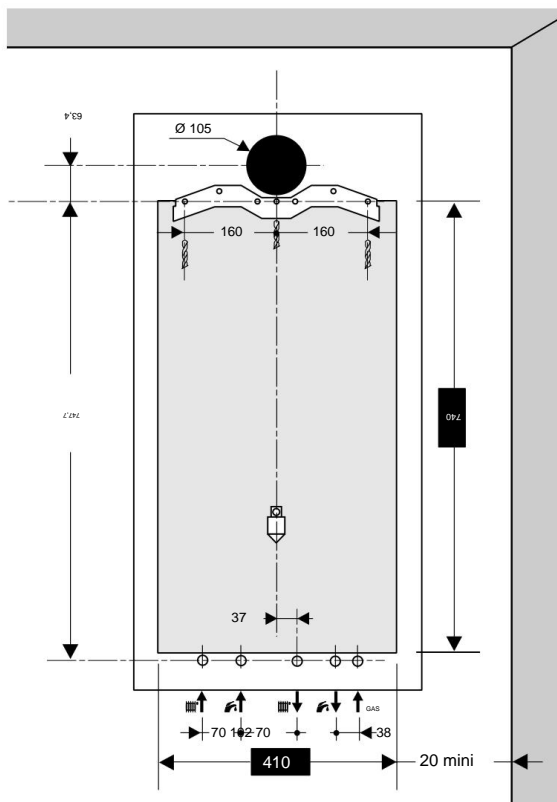
Avoid fixing it on flimsy partition walls.

- Avoid mounting the boiler above an appliance which, during use, could in any way jeopardize its proper functioning (cookers which give rise to the formation of greasy vapours, washing machines, etc.); also avoid installation in rooms with a corrosive or very dusty atmosphere (for C models).

All these pieces must be installed in accordance with the instructions on the template.

If it is not necessary to proceed

immediately with the assembly of the boiler, it is advisable to protect the various connections to prevent the painting or plaster from compromising the seal of the definitive connection



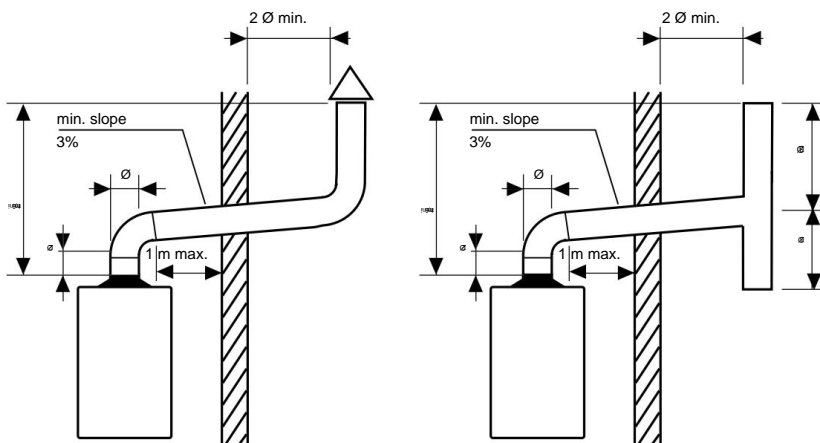
INSTALLATION

Exhaust of combustion products for Themaclassic C

For the construction of the combustion product exhaust duct, comply with the UNI-CIG 7129 STANDARDS.

However, we would like to remind you that for the appliance to work properly, the drain must be made in this way

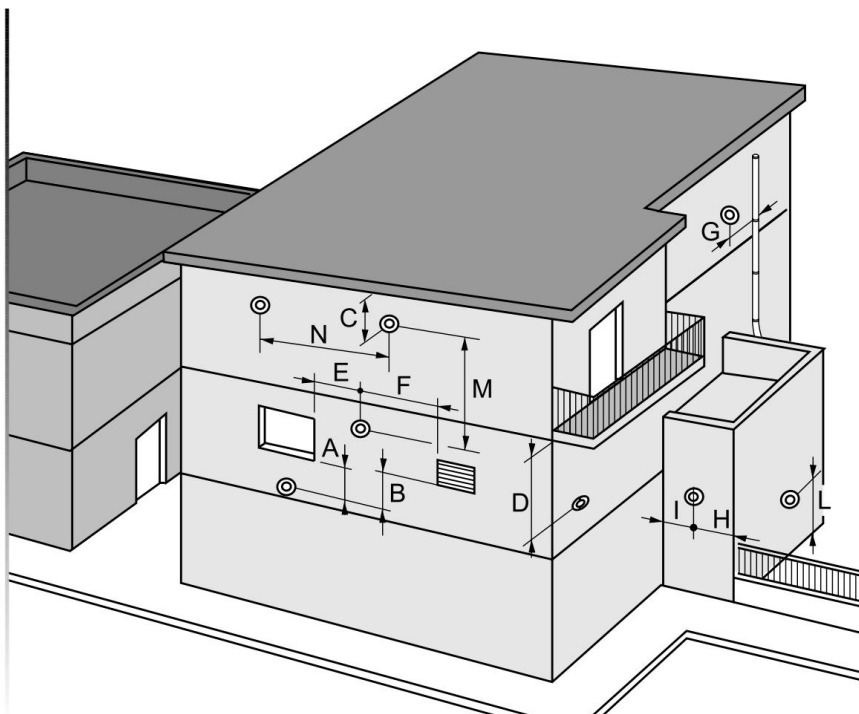
that, under no circumstances, is it possible for the condensate to return to the boiler.



Installation of the smoke evacuation/air inlet duct for Themaclassic F

Positioning of the draft terminals (in mm).

