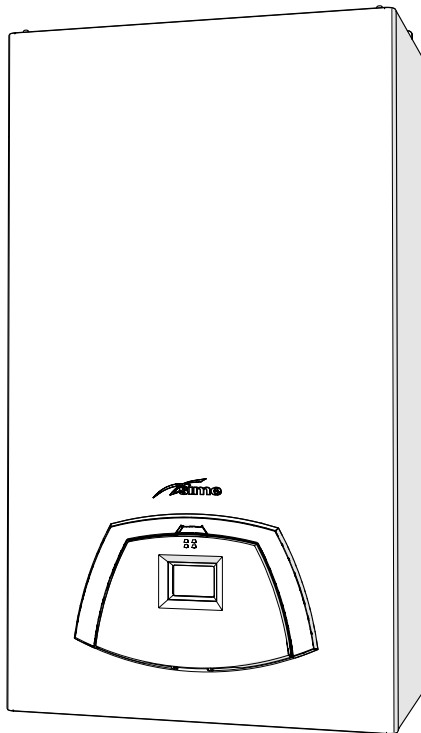


Condensing wall mounted boiler

# EDEA T

## USER, INSTALLATION AND SERVICING INSTRUCTIONS



ENSURE THAT THESE INSTRUCTIONS ARE LEFT FOR THE USER AFTER COMPLETION OF THE BENCHMARK SECTION

PLEASE READ THE IMPORTANT NOTICE WITHIN THIS GUIDE REGARDING YOUR BOILER WARRANTY



To consult the documentation, visit our website [www.sime.it](http://www.sime.it)



BOILER DETAILS

please position here a sticker from installation pack

## RANGE RATED CERTIFICATION

The maximum power, in heating mode, of **Edea T** boilers can be adapted, during the installation, to the thermal needs of the system by modifying the setting of PAR 15 in the **0 .. 100** range.

The setting of PAR 15 = 100 is the factory setting that allows the boiler to deliver its maximum power in heating mode. It can be reduced by modifying the setting of PAR 15 as shown in the table appearing below.

Once the new setting of PAR 15 has been made, the reduced maximum power value (kW) **for models with power above 35 kW MUST MANDATORILY** be applied beside the boiler's data plate. For checks and adjustments after the modification, refer to the new value for the maximum power.

**The useful nominal power levels used are those relative to the operating conditions (80-60°C) (P<sub>n</sub> min - P<sub>n</sub> max).**

Example for **Edea 25 T** boiler:

- default heating power range: 2,3 - 24,5 setting of PAR 15 = 100
- "reduced" heating power range: 2,3 - 20,1 setting PAR 15 = 80

DESCRIPTION	Edea T					Setting of PAR 15
	25		35			
	Min	Max	Min	Max		
<b>A - Factory power range (heating)</b>	kW	2,3	24,5	4,2	34,1	<b>100</b>
	kW	2,3	22,3	4,2	31,1	<b>90</b>
	kW	2,3	20,1	4,2	28,1	<b>80</b>
<b>B - Reduced power ranges for maximum power reduction (heating)</b>	kW	2,3	17,8	4,2	25,1	<b>70</b>
	kW	2,3	15,6	4,2	22,1	<b>60</b>
	kW	2,3	13,4	4,2	19,2	<b>50</b>
	kW	2,3	11,2	4,2	16,2	<b>40</b>

### Boiler technical data plate

Fonderie SIME S.p.A.  
Via Garbo, 27 - 37045 Legnago - VR (Italy) - Tel. +39 0442 631111

Caldaia a condensazione - condensing boiler - caldera de condensacion - caldeira a condensacao - chaudiere a condensation - condensatieketel - gasbrunnenkessel - kettyle suurnuuhuono - kondenzációs kotёл - plynový kondenzační kotёл - condensare cazan - kociol kondensacyjny - kondenzációs kazánok - конденсационный котел - конденсирующий котел - مرآة التكثيف

---

**Q<sub>n</sub> max =**

**P<sub>n</sub> max 80-60°C =**

**P<sub>n</sub> max 50-30°C =**

**PMS =**

**Q<sub>n</sub> min =**

**P<sub>n</sub> min 80-60°C =**

**P<sub>n</sub> min 50-30°C =**

**T max =**

---

**Q<sub>nw</sub> max =**

**PMW =**

**Q<sub>nw</sub> min =**

**T max =**

---

**MADE IN ITALY**



### CAUTION

The grey fields must be filled in by the installer.

## IMPORTANT NOTICE

For the first year all of our appliances are protected by our manufacturer's guarantee which covers both parts and labour.

As you would expect from Sime Ltd, it is our aim to provide our valued customers with the best in after sales and service.

To take advantage of any extended warranty offered, all you have to do is to adhere to these 3 simple conditions:

- The installation must be carried out to Manufacturers/Benchmark Standards by a Gas Safe Registered Engineer, and recorded in the installation manual.
- The appliance must be registered with both Sime Ltd and Gas Safe within 30 days of installation.
- The appliance must be serviced every 12 months, within 30 days of the anniversary of the installation date, by either Sime Ltd or a Gas Safe registered engineer- ensuring that the Benchmark service record in the installation manual is completed.

Failure to comply with the above will result in only the 12 month warranty being offered. In the absence of any proof of purchase, the 12 month warranty period will commence from the date of manufacture of the boiler as shown on the appliance data plate.

## SAFE HANDLING

This boiler may require 2 or more operatives to move it into its installation site, remove it from its packaging and during movement into its installation location. Manoeuvring the boiler may include the use of a sack truck and involve lifting pushing and pulling.

Caution should be exercised during these operations.

Operatives should be knowledgeable in handling techniques when performing these tasks and the following precautions should be considered:

- Grip the boiler at the base
- Be physically capable
- Use personal protective equipment as appropriate e.g. gloves, safety footwear.

During all manoeuvres and handling actions, every attempt should be made to ensure the following unless unavoidable and/or the weight is light.

- Keep back straight
- Avoid twisting at the waist
- Always grip with the palm of the hand
- Keep load as close to the body as possible
- Always use assistance

### WARNING

Caution should be exercised when performing any work on this appliance.

Protective gloves and safety glasses are recommended.

- Avoid direct contact with sharp edges.
- Avoid contact with any hot surfaces.

### NOTICE

Please be aware that due to the wet testing of the appliance, there may be some residual water in the hydraulic circuit.

- Protect any surfaces, carpets or floorings.
- Use a suitable container to catch any water that escapes when removing the protective caps from the connections.

# Code Of Practice

For the installation, commissioning and servicing of domestic heating and hot water products

Benchmark places responsibilities on both manufacturers and installers.\* The purpose is to ensure that customers\*\* are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons and that it meets the requirements of the appropriate Building Regulations. Installers are required to carry out work in accordance with the following:

## Standards of Work

- Be competent and qualified to undertake the work required.
- Install, commission, service and use products in accordance with the manufacturer's instructions provided.
- Ensure that where there is responsibility for design work, the installation is correctly sized and fit for purpose.
- Meet the requirements of the appropriate Building Regulations. Where this involves notifiable work be a member of a Competent Persons Scheme or confirm that the customer has notified Local Authority Building Control (LABC), prior to work commencing.
- Complete all relevant sections of the Benchmark Checklist/Service Record when carrying out commissioning or servicing of a product or system.
- Ensure that the product or system is left in a safe condition and, whenever possible, in good working order.
- Highlight to the customer any remedial or improvement work identified during the course of commissioning or servicing work.
- Refer to the manufacturer's helpline where assistance is needed.
- Report product faults and concerns to the manufacturer in a timely manner.

## Customer Service

- Show the customer any identity card that is relevant to the work being carried out prior to commencement or on request.
- Give a full and clear explanation/demonstration of the product or system and its operation to the customer.
- Hand over the manufacturer's instructions, including the Benchmark Checklist, to the customer on completion of an installation.
- Obtain the customer's signature, on the Benchmark Checklist, to confirm satisfactory demonstration and receipt of manufacturer's instructions.
- Advise the customer that regular product servicing is needed, in line with manufacturers' recommendations, to ensure that safety and efficiency is maintained.
- Respond promptly to calls from a customer following completion of work, providing advice and assistance by phone and, if necessary, visiting the customer.
- Rectify any installation problems at no cost to the customer during the installer's guarantee period.



\*The use of the word "installer" is not limited to installation itself and covers those carrying out installation, commissioning and/or servicing of heating and hot water products, or the use of supporting products (such as water treatment or test equipment).

\*\*Customer includes householders, landlords and tenants.

## The Benchmark Scheme

Sime Ltd is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.

Benchmark is managed and promoted by the Heating and Hotwater Industry Council.

For more information visit [www.centralheating.co.uk](http://www.centralheating.co.uk).

Please ensure that the installer has fully completed the Benchmark Checklist in the use and maintenance section of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation.

The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme.

A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

This product should be serviced regularly to optimise its safety, efficiency and performance.

The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.

The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

### Important Information

IT IS A STATUTORY REQUIREMENT THAT ALL GAS APPLIANCES ARE INSTALLED BY COMPETENT PERSONS, IN ACCORDANCE WITH THE GAS SAFETY (INSTALLATION AND USE) REGULATIONS (CURRENT EDITION). The manufacturer's instructions must not be taken as overriding any statutory requirements, and failure to comply with these regulations may lead to prosecution.

No modifications to the appliance should be made unless they are fully approved by the manufacturer.

**GAS LEAKS:** DO NOT OPERATE ANY ELECTRICAL SWITCH, OR USE A NAKED FLAME. TURN OFF THE GAS SUPPLY AND VENTILATE THE AREA BY OPENING DOORS AND WINDOWS CONTACT THE GAS EMERGENCY SERVICE ON 0800111999.



Please refer to commissioning instructions for filling in the checklist at the back of this installation guide.

Note: All Gas Safe registered installers carry a ID Card.

You can check your installer is Gas Safe Registered by calling 0800 408 5577

## SIME COMBINATION BOILERS Installer checklist

Please remember to carry out the following checks after installation. This will achieve complete customer satisfaction, and avoid unnecessary service calls. A charge will be made for a service visit where the fault is not due to a manufacturing defect.

- Has a correct by-pass been fitted and adjusted?
- Has the system and boiler been flushed?
- Is the system and boiler full of water, and the correct pressure showing on the pressure gauge?
- Is the Auto Air Vent open?
- **Has the pump been rotated manually?**
- Is the gas supply working pressure correct?
- Is the boiler wired correctly? (See installation manual).
- **Has the D.H.W. flow rate been set to the customer requirements?**
- Has the customer been fully advised on the correct use of the boiler, system and controls?
- Has the Benchmark Checklist in the use and maintenance section of this manual, been completed?

**WARNINGS**

- After having unpacked the boiler ensure that it is undamaged and complete including the valve pack, hanging bracket and template.
- The appliance must be used as intended. **Sime** declines all responsibility for any injury or damage to persons, animals, or property as a result of improper installation, adjustment, maintenance or use.
- In the event of water leaks, disconnect the appliance from the mains power supply, close the water mains and seek help from a qualified engineer.
- Periodically check that the operating pressure of the water heating system when cold is **1-1.2 bar**. If required, increase the pressure or seek help from a qualified engineer.
- If the appliance is not used for a long period of time, the following operations must be carried out:
  - *set the main isolation switch to "OFF";*
  - *close the gas and water valves for the water heating system.*
- To ensure continued efficient operation of the appliance it is recommended that it is serviced regularly, at least once a year. This is also a condition of the boiler warranty. It is the law that any service or repair is carried out by a Gas Safe Registered engineer. Services must be recorded in the maintenance section of this installation guide.
- If the power cable is damaged, replace it with a cable ordered as a spare part with the same characteristics (type X). Assembly must be carried out by a qualified professional.

**WARNINGS**

- **It is recommended that all operators** read this manual carefully in order to use the appliance in a safe and rational manner.
- **This manual** is an integral part of the appliance. It must therefore be kept for future reference and must always accompany the appliance.
- **Installation and maintenance** of this appliance must be carried out by a qualified company or by a professionally qualified technician in accordance with the instructions contained in the manual. Once the work is complete, the company or technician will issue a declaration of conformity with national and local technical standards and legislation in force in the country where the appliance will be used.
- **Any repairs on the appliance** must be carried out solely by professionally qualified personnel, using original spare parts only. Failure to comply with these instructions can jeopardise the appliance's safety and void the warranty with immediate effect.
- **Fonderie SIME S.p.A.** reserves the right to make improvements to its products at any time without prior notice, without compromising their essential characteristics. The graphic illustrations and/or images in this document may show optional accessories that vary according to the country in which the appliance is used.

## RESTRICTIONS



### DO NOT

- To allow children under the age of 8 to use the appliance. The appliance can be used by children no younger than 8 years old, by people with physical or cognitive disabilities, and by people lacking experience or the necessary knowledge, provided that they are supervised or have been instructed on how to use the appliance safely and that they understand the risks associated with it.
- To allow children to play with the appliance.
- To allow unsupervised children to perform user maintenance and cleaning.
- To use electrical devices or appliances such as switches, electrical appliances etc if you can smell gas. If this should happen:
  - *open the doors and windows to ventilate the room;*
  - *turn the gas off at the meter;*
  - *call the emergency service 0800 111999.*
- To touch the appliance with bare feet or with any wet part of the body.
- To carry out any repair, maintenance or cleaning operation before having disconnected the appliance from the mains power by setting the main switch to "OFF", and closing the gas supply.
- To modify the safety or adjustment devices without authorization and instructions from the manufacturer.



### DO NOT

- To block the condensate drain.
- To pull, detach or twist the electrical cables coming out of the appliance even if the appliance is disconnected from the mains power supply.
- To expose the appliance to the elements. It is suitable for operating in a partially protected area in accordance with the EN 15502 standard, with a maximum ambient temperature of 60 °C and minimum - 5 °C. We recommend installing the appliance under a pitched roof extension, on a balcony or in a protected recess, nonetheless never exposed directly to the elements (rain, hail, snow). The appliance is equipped with a series of anti-freeze functions.
- To block or reduce the size of the ventilation openings of the room where the appliance is installed, if present.
- Remove the mains power and gas supply from the appliance if the external temperature could fall below ZERO (risk of freezing).
- To leave containers with flammable substances in the room where the appliance is installed.
- To dispose of the packaging material irresponsibly as it could be dangerous. Packaging must be disposed of as specified by the legislation in force in the country where the appliance will be used.

Dear Customer,  
Thank you for purchasing a **Sime Edea T** boiler, a new-generation condensing modulating device possessing technical and performance characteristics capable of satisfying your heating requirements with the utmost safety and with limited running costs.

## RANGE

MODEL	CODE	GAS COUNCIL NUMBER
Edea 25 T (G20)	8116910	GC No 41-283-64
Edea 35 T (G20)	8116912	GC No 41-283-65

## COMPLIANCE

Our company declares that the **Edea T** appliances conform to the essential requirements of the following directives:

- Gas Appliances EU Regulation 2016/426
- Boiler Efficiency Directive 92/42/EEC
- Low Voltage Directive 2014/35/UUE
- Electromagnetic Compatibility Directive 2014/30/EU
- Ecodesign Directive 2009/125/EC
- Regulation (UE) N. 811/2013 - 813/2013
- Energy labelling Regulation (EU) No. 2017/1369



Please refer to the technical data plate for the serial number and year of manufacture.

## SYMBOLS



### WARNING

To indicate actions which, if not carried out correctly, can result in injury of a general nature or may damage or cause the appliance to malfunction; these actions therefore require particular caution and adequate preparation.



### ELECTRICAL HAZARD

To indicate actions which, if not carried out correctly, could lead to injury of an electrical nature; these actions therefore require particular caution and adequate preparation.



### DO NOT

To indicate actions which **MUST NOT BE** carried out.



### CAUTION

To indicate particularly important and useful information.

## MANUAL STRUCTURE

This manual is organized as follows.

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# USER INSTRUCTIONS

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## VERY IMPORTANT!

**PLEASE MAKE SURE YOUR COMMISSIONING CHECKLIST AND THE SERVICE INTERVAL RECORDS ENCLOSED ARE FILLED IN CORRECTLY.**

**ALL GAS SAFE REGISTERED INSTALLERS CARRY A GAS SAFE ID CARD.**

**BOTH SHOULD BE RECORDED IN YOUR COMMISSIONING CHECKLIST AND A SERVICE INTERVAL RECORDS.**

**YOU CAN CHECK YOUR INSTALLER IS GAS SAFE REGISTERED**

**BY CALLING ON 0800 408 5500 OR ALTERNATIVELY [WWW.GASSAFEREGISTER.CO.UK](http://WWW.GASSAFEREGISTER.CO.UK)**

# 1 OPERATING WITH EDEA T

## 1.1 Control panel

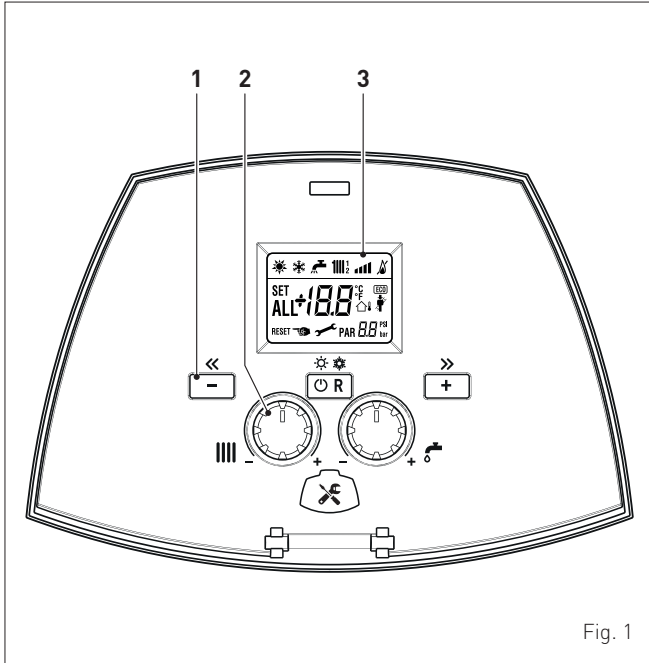


Fig. 1

### 1 FUNCTIONAL BUTTONS

**POWER** If pressed once or more times for at least 1 second during normal operation, this button allows the user to change the appliance's operating mode in a cyclical sequence [Stand-by – Summer – Winter]. If the appliance is experiencing a resettable fault, it can be used to unlock it.

**-** This allows the engineer to scroll through the parameters or decrease the values.

**+** This allows the engineer to scroll through the parameters or increase the values.

**WRENCH** Programming connector cover plug.

### 2 KNOBS

**HEATING** The heating knob allows the user to set the flow temperature to between 20 and 80°C during normal operation.

**DHW** The domestic hot water knob allows the user to set the domestic hot water temperature to between 10 and 60°C during normal operation.

**NOTE:** pressing any button for more than 30 seconds causes a fault to appear on the display (ALL 42) without preventing the appliance's operation. The warning disappears when the button is released.

### 3 DISPLAY

**SUN** "SUMMER". This symbol appears when the boiler is operating in "Summer" mode or if only the domestic hot water mode is enabled via the remote control.

**SNOW** "WINTER". The symbol is present in the "Winter" operating mode, or with the remote control if both the domestic hot water and heating modes are enabled. The flashing **SUN** and **SNOW** symbols signal that the "chimney sweep" function is active.

**RESET** "RESET REQUEST". The wording indicates that, once the fault has been repaired, the appliance's normal operation can be reset by pressing the **POWER** button.

**DHW** "DOMESTIC HOT WATER". This symbol is present during a DHW request or during the "chimney sweep function" It flashes during the selection of the domestic hot water set point.

**HEATING** "HEATING". This symbol lights up during heating operation or during the "chimney sweep function" It flashes during the selection of the heating set point.

**FLAME** "LOCKOUT" DUE TO NO FLAME.

**FLAME** "FLAME LIT".

**POWER** "POWER LEVEL". Indicates the power level at which the appliance is operating.

**PAR** "PARAMETER". This indicates when the engineer is in parameter setting/display, or "info" or "counter", or in "activated alarms" (history).

**ALL** "ALARM". This indicates that a fault has occurred. The number specifies the cause which generated the alarm.

**CHIMNEY** "CHIMNEY SWEEP". This indicates that the "chimney sweep function" has been activated.

**TEMP** "EXTERNAL TEMPERATURE SENSOR". Indicates that the external temperature sensor has been installed and that the appliance is working at a sliding temperature.

**BAR** "HEATING SYSTEM PRESSURE". Display of heating system pressure.

**ECO** "ECO", ALTERNATIVE ENERGY SOURCES. Where active, it indicates that there is a solar system available.

**WRENCH** "MAINTENANCE REQUEST". If active, it indicates that it is time to perform maintenance on the appliance.

## 1.2 Preliminary checks



### WARNING


- Should it be necessary to access the areas in the bottom part of the appliance, make sure that the system components and pipes are not hot (risk of burning).
- Before replenishing the heating system, put on protective gloves.

The initial start-up of **Edea T** must be carried out by professionally qualified personnel, after which the appliance can function automatically. It may be necessary for the user to restart the appliance automatically, without contacting the technician; for example, after a holiday.

First of all, check that the gas isolation and water system valves are open.

## 1.3 Ignition

After completing the preliminary checks, start up **Edea T**:

- set the main system switch to "ON" in order for the display to show the pressure level in the system during refilling
- **check that the operating mode on the display is "Stand-by"** and if necessary select it by pressing the button  once or twice

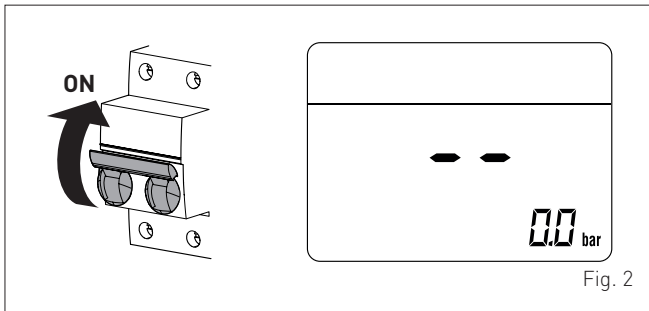



Fig. 2

- check that the pressure in the heating system, when cold, is **1-1.2 bar**. If the pressure is less than this, use the external filling device to repressurise the system to **1-1.2 bar**
- ensure that the filling device is turned off after use
- press and hold the button  for more than 3 seconds and check whether normal operating conditions are restored.

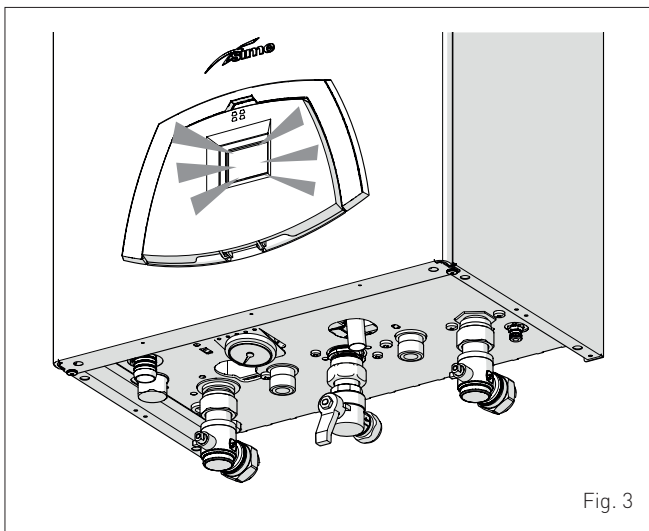


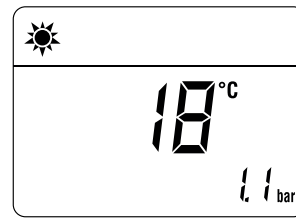





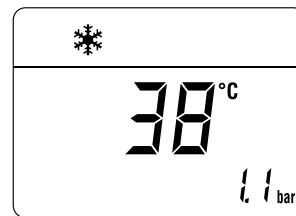
Fig. 3

- select the "SUMMER"  operating mode by pressing and holding the  button for at least 1 second. The delivery temperature detected at that moment will appear on the display




- open one or more hot water taps. **Edea T** will work at its maximum power until the tap or taps are closed.

Once **Edea T** is commissioned in "SUMMER mode" , with the  button, pressed for at least 1 second, it is possible to choose the "WINTER mode" . The display will show the value of the delivery water temperature measured at that time. In this case it is necessary to adjust the room thermostat(s) at the desired temperature or, if the system is equipped with a timer-controlled thermostat, verify that it is "active" and adjusted.



## 1.4 Adjusting the delivery temperature

To increase or decrease the delivery temperature of **Edea T**, instead of modifying the specific parameter, it is possible to turn knob  on the control panel. The temperature can be set to between 20 and 80°C.

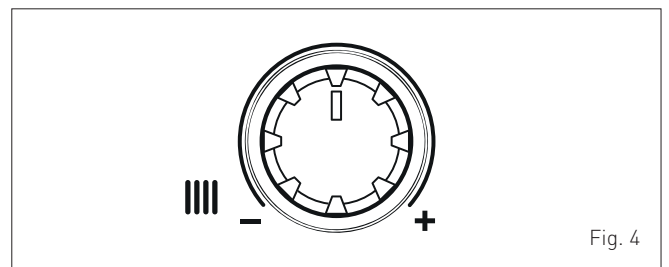



Fig. 4

## 1.5 Adjusting the domestic hot water temperature

The temperature of the domestic hot water can be adjusted by turning the  knob on the control panel.

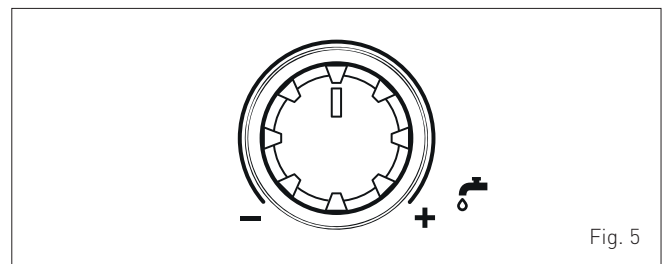


Fig. 5

## 1.6 Fault / malfunction codes

If, during the operation of **Edea T**, an anomaly/fault occurs, the display will show "ALL" followed by the anomaly code.

If you see alarm "02" (low water pressure in the system):

- check that the pressure in the heating system, when cold, is **1-1.2 bar**. If the pressure is less than this, use the external filling device to repressurise the system to **1-1.2 bar**
- ensure that the filling device is turned off after use
- press and hold the button **OR** for more than 3 seconds and check whether normal operating conditions are restored.

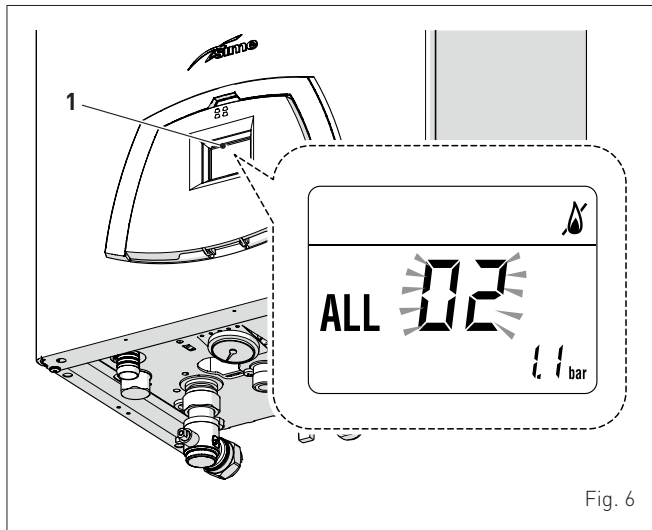
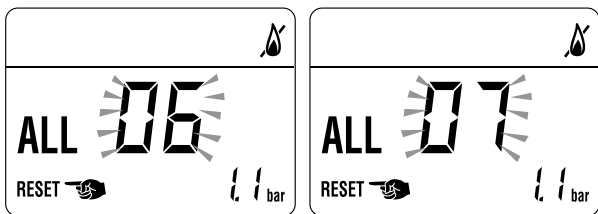


Fig. 6

If you see alarm "06" (no flame detected) and "07" (safety thermostat intervention):

- press and hold the button **OR** for more than 3 seconds and check whether normal operating conditions are restored.



If this operation is not successful, **ONLY ONE MORE ATTEMPT** can be made, therefore:

- close the gas cock
- isolate the power supply
- contact the Qualified Technical Personnel.