A - Under window	600	B
- Under air vent	600	C - Under eaves
300	D - Under balcony	300
E - From adjacent window	400	F - From adjacent air vent
600	G - From vert/horiz pipes or drains	300
H - From an angle	300	I - From a recess
300	L - From the ground or any walking area	2500
M - Between two vertical terminals	1500	
N - Between two horizontal terminals	1000	



INSTALLATION

Installation of the flue duct/air inlet for Themaclassic F

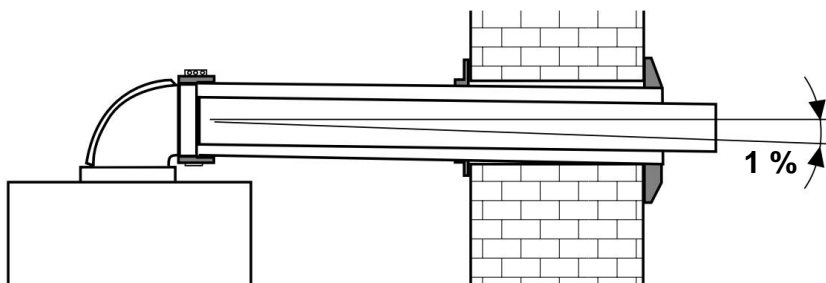
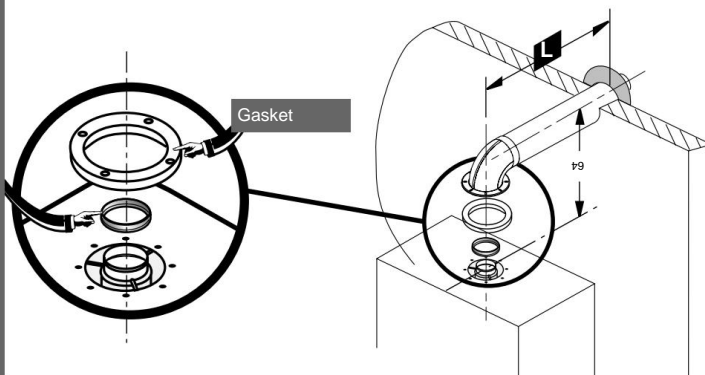
Use only original saunier duval kits and accessories (UNI-CIG 7129 standards)

Horizontal concentric system (Ø 60/100 mm)

Install the fumes diaphragm, supplied with the gasket bag, in cases where this length (L) of the exhaust duct is less than 0.5 m.

This maximum value is obtained using a duct with a length (L) of 3.5 m* and a bend.

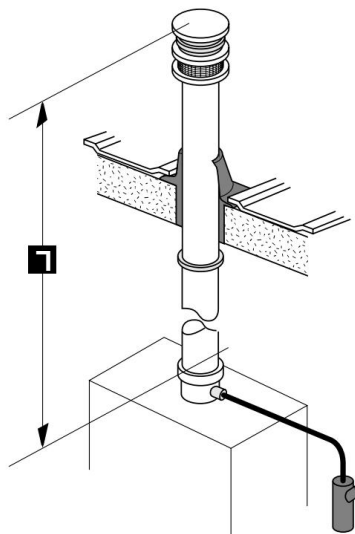
The obtainable length (L) is reduced by one meter for each 90° bend (or two at 45°) that is added.



Vertical concentric system (Ø 80/125 mm)

This maximum value is obtained using a 12 m* length L duct complete with adapter.

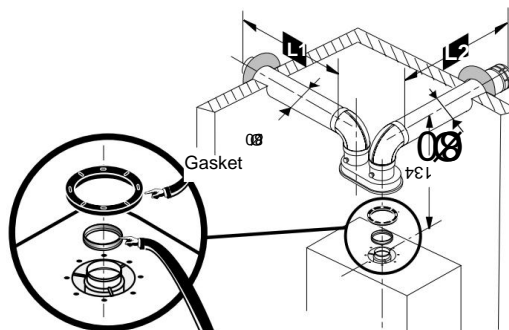
Install the fumes diaphragm, supplied in the gasket bag, in cases where this length (L) of the exhaust duct is less than 3 m.



Separate smoke

evacuation/air intake system 2 x

Ø 80 mm This maximum value is obtained using a 34 m* long duct (L1 + L2), two bends and a flow separator.



Install the fumes diaphragm, supplied in the gasket bag, in cases where this length (L) of the exhaust duct is less than 4 m.

* NB: for NOX models, the adjustment must be made using the control panel keys (see pages 28-29)

INSTALLATION

Laying the fittings water and gas

Important -

Provide a safety valve
evacuation circuit - Only use
the original
gaskets supplied with the
appliance.

Do not braze the
connections fitted in
position, as this
could damage the gaskets
and seals of the taps.

- If some pipes have to
pass upwards
behind the boiler, respect
the distance from
the wall for the
expansion tank.

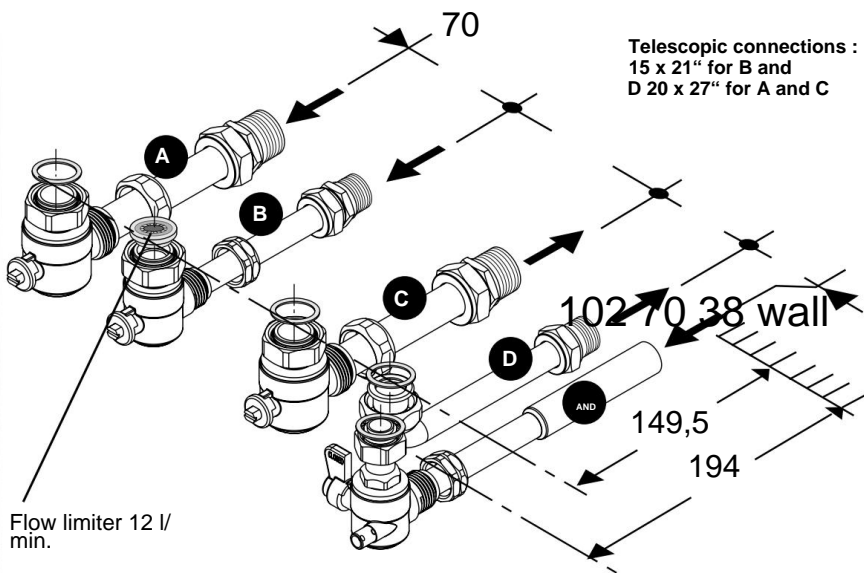
**Connect the ducts respecting the order of arrival and delivery: A - heating
return with isolation valve.**

B - cold water inlet with isolation cock.

C - heating flow with isolation valve.

D - domestic hot water delivery.

E - gas inlet



Boiler installation

Before any operation, it is necessary to carry out a thorough cleaning of the pipes, with a suitable product, in order to eliminate metal residues from processing and welding, oil and various greases that could be present and which, reaching the boiler could affect its functioning.

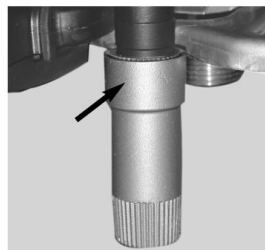
NB: the use of solvents could damage the circuit.

Assembly •

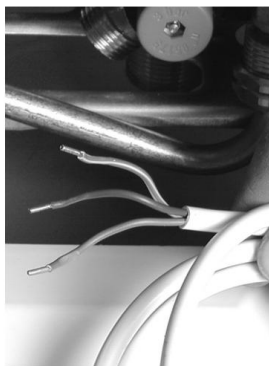
Hook the upper part of the boiler to the support bracket.

- Let the boiler go down.
- Position the gaskets. Screw the various connections between the boiler and the wall.

- Remember to connect the blue extension to the filling tap as shown in the figure.



Electrical connections



230 V power supply

Connect the boiler power cable to the single-phase 230 V mains + earth.

According to current standards, this connection must be made by means of a bipolar switch with a contact opening of at least 3 mm.

Attention: the power cable integrated in the appliance is a special cable.

If it is necessary to replace it, contact an **Authorized Assistance Centre**.

INSTALLATION

Electrical connections

Room thermostat

Connect the thermostat wires as shown in the figure.

If the room thermostat has not been used, leave the bridge between the two points of the terminal.

For the Themaclassic AS :

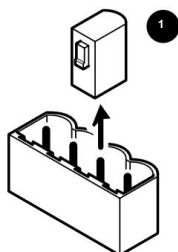
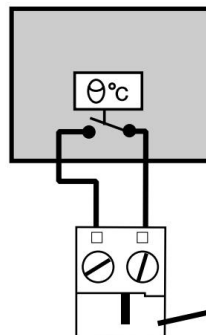
1/ remove the plastic protection from the connector located on the electronic board.

2/ Connect the wires of the thermostat and the boiler as shown in the figure.

Important : the connector is used to connect a thermostat .

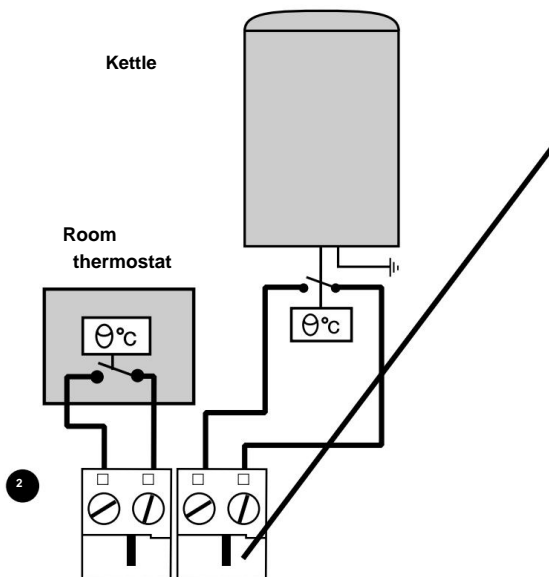
Under no circumstances should it receive 230V mains power.

Room thermostat

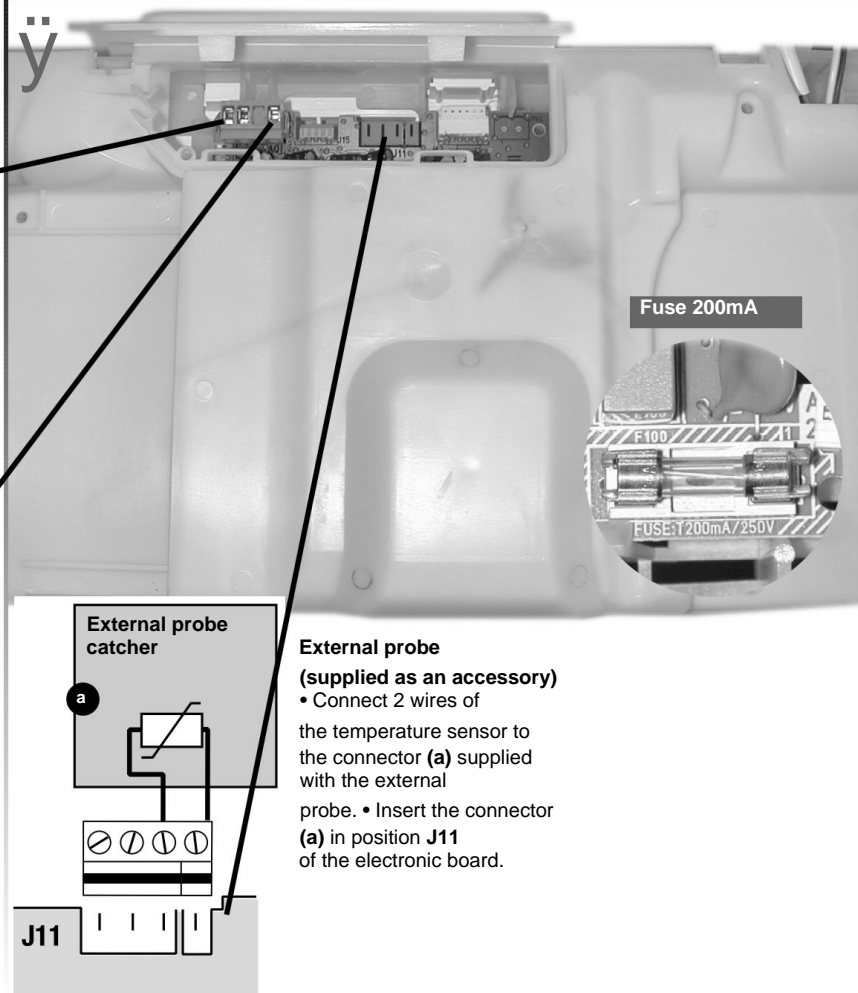


Kettle

Room thermostat



Passage of the wires for the room thermostat and the external probe.



INSTALLATION

Goodwill

Gas supply • Open the cock • Check the tightness of the gas fittings.

• Make sure that the meter is suitable for powering all the user appliances at the same time.

Power supply • Make sure the voltage is 230V.