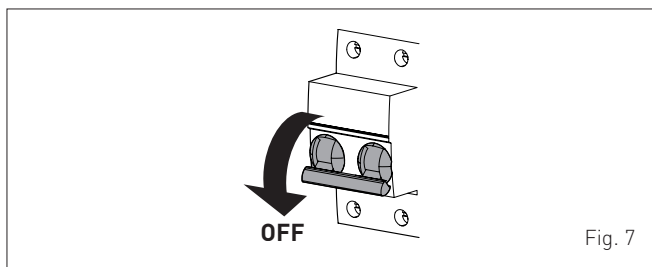


Fig. 7

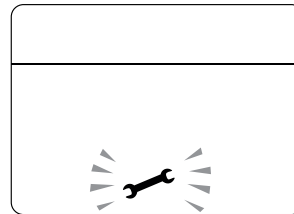


### CAUTION

Should you see an alarm not described here, contact a qualified technical professional.

## 1.6.1 Maintenance request

When it is time to perform maintenance on the boiler, the symbol shows on the display.

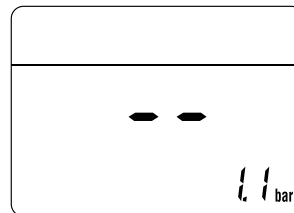


Contact the technical assistance service to organise the necessary work.

## 2 SHUTDOWN

### 2.1 Temporary shutdown

To temporarily interrupt the operation of **Edea T**, press the **OR** button for at least 1 second, once from the "WINTER mode" or twice from the "SUMMER mode" . "--" will appear on the display; the boiler will be in STAND-BY. The boiler anti freeze function will be enabled.



### ELECTRICAL HAZARD

The boiler will still be powered.

If the user is away temporarily, for a weekend, short trip etc and if the outside temperature is at ZERO:

- press the **OR** button, once from the "WINTER mode" or twice from the "SUMMER mode" , to put the **Edea T** in stand-by
- isolate the power supply
- isolate the gas cock.

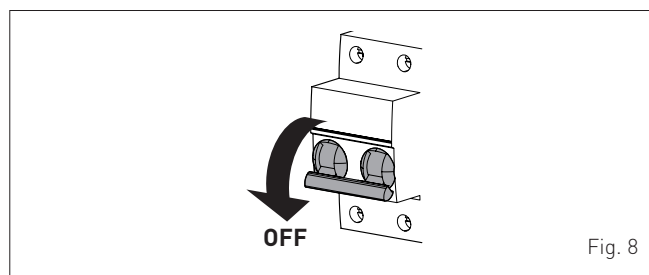


Fig. 8



### CAUTION

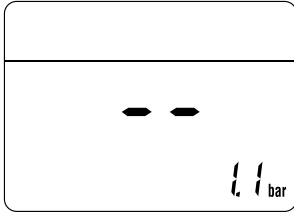
If the outside temperature might fall below ZERO, since the appliance is equipped with an "antifreeze function"

- ONLY PUT THE BOILER INTO STAND-BY
- leave the system's main switch set to "ON" (appliance powered electrically)
- leave the gas cock open.

## 2.2 Shutting down for long periods

If the boiler is to be left unused for a long period, the following operations need to be carried out:

- press the **OR** button for at least 1 second, once from the "WINTER mode" or twice from the "SUMMER mode" , to put the **Edea T** in stand-by. The display will show "-- --"



- isolate the power supply

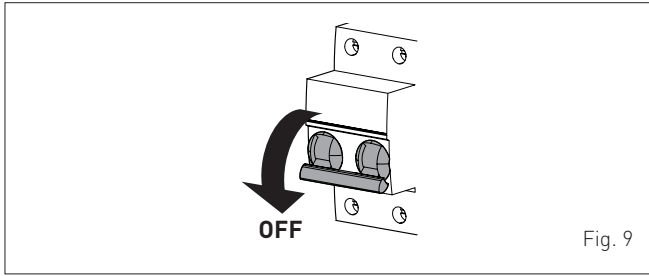


Fig. 9

- isolate the gas cock
- close the heating and domestic hot water isolation valves
- drain the heating and domestic hot water system if there is the risk of freezing.



### CAUTION

Contact the Qualified Technical Personnel if the procedure described above cannot be easily carried out.

## 3 MAINTENANCE

### 3.1 Servicing

As a condition of the warranty and to ensure correct operation and efficiency, it is important that the boiler is serviced every 12 months, within 30 days of the anniversary of the installation date ensure the required information is recorded in the Gas Boiler System Service Interval Record (Benchmark).



### CAUTION

Maintenance must ONLY be carried out by qualified professionals who follow the indications provided in the INSTALLATION AND MAINTENANCE INSTRUCTIONS.

### 3.2 External cleaning



### WARNING

- Should it be necessary to access the areas in the bottom part of the appliance, make sure that the system components and pipes are not hot (risk of burning).
- Before performing any maintenance, put on protective gloves.

#### 3.2.1 Cleaning the case

When cleaning the cladding, use a cloth dampened with soap and water or alcohol for stubborn marks.



### DO NOT

Do not use abrasive products.

## 4 DISPOSAL

### 4.1 Disposal of the equipment (European Directive 2012/19/EU)



At the end of their life span, the appliance and electrical and electronic devices coming from households or classifiable as household waste must be delivered to appropriate waste collection systems, in accordance with the law and with Directive 2012/19/EU. This product was designed and manufactured for minimising its impact on the environment and on human health, but it contains components that could be detrimental if managed improperly. The symbol (crossed-out wheeled bin) depicted here and also appearing on your appliance at the end of its life must be managed in accordance with the law and treated as electrical and electronic waste. Before delivering the appliance for its disposal, consult the applicable provisions of the laws in force in the country where the appliance is used and get information on the authorised waste disposal facilities by contacting the relevant local offices.



### DO NOT

dispose of the product with urban waste.



## DESCRIPTION OF THE APPLIANCE

---

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## 5 DESCRIPTION OF THE APPLIANCE

### 5.1 Characteristics

**Edea T** are last generation condensing wall mounted boilers which **Sime** has produced for heating and instant domestic hot water production when combined with a storage tank. The main design choices made by **Sime** for the **Edea T** boilers are:

- the total pre-mix microflame burner combined with a stainless steel heat exchanger with a plaster outer shell, for heating
- room sealed, Type C appliance. Suitable for use on sealed heating systems
- the electronic control and command circuit board with microprocessor, for optimal management of the heating system and modulation of up to 1:10 for the instant production of domestic hot water. It allows for connecting room thermostats, an auxiliary sensor for managing kits, and the external sensor. The presence of the external sensor will make the boiler work at a variable temperature, in other words, the temperature in the boiler will vary in relation to the outdoor temperature, in accordance with the optimal climatic curve selected during the installation phase, resulting in considerable energy and financial savings. Moreover, the command board has an internal connection for inserting an expansion board which is used to control external relays.

Other special features of the **Edea T** boilers are:

- the anti-freeze function which activates automatically if the temperature of the water inside the boiler falls below the threshold of the value set at parameter "PAR 10" and , if there is an external sensor, if the external temperature falls below the threshold of the value set at parameter "PAR 11"
- anti jamming function of the pump and diverter valve, this activates automatically every 24 hours if no request for heat has been made
- the chimney sweep function lasts 15 minutes and makes the job of the qualified technician easier when measuring the parameters and combustion efficiency
- screen display of the operating and self-diagnostic parameters with error code display when the fault occurs. This makes repair interventions easier and allows appliance operation to be restored correctly.

### 5.2 Check and safety devices

The **Edea T** boilers are equipped with the following check and safety devices:

- thermal safety thermostat 100°C
- 3 bar relief valve
- heating water pressure transducer
- delivery sensor (SM)
- hot water tank sensor
- exhaust sensor (SF)
- return sensor (SR).



#### DO NOT

Do not commission or operate the appliance with safety devices which do not work or which have been tampered with.



#### WARNING

Safety device may only be replaced by professional qualified personnel using **Sime** original spare parts.

### 5.3 Identification

The **Edea T** boilers can be identified by means of:

- 1 Packaging label:** this is located on the outside of the packaging and provides a code, the serial number of the boiler and the bar code.
- 2 Energy Efficiency Label:** this is positioned on the outside of the packaging to notify the User of the level of energy savings and reduced environmental pollution produced by the appliance.
- 3 Technical Data Plate:** this is located inside the front panel of the boiler and provides the technical data, appliance performance information and any other information required by law in the country where the appliance will be used.
- 4 Steaker of product identification.**

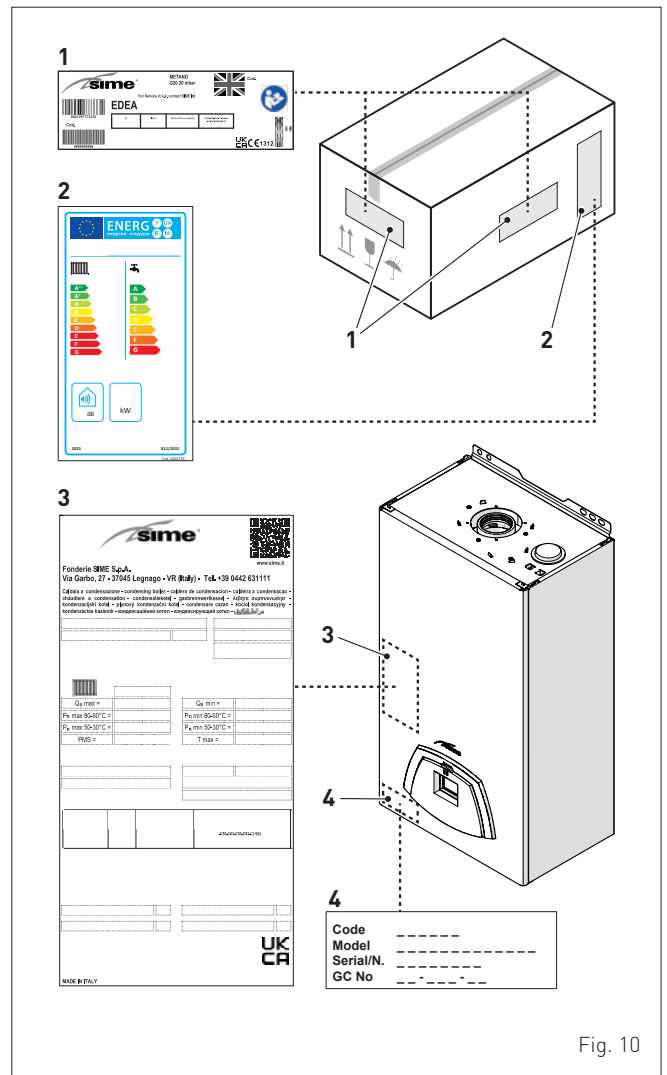


Fig. 10



#### CAUTION

Tampering with, removing or failing to display the identification plate or carrying out any other operation which does not allow safe identification of the product or which may hinder installation and maintenance operations.



### 5.3.1 Technical Data Plate

The technical data plate is a rectangular label with the SIME logo at the top left and a QR code at the top right. Below the logo is the manufacturer's name and address: "Fonderie SIME S.p.A. Via Garbo, 27 - 37045 Legnago - VR (Italy) - Tel. +39 0442 631111". A multi-line list of boiler names in various languages follows. The plate is divided into several sections with labels pointing to specific fields:

- NAME:** Points to the manufacturer's name and address.
- SERIAL NUMBER:** Points to a field for the boiler's serial number.
- YEAR OF MANUFACTURE:** Points to a field for the year of manufacture.
- WATER CONTENT IN BOILER:** Points to a field for the water content.
- MAX HEAT INPUT:** Points to a field for the maximum heat input.
- MAX USEFUL OUTPUT (80-60°C):** Points to a field for the maximum useful output at 80-60°C.
- MAX USEFUL OUTPUT (50-30°C):** Points to a field for the maximum useful output at 50-30°C.
- MAX OPERATING PRESSURE:** Points to a field for the maximum operating pressure.
- ELECTRICAL SUPPLY:** Points to a field for the electrical supply details.
- MAXIMUM ABSORBED POWER:** Points to a field for the maximum absorbed power.
- TYPE OF GAS:** Points to a field for the type of gas used.
- COUNTRY OF INTENDED INSTALLTION:** Points to a field for the intended installation country.
- APPLIANCE CATEGORY:** Points to a field for the appliance category.
- APPLIANCE TYPE:** Points to a field for the appliance type.
- CODE:** Points to a field for the appliance code.
- N° PIN:** Points to a field for the PIN number.
- MIN HEAT INPUT:** Points to a field for the minimum heat input.
- MIN USEFUL OUTPUT (80-60°C):** Points to a field for the minimum useful output at 80-60°C.
- MIN USEFUL INPUT (50-30°C):** Points to a field for the minimum useful input at 50-30°C.
- MAX OPERATING TEMPERATURE:** Points to a field for the maximum operating temperature.
- ELECTRICAL PROTECTION DEGREE:** Points to a field for the electrical protection degree.
- NOx CLASS:** Points to a field for the NOx class.
- GAS COUNCIL NUMBER CODE (UK):** Points to a field for the UK gas council number code.
- WRAS CERTIFICATION (UK):** Points to a field for the WRAS certification.
- APPLIANCE CLASSIFICATION:** Points to a field for the appliance classification.
- TYPE OF GAS:** Points to a field for the type of gas.
- SUPPLY PRESSURE:** Points to a field for the supply pressure.

At the bottom right of the plate, there is a "UK CA" logo and the text "MADE IN ITALY".

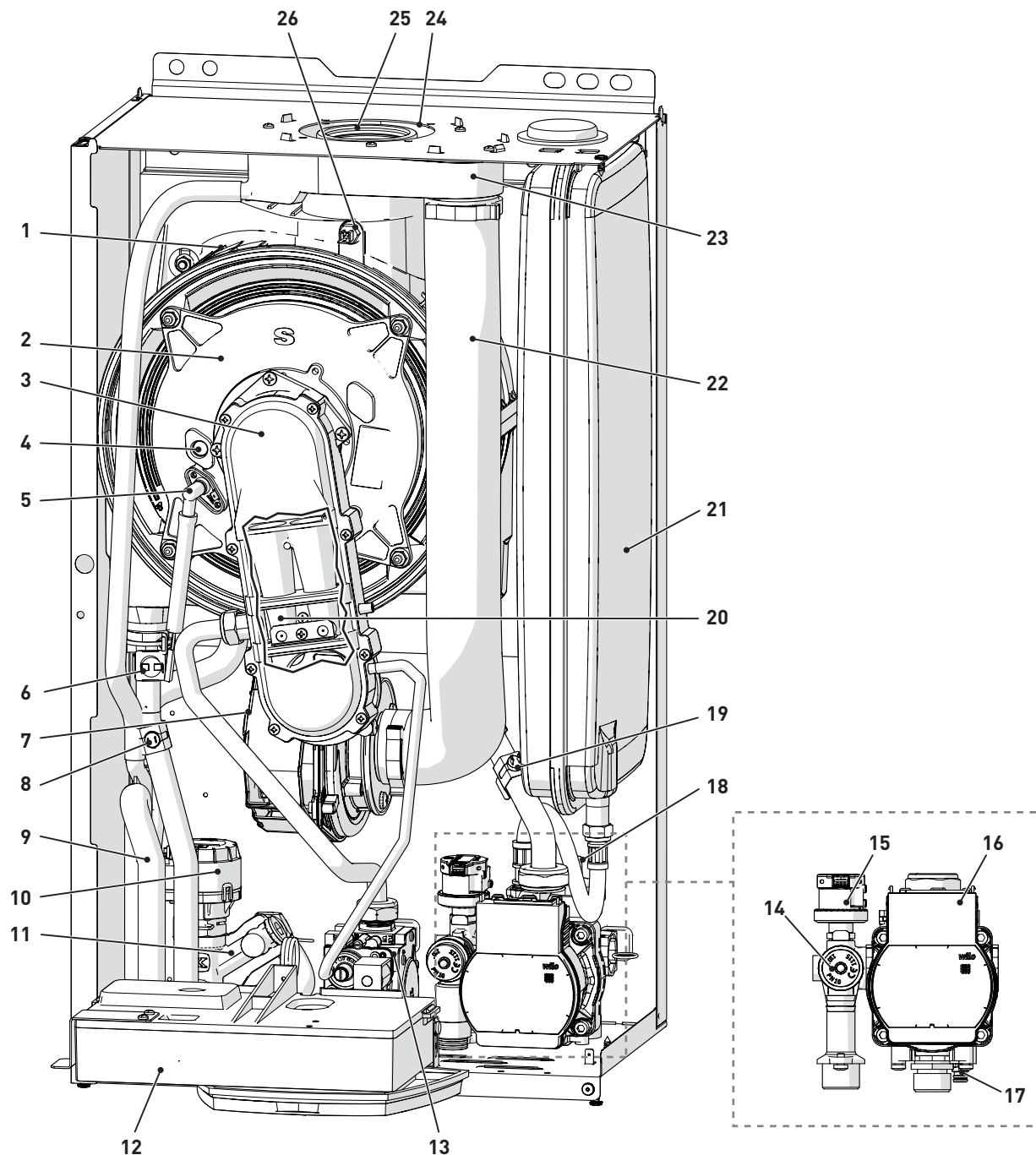
Fig. 11



#### CAUTION

Tampering with, removing or failing to display the identification plate or carrying out any other operation which does not allow safe identification of the product or which may hinder installation and maintenance operations.

## 5.4 Structure



- |    |                                    |    |                                  |
|----|------------------------------------|----|----------------------------------|
| 1  | Heat exchanger                     | 14 | Relief valve (FS)                |
| 2  | Combustion chamber door            | 15 | Water pressure transducer (TPAC) |
| 3  | Air/gas duct                       | 16 | Pump (PI)                        |
| 4  | Flame viewing window               | 17 | Boiler drain                     |
| 5  | Ignition/detection electrode (EAR) | 18 | Automatic bleed valve            |
| 6  | Safety thermostat (TS)             | 19 | Boiler return probe (SRC)        |
| 7  | Fan (V)                            | 20 | Air-gas mixer                    |
| 8  | Boiler delivery sensor (SMC)       | 21 | Expansion vessel (VE)            |
| 9  | Condensate siphon outlet           | 22 | Air inlet pipe                   |
| 10 | Diverter solenoid valve (EVD)      | 23 | Air-smoke chamber                |
| 11 | System filling unit                | 24 | Air inlet                        |
| 12 | Control panel                      | 25 | Smoke outlet duct (CSFU)         |
| 13 | Gas valve                          | 26 | Exhaust sensor (SF) (SF)         |

Fig. 12

## 5.5 Technical features

DESCRIPTION	Edea T	
	25	35
<b>CERTIFICATIONS</b>		
Country of intended installation	GB	
Fuel	G20 / G31	
PIN number	1312CU6393	
Category	II2E3P	
Appliance classification	B23P - B33P - B53P - C13 - C33 - C43 - C53 - C63 - C83 - C93 - C(10)3	
Nominal (50-30°C) !da duplicazione!	kW	0
Class NO <sub>x</sub> (*)	6 (< 56 mg/kWh)	
<b>HEATING PERFORMANCE</b>		
<b>HEAT INPUT (**)</b>		
Nominal flow (Q <sub>n</sub> max)	kW	25
Minimum flow G20/G31 (Q <sub>n</sub> min)	kW	2,5 / 3,5
<b>HEAT OUTPUT</b>		
Nominal (80-60°C) (P <sub>n</sub> max)	kW	24,5
Nominal (50-30°C) (P <sub>n</sub> max)	kW	26,4
Minimum G20 (80-60°C) (P <sub>n</sub> min)	kW	2,3
Minimum G20 (50-30°C) (P <sub>n</sub> min)	kW	2,6
Minimum G31 (80-60°C) (P <sub>n</sub> min)	kW	3,3
Minimum G31 (50-30°C) (P <sub>n</sub> min)	kW	3,7
<b>EFFICIENCY</b>		
Max useful efficiency (80-60°C)	%	98,0
Min useful efficiency (80-60°C)	%	93,3
Max useful efficiency (50-30°C)	%	105,8
Min useful efficiency (50-30°C)	%	104,7
Useful efficiency at 30% of load (40-30°C)	%	108,8
Losses after shutdown at 50°C	W	105
<b>ENERGY PERFORMANCE</b>		
<b>HEATING</b>		
Heating seasonal energy efficiency class		A
Heating seasonal energy efficiency	%	93
Sound power	dB(A)	55
<b>ELECTRICAL SPECIFICATIONS</b>		
Power supply voltage	V	230
Frequency	Hz	50
Absorbed electrical power (Q <sub>n</sub> max)	W	93
Absorbed electrical power at (Q <sub>n</sub> min)	W	67
Absorbed electrical power in stand-by	W	4
Electrical protection degree	IP	X5D
<b>COMBUSTION DATA</b>		
Smoke temperature at Max/Min flow (80-60°C)	°C	80,0 / 51,8
Smoke temperature at Max/Min flow (50-30°C)	°C	51,3 / 39,5
Smoke flow Max/Min	g/s	14,5 / 1,2
CO <sub>2</sub> at Max/Min flow rate (G20)	%	9,2 / 9,2
CO <sub>2</sub> at Max/Min flow rate (G31)	%	10,2 / 10,2
NO <sub>x</sub> measured	mg/kWh	15
Gas consumption at Max/Min flow rate (G20)	m <sup>3</sup> /h	2,64 / 0,26
Gas consumption at Max/Min flow rate (G31)	kg/h	1,94 / 0,27
Gas supply pressure (G20/G31)	mbar	20 / 37
	kPa	2 / 3,7
<b>NOZZLES - GAS</b>		
Number of nozzles	No.	2
Nozzle diameter (G20)	mm	3,2 / 3,4
Nozzle diameter (G31)	mm	2,4 / 2,9
<b>TEMPERATURE - PRESSURE</b>		
Max operating temperature (T max)	°C	85
Heating adjustment range	°C	20÷80
Domestic hot water adjustment range	°C	10÷60
Max operating pressure (PMS)	bar	3
	kPa	300
Water content in boiler	l	5,1

(\*) NO<sub>x</sub> class according to UNI EN 15502-1:2015

(\*\*) Heat input calculated using the lower heat output (Hi)

Lower Heat Output (Hi)

**G20 Hi.** 9.45 kW/m<sup>3</sup> [15°C, 1013 mbar] - **G31 Hi.** 12.87 kW/kg [15°C, 1013 mbar]

## 5.6 Main water circuit

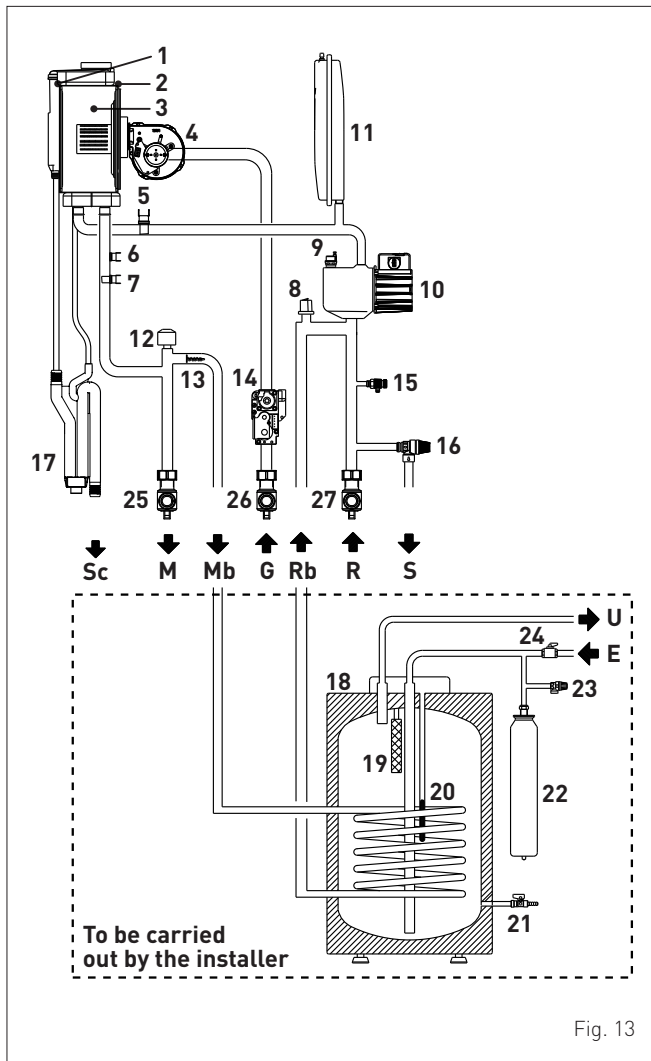


Fig. 13

### KEY:

- M System flow
- R System return
- Mb Hot water tank delivery
- Rb Hot water tank return
- S Safety valve outlet
- G Gas supply
- U Domestic hot water outlet
- E Domesti hot water inlet
- Sc Condensate outlet

- 1 Exhaust sensor (SF) (SF)
- 2 Heat exchanger
- 3 Combustion chamber
- 4 Fan (V)
- 5 Boiler return probe (SRC)
- 6 Safety thermostat (TS)
- 7 Boiler delivery sensor (SMC)
- 8 Water pressure transducer (TPAC)
- 9 Automatic bleed valve
- 10 Pump (PI)
- 11 Expansion vessel (VE)
- 12 Diverter solenoid valve (EVD)
- 13 Automatic by-pass
- 14 Gas valve
- 15 Boiler drain
- 16 Relief valve (FS)
- 17 Condensate siphon outlet
- 18 Storage tank
- 19 Magnesium anode
- 20 Domestic hot water sensor (SS)
- 21 Hot water tank drain valve
- 22 Domestic hot water expansion vessel
- 23 Hot water tank relief valve
- 24 Domestic hot water inlet cock
- 25 System flow cock
- 26 Gas cock
- 27 System return cock

## 5.7 Sensors

The sensors installed have the following characteristics:

- NTC R25°C (delivery) sensor; 10kΩ B25°-85°C: 3435
- domestic hot water sensor NTC R25°C; 10kΩ B25°-85°C: 3435
- External temperature sensor NTC R25°C; 10kΩ B25°-85°C: 3435

TR	0°C	1°C	2°C	3°C	4°C	5°C	6°C	7°C	8°C	9°C	Resistance R (Ω)
0°C	27279	26135	25044	24004	23014	22069	21168	20309	19489	18706	
10°C	17959	17245	16563	15912	15289	14694	14126	13582	13062	12565	
20°C	12090	11634	11199	10781	10382	9999	9633	9281	8945	8622	
30°C	8313	8016	7731	7458	7196	6944	6702	6470	6247	6033	
40°C	5828	5630	5440	5258	5082	4913	4751	4595	4444	4300	
50°C	4161	4026	3897	3773	3653	3538	3426	3319	3216	3116	
60°C	3021	2928	2839	2753	2669	2589	2512	2437	2365	2296	
70°C	2229	2164	2101	2040	1982	1925	1870	1817	1766	1717	
80°C	1669	1622	1577	1534	1491	1451	1411	1373	1336	1300	
90°C	1266	1232	1199	1168	1137	1108	1079	1051	1024	998	
100°C	973										

### Correspondence of Temperature Detected/Resistance

Examples of reading:

TR=75°C → R=1925Ω

TR=80°C → R=1669Ω.

## 5.8 Expansion vessel

Description	U/M	Edea T	
		25	35
Total capacity	l	9,0	
Prefilling pressure	kPa	100	
	bar	1,0	
Useful capacity	l	5,0	
Maximum system content (*)	l	124	

(\*) Conditions of:

Average operating temperature 70°C (with high temperature system 80/60°C)

Start temperature at system filling 10°C.



### CAUTION

- For systems with water content exceeding the maximum system content (as indicated in the table) an additional expansion vessel must be fitted.
- The difference in height between the relief valve and the highest point of the system cannot exceed 6 metres. If the difference is greater than 6 metres, increase the prefilling pressure of the expansion vessel and the system when cold by 0.1 bar for each meter increase.

## 5.9 Circulation pump

The flow-head performance curve available for the heating system is shown in the graph below.

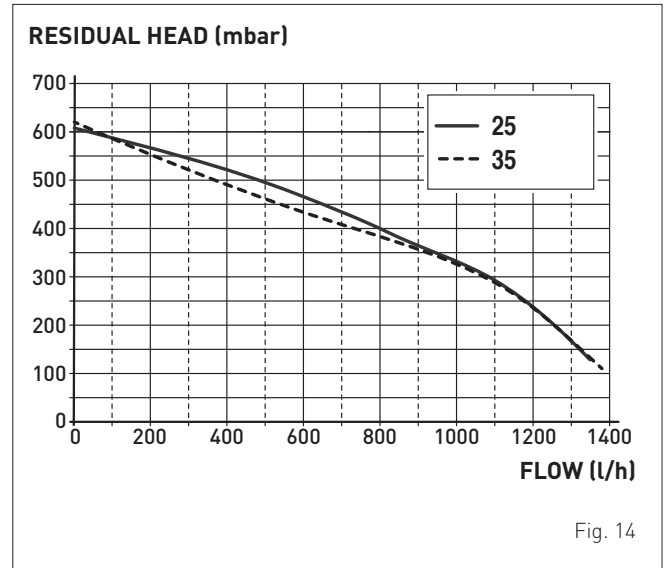


Fig. 14

The flow-head performance curve available for the remote hot water tank coil is shown in the graph below.