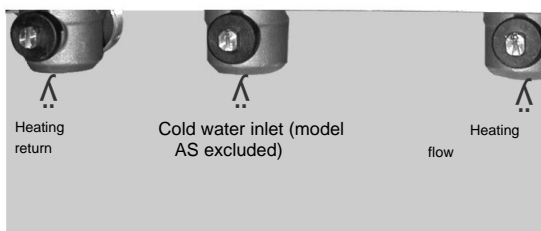
Filling the DHW and heating circuit:

1 Move the switch to right to bring up I.

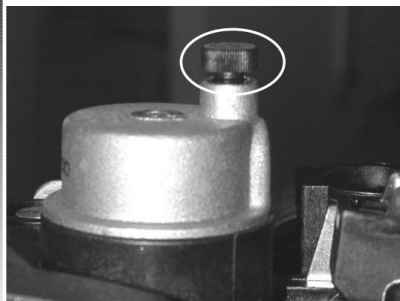


2 Open the taps located under the boiler : cutting the screw

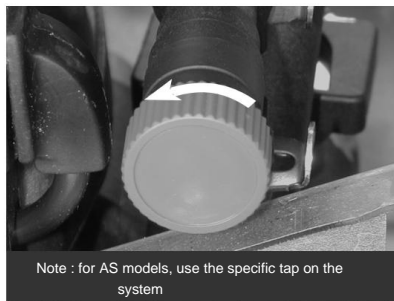
must be in the direction of flow.



3 Open the automatic degasser cap of the pump and all the caps of the system bleeders.



4 Open the blue filling tap located under the boiler until you read 0.8 bar on the pressure indicator.

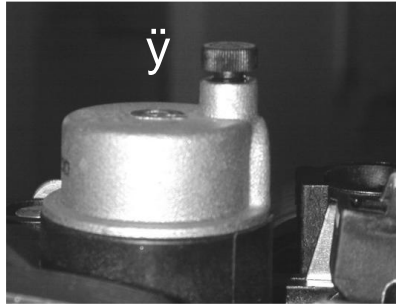


Note : for AS models, use the specific tap on the system

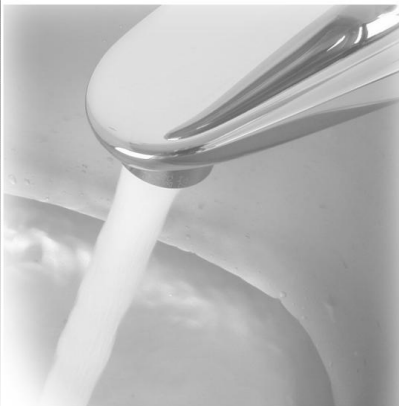
- 5 Bleed each radiator until water runs out



- 6 Leave the pump drain plug in the open position



- 7 Open all domestic water taps to purge the pipes.

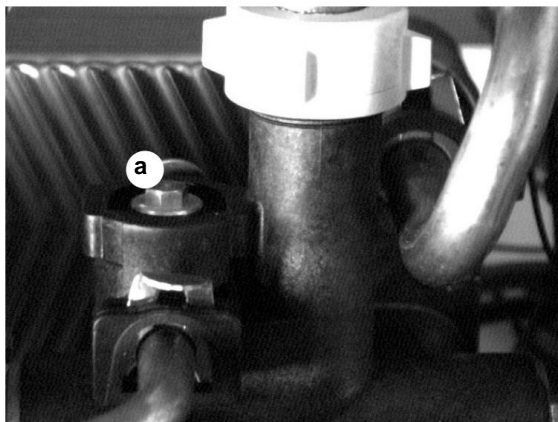


- 8 Make sure the indicator indicates a pressure greater than 0.8 bar. Otherwise, proceed with filling the system.



INSTALLATION

Adjustments



Adjusting the heating circuit flow rate The flow rate must be adapted according to the system's requirements. Act on the **screw a**; (screw to close, unscrew to open) to adapt the head available to the pressure drop of the system.

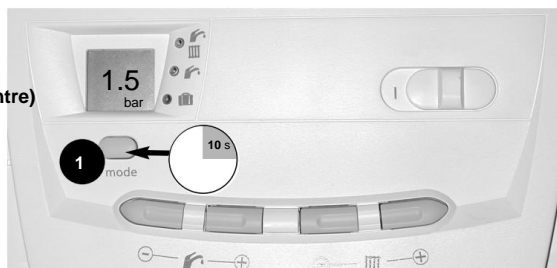
Access to the technical data of the boiler (use reserved for the installer and the assistance centre)

It allows you to set some functions and analyze any malfunctions.

● Pressing for approx **10 sec. on the "mode" button** you have access to modify the parameters.

● When **"00"** is displayed, select the access code **96** with the **+** or **-** keys.

● A new press on **"mode"** displays the first parameter of the menu which allows to know the maximum power in heating.



Note : the display returns to normal function o immediately press and hold the "mode" button for after one minute without operation more than **10 s** .

Menu 01

Heating power

adjustment The heating power can be adjusted to a value between the minimum and maximum of the boiler power **pag. 12**.

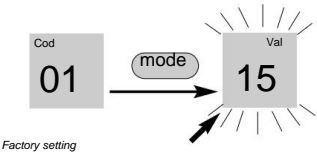
This possibility allows you to adapt the power supplied to the real need of the installation, avoiding too high a power and in order to have the

maximum yield.

- When the **Cod 01** menu appears on the display, press **“mode”** if you want to modify the parameter value.
- Choose the desired maximum power using the **+** or **-** button.
- Press on **“mode”** to confirm the value of power.

- Press the **+** button to access the next menu.

Note: the reduction in the heating power has no effect on the domestic hot water power.



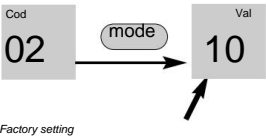
Menu 02

Air/flue system configuration

This function allows you to adapt the **Themaclassic F 24 E NOx** boiler to the fume extraction system used.

For the other **Themaclassics**, the adjustment must be made using the fumes diaphragm (see page 19)

- Starting from the **Cod 02** menu, press **“mode”** and then the **+** or **-** keys to modify the value (from 0 to 10) corresponding to the length of the exhaust system (see table).



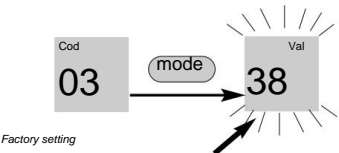
Concentric duct		Concentric duct		Double duct horizontal	
(C12) vertical		(C32) flow		(C 52) length length piping parameters	
parameters 2 to 4 m				piping parameters piping	
	0.3 to 0.5 m 0		2 to 2.7 m 0		
0		1	3,5 m	1	7 m
1	0,8 m	2	4,2 m	2	10 m
2	1 m	3	5 m	3	13 m
3	1,3 m	4	5,7 m	4	16 m
4	1,5 m	5	6,5 m	5	19 m
5	1,8 m	6	7,2 m	6	22 m
6	2 m	7	7,9 m	7	25 m
7	2,3 m	8	8,6 m	8	28 m
8	2,5 m	9	9,3 m	9	31 m
9	2,8 m	10	10 m	10	34 m
10	3 m				

Menu 03

Minimum temperature in heating

This value can be

chosen from the 4 proposed in the **Cod 03** menu : **38°C, 50°C, 55°C or 70°C**.



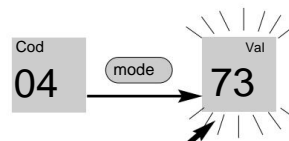
INSTALLATION

Adjustments

Menu 04

Maximum temperature in heating

This value can be chosen from among the 4 proposed in menu **Cod 04** : 50°C, 73°C, 80°C and 87°C.



Factory setting

Menu 05

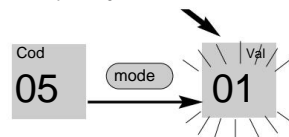
Operation of pump

Choose the operation

of the pump via the menu

Cod 05 :

- 1 - controlled by the CT
- 2 - works with the burner



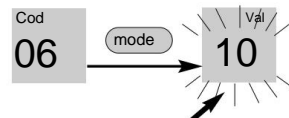
Menu 06

External probe

Menu **Cod 06** offers 16 adjustment slopes numbered from **00** to **15**

(see graph).

Example : with curve **10**, the heating temperature will be maximum with an outside temperature of **-5.5°C**.



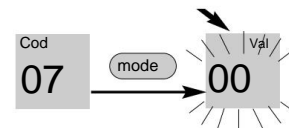
Factory setting

Menu 07

External probe

The origin point of the adjustment slope can

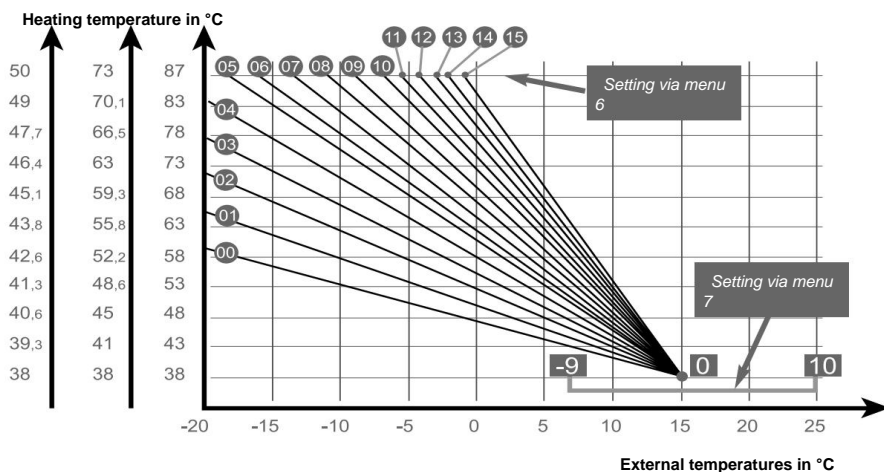
be moved by varying the parameter between **-9** and **10**.



Use :

- The adjustments of the menus **Cod 06** and **07** have no influence if the external probe is not installed -

The menu **Cod 08** is for the exclusive use of the installer.



Emptying

If there is a risk of the system freezing during your absence, it must be emptied.

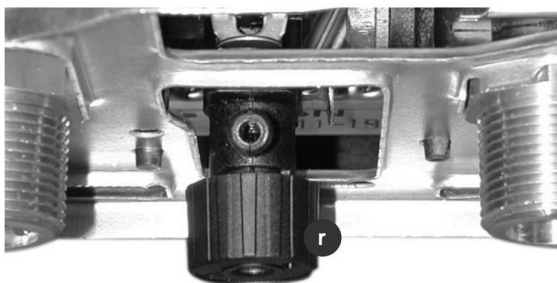
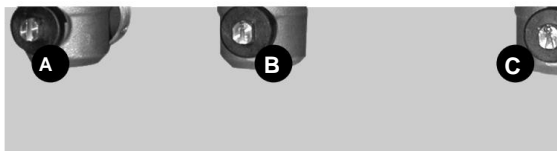
However, to avoid this operation, it is possible to add antifreeze liquid suitable for these types of system to the heating circuit.

Draining the heating circuit

- Open the drain cock provided at the lowest point of the system. • Open the boiler drain screw (r) .

Emptying the DHW circuit •

- close the counter. • open one or more hot water taps.



Emptying the boiler • close the isolation cocks (A), (B) and (C) (the cut of the screw must be perpendicular

in the direction of flow). • open the emptying cock (r) of the boiler. • open one or more domestic hot water taps.

Other family of gases

To operate the boilers with another gas family, carry out the following operations: - replace the burner nozzles; - reset the gas pressure by acting on the stabilizer of the

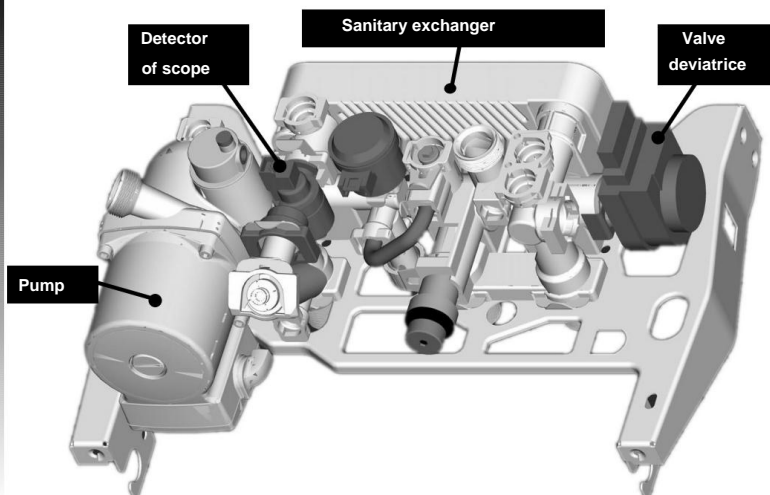
solenoid valve using a pressure gauge to check the value. The diameters of the nozzles and the pressure values are shown on **page 13** in the gas characteristics table. - check that the mechanism

gas is suitable for the type of gas supplied by the distribution network.

Note: For the correct execution of the above operations it is necessary to contact the **Authorized Technical Assistance Centre**.

MAINTENANCE

Hydraulic block



Pump disassembly

The pump motor can be disassembled by unscrewing the 4 screws.