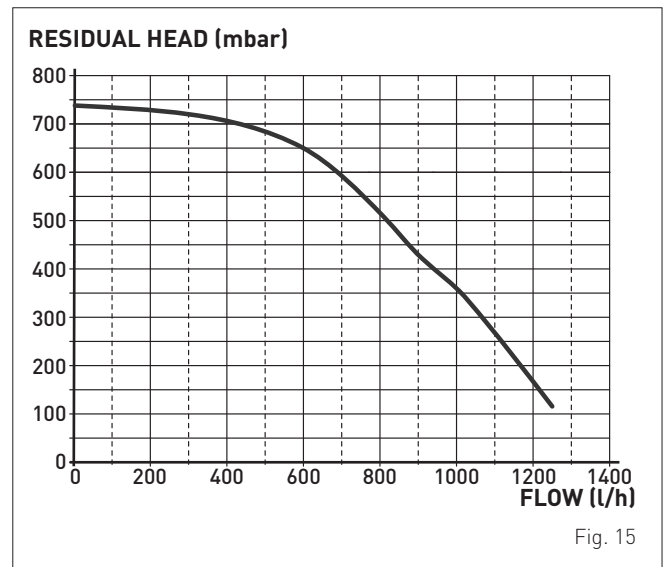


Fig. 15



### CAUTION

The appliance is equipped with a by-pass which ensures water circulation in the boiler when thermostatic valves are used in the system. The heating system design should incorporate a room thermostat. Thermostatic radiator valves fitted to all radiators except the room where the room thermostat is fitted. Properties with floor areas exceeding 150 square metres should be zoned.

## 5.10 Control panel

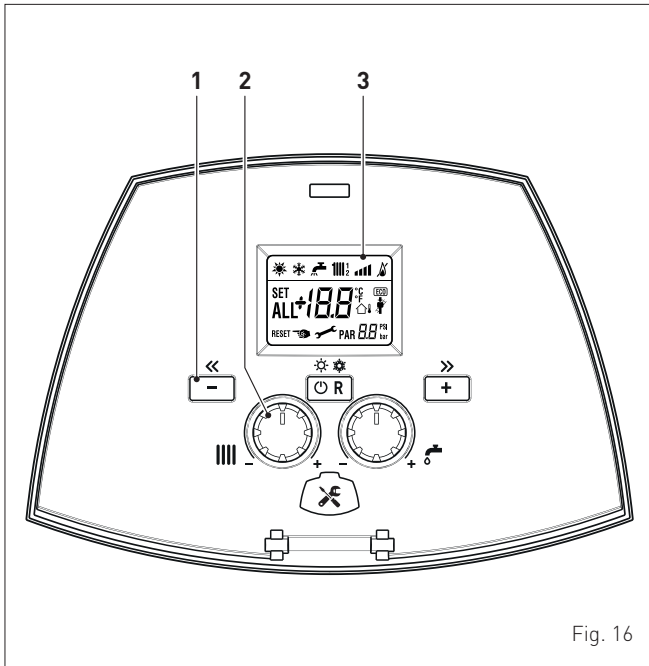


Fig. 16

### 1 FUNCTIONAL BUTTONS

**⏻** If pressed once or more times for at least 1 second during normal operation, this button allows the user to change the appliance's operating mode in a cyclical sequence (Stand-by – Summer – Winter). If the appliance is experiencing a resettable fault, it can be used to unlock it.

**-** This allows the engineer to scroll through the parameters or decrease the values.

**+** This allows the engineer to scroll through the parameters or increase the values.

**🔧** Programming connector cover plug.

### 2 KNOBS

**||||** The heating knob allows the user to set the flow temperature to between 20 and 80°C during normal operation.

**🚰** The domestic hot water knob allows the user to set the domestic hot water temperature to between 10 and 60°C during normal operation.

**NOTE:** pressing any button for more than 30 seconds causes a fault to appear on the display (ALL 42) without preventing the appliance's operation. The warning disappears when the button is released.

### 3 DISPLAY



**"SUMMER"**. This symbol appears when the boiler is operating in "Summer" mode or if only the domestic hot water mode is enabled via the remote control.



**"WINTER"**. The symbol is present in the "Winter" operating mode, or with the remote control if both the domestic hot water and heating modes are enabled. The flashing and symbols signal that the "chimney sweep" function is active.



**RESET** **"RESET REQUEST"**. The wording indicates that, once the fault has been repaired, the appliance's normal operation can be reset by pressing the **⏻** button.



**"DOMESTIC HOT WATER"**. This symbol is present during a DHW request or during the "chimney sweep function". It flashes during the selection of the domestic hot water set point.



**"HEATING"**. This symbol lights up during heating operation or during the "chimney sweep function". It flashes during the selection of the heating set point.



**"LOCKOUT" DUE TO NO FLAME.**



**"FLAME LIT"**.



**"POWER LEVEL"**. Indicates the power level at which the appliance is operating.



**PAR** **"PARAMETER"**. This indicates when the engineer is in parameter setting/display, or "info" or "counter", or in "activated alarms" (history).



**ALL** **"ALARM"**. This indicates that a fault has occurred. The number specifies the cause which generated the alarm.



**"CHIMNEY SWEEP"**. This indicates that the "chimney sweep function" has been activated.



**"EXTERNAL TEMPERATURE SENSOR"**. Indicates that the external temperature sensor has been installed and that the appliance is working at a sliding temperature.



**"HEATING SYSTEM PRESSURE"**. Display of heating system pressure.



**ECO** **"ECO", ALTERNATIVE ENERGY SOURCES.** Where active, it indicates that there is a solar system available.



**"MAINTENANCE REQUEST"**. If active, it indicates that it is time to perform maintenance on the appliance.

## 5.11 Wiring diagram

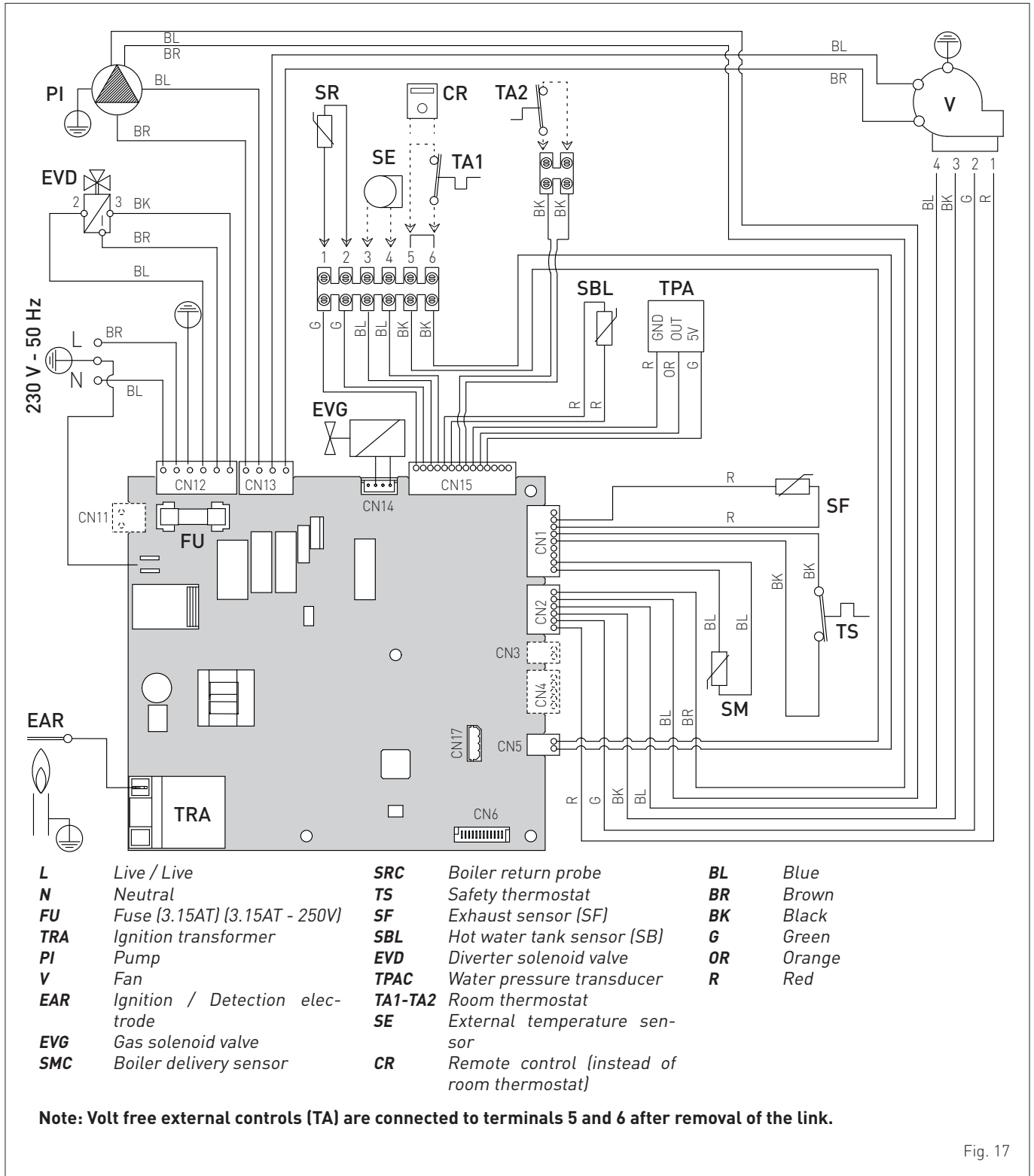


Fig. 17



### CAUTION

Installer must:

- Connect the boiler to a 230v -50Hz single phase power supply through a fused mains switch, with at least 3mm spacing between contacts, fused at 3amps which ensures complete cut-off in overvoltage category III conditions (i.e. where there is at least 3 mm between the open contacts).
- Respect the connections L (Live) - N (Neutral).
- Ensure that the special power cable is only replaced with a cable ordered as a spare part and connected by professionally qualified personnel.



### CAUTION

Installer must:

- Connect the earth wire to an effective earthing system. **Sime declines all responsible for any injury or damage to persons, animals, or property as a result of failure to provide adequate earthing of the appliance.**



### DO NOT

Do not use water pipes for earthing the appliance.

## **The Benchmark Scheme**

Benchmark places responsibilities on both manufacturers and installers.

The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons and that it meets the requirements of the appropriate Building Regulations.

The Benchmark Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference.

Installers are required to carry out installation, commissioning and servicing work in accordance with the Benchmark Code of Practice which is available from the Heating and Hotwater Industry Council who manage and promote the Scheme.



# INSTALLATION AND SERVICING INSTRUCTIONS

## Installer Checklist

Please remember to carry out the following checks after installation. This will achieve complete customer satisfaction, and avoid unnecessary service calls. A charge will be made for a service visit where the fault is not due to a manufacturing defect.

Has a correct by-pass been fitted and adjusted?

Has the system and boiler been flushed?

Is the system and boiler full of water, and the correct pressure showing on the pressure gauge?

Is the Auto Air Vent open?

### Has the pump been rotated manually?

Is the gas supply working pressure correct?

Is the boiler wired correctly? (See installation manual).

### Has the D.H.W. flow rate been set to the customer requirements?

Has the customer been fully advised on the correct use of the boiler, system and controls?

Has the Benchmark Checklist in the use and maintenance section of this manual, been completed?

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			<b>13</b>	<b>ANNEX AA.1</b>	<b>77</b>

## 6 INSTALLATION



### CAUTION

The appliance must only be installed by the **Sime** Technical Service or by qualified professionals **who MUST wear** suitable protective safety equipment.

### 6.1 Receiving the product

**Edea T** appliances are delivered in a single unit protected by cardboard packaging.

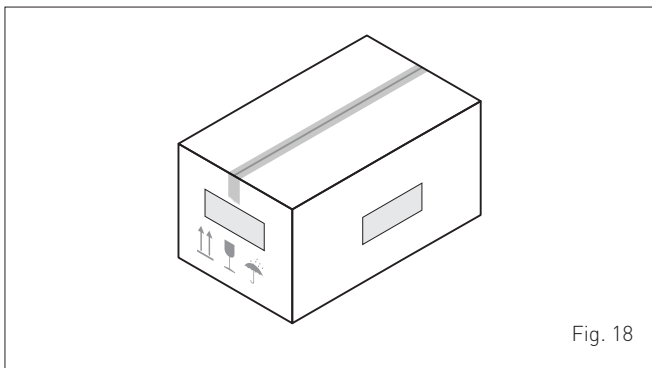


Fig. 18

The plastic bag found inside the packaging contains the following:

- Installation, use and maintenance manual
- Paper template for boiler installation
- Certificate of warranty
- Hydrostatic test certificate
- Hanging Bracket
- Connection pack



### DO NOT

To leave packaging material around or near children since it could be dangerous. Dispose of it as prescribed by legislation in force.

### 6.2 Dimensions and weight

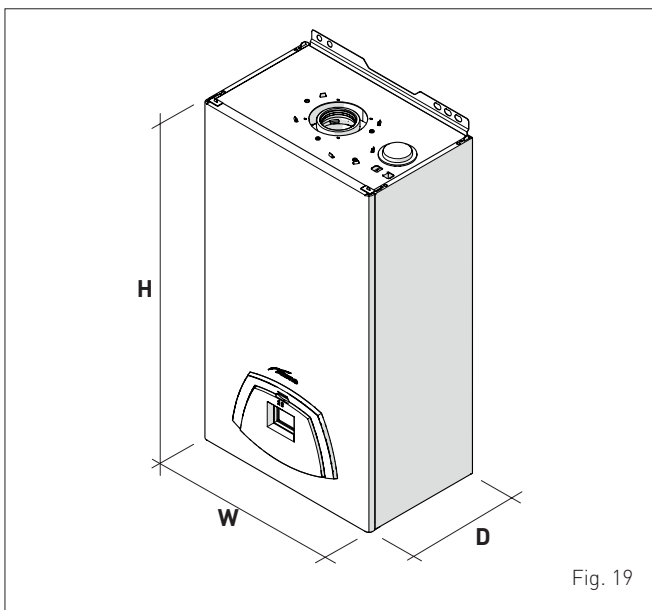


Fig. 19

Description	Edea T	
	25	35
W (mm)	400	
D (mm)	260 (*)	
H (mm)	700	
Weight (kg)	27,4	29,9

(\*) Without removable panel.

### 6.3 Handling

Once the packaging has been removed, the appliance is to be handled manually, tilting it slightly, lifting it and applying pressure in the points indicated in the figure.

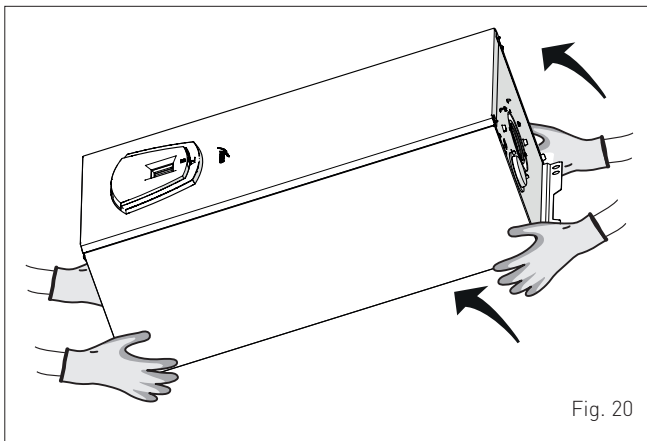


Fig. 20



### DO NOT

To grip the appliance casing. Hold the "solid" parts of the appliance such as the base and structural frame.



### WARNING

Use suitable tools and personal protection when removing the packaging and when handling the appliance. Observe the maximum weight that can be lifted per person.

### 6.4 Ventilation requirements

Detailed recommendations for the air supply are given in BS 5440-2. The following note is given for guidance. It is not necessary to have purpose provided air vents in the room or compartment that the appliance is installed.

The minimum temperature of the installation room must NOT be lower than **-5 °C**.



### CAUTION

- Before assembling the appliance, the installer **MUST** make sure that the wall supports the weight.
- Remember to consider the space needed in order to access the safety/adjustment devices and to carry out maintenance interventions (see Fig. 21).

### APPROXIMATE MINIMUM DISTANCES

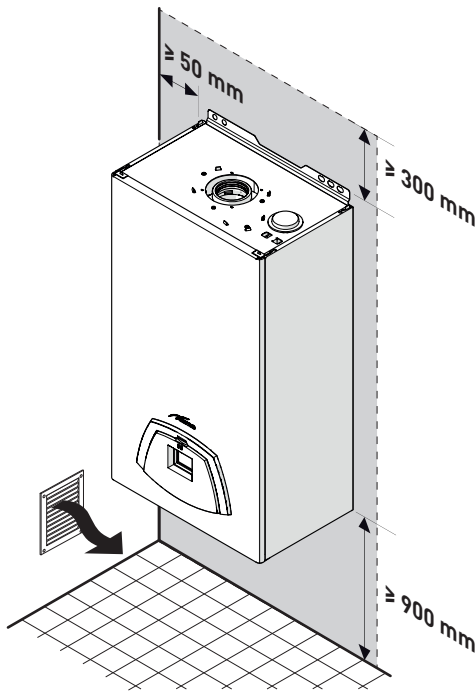


Fig. 21

### 6.5 New installation or installation of a replacement appliance

The boiler must be installed in a fixed location and only by specialized and qualified person in compliance with all instructions contained in this manual.

The installation of this boiler must be in accordance with the relevant requirements of the current Gas Safety (installation and use), the local building regulations and I.E.E. wiring regulations.

Detailed recommendations for air supply and fluing are given in BS5440.

The following notes are for general guidance: it is not necessary to have a purpose provided air vent in the room or compartment in which the appliance is installed.



#### CAUTION

It is a condition of the warranty that the boiler is installed in accordance with the instructions in this manual. The boiler must be registered with Gas Safe Register, the Benchmark record must be completed and the boiler is serviced annually and recorded in this manual.



#### CAUTION

If the domestic water supply is metered or should a water meter be added at a later time, a small expansion vessel should be included in the domestic water pipework.

### 6.6 Cleaning the system

Before connecting the boiler it is recommended that the system be flushed in accordance to BS 7593, to eliminate any foreign bodies that may be detrimental to the operating efficiency of the appliance.



#### CAUTION

Failure to flush and add inhibitor to the system may invalidate the warranty.

### 6.7 Characteristics of feedwater and system treatment

- All recirculatory systems will be subject to corrosion unless an appropriate water treatment is applied. This means that the efficiency of the system will deteriorate as corrosion sludge accumulates within the system, risking damage to pump and valves, boiler noise and circulation problems.
- Before connecting the boiler the associated central heating system must be flushed in accordance with the guidelines given in BS 7593 "Treatment of water in domestic hot water central heating systems".
- **Sime** recommends only the use of FERNOX products for the flushing and final treatment of the system water. This is particularly important in hard water areas. Failure to flush and add inhibitor to the system may invalidate the appliance warranty. Artificially softened water must not be used to fill the heating system. Naturally soft water areas can corrode aluminium heat exchangers. Adding Fernox F1 or Mb-1 will guard against corrosion.
- **Sime** promote the fitting of TF1 System filter with any new boiler installation.
- It is important to check the inhibitor concentration after installation, system modification and annually on a service visit in accordance with the manufacturer's instructions. (Note on benchmark service record this has been complete). Test kits are available from inhibitor stockists; the return of the Fernox test report should be kept with the Benchmark to validate warranty.
- Where Central heating systems are susceptible to freezing a mixture of inhibitor and anti-freeze should be added in accordance with the DWTa code of practice and the Manufacturer's instructions.
- The addition of sealing agents to system water is not recommended because deposits can be left in heat exchanger causing circulation issues.

### 6.8 Boiler installation

**Edea T** boilers leave the factory with a paper template for installation onto a solid wall.

For installation:

- position the paper template (1) on the wall (2) where the boiler is to be mounted
- make the holes, remove the template (1) and insert the expansion plugs (3)
- hook the boiler onto the plugs.

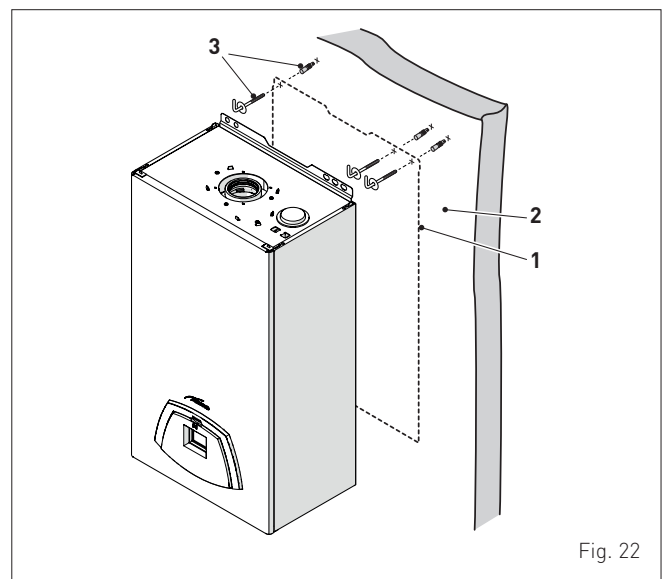


Fig. 22



#### CAUTION

The boiler should be located observing the required clearances, and provide safe, adequate service access.

## 6.9 Plumbing connections

The plumbing connections have the following characteristics and dimensions.

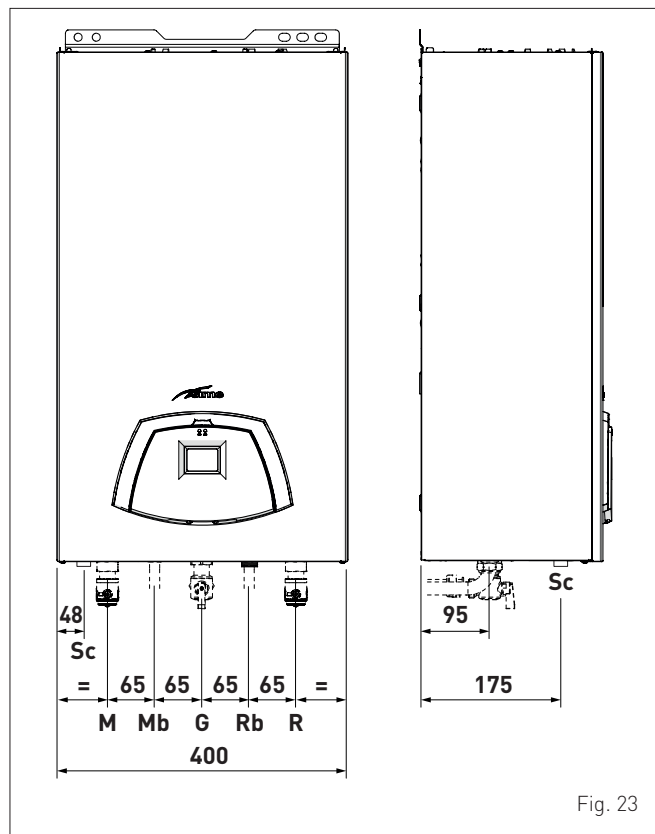


Fig. 23

Description	Edea T	
	25	35
M - System flow	Ø 22 mm	
R - System return	Ø 22 mm	
Mb - Hot water tank delivery	Ø 15 mm	
Rb - Hot water tank return	Ø 15 mm	
G - Gas cock connection	Ø 15 mm	
Sc - Condensate outlet	Ø 20 mm	

### 6.9.1 Plumbing accessories (optional)

To facilitate plumbing and gas connections to the systems, the accessories as shown in the table below are available and are to be ordered separately from the boiler.

DESCRIPTION	CODE
Installation plate	8075441
Connection protection kit (for models 30-40 kW)	8094530

**NOTE:** kit instructions are supplied with the accessory itself or are to be found on the packaging.

## 6.10 Condensate outlet/collection

To ensure safe disposal of the condensate produced by the flue gases, reference should be made to BS6798:2009.

The boiler incorporates a condensate trap which has a seal of 75 mm, therefore no additional trap is required.

The condensate trap can be filled prior to the installation of the flue by carefully pouring 1 litre of water into the exhaust connection.

**NOTE:** All pipework must have a continuous fall from the boiler and must be resistant to corrosion by condensate, copper or steel is **NOT** suitable. It should be noted that the connection of a condensate pipe to a drain may be subject to local building control requirements (Dealing with Condensate - see Appendix 1).

## 6.11 Gas supply

**Edea T** boilers leave the factory configured for G20 gas and can also work with G31 gas. It is necessary to select parameter "01" (see "Parameter setting and display"), set it on the basis of the type of gas to be used and replace the nozzles (consult the table in the "Unscheduled maintenance" paragraph).

If changing the type of gas to be used, carry out the entire appliance "Gas conversion" phase.

As a condition of the warranty and to ensure correct operation and efficiency, it is important that the boiler is serviced every 12 months, within 30 days of the anniversary of the installation date ensure the required information is recorded in the Gas Boiler System Service Interval Record (page 52) (Benchmark). The gas connection must be made using seamless steel or copper tube.

Where the piping has to pass through walls, a suitable insulating sleeve must be provided.

When sizing gas piping, from the meter to the boiler, take into account both the volume flow rates (consumption) in m<sup>3</sup>/h and the relative density of the gas in question.

The sections of the piping making up the system must be such as to guarantee a supply of gas sufficient to cover the maximum output available from the boiler, limiting pressure loss between the gas meter and any apparatus being used to not greater than 1.0 mbar for family II gases (natural gas).

An adhesive data badge is sited inside the front panel; it contains all the technical data identifying the boiler and the type of gas for which the boiler is arranged.



### CAUTION

If the gas supply is changed from G20 to G31, mark the box on the TECHNICAL DATA PLATE.

G31 - 37 mbar



### WARNING

Once installation has been completed, check that the joints are air tight as indicated in the installation Standards.



### CAUTION

It is recommended that the gas line has a suitable filter.

## 6.12 Connecting the flue



### CAUTION

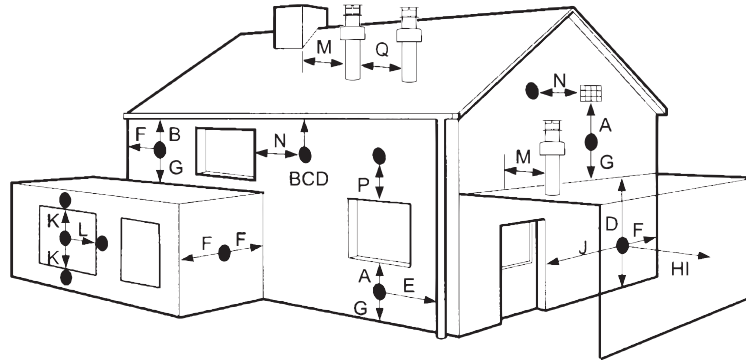
- The appliance must be installed as a room sealed device and unless stated in writing from the manufacturer, in accordance with the current edition of BS 5440-1. The information shown in this manual is for guidance and parts identification.



### CAUTION

- Prior to fitting the flue, the condensate trap can be filled by carefully pouring water into the exhaust section of the flue connection.

### 6.12.1 Flue Terminal Positions



Terminal position	Minimum spacing	
<b>A</b> Directly below an openable window, air vent or any other ventilation opening	300 mm	12 in
<b>B</b> Below guttering, drain pipes or soil pipes (**)	75 mm	3 in
<b>C/D</b> Below eaves, balconies or carport roof (*)	200 mm	8 in
<b>E</b> From vertical drain pipes or soil pipes	75 mm	3 in
<b>F</b> From internal or external corners	300 mm	12 in
<b>G</b> Above adjacent ground, roof or balcony level	300 mm	12 in
<b>H</b> From a boundary or surface facing the boiler	600 mm	24 in
<b>I</b> From a terminal facing the terminal	1,200 mm	48 in
<b>J</b> From an opening in the carport (eg door, window into dwelling)	1,200 mm	48 in
<b>K</b> Vertically from a terminal on the same wall	1,500 mm	60 in
<b>L</b> Horizont. from a terminal on the same wall	300 mm	12 in
<b>M</b> Horizont. from a vertical terminal to a wall	300 mm	12 in
<b>N</b> Horizont. from an openable window or other opening	300 mm	12 in
<b>P</b> Above an openable window or other opening	300 mm	12 in
<b>Q</b> From an adjacent vertical terminal	600 mm	24 in

(\*) This dimension to be used with ventilated soffits. With unvented soffits this can be reduced to 75 mm and further reduced to 25 mm when a flue shield is used to protect from the effects of heat and condensation.

(\*\*) This can be reduced to 25 mm but it may be necessary to protect the surfaces from the effects of heat and condensation.

- If the terminal discharges into a pathway or passageway check that combustion products will not cause nuisance and that the terminal will not obstruct the passageway.
- Where the lowest part of the terminal is fitted less than 2 m (78 in) above ground, above a balcony or above a flat roof to which people have access, the terminal MUST be protected by a purpose designed guard.
- The air inlet/outlet flue duct MUST NOT be closer than 10 mm (0.4 in) to combustible material.
- In certain weather conditions the terminal may emit a plume of steam. This is normal but positions where this would cause a nuisance should be avoided.

Fig. 24

### 6.12.2 Installation of coaxial flues 60/100mm – 80/125mm

Coaxial flue kits that are supplied separately. The diagrams below, illustrate some examples of fluing options allowed and the maximum lengths than can be achieved. It is essential that a flue gas analysis point is made available directly above the boiler.

**IMPORTANT:**

- The insertion of each additional 90° bend with a diameter of 60/100 (code 8095850) reduces the available section by 1.5 meters.
- The insertion of each additional 90° bend with a diameter of 80/125 (code 8095870) reduces the available section by 2 meters.
- Each additional 45° curve installed a diameter of 60/100 (code 8095950) reduces the available length by 1.0 metres.
- Each additional 45° curve installed a diameter of 80/125 (code 8095970) reduces the available length by 1.0 metres.

**HORIZONTAL FLUES MUST BE LEVEL**

**NOTE:** Before connecting accessories, it is always advisable to lubricate the internal part of the gaskets with silicon products. Avoid using oils and greases.

Model	Length of pipe Ø 60/100			Length of pipe Ø 80/125		
	H (m)	V (m)		H (m)	V (m)	
		Min.	Max.		Min.	Max.
EDEA 25 T	6	1.3	8	12	1.2	15
EDEA 35 T	6	1.3	8	12	1.2	15

**LIST OF Ø 60/100 ACCESSORIES**

- 1a Coaxial duct kit L. 790 code 8096250
- 1b Telescopic coaxial duct kit L. 695 code 8098605
- 2a Extension L. 1000 code 8096150
- 2b Extension L. 500 code 8096151
- 3 Vertical extension L. 140 with coupling code 8086950
- 5 Tile for joint code 8091300
- 6 Terminal for roof exit L. 1285 code 8091212 (includes 8086950)

**LIST OF Ø 80/125 ACCESSORIES**

- 1 Coaxial duct kit L. 785 code 8096253
- 2a Extension L. 1000 code 8096171
- 2b Extension L. 500 code 8096170
- 3 Adapter for Ø 80/125 code 8093150
- 5 Tile for joint code 8091300
- 6 Terminal for roof exit L. 1285 code 8091212 (includes 8093150)

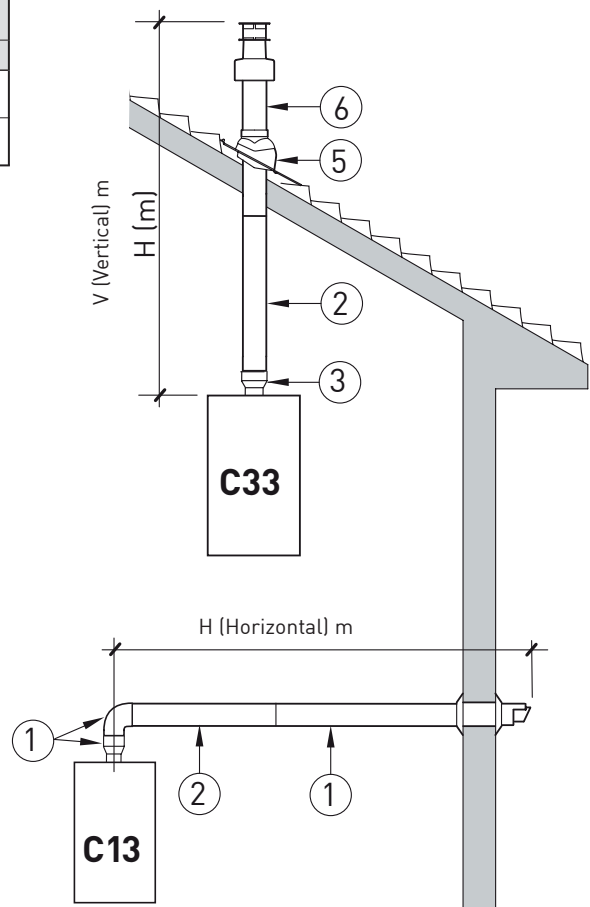


Fig. 25

### 6.12.3 Installation of separate ducts 80mm

The boiler can be installed with separate air inlet and exhaust ducts. The figure below illustrate some examples of the fluing options allowed and the associated losses of the accessories. The total load loss is the sum of the load losses of the accessories used. The maximum load loss **must not exceed 16.5 mm H2O** for **Edea 25 T** and **30.0 mm H2O** for **Edea 35 T**. The maximum flue length **must not exceed 25 m** inlet and exhaust.

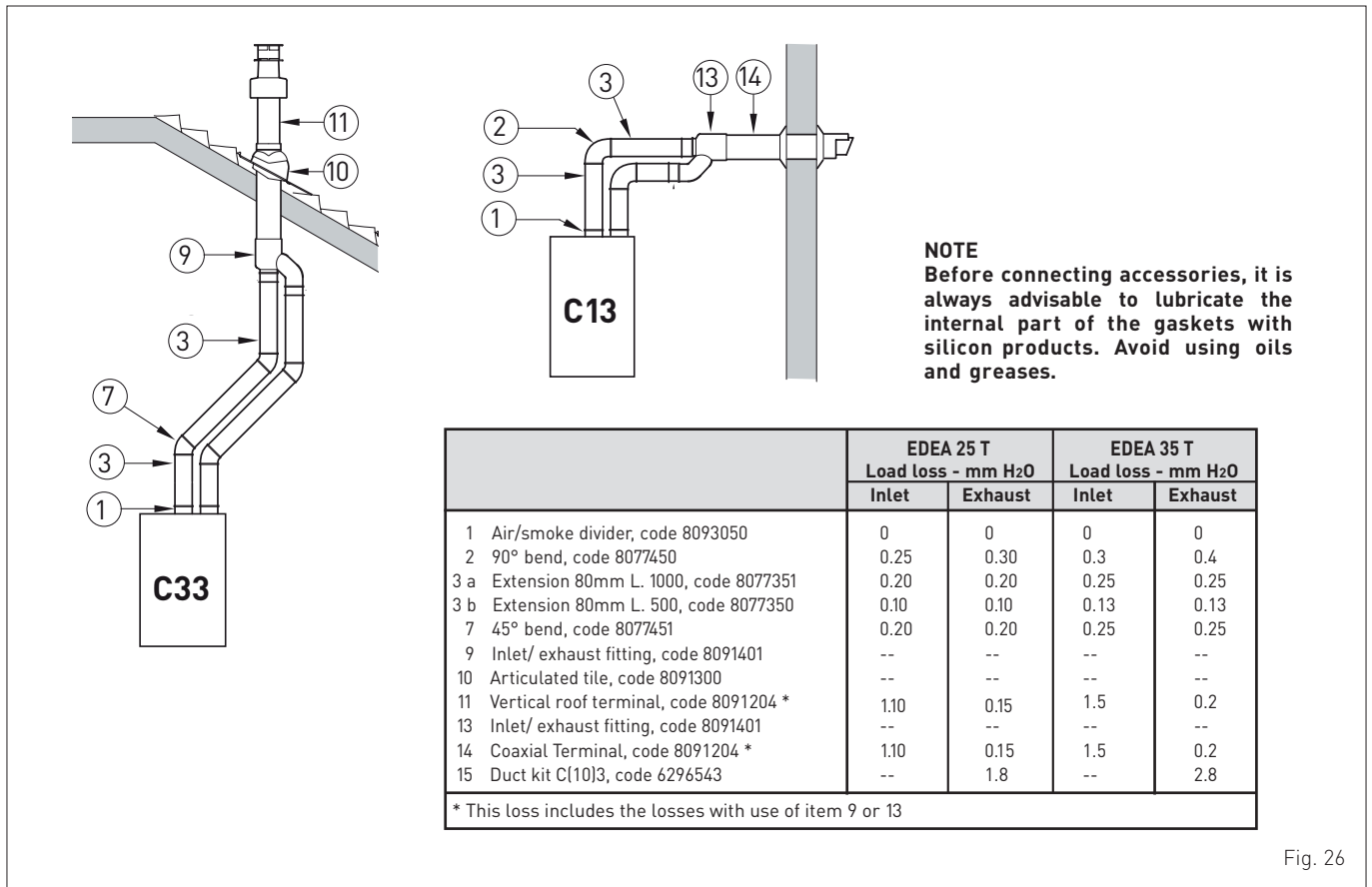


Fig. 26

### 6.12.4 Coaxial duct (Ø 60/100mm and Ø 80/125mm)

#### Coaxial accessories

Description	Code	
	Ø 60/100 mm	Ø 80/125 mm
Coaxial duct kit	8096250	8096253
Extension W. 1000 mm	8096150	8096171
Extension W. 500 mm	8096151	8096170
Vertical extension W. 140 mm with smoke analysis take-off point	8086950	-
Adapter for Ø 80/125 mm	-	8093150
Additional 90° curve	8095850	8095870
Additional 45° curve	8095950	8095970
Tile with joint	8091300	8091300
Roof outlet terminal W. 1284 mm	8091205	8091205

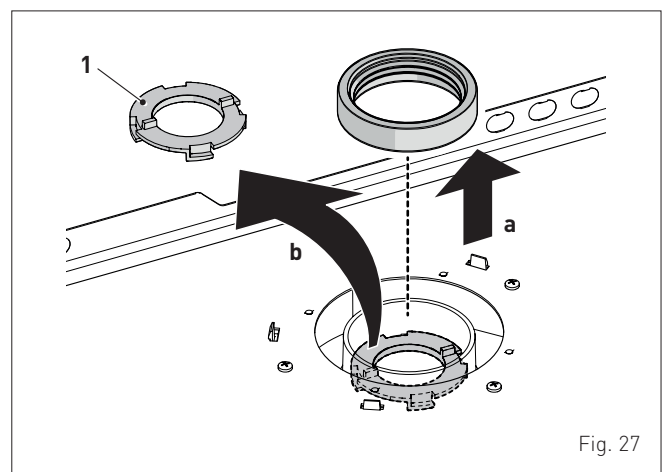


Fig. 27

#### Load loss - Equivalent lengths

Model	Leq (linear metres)	
	Ø 60/100 mm	Ø 80/125 mm
90° curve	1,5	2
45° curve	1	1

#### Minimum-Maximum Lengths

Model	Duct Length Ø 60/100				Duct Length Ø 80/125			
	W Horizontal (m)		H Vertical (m)		W Horizontal (m)		H Vertical (m)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Edea 25 T	-	6	1,3	8	-	12	1,2	15
Edea 35 T	-	6	1,3	8	-	12	1,2	15

With a Ø 60/100 mm coaxial outlet duct exceeding 2 metres, remove, by turning it clockwise, the smoke outlet diaphragm (1) positioned as shown in the picture. With a Ø 80/125 mm coaxial outlet duct exceeding 4 metres, remove, by turning it clockwise, the smoke outlet diaphragm (1) positioned as shown in the picture.

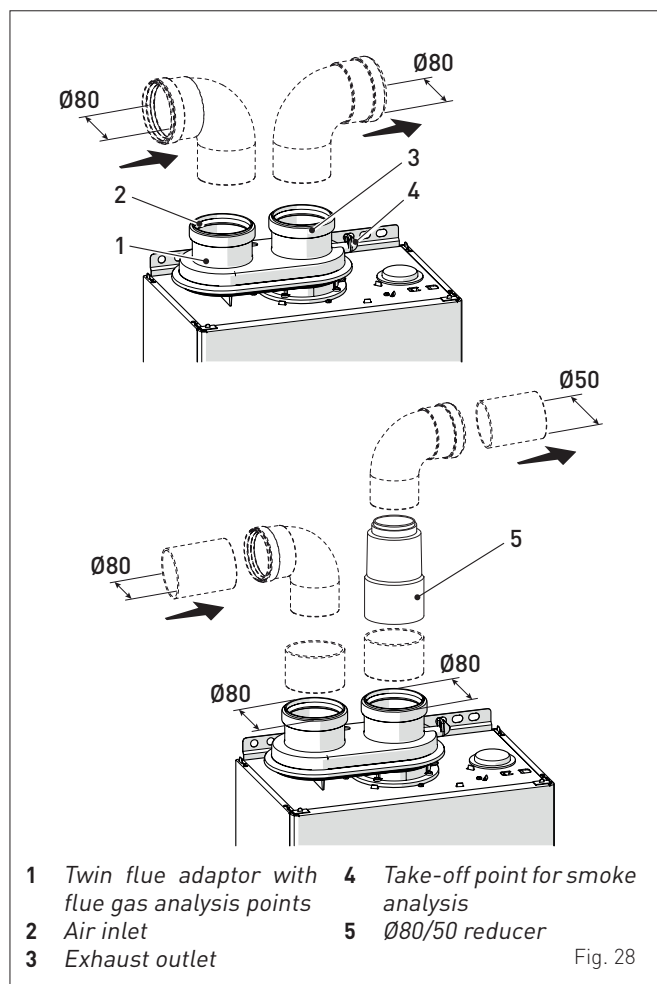
### 6.12.5 Separate ducts (Ø 60mm and Ø 80mm)

Constructing outlets for separate ducts indicates the use of the "air-smoke split pipe system". This is to be ordered separately from the boiler and when connected to the other accessories, from those listed in the table below, completes the smoke-outlet/ combustion air inlet assembly.

#### Separate accessories

Description	Code	
	Diameter Ø 60 (mm)	Diameter Ø 80 (mm)
Air-smoke split pipe system (without take-off point)	8093060	-
Air-smoke split pipe system (with take-off point)	-	8093050
90° curve M-F (6 pieces)	8089921	8077450
90° curve M-F (with take-off point)	8089924	-
M-F 80/60 reduction	8089923	-
M-F 80/50 reducer	-	8089941
Extension W. 1000 mm (6 pieces)	8089920	8077351
Extension W. 500 mm (6 pieces)	-	8077350
Extension W. 135 mm (with take-off point)	-	8077304
Wall outlet terminal	8089541	8089501
Internal and external ring nut kit	8091510	8091500
Inlet terminal	8089540	8089500
45° curve M-F (6 pieces)	8089922	8077451
Manifold	8091400	
Tile with joint	8091300	
Roof outlet terminal W. 1390 mm	8091204	
Inlet/outlet fitting Ø 80/125 mm	-	8091210
Duct kit C[10]3 model <b>Edea T 25</b>	-	6296550
Duct kit C[10]3 models <b>Edea T 35</b>	-	6296543

#### Twin flue adaptor



**NOTE:** the ducts can be reduced from Ø80 to Ø50 by using the reducer with code 8089941, to be ordered separately, as shown in "Fig. 17".



#### CAUTION

- The maximum total length of the ducts, obtained by adding the lengths of the inlet and outlet pipes, is determined by the load losses of the individual accessories used and **must not exceed 16.5 mm H2O for Edea 25 T and 30.0 mm H2O for Edea 35 T.**
- For all boiler versions, the total extension must not in any case exceed 25 m (inlet) + 25 m (outlet) for ducts Ø 80 mm. For Ø 60 mm ducts, the total extension must not exceed, respectively, 18 m (suction) + 18 m (discharge) for model **Edea 25 T** and 16 m (suction) + 16 m (discharge) for model **Edea 35 T**, even if the total load loss is below the maximum applicable level.



#### CAUTION

- For model **Edea 25 T**, beyond a total load loss between discharge and suction of **9 mm H2O**, remove the discharge diaphragm as illustrated in "Fig. 27".
- For model **Edea 35 T**, beyond a total load loss between discharge and suction of **12 mm H2O**, remove the discharge diaphragm as illustrated in "Fig. 27".

#### Load loss accessory Ø 60 mm

Description	Code	Load loss (mm H2O)	
		Edea 25 T	
		Inlet	Outlet
Air/smoke split pipe system	8093060	2,5	0,5
90° curve MF	8089921	0,4	0,9
45° curve MF	8089922	0,35	0,7
Horizontal extension W. 1000 mm	8089920	0,4	0,9
Vertical extension W. 1000 mm	8089920	0,4	0,6
Wall outlet terminal	8089541	-	1,2
Wall inlet terminal	8089540	0,5	-
Roof outlet terminal (*)	8091204	0,8	0,1

Description	Code	Load loss (mm H2O)	
		Edea 35 T	
		Inlet	Outlet
Air/smoke split pipe system	8093060	2,5	0,5
90° curve MF	8089921	0,6	1,4
45° curve MF	8089922	0,55	1,2
Horizontal extension W. 1000 mm	8089920	0,6	1,4
Vertical extension W. 1000 mm	8089920	0,6	0,8
Wall outlet terminal	8089541	-	1,6
Wall inlet terminal	8089540	1,1	-
Roof outlet terminal (*)	8091204	1,5	0,2



### Load loss accessory Ø 80 mm

Description	Code	Load loss (mm H <sub>2</sub> O)	
		Edea 25 T	
		Inlet	Outlet
90° curve MF	8077450	0,20	0,25
45° curve MF	8077451	0,15	0,15
Horizontal extension W. 1000 mm	8077351	0,15	0,15
Vertical extension W. 1000 mm	8077351	0,15	0,15
Wall terminal	8089501	0,10	0,25
Roof outlet terminal (*)	8091204	0,80	0,10
Duct kit C(10)3	6296550	-	1,2
	6296543	-	-

Description	Code	Load loss (mm H <sub>2</sub> O)	
		Edea 35 T	
		Inlet	Outlet
90° curve MF	8077450	0,30	0,4
45° curve MF	8077451	0,25	0,25
Horizontal extension W. 1000 mm	8077351	0,25	0,25
Vertical extension W. 1000 mm	8077351	0,25	0,25
Wall terminal	8089501	0,15	0,50
Roof outlet terminal (*)	8091204	1,5	0,2
Duct kit C(10)3	6296543	-	2,2

(\*) The losses of the roof outlet terminal at inlet include the manifold code 8091400.

**NOTE:** for the boiler to operate correctly it is necessary that a minimum distance of 0.50 m of the duct is respected with a 90° inlet curve.

#### 6.12.6 Separate ducts (Ø 50 mm)

The **Edea T** boiler is configured for use in Ø 50 mm discharge flues. To ensure correct boiler operation, parameter PAR31 (long flues) should be set on the basis of the length of the installed flues, as indicated in the table.

PAR 31	Edea 25 T		Edea 35 T	
	Ø 50 mm outlet	Discharge diaphragm	Ø 50 mm outlet	Discharge diaphragm
0	1 x 90° elbow + 6 metres	leave it mounted	1 x 90° elbow + 2 metres	remove
0	1 x 90° elbow + 10 metres	remove	-	-
2	-	-	1 x 90° elbow + 6 metres	remove
4	1 x 90° elbow + 14 metres	remove	1 x 90° elbow + 8 metres	remove
6	1 x 90° elbow + 18 metres	remove	1 x 90° elbow + 10 metres	remove
8	1 x 90° elbow + 22 metres	remove	1 x 90° elbow + 12 metres	remove
10	1 x 90° elbow + 26 metres	remove	-	-
12	1 x 90° elbow + 30 metres	remove	-	-

**NOTE:** to remove the discharge diaphragm, proceed as illustrated in "Fig. 27".

Example: calculation of the load loss of a **Edea 25 T** boiler.

Accessories Ø 80 mm	Code	Quantity	Load loss (mm H <sub>2</sub> O)		
			Inlet	Outlet	Total
Extension W. 1000 mm (horizontal)	8077351	7	7 x 0,15	-	1,05
Extension W. 1000 mm (horizontal)	8077351	7	-	7 x 0,15	1,05
90° curve	8077450	2	2 x 0,20	-	0,40
90° curve	8077450	2	-	2 x 0,25	0,50
Wall terminal	8089501	2	0,10	0,25	0,35
<b>TOTAL</b>					<b>3,35</b>

(installation permitted since the total of the load loss of the accessories used is less than 15 mm H<sub>2</sub>O).

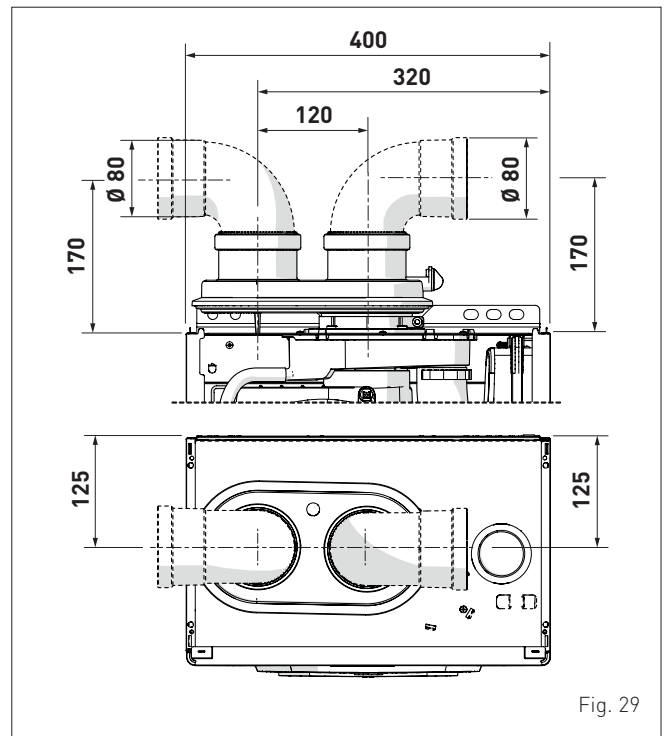


Fig. 29

#### 6.12.7 Separate ducts (Ø 80mm) with duct kit C(10)3

The **Edea T** boiler is configured for use with type C(10)3 discharge ducts. To ensure correct boiler operation, certain parameters should be modified in relation to the power and type of fuel used to power the device.

Set the parameters as specified in the table.

Type	No.	Description	Setting for Edea T			
			25		35	
			METH-ANE	LPG	METH-ANE	LPG
PAR	09	Ignition revolutions	-	160	-	-
PAR	21	CH/DHW minimum power	6	12	10	8
Duct kit C(10)3 code			6296543	6296550	6296543	6296543

**NOTE:** To modify the parameters in the table, proceed as specified in the paragraph "Parameter setting and display". If the kit is installed on the **Edea 25 T** running on LPG, replace the discharge diaphragm with the one present in the kit; to remove the discharge diaphragm, proceed as shown in "Fig. 27".

The duct kit C(10)3 (1) can be installed both vertically (A) and horizontally (B).

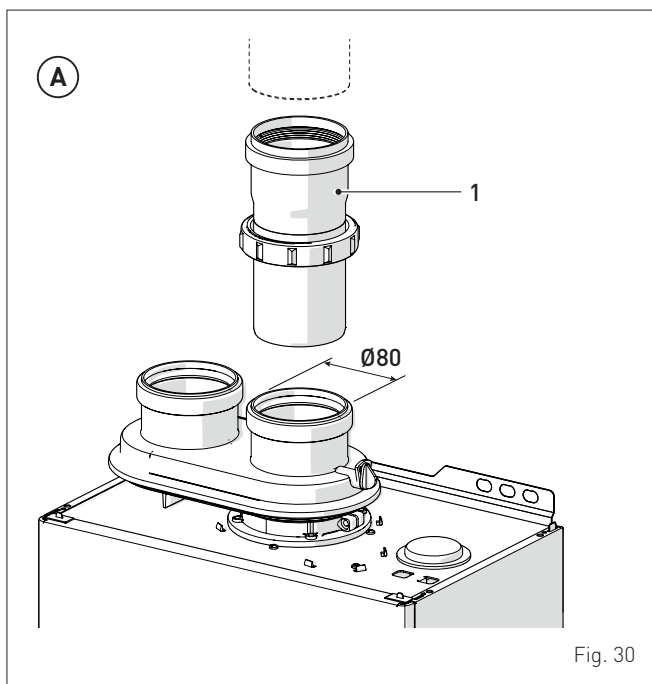


Fig. 30

If it is installed horizontally, when positioning the internal butterfly valve make sure that its fins (2) face upwards, so that they remain closed by effect of their weight. Moreover, it is necessary to remove the siphon (3) and mount the cap (4) supplied with the kit.

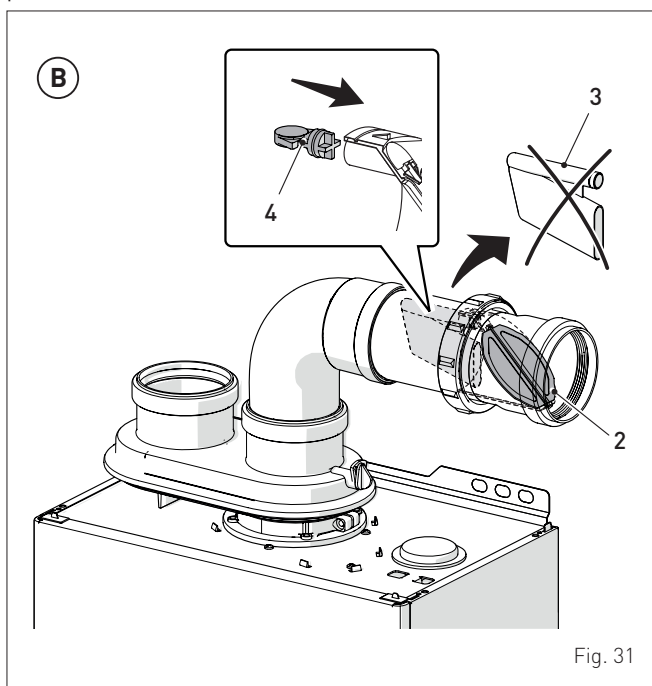


Fig. 31

### 6.13 Electrical connections and External controls

The boiler is supplied with a mains cable. Connect the boiler to a 230V -50Hz single phase power supply through a fused mains switch, with at least 3 mm spacing between contacts, fused at 3 amps.

If this cable needs to be replaced, an original spare must be requested from **Sime**.

The heating control of the boiler can be achieved by connection of either a volt free room thermostat, room thermostat/timer or a dedicated control (listed below). For connection details see section "External timers and Room Thermostats".

DESCRIPTION	CODE
External sensor kit ( $\beta=3435$ , NTC 10KOhm at 25°C)	8094101
Power cable (dedicated)	6323875
Remote control HOME (open therm)	8092280
Remote control HOME PLUS (open therm)	8092281



#### CAUTION

Only qualified persons in compliance with the instructions contained in this manual are permitted to install, commission and maintain this boiler. The installation of this boiler must be in accordance with the relevant requirements of the current Gas Safety (installation and use) Regulation 1998, the local building regulations, and I.E.E. wiring regulations.



#### WARNING

Before carrying out any interventions described:

- isolate the power supply
- isolate the gas cock
- avoid contact with any hot surfaces.