Disassembly of Sanitary exchanger

Undo the two
accessible clamping screws

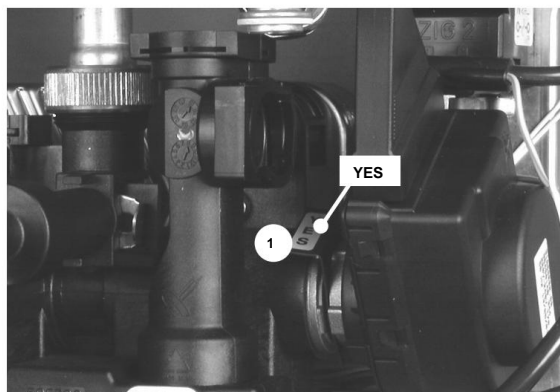
from the front of the boiler.
Pay attention to the
direction of reassembly: the
writing TOP impressed on the

exchanger must be positioned
in the upper part.



Removing the diverter valve
motor remove the clip **(1)** and
turn for
pull out the engine.

Attention to
clip placement :
the YES label must be readable
in the correct sense.



MAINTENANCE

Dismantling the

flow detector • Close the water inlet • Remove the clip (1) and turn the filling tap.
• Disconnect the connector (2) positioned under the protective cap

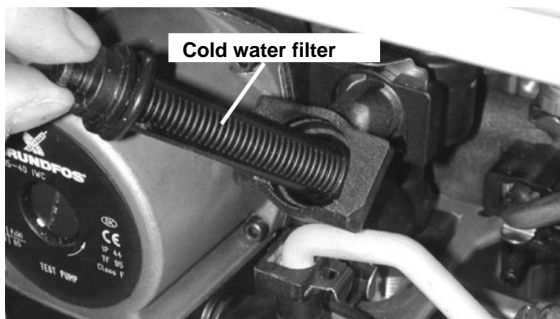
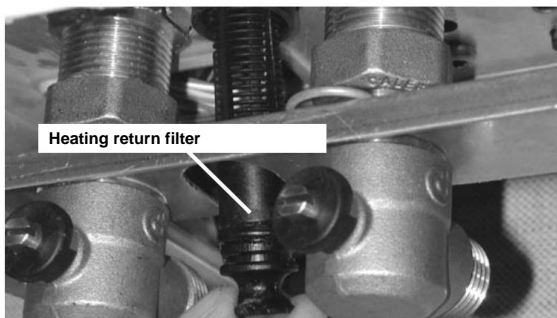
• Remove the clip (3) • Unscrew the fitting cold water inlet under the boiler. • Extract the flow detector/sanitary filter assembly.



Components to check :

Heating return filter

Remove the filter retaining clip located under the pump and remove the filter to check and clean it.

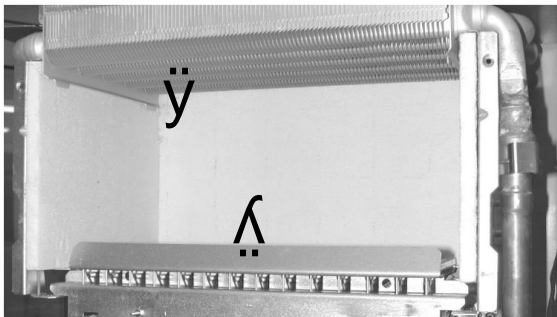


Cold water filter

Release the filter retaining clip located above the filler tap and remove the filter to check and clean.

Combustion chamber

Undo the front screws of the room of combustion and clean the fins of the exchanger. Disassemble and clean the burner.



GENERALITY

Control devices

Boiler protection against

freezing If in vs. absence there is the risk of frost, select the mode on the boiler.

In this way the automatic frost protection system will switch on the appliance if the temperature of the water in the heating circuit drops below 4°C.

The boiler will stop when the temperature has risen to at least 8°C.

Protection of the installation

against frost In case of absence for a few days, simply lower the setting temperature on your room thermostat.

If your installation does not have a room thermostat, select the minimum temperature in heating and set it on the display of your boiler.

In the event of a prolonged absence, refer to the «emptying» chapter **on page. 31.**


Smoke backflow safety (Themaclassic C)

Since the appliance is equipped with a device to prevent the reflux of fumes into the environment, it can also intervene in the event of an accidental obstruction of the chimney. The boiler ceases to

operate while the control devices remain active: the control panel light comes on and **the F2 or F3 code** appears.

Restart Switch off the boiler using the switch (O appears), wait 5 sec. then put the boiler back into operation (I appears).


If the boiler does not restart, contact the installer or the authorized assistance centre. It is recalled that the regulations strictly prohibit the disconnection of the device and recommends, in case of replacement, only the use of the original parts.

 **Air safety (Themaclassic F)**
If for any reason there is an obstruction (even partial) of the ducts, the supply of combustion air will result

reduced. The lack of air triggers the safety system integrated in the boiler which causes the immediate shutdown of the burner, while the extractor continues to operate. The control panel light comes on and **the F2 code** appears.

Once the cause of the obstruction has been removed, the boiler resumes normal operation.

Power failure The boiler switches off automatically and when the electricity is restored the boiler resumes its operation.

 **If there is no gas**, the boiler goes into safety mode and makes three automatic attempts to re-ignite. In the event of failure, the boiler is definitively in safety, the light flashes and **the F1 code** appears.

In this case, contact the Authorized Assistance Service.

Presence of air in the pipes:

Eliminate the air contained in the radiators and restore the pressure. If the loads are too frequent, contact the technical assistance centre, which will check whether: - there are load losses in the system - there have been corrosions in the system for which an appropriate treatment of the circuit water is necessary.

Important : The heating system will work correctly if the hydraulic circuit has been filled correctly and purged of the air it contains.

Warnings

The instruction booklet

is an integral and essential part of the product and must be delivered to the user.

Carefully read the warnings contained in the booklet as they provide important information regarding safe installation, use and maintenance. Keep the booklet carefully for any further consultation.

The installation must be carried out in compliance with the regulations in force according to the manufacturer's

instructions and by professionally qualified personnel, i.e. in possession of the requisites foreseen by law 46 of 5 March 1990.

Incorrect installation can cause damage to people, animals or things, for which the manufacturer **is not responsible**.

After removing each packaging, check the integrity of the contents. If in doubt, do not use the appliance and contact the supplier.

The packing elements (staples, plastic bags, expanded polystyrene, etc.) must not be left within the reach of children, in

as potential sources of danger, nor dispersed into the environment.

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply by acting on the system switch and/or through the appropriate shut-off devices.

Do not block the ventilation or dissipation grilles. Do not tamper with or disconnect the safety devices; the manufacturer is not responsible for damage to people, animals or things that may derive from it.

In the event of a breakdown and/or malfunction of the appliance, deactivate it, refraining from any attempt at personal intervention;

contact only professionally qualified personnel. Any repairs should be carried out **by an Authorized Saunier Duval Service Center (TAC)** which only uses original spare parts. Failure to observe the above may compromise the safety of the appliance.

Saunier Duval is not liable for damages resulting from the use of non-original spare parts.

To ensure the efficiency of the appliance and for its correct functioning, it is essential to have annual maintenance carried out in accordance with the manufacturer's instructions.

If you decide not to use the appliance any more, you will have to neutralize those parts which could cause potential sources of danger. Should the appliance be sold or transferred, or if it should be moved and left in place, always make sure that the booklet accompanies the appliance so that it can be consulted by the new owner and/or installer.

Gas boilers with atmospheric burner This appliance is used to heat water at a temperature below boiling point at atmospheric pressure. It must be connected to a heating system and/or to a domestic hot water distribution network, compatibly with its performance and power.

GENERALITY

Warnings



This boiler must only be used for the purpose for which it was expressly designed. Any other use is to be considered improper and therefore dangerous.

Any contractual and extra-contractual liability of the manufacturer is excluded for damages caused by errors in installation and use and in any case by failure to observe the instructions given by the manufacturer.

Installation The boiler must be installed in a suitable place in compliance with the standards and regulations in force. Before having the boiler connected, have professionally qualified personnel carry out:

a) thorough washing of all the system pipes in order to remove any residues which could jeopardize the proper functioning of the boiler;

b) checking that the boiler is set up to operate with the type of fuel available.

This can be seen from the writing on the packaging and from the technical characteristics plate;

c) checking (for model C boilers) that the chimney has an adequate draught, that there are no bottlenecks and that no exhausts from other appliances are inserted into the flue unless this is designed to serve users according to the specifications

current rules and regulations. Only after this check can the connection between the boiler and the chimney be mounted, always in compliance with current legislation.

In the event of chimney anomalies, the smoke anti-reflux safety device interrupts boiler operation.

Attention: If the boiler, instead of being connected to the flue, has direct outlet to the outside, if the pipe measurements indicated in the UNI CIG 7129 standard (given in the appendix to this document) are not scrupulously respected, the intervention of the smoke anti-reflux safety device.

d) a check that in the case of connections with pre-existing flues, these are perfectly clean since the existing waste, detaching from the walls, could block the passages of the fumes, causing situations of extreme danger for the user.

Commissioning The first ignition must be carried out by professionally qualified personnel.

The transformation from one gas to another, which can also be done with the boiler installed, must be carried out exclusively by **saunier**

duval TACs.

Before starting the boiler, have professionally qualified personnel check: **a)** that the data on the plate correspond to those of the supply networks (electricity, water, gas);

b) that the calibration of the burner is not higher than the rated power of the boiler;

c) the correct functionality of the smoke evacuation duct;

d) that the supply of combustion air and the evacuation of fumes take place in the manner established by current legislation (UNI CIG Standards 7129, 7131)

e) that the conditions for ventilation are guaranteed for **models C** (no less than 100 square cm of free light) and normal maintenance should the boiler be enclosed inside or between furniture;

f) that the electrical system is provided with an effective grounding.

g) in the case of installation outdoors, the boiler must be adequately protected.

Warnings for use It

is absolutely forbidden, because it is dangerous, to obstruct, even partially, the air inlets for ventilation of the room where the boiler is installed with cardboard, rags or anything else.

Due to its danger, it is forbidden to

operate extractors, fireplaces and the like in the same room at the same time as the boiler, unless this is of the sealed chamber type, or if precise safety measures are implemented in the installation and this also in case of modifications and/or additions.

It is absolutely forbidden to disconnect or tamper with the safety devices.

Frequently check the water pressure on the hydrometer and check that the indication with the system cold is always within the limits prescribed by the manufacturer.

If frequent drops in pressure should occur, ask for the intervention of the **saunier duval** CAT as the possible leak must be eliminated

in the plant.

After each reopening of the gas tap, wait ten or twenty seconds before turning the appliance on.

Do not leave the boiler inserted unnecessarily when it is not used for long periods; in these cases, close the gas tap and turn off the power switch.

Do not touch hot parts of the boiler, such as doors,

hood and flue pipe, etc. which are hot during and after operation (for a certain time), since any contact with them can cause burns.

It is therefore advisable that during operation of the boiler there are no children or incapable persons without supervision near it. Do not wet the boiler with sprays of water or other liquids.

Do not install the boiler in damp rooms and, if possible, above food cooking hobs. Do not allow children or the inexperienced to use the boiler.

If you need to temporarily deactivate the boiler, proceed as follows:

a) in mixed boilers, empty the sanitary system. In condition

GENERALITY

Warnings



in harsh winter weather it is advisable to introduce antifreeze into the heating system;

b) disconnect the electricity, water and gas supplies.

If the boiler is definitively deactivated, have the Saunier Duval TAC carry out the relative operations, making sure that the supplies referred to in point b) are deactivated. Before carrying out any work on the boiler which involves disassembling the burner or opening inspection panels, switch off the electricity and close the gas tap.

Maintenance
Check periodically

the proper functioning and integrity of the flue gas discharge duct and/or device.

In the event of work or maintenance on structures located near the fume ducts and/or fume exhaust devices and their accessories, switch off the appliance.

Once the work is completed, have its efficiency checked by professionally qualified personnel. Do not clean the appliance and/or its parts with easily flammable substances (e.g. petrol, alcohol, solvents, etc.).

Do not leave flammable containers and substances in the room where the appliance is installed.

Do not clean the room in which the boiler is installed when it is in operation.

At the end of each heating period, it is necessary to have the boiler inspected by the saunier duval TAC, in order to keep the system in perfect working order. Accurate maintenance is always a reason for savings and safety.

Heating system If there is a risk of frost, suitable measures must be taken which in any case do not concern the boiler manufacturer (consult the installer).

In the case of outdoor installation, provide adequate protection.

Warnings on the type of power supply

Electric power supply The electrical safety of the appliance is achieved only when it is correctly connected to an effective earthing system carried out as required by the CEI 11-8 standards (Presidential Decree 547/55 art. 291).E It is necessary to check this fundamental safety requirement.