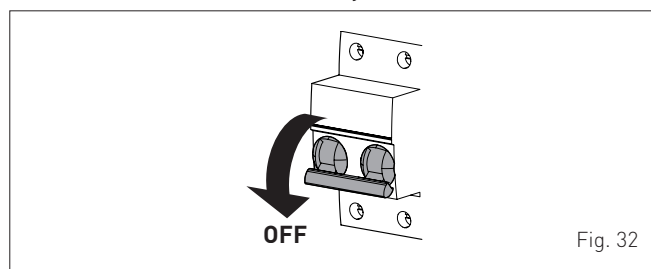


Fig. 32

To make the electrical connections:

- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

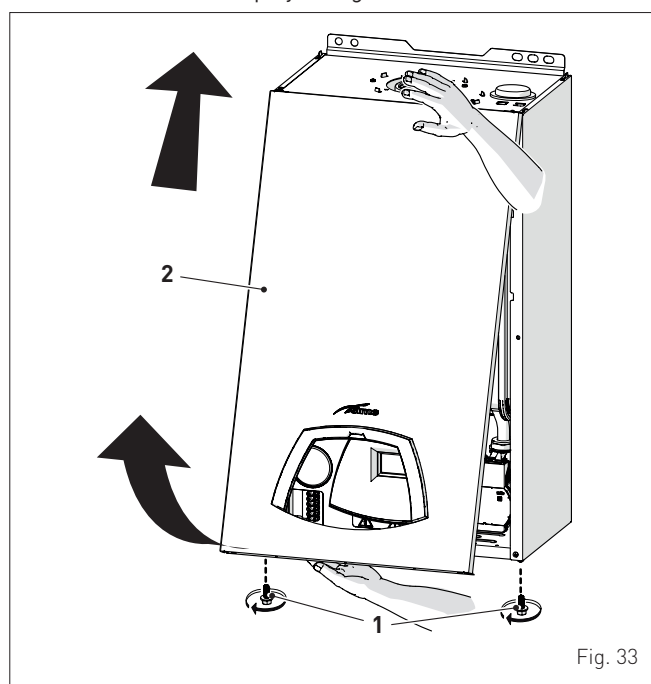


Fig. 33

- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal

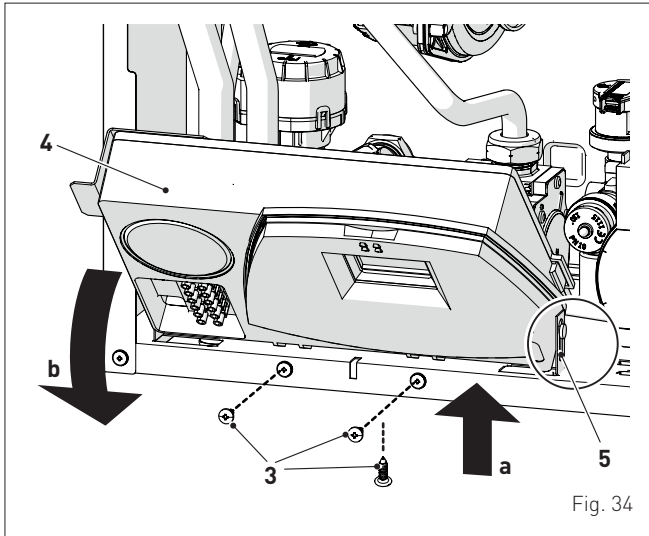


Fig. 34

- insert the connection wires through the grommet (6) and the opening (7) on the control panel

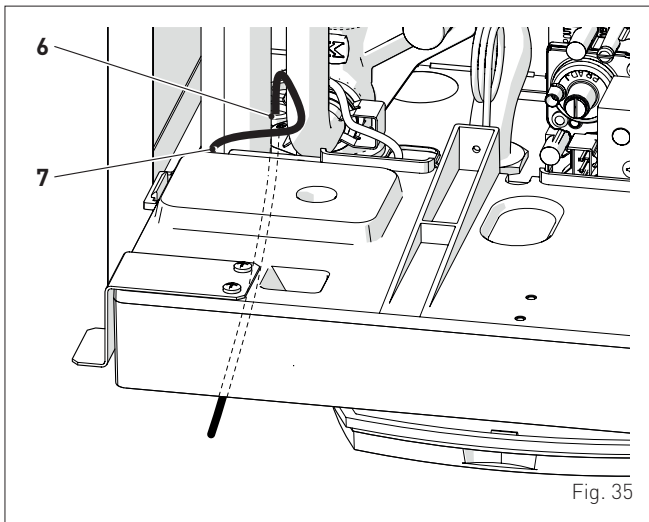


Fig. 35

- bring the control panel (4) to the original position and secure it with the screws (3) which were removed previously
- connect the component wires to the terminal board (8) following the indications provided on the data plate (9) and as shown in section "Wiring diagram".

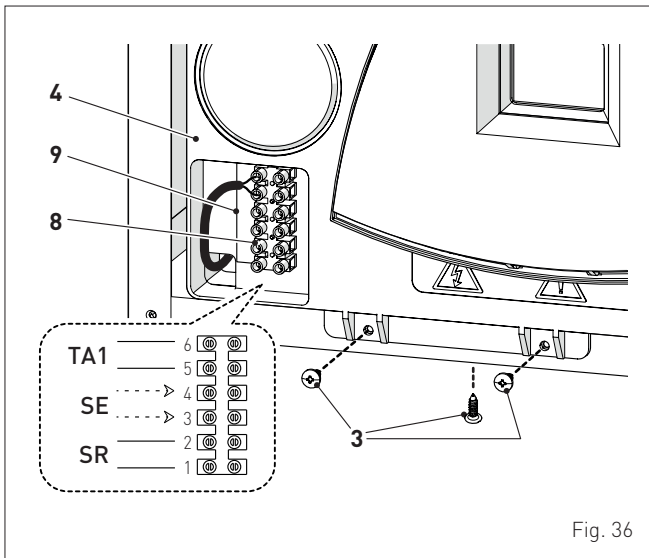


Fig. 36



### CAUTION

It is compulsory:

- to use an omnipolar cut-off switch, disconnect switch, in compliance with EN standards (contact opening of at least 3 mm)
- if the power cable is to be replaced, that ONLY a special cable is used with a factory produced re-wired connector, ordered as a spare part and connected by a professionally qualified person
- to connect the earth wire to an effective earthing system (\*)
- that before any work is done on the boiler, the mains power is disconnected by setting the main system switch to "OFF".

(\*) *Sime declines all responsible for any injury or damage to persons, animals, or property as a result of failure to provide adequate earthing of the appliance.*



### DO NOT

Do not use water pipes for earthing the appliance.

### 6.13.1 External temperature sensor

The boiler is designed for connection to an external temperature sensor code 8094101, which will automatically regulate the central heating delivery temperature.

This means that the delivery temperature of the boiler can vary on the basis of the external temperature depending on the climatic curve selected from those shown in the diagram (Fig. 37).

When fitting the sensor on the outside of the building, follow the instructions provided on the packaging of the product itself.

#### Climatic curve

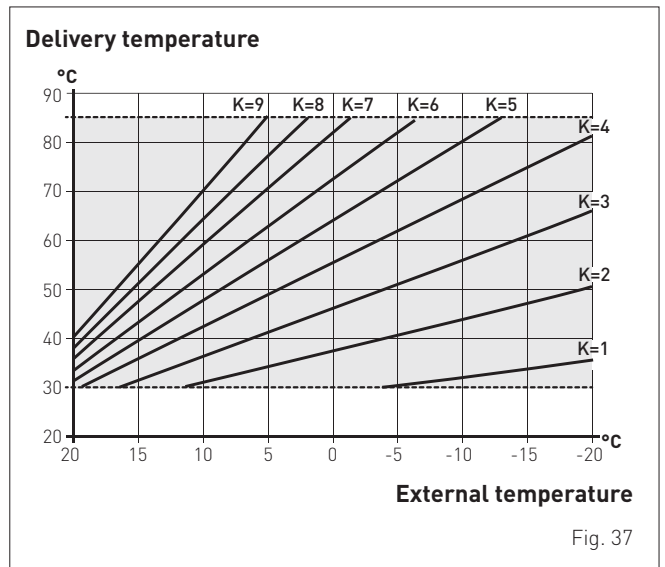



Fig. 37



### CAUTION

If there is an external sensor, turn the heating knob  until the required curve K has been selected within the range  $K=0.0 - K=9.0$  in order to select the optimal climatic curve for the system and therefore the delivery temperature based on the external temperature.



**CAUTION**

The adjustment of the Maximum Heating Temperature is managed by "PAR 14" (see paragraph "List of parameters").

**6.13.2 External timers and Room Thermostats**

The heat demand can be by a "clean contact" conforming to EN607301 connected to TA (see section "Wiring diagram") or by use of a dedicated Sime Remote Control (Home or Home Plus). The boiler will automatically detect when a dedicated control is connected.

**6.13.3 EXAMPLE of use of the command/control device on some types of heating systems**

**KEY**

- M System flow
- R System return
- Mb Hot water tank delivery
- Rb Hot water tank return
- CR Remote control
- EXP Expansion card
- SE External temperature sensor
- SBL Hot water tank sensor (SB)
- TA Room thermostat for boiler activation
- TZ1-TZ3 Room thermostat for the zone
- VZ1-VZ3 Zone valves
- RL1-RL3 Zone relays
- P1-P3 Zone pump
- SP Hydraulic separator
- IP Floor system
- VM Thermostatic mixer valve
- TSB Low temperature safety thermostat

**ONE DIRECT ZONE system and REMOTE HOT WATER TANK, external sensor and room thermostat or, alternatively, remote control.**

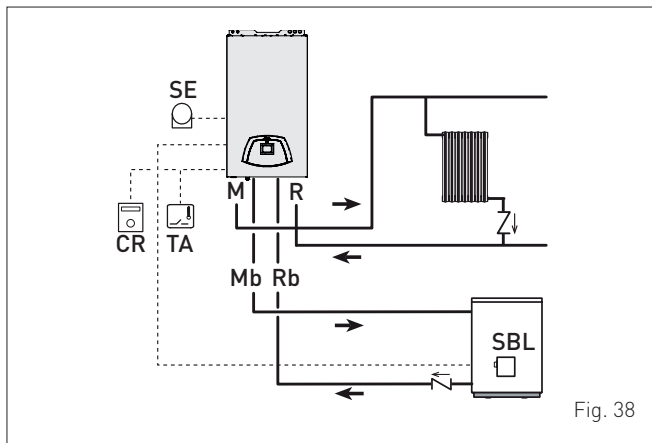


Fig. 38



**CAUTION**

The boiler is pre-arranged for connection to a remote hot water tank. To use the boiler for HEATING ONLY:

- disconnect the hot water tank sensor (SBL)
- set "PAR 02 = HYDRAULIC CONFIGURATION" to 1. This operation must only be carried out by Professionally Qualified Personnel during the boiler commissioning phase.

**ONE DIRECT ZONE system, external sensor and room thermostat.**

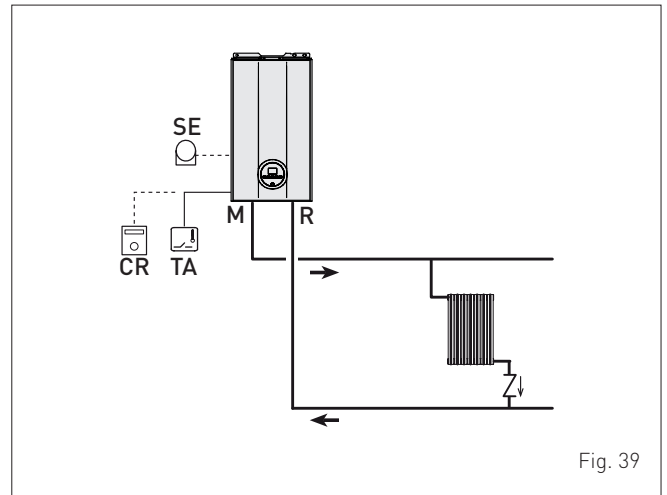


Fig. 39

**MULTI ZONE system - with pump, room thermostat and external sensor.**

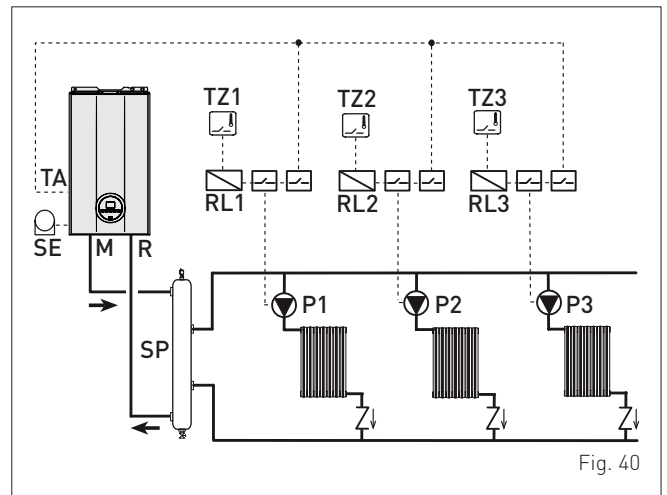


Fig. 40

**MULTI ZONE system - with zone valve, room thermostat and external sensor.**

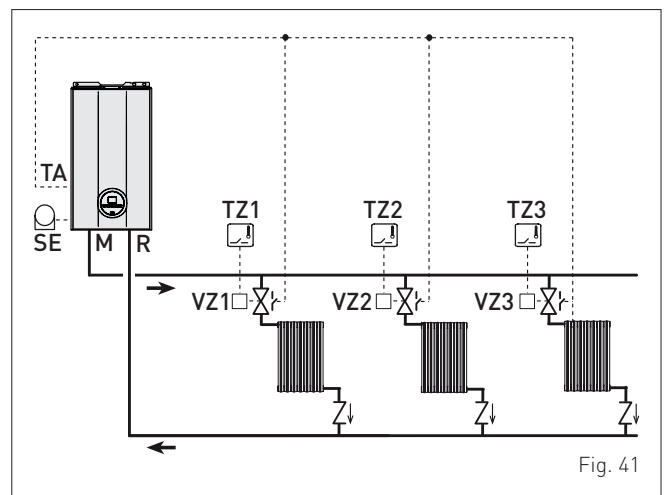


Fig. 41



**CAUTION**

Set the parameter "tS 17 = DELAY SYSTEM PUMP ACTIVATION" to allow the opening of zone valve Vz.

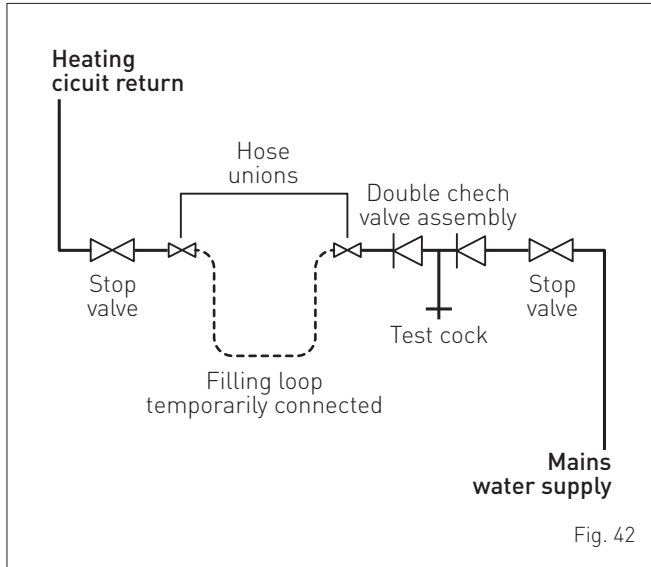
## 6.14 Refilling or emptying

Before carrying out the operations described below, make sure that the main system switch is set to "ON" in order for the display to show the pressure level in the system during refilling.

**Make sure that the operating mode is set to "Stand-by";** if this is not the case, press the button for at least 1 second until this mode has been selected.

### 6.14.1 Method of filling a sealed system

A sealed system must only be filled by a competent person using a method similar to that shown in figure below.

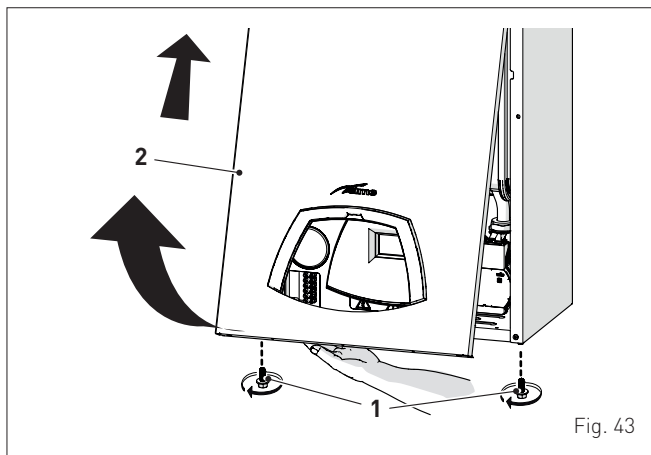


### 6.14.2 SYSTEM Filling

The **Edea T** boilers are not equipped with a filling valve which must be prearranged on the system return.

#### Remove the front panel:

- remove the two screws (1), pull the front panel (2) forwards and release it from the top by lifting it.

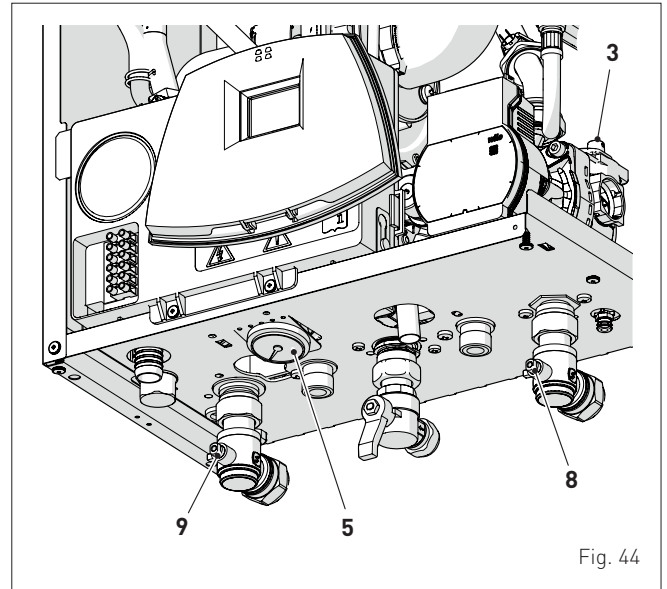


#### Domestic hot water circuit (storage tank):

- open the isolation valves of the domestic hot water circuit (if present)
- open each of the DHW taps until air is expelled
- once bleeding has been completed, close the hot water valves.

#### Heating circuit:

- open the isolation and air bleeding valves in the highest points of the system
- loosen the automatic bleed valve (3)
- open the heating circuit isolation valves (8) and (9)
- activate the filling system "**Method of filling a sealed system**", and fill the heating system until a pressure of 1-1.2 bar is shown on the pressure gauge (5)
- stop the filling system
- check that there is no air in the system by bleeding all the radiators and the circuit on the high points of the system.



**NOTE:** to completely remove all air from the system, it is recommended that this operation is repeated a number of times.

- check the pressure on the display, or on the pressure gauge, and, if necessary, top up until the correct pressure reading appears
- close the automatic bleed valve (3)
- fill the siphon by disconnecting it from the pipe or using the smoke take-off point.

Refit the front panel of the boiler hooking it on at the top, pushing it forwards and securing it with the screw (1) which was removed previously.

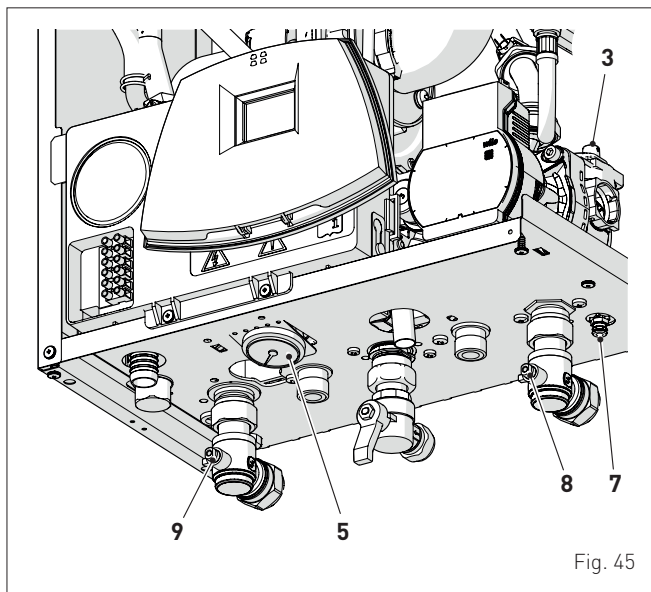
### 6.14.3 EMPTYING operations

#### Domestic hot water circuit (storage tank):

- close the domestic hot water circuit isolation valve (prearranged in installation)
- open one or more than one hot water taps and drain the domestic hot water circuit.

#### Boiler:

- loosen the automatic bleed valve (3)
- close the heating circuit isolation valves (8) and (9)
- connect a rubber hose to the boiler drain valve (7) and open it
- when it has fully emptied, close the drain valve (7)
- close the automatic bleed valve (3).



## 7 COMMISSIONING

### 7.1 Preliminary operations



#### WARNING

- Should it be necessary to access the areas in the bottom part of the appliance, make sure that the system components and pipes are not hot (risk of burning).
- Before replenishing the heating system, put on protective gloves.

Before commissioning the appliance, check that:

- the type of gas is correct for the appliance
- the gas isolation valves for the heating system and the water system are open
- the siphon has been filled.

### 7.2 Before commissioning

After having carried out the preliminary operations, proceed as follows:

- set the main system switch to "ON"

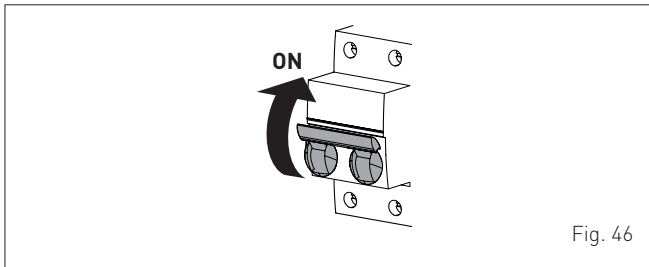
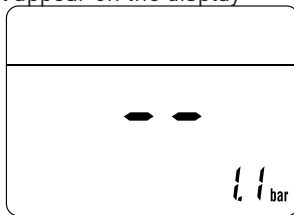
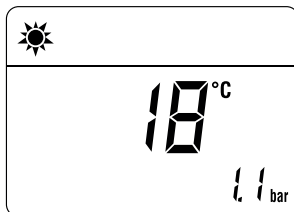


Fig. 46

- the type of gas for which the boiler has been calibrated, "nG" (methane) or "LG" (LPG,) will appear followed by the power. Finally "--" will appear on the display



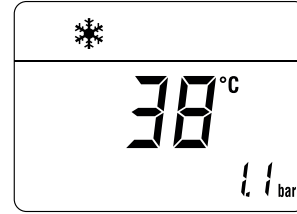
- check that the system pressure as shown when the system is cold, is between **1 and 1.2 bar**
- press the **OR** button twice to select "WINTER mode" . The value of the delivery sensor detected at that moment will appear on the display



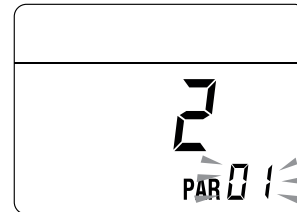
### 7.3 Parameter setting and display

To go into the parameter menu:

- from the selected mode (eg. WINTER)



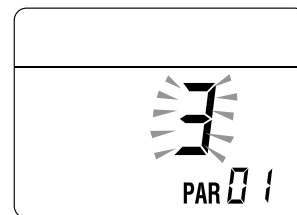
- turn dials and to the maximum
- simultaneously press the **+** and **-** buttons (~ 5 s) until "PAR 01" (parameter number) appears on the display along with the set value (0-12) (consult the table in the "Circuit Board Replacement" paragraph)



- press the button **+** to scroll up the list of parameters and then **-** to scroll down the list

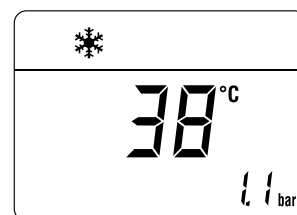
**NOTE:** holding the buttons **+** or **-** increases the speed of the scrolling movement.

- once the required parameter has been reached, press the button **OR** for approximately 3 seconds to confirm and access the set value which will then flash and can then be modified



- to modify the value in the permitted range, press the buttons **+** to increase it or **-** to decrease it
- once the required value has been reached, press the button **OR** to confirm.

Once all the desired parameter values have been modified, **simultaneously** press, for ~ 5 s, the **+** and **-** buttons to exit the parameters menu, until the home page reappears.



## 7.4 List of parameters



### WARNING

To set parameter PAR 01 correctly, check the fan model on the technical data plate and set the parameter according to the installed model:

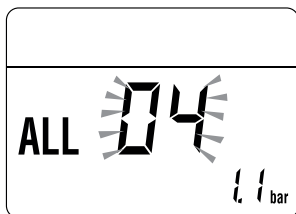
- (\*) = with fan model "ebmpapst nrg118"
- (\*\*)= with fan model "sit ng30".

Type	No.	Description	Range	U/M	Step	Default
<b>CONFIGURATION</b>						
PAR	01	Index showing boiler power in kW	0 = 25 kW (G20) ** 1 = 25 kW (G20) * 5 = 35 kW (G20) 6 = 25 kW (G31) ** 7 = 25 kW (G31) * 11 = 35 kW (G31)	-	1	0, 1, 5, 6, 7 or 11
PAR	02	Hydraulic configuration	0 = combi 1 = system 2 = N/A 3 = N/A 4=instant with solar power input 5 = open vent 6 = boiler with heat pump 9 = Hybrid Wall 10 = Hybrid Wall "T" hot water tank boiler	-	1	2
PAR	07	Thermal gradient for Hybrid Wall defrosting aid	0 .. 30	°C/min	1	10
PAR	08	External sensor value correction	-5 .. +5	°C	1	0
PAR	09	Ignition fan speed	80 .. 160	RPMx25	1	128
<b>DOMESTIC HOT WATER - HEATING</b>						
PAR	10	Boiler Antifreeze Threshold	0 .. +10	°C	1	3
PAR	11	External Sensor Antifreeze Threshold -- = Disabled	-9 .. +5	°C	1	-2
PAR	12	Heating Curve Incline	0 .. 80	-	1	20
PAR	13	Minimum Heating Temperature Adjustment	20 .. PAR 14	°C	1	20
PAR	14	Maximum Heating Temperature Adjustment	PAR 13 .. 80	°C	1	80
PAR	15	Maximum power in CH mode	0 .. 100	%	1	100
PAR	16	Heating Post-Circulation Time	0 .. 99	seconds x 10	1	3
PAR	17	Heating Pump Activation Delay	0 .. 60	seconds x 10	1	0
PAR	18	Heating Re-ignition Delay	0 .. 60	Min	1	3
PAR	19	Domestic Hot Water Modulation with Flow meter	0 = Disabled 1 = Enabled	-	1	1
PAR	20	Maximum power domestic hot water	0 .. 100	%	1	100
PAR	21	Minimum power heating/domestic hot water (premixed)	0 .. 100	%	1	0
PAR	22	Domestic hot water preheating enabling	0 = OFF 1 = ON	-	1	0
PAR	23	External relay 1 function	0 = not used 1 = remote alarm NO 2 = remote alarm NC 3 = zone valve 4 = automatic filling 5 = external request 6 = recirculation pump 7 = zone valve with OT 8 = relaunch pump 9 = boiler with heat pump (circulator)	-	-	0
PAR	24	External relay 2 function	0 = not used 1 = remote alarm NO 2 = remote alarm NC 3 = zone valve 4 = automatic filling 5 = external request 6 = recirculation pump 7 = zone valve with OT 8 = relaunch pump 9 = boiler with heat pump (circulator) 13 = management of the heat pump for Hybrid Wall	-	-	0



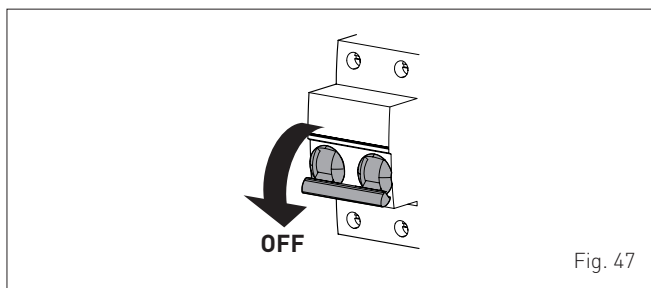
Type	No.	Description	Range	U/M	Step	Default
PAR	25	Auxiliary TA function	0 = according to TA 1 = TA Antifreeze 2 = domestic hot water disabled	-	1	0
PAR	26	Zone Valve / Pump Relaunch Delay	0 .. 99	Min	1	1
PAR	28	DHW activation delay with solar power	0 .. 30	Min	1	0
PAR	29	Anti-legionella Function (Only hot water tank) -- = Disabled	50 .. 80	-	1	--
PAR	30	Maximum domestic hot water temperature	10 .. 67	°C	1	60
PAR	31	Long chimney	0 .. 50	-	1	0
PAR	35	Digital / analogue Pressure switch	0 = water pressure switch 1 = water pressure transducer (with ALL 09) 2 = water pressure transducer (without ALL 09)	-	1	1
PAR	39	Modulating pump minimum speed	20 .. 100	%	1	30
PAR	40	Modulating Pump Speed	-- = No modulation AU = Automatic 30 .. 100	%	10	AU
PAR	41	ΔT Modulating pump delivery/Return	10 .. 40	°C	1	20
PAR	42	Select heat pump or boiler convenience (only if PAR 02 = 6)	-20 .. 30	°C	-	5
PAR	43	Heat pump boiler aid activation delay (only if PAR 02 = 6)	1 .. 60	Min	-	3
PAR	44	Hybrid Wall heat pump delivery safety device	0 .. 80	°C	1	55
PAR	47	System pump forcing (only in winter mode)	0 = Disabled 1 = Enabled	-	1	0
<b>RESET</b>						
PAR	48	INST Parameter set to default	0 .. 1	-	-	0

In the event of a fault/malfunction the message "ALL" will appear on the display with the alarm number eg. "ALL 04" (Domestic Hot Water Sensor Fault).



Before repairing the fault:

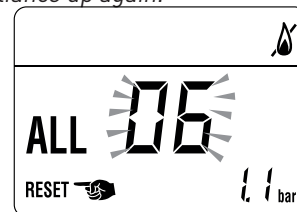
- disconnect the appliance from the mains power by setting the main switch to "OFF"



- as a precautionary measure, close the gas isolation valve.