If in doubt, request an accurate check of the electrical system

by professionally qualified personnel since the manufacturer is not responsible for any damage caused by failure to earth the system.

Have professionally qualified personnel check that the electrical system is suitable for the maximum power absorbed by the appliance, indicated on the rating plate, making sure in particular that the section of the cables is suitable.

The use of adapters, multiple sockets and/or extension cords is not permitted to power the appliance. For connection to the mains, an omnipolar switch must be provided as required by current regulations (Presidential Decree 547/55 art.288). The use of any component that uses electricity implies the observance of some fundamental rules such as:

- do not touch the appliance with wet or damp parts of the body and/or bare feet
- do not pull the electric cables
- do not leave the appliance exposed to atmospheric agents (rain, sun,

etc.) unless expressly provided for this use, or protected with covers suitable for safeguarding it. - do not allow the appliance to be used by children or inexperienced people.

If you decide not to use the appliance for a certain period of time, it is advisable to turn off the boiler power switch.

Water supply Make sure that the hydraulic pressure upstream of the boiler does not exceed the operating pressure indicated on the boiler plate.

Since the water contained in the heating system increases in pressure during operation, it must be ensured that its maximum value does not exceed the maximum pressure indicated on the plate and in this document.

Make sure that the safety drains of the boiler and (if present) of the storage tank have been connected to a drain funnel. When they should

intervene, the safety valves, if not connected to the drain, could flood the room causing damage for which the boiler manufacturer is not responsible.

Make sure that the water and heating system pipes are not used as an earth point for the electrical system.

This is strictly prohibited and they are absolutely not suitable for this use.

In a short time, serious damage could occur to the pipes, the boiler, any storage tank and the appliances inserted.

Gas supply

General warnings The installation of the boiler must be carried out by professionally qualified personnel, i.e. in possession of the requisites foreseen by law 46/90, since incorrect installation can cause damage to people, animals or things, for which the manufacturer cannot be held responsible.

Before installation it is advisable to carry out a thorough internal cleaning of all the pipes

GENERALITY

Warnings



fuel adduction
in order to remove any
residues which could
compromise the proper
functioning of the boiler.
For the first commissioning
of the boiler far
carry out the following checks
by professionally qualified personnel:

a) the control of the tightness
internal and external
of the fuel supply system;

b) that the boiler is
powered by fuel
for which it is prepared;

c) regulation of the fuel
flow rate according to the
power required by the
environment;

d) that the fuel pressures,
both supply and

to the burner, correspond to the
value on the plate;

e) that the meter and the
fuel supply system are

sized for the flow rate required by
the boiler e
that all the safety and control
devices exist
required by current regulations.
Deciding not to use
the boiler close the taps
of power of the
fuel.

Special warnings for the use of gas

Have it checked by professionally
qualified personnel:

a) that the supply line and the gas
train comply with current
regulations.

b) that the gas connections are
sealed;

c) that the ventilation
openings in the room where the
boiler is installed are sized so as
to guarantee the air flow
established by the
aforementioned standards
and in any case sufficient
to obtain perfect combustion
(models C).

Never use gas pipes as
grounding
Earth.

Do not leave the boiler
inserted unnecessarily
when it is not being used
and close the gas cock.

Smelling gas:

a) do not operate electric
switches, the telephone
and any other object that can
cause sparks;

b) open doors and windows
to create a current of air that
purifies the room;

c) close the gas taps;

d) request the intervention of
professionally qualified personnel.

Do not obstruct the
ventilation openings of the
room where a gas appliance
is installed to avoid
dangerous situations such
as the formation of
toxic and explosive mixtures.

Saunier Duval conventional warranty conditions

1. This conventional guarantee does not affect the rights deriving from Directive 99/44/EC and the relative implementing decree DLS 2 February 2002 n°24, published in the Official Gazette n°57 of 8 March 2002 and does not exclude or limit the rights which derive from other provisions of the Italian legal system.

2. This conventional guarantee has a duration of 24 months from the date of delivery of the appliance, is valid only for the Italian territory and is provided by Vaillant Saunier Duval Italia Spa to its customers through its network of authorized assistance centers provided that the following are complied with conditions: - have the initial check carried out free of charge by an authorized Saunier Duval service center and, on the same occasion, have the same complete the guarantee card in its entirety, countersign it and send it to Vaillant Saunier Duval Italia Spa

In particular, in this circumstance the assistance center will affix the date of delivery of the goods on the postcard, taking it from the system booklet or from the declaration of conformity drawn up by the installer.

It will be the buyer's responsibility to make these documents available so that the assistance center can view them. - have the appliance checked periodically,

as required by current technical standards and legislation, - request, in the event of a defect or fault, free intervention by an authorized Saunier Duval assistance center at your home on the appliance installed.

3. The services provided by the Saunier Duval assistance network during the initial check are in no way to be considered a test of the system.

In fact, as required by the legislation on the subject, these are obligations and responsibilities that belong to other subjects authorized by law.

4. During the warranty period, Vaillant Saunier Duval Italia Spa reserves the right to offer the best solution, be it a repair or a replacement, designed to remedy any lack of conformity that the goods may present.

However, it is understood that any intervention will not lead to an extension of the warranty period covering the goods themselves.

5. All defects or malfunctions due to causes external to Saunier Duval are excluded from this guarantee, such as:

- damage caused by transport or handling
- system defects, installation errors
- non-compliance of the system with laws and technical standards in force
- failure to comply with the instructions

- contained in the installation, use and maintenance manuals
- use of the appliance outside the fields of use foreseen by the Saunier Duval technical documentation
- deficiencies or anomalies in the electrical, water and gas supply systems
- use of unsuitable fuel
- tampering, incorrect adjustment or improper use of the appliance by persons outside the network of authorized Saunier Duval assistance centres.
- use of non-original Saunier Duval spare parts
- inadequate or missing maintenance

- causes of force majeure linked to natural disasters or acts of vandalism
- Any request for intervention, addressed to the Saunier Duval assistance network, to remedy disservices attributable to one of the causes listed above, will be for consideration and must be agreed upon from time to time in turn with the assistance center consulted.

6. The conventional warranty conditions listed above are the only ones offered by Vaillant Saunier Duval Italia Spa and cannot be modified or replaced by third parties outside the corporate structure of Vaillant Saunier Duval Italia Spa

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Saunier Duval

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