Resolve the problem and start-up the boiler again.

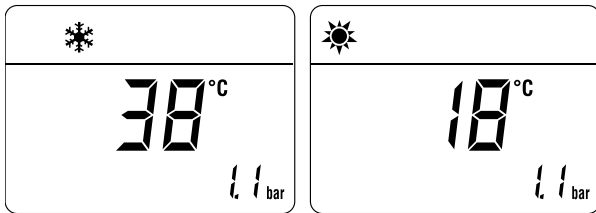
**NOTE:** after having repaired the fault, when the alarm number appears on the display together with the message **RESET** (see figure), press the button **OR** for approximately 3 seconds to start the appliance up again.



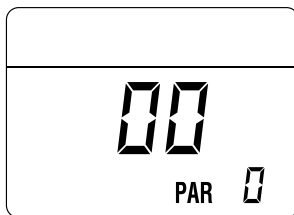
## 7.5 Display of operating data and counters

Once the boiler is operating a qualified technician can view the operating data and the counters as follows: >

From the operating screen in the mode enabled at that moment (WINTER ❄️ or SUMMER ☀️):

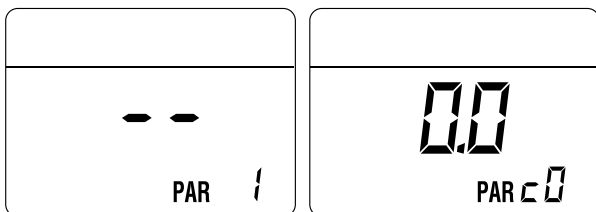


- turn the heating and hot water knobs to the minimum
- simultaneously **press**, for more than 3 s, the **+** and **-** buttons.

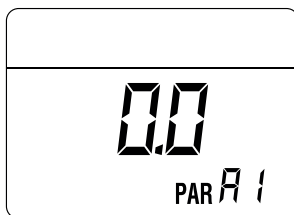


From this point, the technician has 2 options:

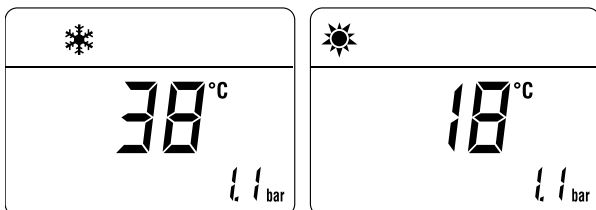
- pressing the **+** button will scroll the list of **"information (PAR)"** and of the **"counters (PARc)"**. The scrolling sequence is as follows



- pressing the **-** button will show the **"alarms occurred" (PARa)**



- move within the displayed items using the **-** or **+** buttons
- once the desired values have been displayed, to exit the menu press the button until the home page appears.



**TABLE OF INFORMATION DISPLAYED**

Type	No.	Description	Range	U/M	Step
PAR	00	SW version			
PAR	01	External temperature sensor	- 9 .. 99	°C	1
PAR	02	Delivery sensor temperature (SM)	- 9 .. 99	°C	1
PAR	03	Exhaust temperature (SF)	- 9 .. 99	°C	1
PAR	04	Domestic hot water sensor temperature (SS)	- 9 .. 99	°C	1
PAR	05	AUX auxiliary sensor	- 9 .. 99	°C	1
PAR	06	Actual heating SET temperature	Par. 13 ... Par. 14	°C	1
PAR	07	Power level	0 .. 99	%	1
PAR	08	DHW Flow rate	0 .. 99	l/min	0.1
PAR	09	Water pressure transducer reading	0 .. 99	bar	0.1
PAR	10	Actual speed fan number	0 .. 99	RPM x 100	1

**TABLE OF COUNTER DISPLAYED**

Type	No.	Description	Range	U/M	Step
PAR	c0	total no. of boiler operating hours	0 .. 99	h x 1000	0.1; from 0.0 to 9.9; 1; from 10 to 99
PAR	c1	total no. of burner operating hours	0 .. 99	h x 1000	0.1; from 0.0 to 9.9; 1; from 10 to 99
PAR	c2	total no. of burner ignitions	0 .. 99	h x 1000	0.1; from 0.0 to 9.9; 1; from 10 to 99
PAR	c3	total no. faults	0 .. 99	x 1	1
PAR	c4	total no. of times installer parameters "ALL" accessed	0 .. 99	x 1	1
PAR	c5	total no. of times OEM parameters accessed	0 .. 99	x 1	1
PAR	c6	Countdown to the next service	1 .. 199	months	1

**TABLE OF ACTIVATED ALARMS/FAULTS**

Type	No.	Description
PAR	A0	Last activated alarm/fault
PAR	A1	Last but one activated alarm/fault
PAR	A2	Third from last activated alarm/fault
PAR	A3	Previous activated alarm/fault
PAR	A4	Previous activated alarm/fault
PAR	A5	Previous activated alarm/fault
PAR	A6	Previous activated alarm/fault
PAR	A7	Previous activated alarm/fault
PAR	A8	Previous activated alarm/fault
PAR	A9	Previous activated alarm/fault

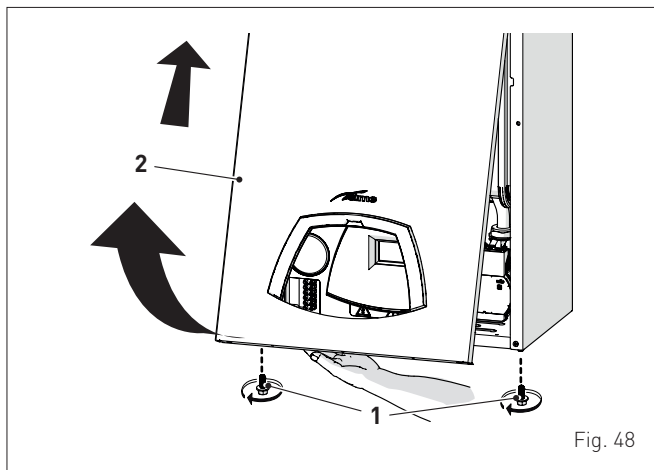
## 7.6 Checks

### 7.6.1 Chimney sweep function

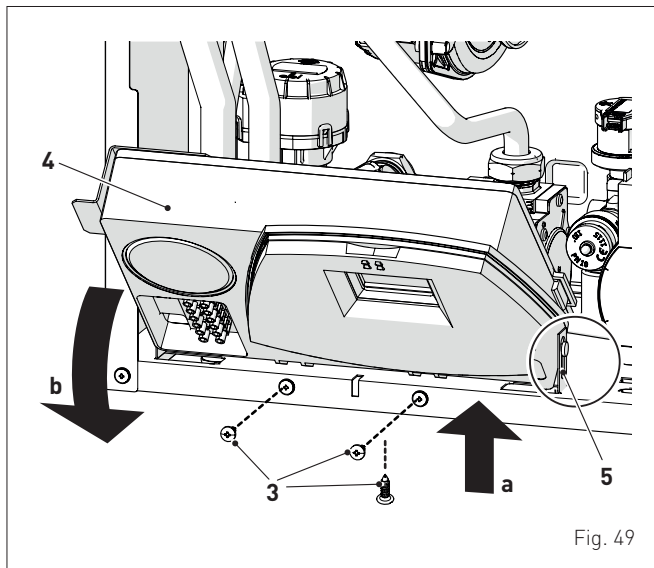
The chimney sweeper function is used by the qualified maintenance technician to check the mains gas pressure, detect the combustion parameters and to measure the combustion efficiency. A combustion analysis should not be conducted until a satisfactory inlet working pressure test has been completed.

This function lasts 15 minutes and is activated by proceeding as follows:

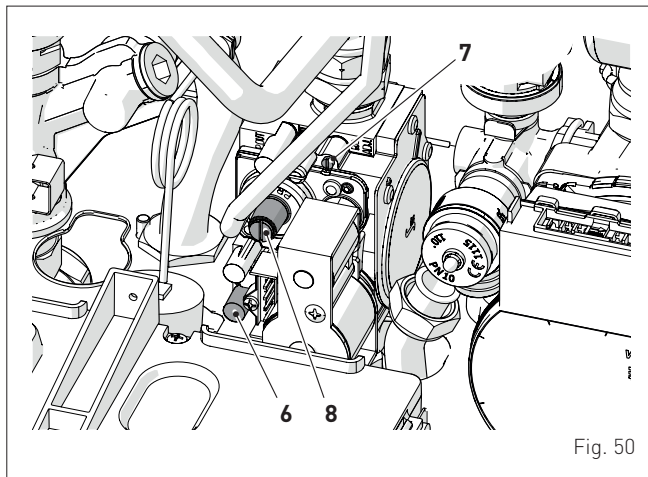
- if the panel (2) has not already been removed, remove the two screws (1), pull the front panel (2) forwards and release it from the top by lifting it



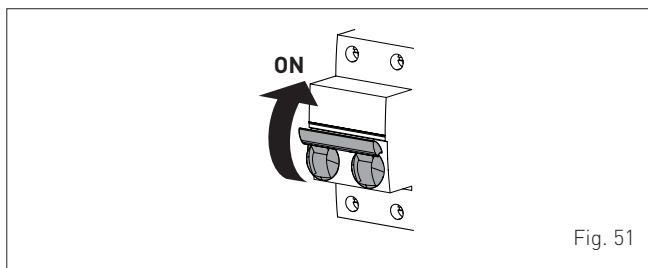
- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal



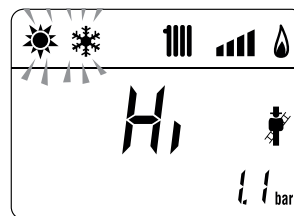
- isolate the gas cock
- loosen the screw of the "gas mains pressure point" (6) and connect a pressure gauge



- open the gas cock
- power the boiler by setting the main switch to "ON"



- press the button **OR** for at least 1 second until "SUMMER" mode has been selected
- simultaneously press the **OR** and **+** buttons, for ~ 10 s, to start the procedure, until "Hi" appears steady on the display and the and symbols flash



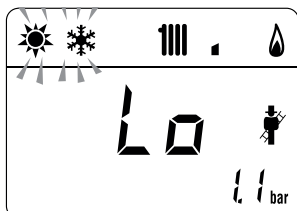
- press the button **+** to make the boiler operate at maximum power "Hi" and check that the mains gas pressure value on the pressure gauge is correct.
- check that the gas supply pressure is as shown in the table below

Type of gas	G20	G31
Pressure (mbar)	20	37

- measure the CO<sub>2</sub> and verify that it corresponds to the value appearing in the table. If not, turn the "CO<sub>2</sub> adjuster screw (splitter)" (7) of the gas valve until you obtain the CO<sub>2</sub> value of the table. Make any other necessary measurements.

Edea T	CO <sub>2</sub> (G20)	CO <sub>2</sub> (G31)
	Q <sub>max</sub> (% ± 0,2)	Q <sub>max</sub> (% ± 0,2)
25	9,2	10,2
35	9,2	10,2

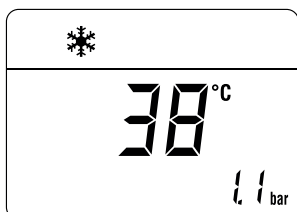
- press the button to make the boiler operate at minimum power "Lo". The message "Lo" will appear on the display together with the flashing symbols and .



- measure the CO<sub>2</sub> and verify that it corresponds to the value appearing in the table. If not, turn the "CO<sub>2</sub> adjuster screw (offset)" (8) of the gas valve until you obtain the CO<sub>2</sub> value of the table. Make any other necessary measurements.

Edea T	CO <sub>2</sub> (G20)	CO <sub>2</sub> (G31)
	Q <sub>min</sub> (% ± 0,2)	Q <sub>min</sub> (% ± 0,2)
25	9,2	10,2
35	9,0	10,0

- press the button to exit the "Chimney sweeper Procedure". The boiler water delivery temperature will appear on the display



- disconnect the pressure gauge, carefully close the pressure point (6), test for gas tightness, put the control panel back to the original position and refit the front panel (2). Now conduct a flue gas analysis as detailed in APPENDIX 2.

## 7.7 Gas conversion

The **Edea T** models can be transformed from G20 to G31-based operation by installing the "Nozzle kit for G31", which must be ordered separately from the boiler, and by editing "PAR 01" as specified in the table.

Edea T	G31	
	Kit code	PAR 01
25 (*)	5185153	6 or 7
35	5185155	11

(\*) To set parameter PAR 01 correctly, check the fan model on the technical data plate and set the parameter according to the installed model as described in the paragraph "List of parameters".



### CAUTION

Only qualified persons in compliance with the instructions contained in this manual are permitted to install, commission and maintain this boiler. The installation of this boiler must be in accordance with the relevant requirements of the current Gas Safety (installation and use) Regulation 1998, the local building regulations, and I.E.E. wiring regulations.



### WARNING

Before carrying out any interventions described:

- isolate the power supply
- isolate the gas cock
- avoid contact with any hot surfaces.

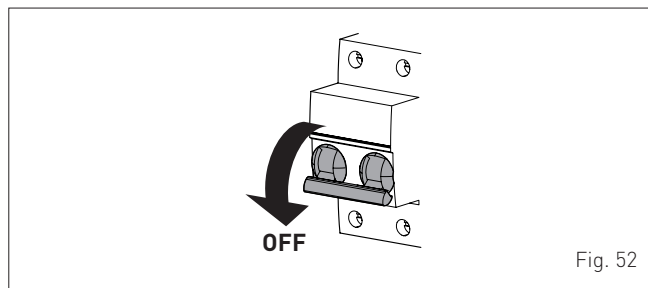


Fig. 52

### 7.7.1 Preliminary operations

To carry out the conversion:

- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

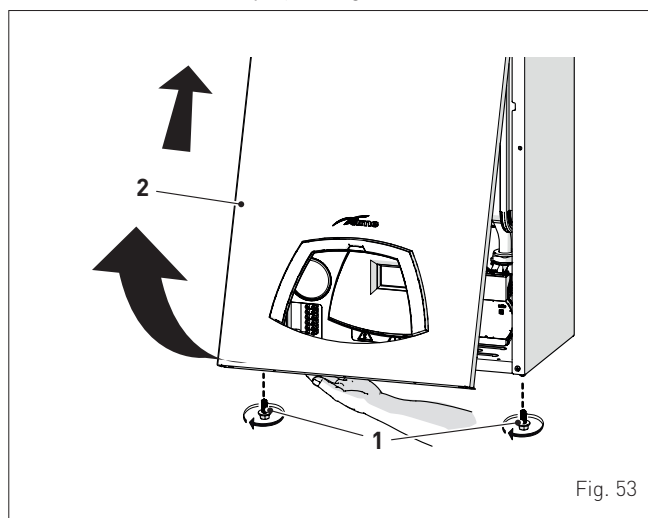


Fig. 53

- loosen the eight screws (3) and remove the cover (4)
- unscrew the screw (5) and remove the plate (6)

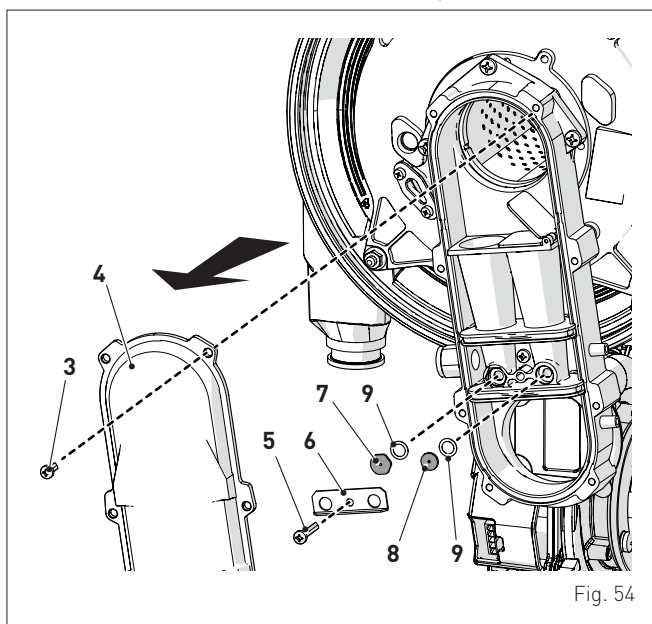


Fig. 54

- replace the two distinct nozzles (7) and (8) and the related O-ring (9) with those provided in the conversion kit. Having two distinct nozzle heads avoids them being inverted during assembly
- refit the plate (6) and cover (4) following the above instructions in reverse order
- replace the smoke outlet diaphragm, if present in the transformation kit, as illustrated in "Fig. 27"
- access the installer parameters and modify parameter PAR 01 on the basis of the power and gas used, as indicated in the table in the "Circuit Board Replacement" paragraph

- perform the "Chimney sweep function" to correctly set the CO<sub>2</sub> of the boiler with the new gas and then mount the front panel (2) back on, securing it with the two screws (1).

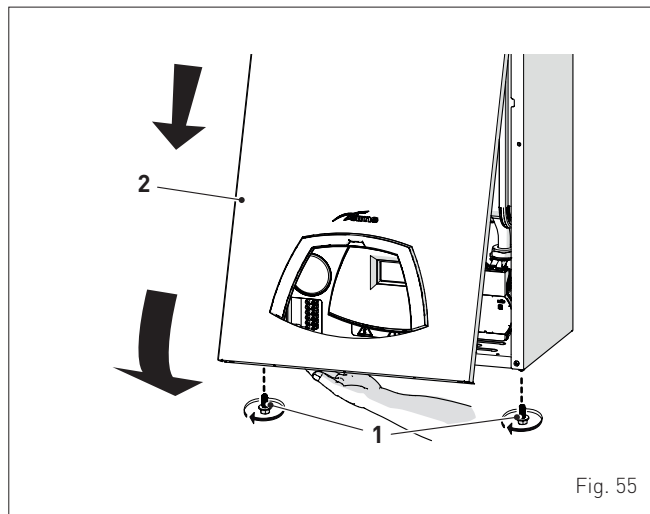


Fig. 55



**CAUTION**

Conversion may ONLY be carried out by Professionally Qualified Personnel.



**CAUTION**

If the gas supply is changed from G20 to G31, mark the box on the TECHNICAL DATA PLATE.

G31 - 37 mbar



## 8 MAINTENANCE

### 8.1 Servicing

As a condition of the warranty and to ensure correct operation and efficiency, it is important that the boiler is serviced every 12 months, within 30 days of the anniversary of the installation date ensure the required information is recorded in the Gas Boiler System Service Interval Record (Benchmark).



#### CAUTION

- Only qualified persons in compliance with the instructions contained in this manual are permitted to install, commission and maintain this boiler. Suitable protective safety equipment **MUST be worn**. The installation of this boiler must be in accordance with the relevant requirements of the current Gas Safety (installation and use), the local building regulations, and I.E.E. wiring regulations.
- Make sure that the system components and pipes are not hot (risk of burning).



#### WARNING

Before carrying out any interventions described:

- isolate the power supply
- isolate the gas cock
- avoid contact with any hot surfaces.

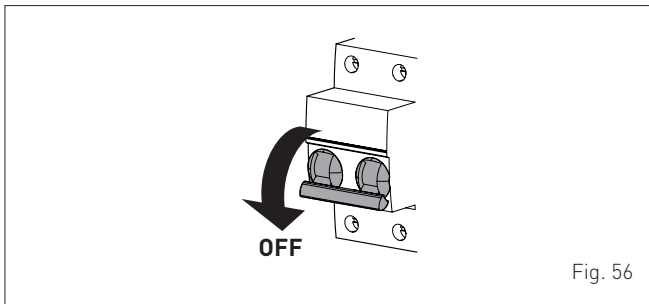


Fig. 56

### 8.2 External cleaning

#### 8.2.1 Cleaning the case

When cleaning the cladding, use a cloth dampened with soap and water or alcohol for stubborn marks.



#### DO NOT

Do not use abrasive products.

### 8.3 Burner Inspection

#### 8.3.1 Burner access

To access the internal parts of the boiler:

- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

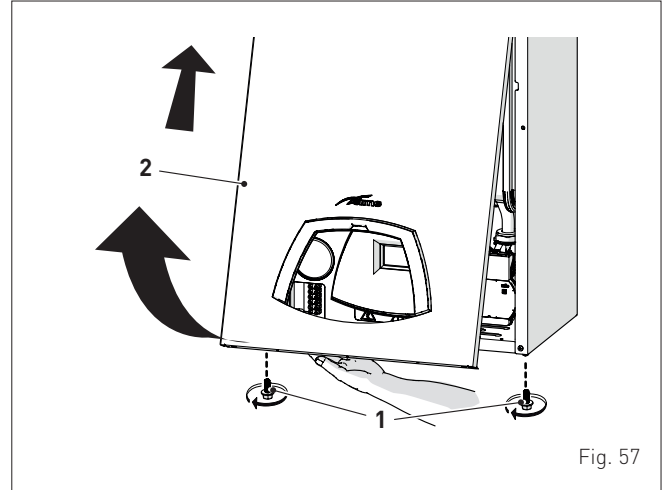


Fig. 57

- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal

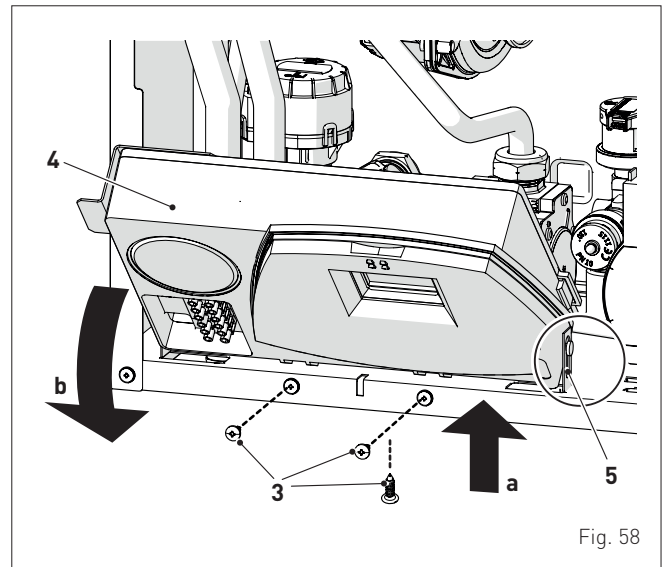


Fig. 58

- loosen the clips (6) and extract the air inlet pipe (7)
- loosen both the ring nuts (8)
- extract the connectors (9) from the fan and disconnect the electrode cable (10)

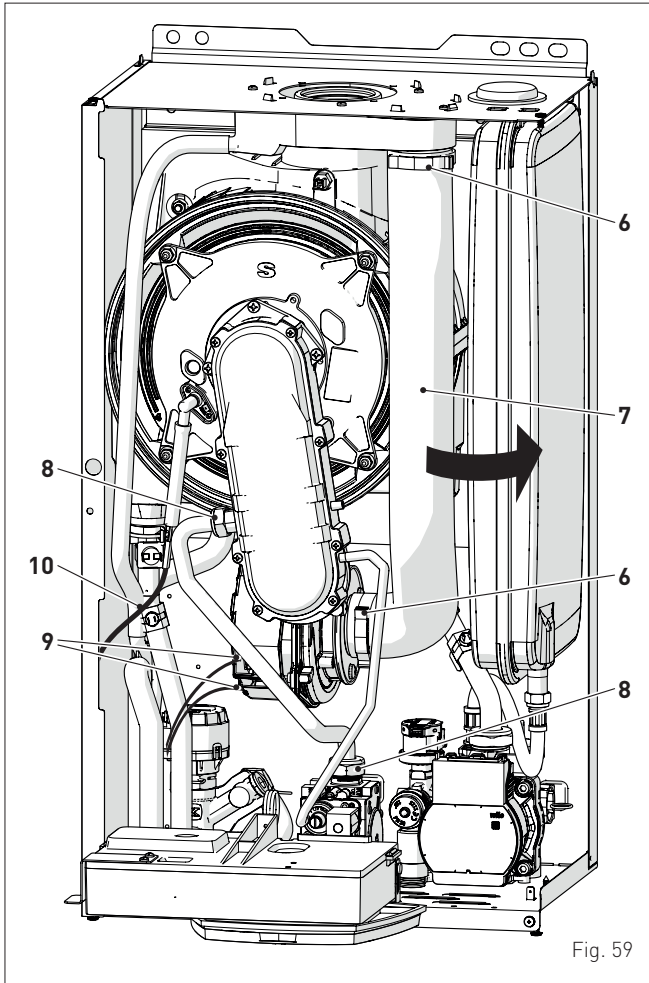


Fig. 59

- Unscrew the four nuts (11) securing the combustion chamber door (12)
- pull the fan-sleeve-door assembly (13) forwards and remove it.

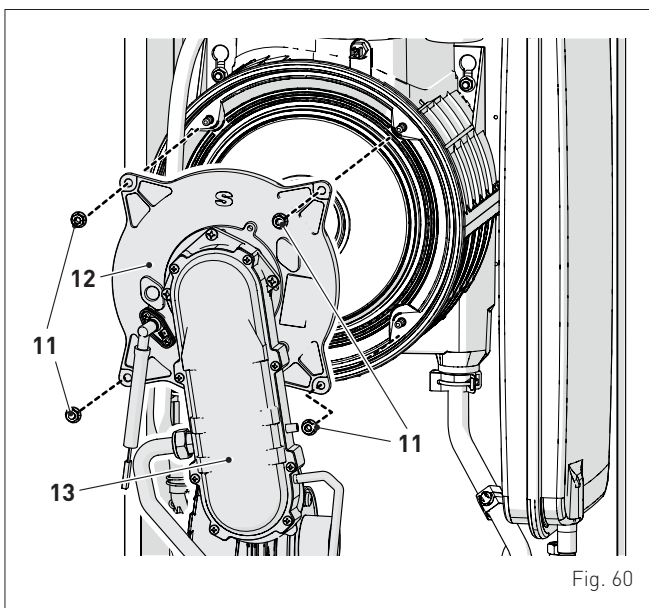


Fig. 60



**CAUTION**

Work carefully when removing the assembly (13) to prevent any damage occurring to the internal insulation of the combustion chamber and the door seal.

**8.3.2 Cleaning the burner and the combustion chamber**

The combustion chamber and the burner do not require any particular maintenance. Simply brush them with a soft brush.

**8.3.3 Checking the ignition/detection electrode**

Check the state of the ignition/detection electrode and replace if necessary. Check the measurements as per the drawing whether the ignition/detection electrode is replaced or not.



**CAUTION**

(\*) The positions must be checked with the electrode mounted on the door (12) of the combustion chamber.

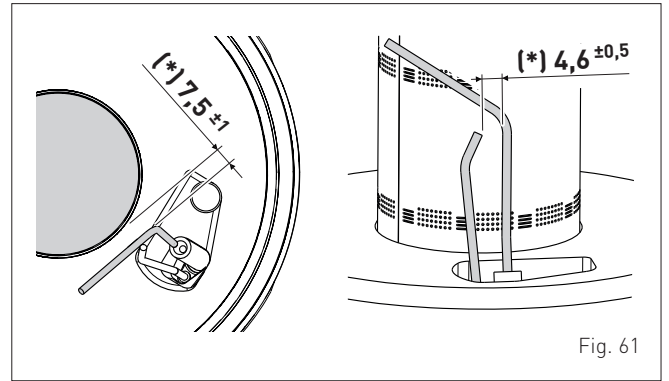


Fig. 61

**8.3.4 Final operations**

After having cleaned the combustion chamber and the burner:

- remove any carbon residue
- check that the seal and the insulation of the door (12) to the combustion chamber are undamaged. Replace if necessary
- refit the assembly by carrying out the same operations for removal but in the reverse order and tighten the screws (11) of the door to the combustion chamber
- reconnect the connections to the fan and the electrode.

**8.4 Checks**

**8.4.1 Checking the flue**

Check that the flue is undamaged and complete.

**8.4.2 Checking the expansion vessel pressure**

It is recommended that the expansion vessel on the water side is drained and that the prefilling pressure is not less than **1 bar**. If this is not the case, pressurize it to the correct value (see section "Expansion vessel").

**8.4.3 System Inhibitor concentration**

Check and if required correct the inhibitor concentration.

Once the checks described above have been completed:

- refill the boiler as described in section "SYSTEM Filling"
- check that the siphon has been filled correctly
- Start the boiler, activate the "Chimney sweep function" and carry out combustion analysis as detailed in Appendix 2
- refit the front panel securing it with the two screws which were removed previously.

## 8.5 Circuit Board Replacement

Should the circuit board be replaced, the engineer **MUST set the parameters** as indicated in this table and in the sequence shown.

Type	No.	Description	Setting for Edea T	
			25 (*)	35
PAR	01	Index showing for boiler power in kW	G20 G31	0 or 1 5 6 or 7 11
PAR	02	Hydraulic configuration 0 = combi 1 = system 2 = N/A 3 = N/A 4=instant with solar power input 5 = open vent 6 = boiler with heat pump		2

(\*) To set parameter PAR 01 correctly, check the fan model on the technical data plate and set the parameter according to the installed model as described in the paragraph "**List of parameters**".

To enter "**Parameter setting and display**" refer to the indications provided in the specific section.

## 8.6 Malfunction codes and possible solutions

### LIST OF MALFUNCTION/FAULT ALARMS


Type	No.	Fault	Solution
ALL	02	Low water pressure in system	- Restore pressure - Check for any leaks in the system
ALL	03	High water pressure in system	- Empty the system via the drain valve on the hydraulic assembly and bring the pressure to approximately 1.2 bar
ALL	04	Domestic hot water sensor fault (return sensor fault for T models)	- Check connections - Check the sensor is working
ALL	05	Delivery sensor (SM) fault	- Check connections - Check the sensor is working
ALL	06	No flame detection	- Check the integrity of the electrode and check that it is not grounded - Check gas availability and pressure - Check the operation of the gas valve
ALL	07	Safety thermostat intervention	- Check the thermostat connections - Deaerate the system - Check the bleed valve - Replace the thermostat - Check that the pump impeller is not blocked
ALL	08	Fault in the flame detection circuit	- Check the integrity of the electrode and check that it is not grounded - Check the operation of the gas valve
ALL	09	No water circulating in the system	- Check the rotation of the pump rotor - Check the electrical connections - Replace the pump

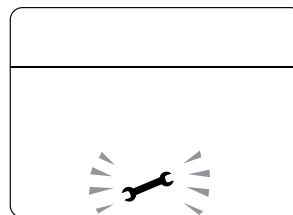
Type	No.	Fault	Solution
ALL	10	Auxiliary sensor fault	- Check PAR 02 "hydraulic configuration" - Check the electrical connection
ALL	11	Gas valve modulator disconnected	- Check the electrical connection
ALL	12	Domestic hot water sensor fault in tank mode	- Set the parameter PAR 04 (Combustion configuration) to 0
ALL	13	Exhaust sensor (SF) intervention	- Check the sensor is working - Replace the smoke probe
ALL	14	Exhaust sensor (SF) fault	- Replace the smoke probe - Check the electrical connection of the smoke probe - Contact the Technical Assistance Centre
ALL	15	Fan check cable disconnected	- Check the connection cable between the fan and the board
ALL	18	Condensate level fault	- Check for any clogging in the pipe which takes the condensate to the siphon - Check that the siphon is not clogged
ALL	28	Maximum number of consecutive resets reached (6)	- Wait 1 hour and try unblocking the board again - Contact the Technical Assistance Centre
ALL	30	Return sensor fault (boiler sensor fault for T models)	- Replace the return probe - Check parameters - Contact the Technical Assistance Centre
ALL	37	Fault due to low network voltage	- Check the voltage - Contact your network provider
ALL	40	Incorrect supply frequency detected	- Contact your network provider
ALL	41	Flame loss more than 6 consecutive times	- Check the ignition/detection electrode - Check the gas supply (open valve) - Check mains gas pressure
ALL	42	Button fault	- Check that buttons are working
ALL	43	Open Therm communication fault	- Check the OT electric connection
ALL	44	Gas valve timeout fault without flame	- Check gas valve and board
ALL	72	Incorrect positioning of the delivery sensor	- Check delivery sensor operation and position
ALL	80	Fault on the valve control logic line/valve cable damaged	- Check gas valve and board
ALL	88	Internal error (board component protection)	- Check the board is working - Replace board
ALL	95	Flame signal micro interruptions error	- Check electrode - Check board - Check electric power supply - Check gas calibration



Type	No.	Fault	Solution
ALL	98	SW error, board start-up	- Contact the Technical Assistance Centre
ALL	99	General board error	- Contact the Technical Assistance Centre
-	-	Frequent relief valve intervention	- Check circuit pressure - Check expansion vessel
-	-	Limited production of domestic hot water	- Check the diverter valve - Check domestic hot water circuit valve

### 8.6.1 Maintenance request

When it is time to perform maintenance on the boiler, the  symbol shows on the display.



Contact the technical assistance service to organise the necessary work.

## Benchmark Commissioning & Warranty Validation Service Record

It is a requirement that the boiler is installed and commissioned to the manufacturers' instructions and the data fields on the commissioning checklist completed in full.

To instigate the boiler warranty the boiler needs to be registered with the manufacturer within one month of the installation. The warranty rests with the end-user (consumer), and they should be made aware it is ultimately their responsibility to register with the manufacturer, within the allotted time period.

It is essential that the boiler is serviced in line with the manufacturers' recommendations, at least annually. This must be carried out by a competent Gas Safe registered engineer. The service details should be recorded on the Benchmark Service and Interim Boiler Work Record and left with the householder. Failure to comply with the manufacturers' servicing instructions and requirements will invalidate the warranty.



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**This Commissioning Checklist is to be completed in full by the competent person who commissioned the boiler as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.**

Failure to install and commission according to the manufacturers' instructions and complete this Benchmark Commissioning Checklist will invalidate the warranty. This does not affect the customer's statutory rights.

\* All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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## GAS BOILER SYSTEM COMMISSIONING CHECKLIST & WARRANTY VALIDATION RECORD

Address:									
Boiler make and model:									
Boiler serial number:									
Commissioned by (PRINT NAME):					Gas Safe registration number:				
Company name:					Telephone number:				
Company email:					Company address:				
									Commissioning date:
Heating and hot water system complies with the appropriate Building Regulations? <span style="float: right;">Yes</span>									
Optional: Building Regulations Notification Number (if applicable):									
Time, temperature control and boiler interlock provided for central heating and hot water <span style="float: right;">Yes</span>									
Boiler Plus requirements (tick the appropriate box(s))									
Boiler Plus option chosen for combination boiler in ENGLAND					Weather compensation		Smart thermostat with automisation and optimisation		
					Load compensation		Flue Gas Heat Recovery		
Time and temperature control to hot water		Cylinder thermostat and programmer/timer				Combination boiler			
Zone valves		pre-existing		Fitted		Not required			
Thermostatic radiator valves		pre-existing		Fitted		Not required			
Automatic bypass to system		pre-existing		Fitted		Not required			
Underfloor heating		pre-existing		Fitted		Not required			
Water quality									
The system has been flushed, cleaned and a suitable inhibitor applied upon final fill, in accordance with BS7593 and boiler manufacturers' instructions									Yes
What system cleaner was used?					Brand:		Product:		
What inhibitor was used?					Brand:		Product:		
Primary water system filter		pre-existing		Fitted		Not required			
CENTRAL HEATING MODE measure and record (as appropriate)									
Gas rate (for combination boilers complete DHW mode gas rate)				m <sup>3</sup> /hr		or		ft <sup>3</sup> /hr	
Central heating output left at factory settings?				Yes				No	
If no, what is the maximum central heating output selected?				kW					
Dynamic gas inlet pressure				mbar					
Central heating flow temperature				°C					
Central heating return temperature				°C					
System correctly balanced/rebalanced?				Yes					
COMBINATION BOILERS ONLY									
Is the installation in a hard water area (above 200ppm)?				Yes				No	
Water scale reducer/softener		pre-existing		Fitted		Not required			
What type of scale reducer/softener has been fitted?				Brand:		Product:			
Water meter fitted?				Yes				No	
If yes- DHW expansion vessel		pre-existing		Fitted		Not required			
Pressure reducing valve		pre-existing		Fitted		Not required			
DOMESTIC HOT WATER MODE Measure and record									
Gas rate				m <sup>3</sup> /hr		or		ft <sup>3</sup> /hr	
Dynamic gas inlet pressure at maximum rate				mbar					
Cold water inlet temperature				°C					
Hot water has been checked at all outlets				Yes		Temperature		°C	
CONDENSATE DISPOSAL									
The condensate drain has been installed in accordance with the manufacturers' instructions and/or BS5546/BS6798									Yes
Point of termination				Internal		External (only where internal termination impractical)			
Method of disposal				Gravity		Pumped			
ALL INSTALLATIONS									
Record the following		At max rate:		CO ppm		CO <sub>2</sub> %		CO/CO <sub>2</sub> Ratio	
		At min rate (where possible)		CO ppm		CO <sub>2</sub> %		CO/CO <sub>2</sub> Ratio	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?									Yes
The operation of the boiler and system controls have been demonstrated to and understood by the customer									Yes
The manufacturers' literature, including Benchmark Checklist and Service Record, has been explained and left with the customer									Yes
Commissioning Engineer's signature									
Customer's signature (To confirm satisfactory demonstration and receipt of manufacturers' literature)									

\* All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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## SERVICE & INTERIM BOILER WORK RECORD

It is recommended that your boiler and heating system are regularly serviced and maintained, in line with manufacturers' instructions, and that the appropriate service / interim work record is completed.

### Service provider

When completing a service record (as below), please ensure you have carried out the service as described in the manufacturers' instructions. Always use the manufacturers' specified spare parts.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:
Engineer name:		Company name:			
Telephone N°:		Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?					yes
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h		
Were parts fitted? <small>delete as appropriate</small>		Yes	No		
Parts fitted:					
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes n/a
Comments:					
Signature:					

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

\* All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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## SERVICE & INTERIM BOILER WORK RECORD

It is recommended that your boiler and heating system are regularly serviced and maintained, in line with manufacturers' instructions, and that the appropriate service / interim work record is completed.

### Service provider

When completing a service record (as below), please ensure you have carried out the service as described in the manufacturers' instructions. Always use the manufacturers specified spare parts.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

SERVICE/INTERIM WORK ON BOILER <small>delete as appropriate</small>					Date:	
Engineer name:			Company name:			
Telephone N°:			Gas Safe registration N°:			
Max rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Min rate	CO	ppm	CO <sub>2</sub>	%	CO/CO <sub>2</sub>	
Where possible, has a flue integrity check been undertaken in accordance with manufacturers' instructions, and readings are correct?*					yes	
Gas rate:	m <sup>3</sup> /h	OR	ft <sup>3</sup> /h			
Were parts fitted? <small>delete as appropriate</small>			Yes	No		
Parts fitted:						
System inhibitor concentration has been checked and appropriate action taken, in accordance with BS 7593 and boiler manufacturers' instructions. *					yes	n/a
Comments:						
Signature:						

\*A System inhibitor efficacy test is required on every annual service in accordance with the manufacturers' instructions and BS 7593. It is only acceptable to not have undertaken this if the service engineers attendance visit was in between annual services to attend a non-water facing component.

\* All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

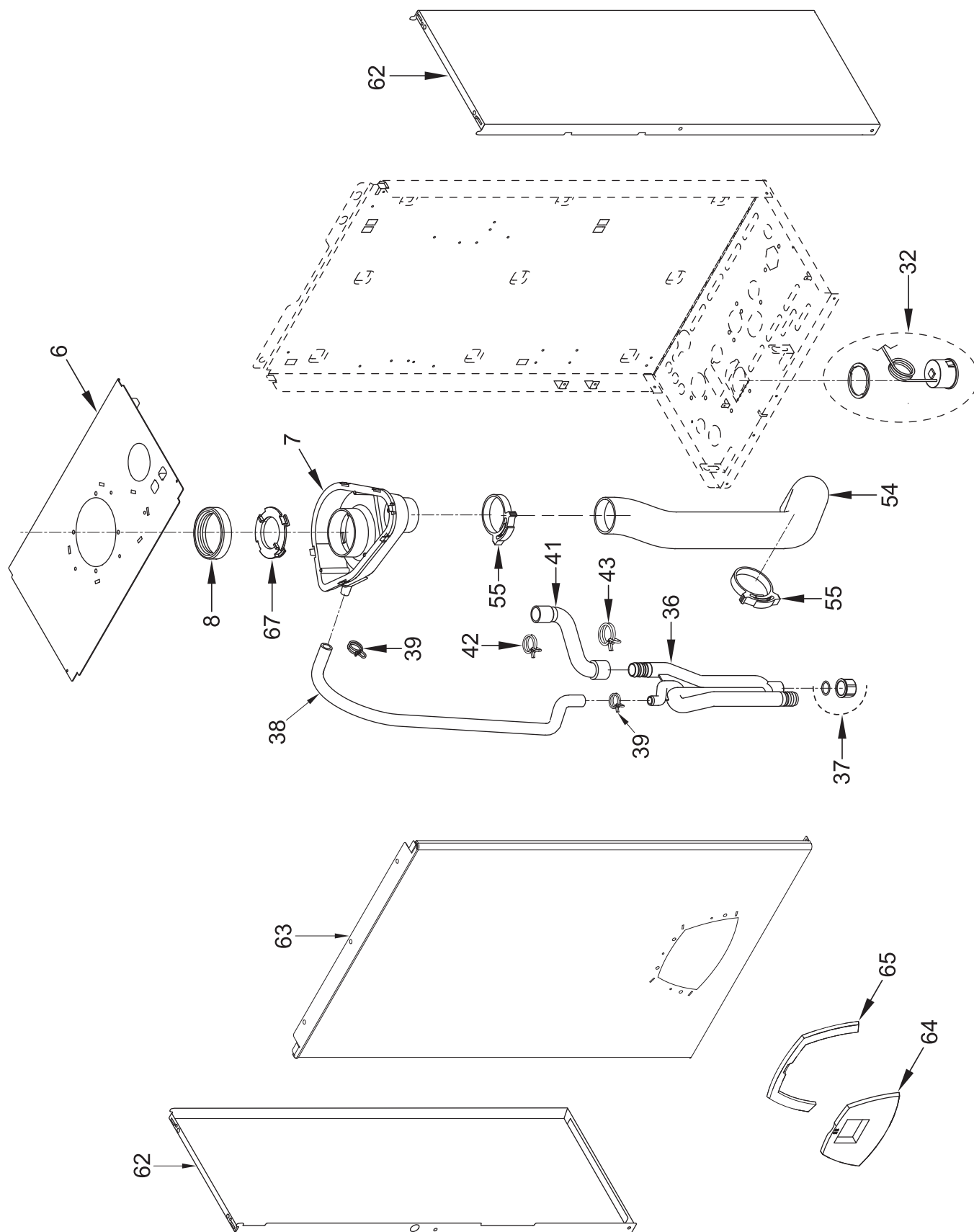
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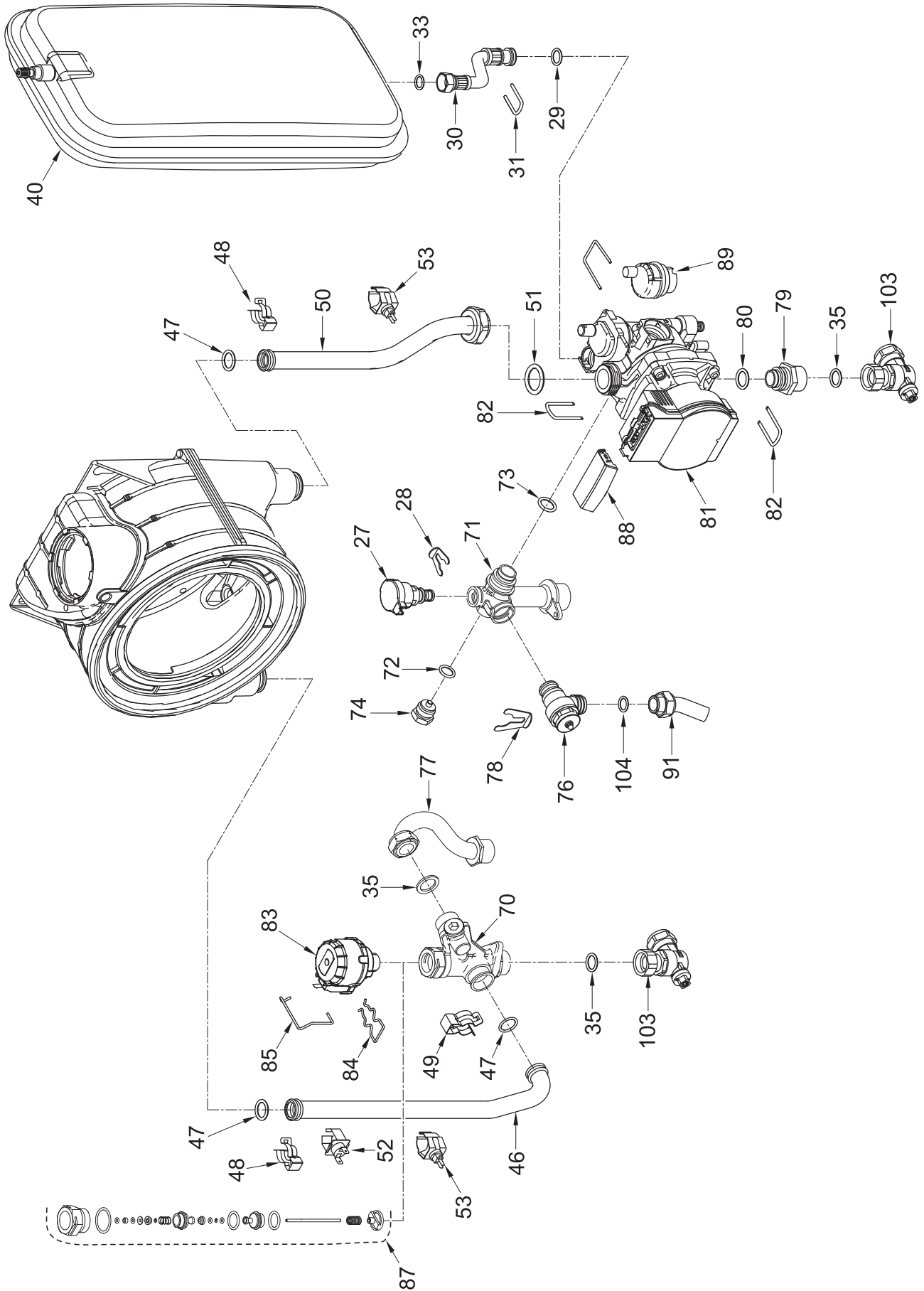
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# 9 EXPLODED VIEWS

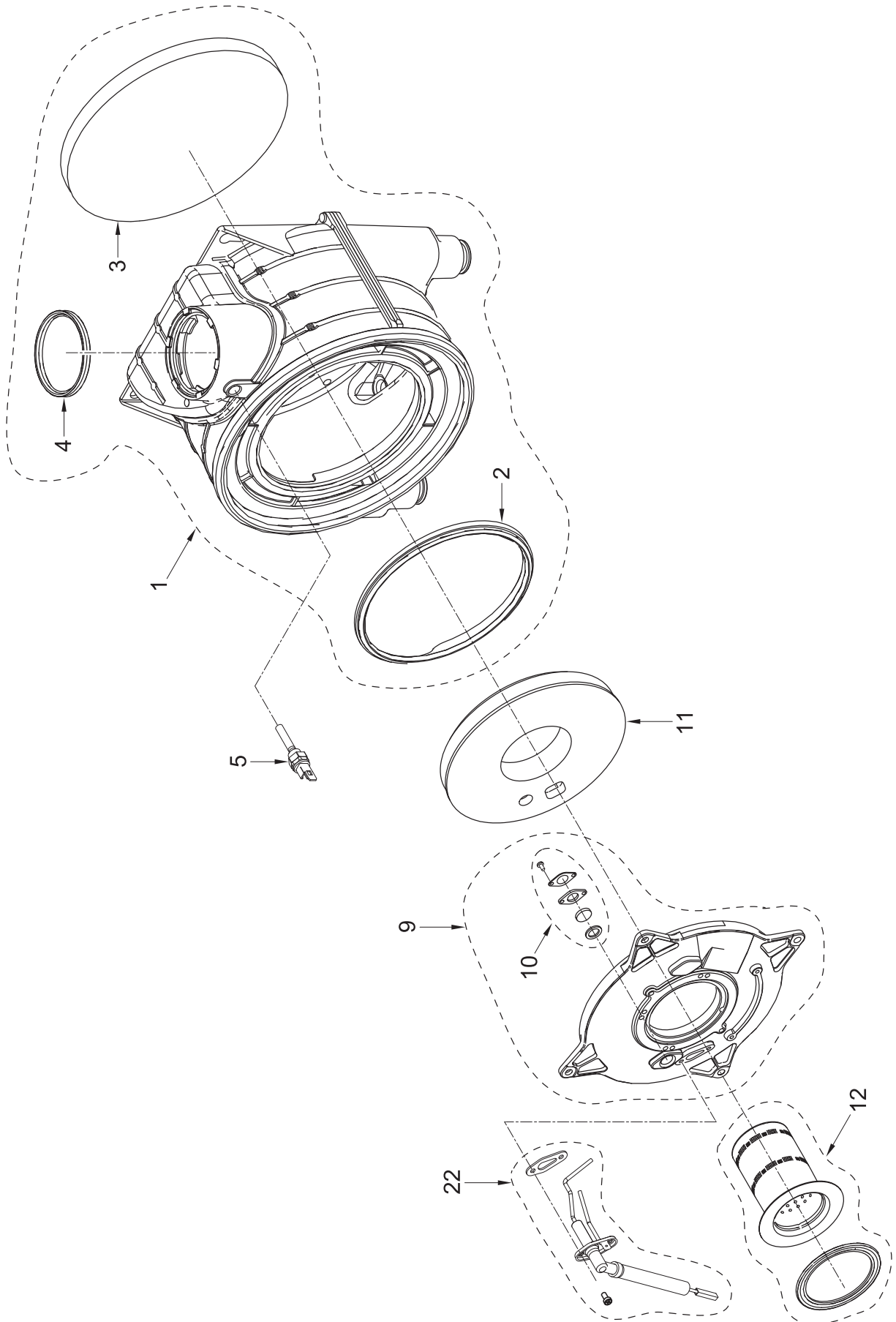
Frame



### Hydraulic assembly

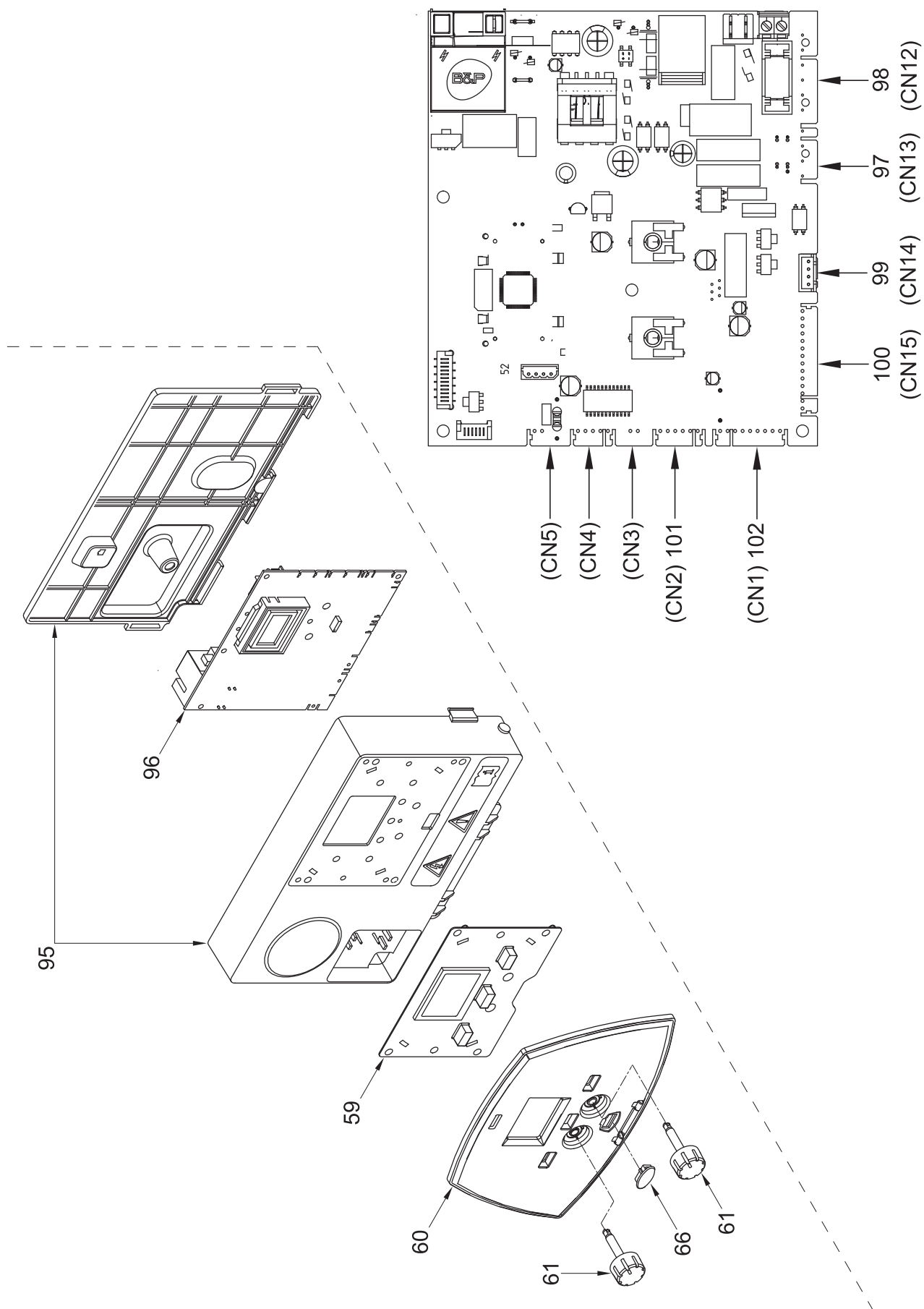


Exchanger / Combustion

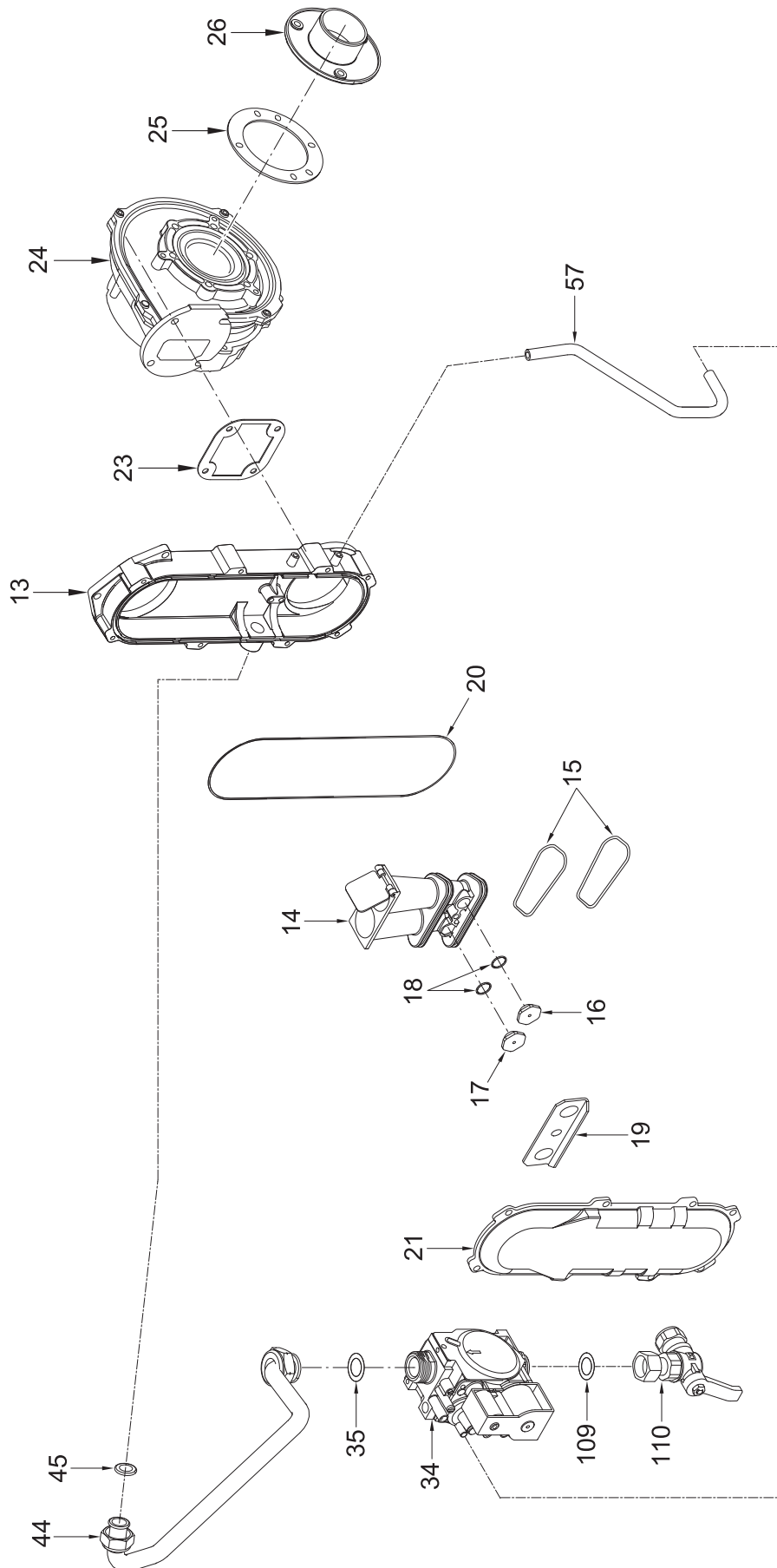




# Control panel



Gas valve / Air/gas duct / Fan



**Edea 25 T**

Pos.	Code	Description	Advised parts
001	6278971	Heat exchanger gas-water	C
002	6326953	Sealing	C
003	6326951	Rear insulation + springs	
004	6248876	Smoke outlet gasket ø80 mm	C
005	6277130	Probe NTC D.4X40	A
006	6291162	Upper protection shield	
007	6278706	Smoke chamber	
008	6248855	P.C. inlet/outlet smokes gasket	C
009	5188364	Main exchanger door	
010	6211794	Peephole kit + gasket	C
011	6269034	Insulation	
012	8076125	Burner + gasket kit	
013	6278813	Air-gas hose lower side	
014	5200303	Air/gas mixer assembly	
015	6226470	ORing 52,07 x 2,62	C
016	6322310	Round nozzle Ø 3,20	
017	6322359	Hexagonal nozzle Ø 3,40	
018	6226403	O-ring 2031	C
019	6267119	Nozzle locking bracket	
020	6226465	O-ring Ø 183,83x2,62	C
021	6278812	Air-gas hose upper side	
022	6281609	Ignit.-ionis.electrode +gasket	B
023	6174816	Gasket for fan flange	C
024	6261408	Fan	A
025	6028703	Gasket for duct flange	C
026	6083056	Duct flange 50	
027	6273608	Water pressure transducer	A
028	6226639	Spring clip	
029	6226476	ORing diam.15x2	C
030	6017405	Flexible pipe M.F. 3/8" L=300	
031	6226643	Pipe fixing spring	
032	6281716	Hydrometer + spring	B
033	2030226	Gasket Ø 10,2x14,8x2	C
034	6243840	Gas valve	A
035	2030228	Gasket Ø 17x24x2	C
036	6277211	Water trap	C
037	5171635	Cap + gasket for water trap kit	C
038	1010215	Rubber pipe dia. 15x2,5 L=0,5 m	
039	2051120	Clamp diam. 17,3	
040	5183729	Rectang. expans.vessel 9 l. 3/8	C
041	6034155	Condensate drainage pipe	
042	2051122	Clamp	
043	2051123	Clamp diam.	
044	6277479	Pipe connecting gas valve	
045	2030255	Gasket Ø 12,5x18,5x3	C
046	6227486	Flowing pipe to C.H. system	
047	6226412	O-ring 3068	C
048	6226619	Spring for heat exchanger conne	
049	6226601	Spring for heat exchanger conne	
050	6227548	Return pipe from C.H. system	
051	2030267	Piracriten gasket Ø 30x17x2	C

Pos.	Code	Description	Advised parts
052	6146729	100°C safety stat	A
053	6231372	Temperature sensor	A
054	6001174	Air intake pipe 55	
055	2051252	Hose clamp Ø 53-57	
057	1010209	Silicon pipe Ø 8x1.5 L=0,3 m	
059	6329900	Rubber button	C
060	6329800	Interface panel	
061	6290170	Knob Ø 20	
062	6304480	casing left/right side panel	
063	6304251	Casing front panel	
064	6281730	Door for front panel	
065	6299760	Frame for front panel	
066	6329960	Rubber cap	
067	6028663	Smoke exhaust diaphragm D.34	
070	6265890	Flowing to C.H. system manifold	C
071	6265880	C.H. return manifold	C
072	2030225	Gasket Ø 5,5x11x2	
073	6226475	ORing diam.18,64x3,53	C
074	6147401	Plug 1/4"	
076	6040225	Pressure relief valve 1/2" 3 ba	C
077	6265022	D.H.W. storage tank flow pipe	
078	6226645	Spring clip	
079	6120560	Pump nipple 3/4"	
080	6226475	ORing diam.18,64x3,53	C
081	6330401	Modulating circulating pump	B
082	6226644	Spring clip for rotating connec	
083	6087332	Motor for diverting valve	B
084	6226636	D.H.W. elektrovalve fix.spring	
085	6226638	Divertor valve motor spring cli	
087	6319645	Three-way plates group	B
088	6319647	Circulateur top cover	
089	6013182	Automatic air vent	C
091	6157660	Pressure relief valve drain pip	
095	6304720	Control panel	
096	6324982	Main P.C.B	A
097	6329610	4 pole cable connector CN13	B
098	6323875	6 pole cable connector CN12	B
099	6329611	4 pole cable connector CN14	B
100	6325813	14 pole cable connector CN15	B
101	6329457	6 pole cable connector CN2	B
102	6325671	9 pole cable connector CN1	B
103	6177505	Ball cock 3/4" x 22	C
104	2030227	Gasket Ø 12x18x2	C
109	2030249	Gasket Ø 24x17x3	C
110	6177530	Gas cock 3/4" F x 15	
700	5202583	Complete control panel	A
701	6231331	D.H.W. tank sensor	A
702	5184818	Fitting cocks kit	
705	5185153	L.P.G. conversion kit	
706	5185160	Conversion kit for natural gas	

- A** Spare parts for minimum fittings  
**A+B** Spare parts for basic safety fittings  
**A+B+C** Spare parts for extended safety fittings

**Edea 35 T**

Pos.	Code	Description	Advised parts
001	6278972	Heat exchanger gas-water	C
002	6326953	Sealing	C
003	6326951	Rear insulation + springs	
004	6248876	Smoke outlet gasket ø80 mm	C
005	6277130	Probe NTC D.4X40	A
006	6291162	Upper protection shield	
007	6278706	Smoke chamber	
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014	5200312	Air/gas mixer assembly	
015	6226470	ORing 52,07 x 2,62	C
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018	6226403	O-ring 2031	C
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- A** Spare parts for minimum fittings  
**A+B** Spare parts for basic safety fittings  
**A+B+C** Spare parts for extended safety fittings

## 10 APPENDIX 1 (GUIDANCE HHIC)

### Manufacturers Instructions

Manufacturer's instructions must be followed for the correct connection of the condensate discharge pipe from the boiler as this may vary due to the design of the boiler. For example a visible air break and trap is not required if there is a trap with a minimum condensate seal of 75 mm incorporated into the boiler.

#### Internal Pipe Run In Unheated Spaces

Condensate discharge pipes that are routed in an unheated space such as a loft or garage should be insulated to prevent freezing.

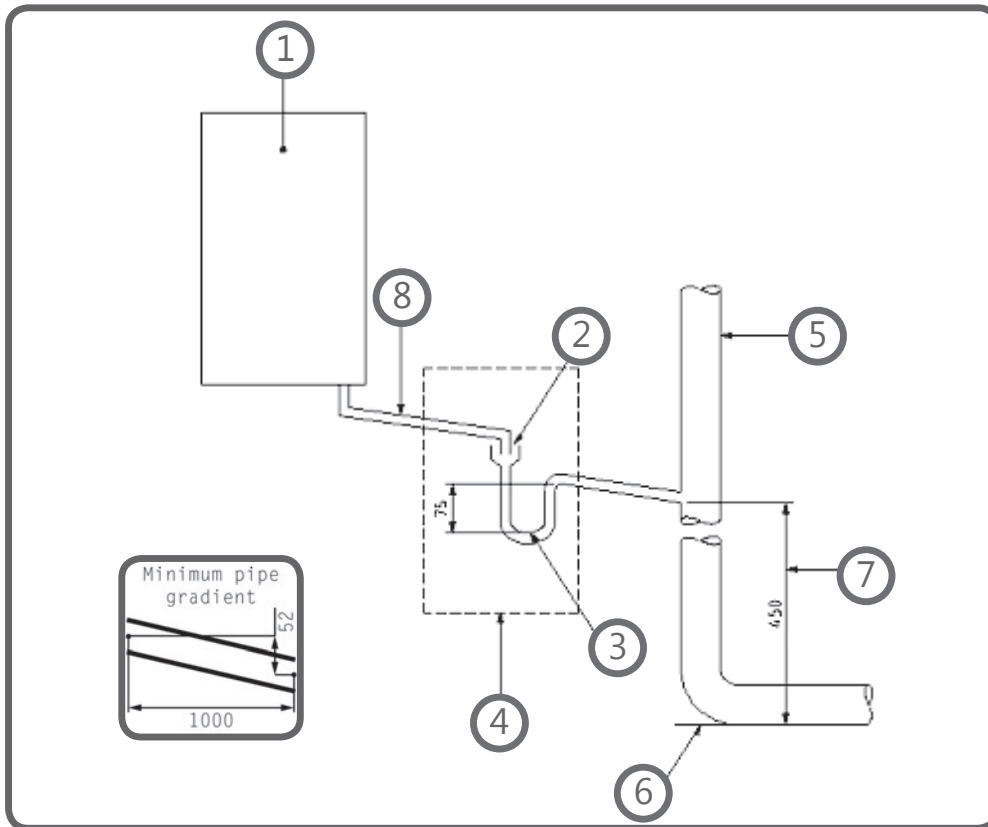
### Internal Condensate Pipe Discharge Termination

Internal condensate discharge pipework must be a minimum of 19mm ID (typically 22mm OD) plastic pipe or as per manufacturer's instructions and this should "fall" a minimum of 45mm per metre away from the boiler, taking the shortest practicable route to the termination point.  
(45mm as per BS6798, 52mm per metre as per industry practice is specified in the following diagrams)

To minimise the risk of freezing during prolonged sub-zero conditions, an internal "gravity discharge point" such as an internal soil stack (preferred method), internal kitchen, utility room or bathroom waste pipe e.g. from a sink, basin, bath or shower should be adopted, where possible.

Note - A suitable permanent connection to the foul waste pipe should be used. Figures 1, 2(a), 2(b) show appropriate connection methods.

Figure 1 – Connection of condensate discharge pipe to internal soil and vent stack.  
 Note – Check manufacturer’s instructions to see if an air break is required.



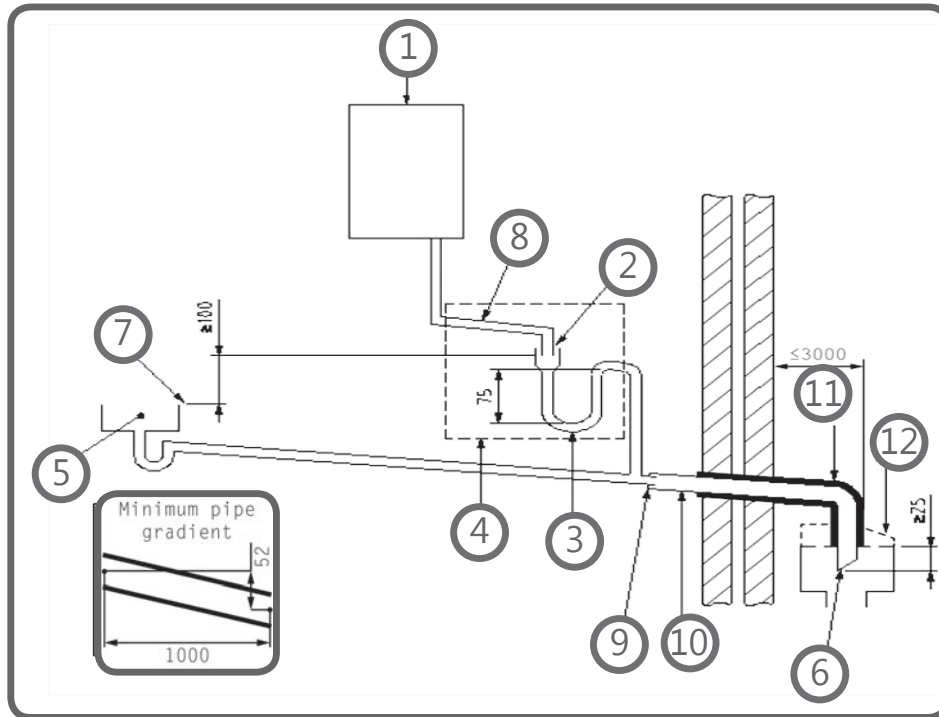
Key

- 1 Boiler
- 2 Visible air break
- 3 75 mm trap
- 4 Visible air break and trap not required if there is a trap with a minimum condensate seal of 75 mm incorporated into the boiler
- 5 Soil and vent stack
- 6 Invert
- 7 450 mm minimum up to three storeys
- 8 Minimum internal diameter 19 mm

## Internal Condensate Pipe Discharge Termination

Figure 2(a) – Connection of a condensate discharge pipe downstream of a sink, basin, bath or shower waste trap.

Note – Check manufacturer’s instructions to see if an air break is required.



Key

1 Boiler

2 Visible air break

3 75 mm trap

4 Visible air break and trap not required if there is a trap with a minimum condensate seal of 75 mm incorporated into the boiler. In this case the 100 mm is measured to the trap in the boiler.

5 Sink, basin, bath or shower

6 Open end of condensate discharge pipe direct into gully 25 mm min below grating but above water level; end cut at 45 °

Note – the maximum external condensate discharge length is 3 metres

7 Sink lip

8 Minimum internal diameter 19 mm

9 Pipe size transition

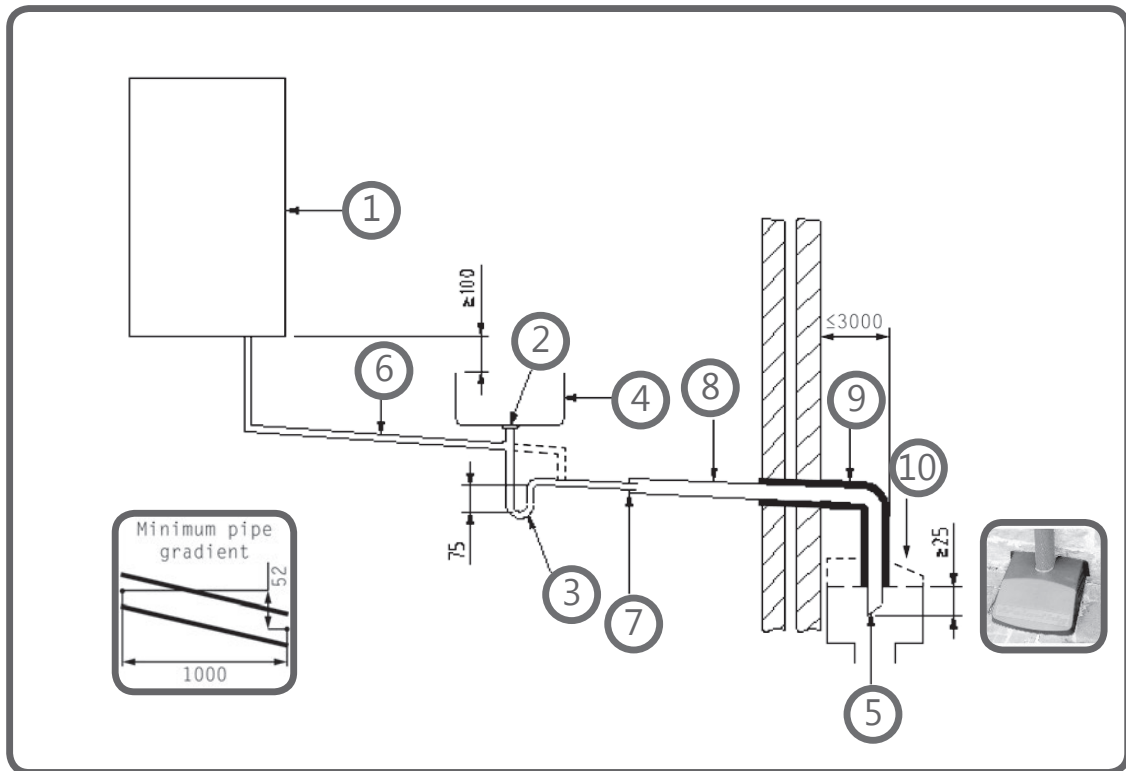
10 Minimum internal diameter 30 mm

11 Water/weather proof insulation

12 Drain cover/leaf guard

## Internal Condensate Pipe Discharge Termination

Figure 2(b) – Connection of a condensate discharge pipe upstream of a sink, basin, bath or shower waste trap



### Key

- 1 Boiler
- 2 Visible air break at plug hole – alternative connection can be below sink trap
- 3 75 mm sink, basin, bath or shower waste trap
- 4 Sink, basin, bath or shower with integral overflow
- 5 Open end of condensate discharge pipe direct into gully 25 mm min below grating but above water level; end cut at 45 °
- Note – the maximum external condensate discharge length is 3 metres
- 6 Minimum internal diameter 19 mm
- 7 Pipe size transition
- 8 Minimum internal diameter 30 mm
- 9 Water/weather proof insulation
- 10 Fit drain cover/leaf guard



## Internal Condensate Pipe Discharge Termination

The possibility of waste pipes freezing downstream of the connection point should be considered when determining a suitable connection point - e.g. a slightly longer pipe run to an internal soil stack may be preferable to a shorter run connecting into a kitchen waste pipe discharging directly through the wall to an external drain.

Note - Where "gravity discharge" to an internal termination is not physically possible (e.g. the discharge point is above the appliance location, or access is obstructed by a doorway), or where very long internal pipe runs would be required to reach a suitable discharge point, then a condensate pump should be used.

External waste pipes from kitchens, utility rooms or bathrooms such as sink, basin, and bath or shower waste outlets should be insulated with waterproof UV resistant, class 0 material, terminated below the grid but above the water line and a drain/leaf guard fitted. The waste pipe should be cut at 45 degrees where it terminates into the grid. (See insulation section for guidance on suitable materials).

## Condensate Pumps

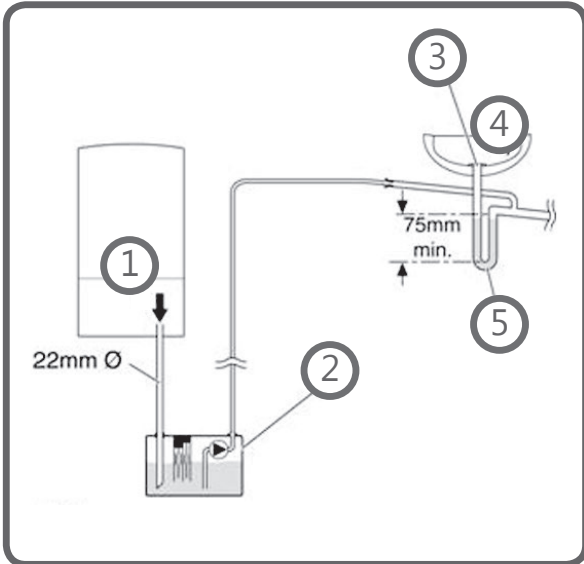
### Use of a Condensate Pump to an Internal Termination

Condensate can be removed using a proprietary condensate pump, of a specification recommended by the boiler or pump manufacturer. In order to minimise the risk of freezing during prolonged sub-zero spells, one of the following methods internal to the property for terminating the boiler condensate pump to a foul water discharge point should be adopted such as an internal soil stack (preferred method), internal kitchen, utility room or bathroom waste pipe such as sink, basin, and bath or shower waste. Figure 3 shows a typical connection method.

## Internal Condensate Pipe Discharge Termination

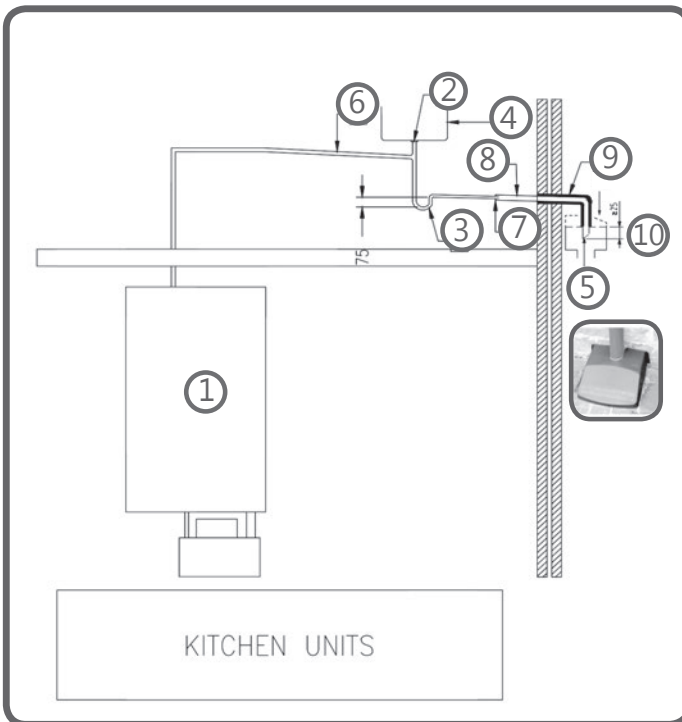
Figure 3 – Connection of a condensate pump - typical method (NB manufacturer’s detailed instructions should be followed).

Note – Any external pipe work should be insulated, pipe cut at 45 degrees and a drain/ leaf guard fitted.



Key

- 1 Condensate discharge from boiler
- 2 Condensate pump
- 3 Visible air break at plug hole
- 4 Sink or basin with integrated overflow
- 5 75mm sink waste trap



Key

- 1 Boiler
- 2 Visible air break at plug hole
- 3 75 mm sink, basin, bath or shower waste trap
- 4 Sink, basin, bath or shower with integral overflow
- 5 Open end of condensate discharge pipe direct into gully 25 mm min below grating but above water level; end cut at 45 ° Note – the maximum external condensate discharge length is 3 metres
- 6 Minimum internal diameter 19 mm
- 7 Pipe size transition
- 8 Minimum internal diameter 30 mm
- 9 Water/weather proof insulation
- 10 Fit drain cover/leaf guard

## External Connections

### External Connections

Only fit an external boiler condensate drain connection if an internal gravity or pumped connection is **impractical** to install.

The pipe work from the boiler should be of a minimum 19mm ID or as per manufacturer's instructions and the condensate discharge pipe shall be run in a standard drainpipe material, e.g. poly (vinyl chloride) (PVC), un-plasticized poly (vinyl chloride) (PVC-U), acrylonitrile butadiene-styrene (ABS), polypropylene (PP) or chlorinated poly (vinyl chloride) (PVC-C).

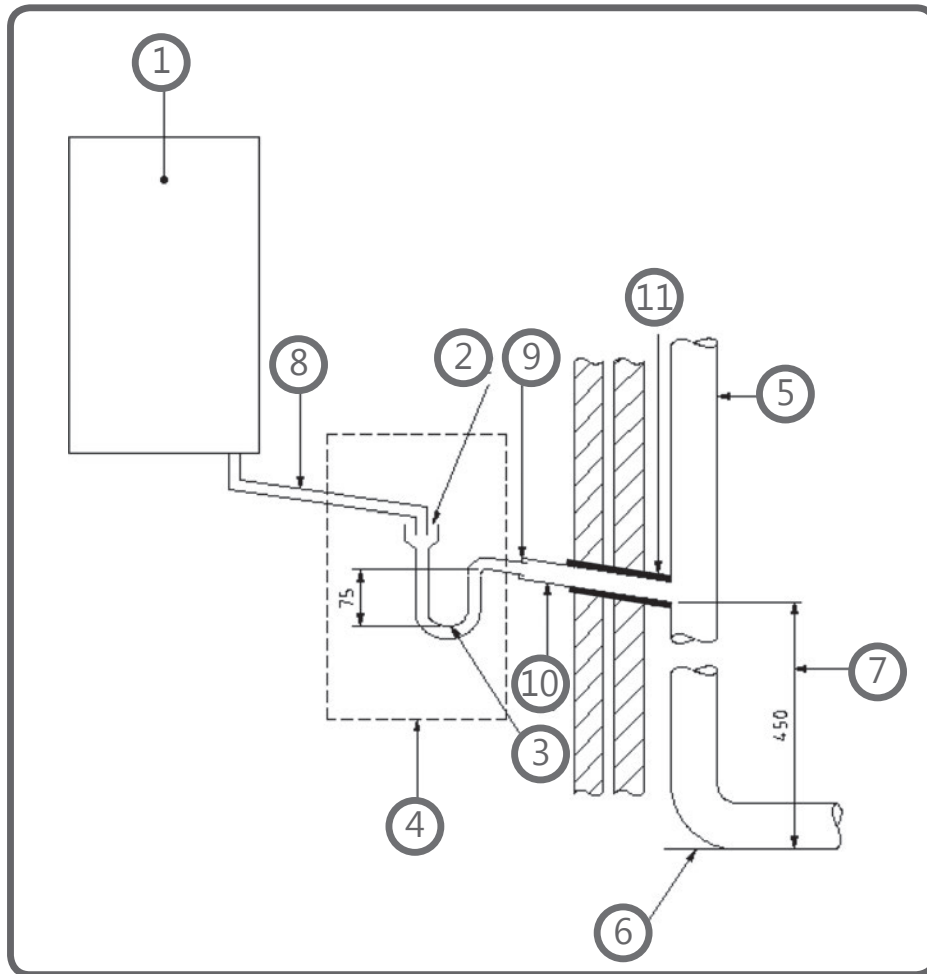
Note - Fixing centres for brackets should be a maximum of 300mm for flexible pipe and 500mm for solid pipe and manufacturer's recommendations should be followed.

The condensate pipe should be run internally as far as possible before going externally and the pipe diameter should be increased to a minimum of 30mm ID (typically 32mm OD) before it passes through the wall. The angle of the pipe should slope downwards by at least 3 degrees as it passes through the wall to assist in maintaining a good velocity as the condensate exits the building.

The external pipe run should be kept as short as possible to a maximum of 3 metres, taking the most direct and "most vertical" route to the discharge point, with no horizontal sections in which condensate might collect.

## External Connections

Figure 4 – Connection of condensate discharge pipe to external soil and vent stack



Key

- 1 Boiler
- 2 Visible air break
- 3 75 mm trap
- 4 Visible air break and trap not required if there is a trap with a minimum condensate seal of 75mm incorporated into the boiler.
- 5 Soil and vent stack
- 6 Invert
- 7 450mm minimum upto three storeys
- 8 Minimum internal diameter 19 mm
- 9 Pipe size transition point
- 10 Minimum internal diameter 30mm
- 11 Water/weather proof insulation

## External Connections

### Alternative Solutions

Cold weather protection methods approved or endorsed by boiler manufacturers and/or service organisations may be adopted if these are considered suitable by the parties involved. It is the responsibility of the manufacturer of these products to ensure they have completed the necessary testing or calculations to ensure the product offers suitable protection to prevent the condensate pipe from freezing. The product manufacturer should provide information as to what level of external temperature and for what time period the product can protect against sub-zero temperatures, i.e. -15°C for 48 hours. BS6798 refers to devices that pump the condensate produced by a condensing boiler to a fine misting nozzle in the boiler flue terminal so that the condensate is discharged with the hot flue gas. (BS6798 section 6.3.8 note 4). The boiler manufacturer's instructions will provide advice regarding fitting and siting of the flue terminal to ensure safe disposal of the condensate.

### Additional Measures

At least one of the following measures should be fitted in addition to the measures detailed above for external condensate discharge pipes

- *Insulate external pipe with a minimum thickness of insulation to be 19mm "O" class PVC coated material.*
- *Fit trace heating – with insulation as recommended by manufacturer.*
- *Fit internal auxiliary(additional) high volume syphon unit*

### Auxiliary Syphon – Fitted Internally

Auxiliary syphons fitted inside the premises assist with the siting of the boiler where an external condensate pipe **must** be fitted. The storage capacity of the auxiliary syphon increases the volume of condensate discharge reducing the risk of freezing. A further reduction in the potential for the pipe to freeze is achieved when combined with the external insulation requirements.

## External Connections

### Electric Trace Heating

Trace heating with an external thermostat can be fitted to the external condensate pipe to raise the temperature of the condensate pipe in freezing conditions. Trace heating takes the form of an electrical heating element run in physical contact along the length of the condensate pipe. The pipe is usually covered with thermal insulation to retain heat losses from the pipe. Heat generated by the element then maintains the temperature of the pipe. If such a system is used then the installation instructions of the trace heating manufacturer and any specific recommendations regarding pipe diameter, insulation, etc. should be followed. All other relevant guidance on condensate discharge pipe installation should also be followed.

### Insulation Materials

Insulation used for external condensate pipes, sink or washing machine waste pipes should be of class 'O' grade with an outer coating that is weather proof, bird/animal proof, and UV resistant finish. A minimum of 19mm thick insulation is recommended for 32mm external pipes.

### Use of Air Breaks In Condensate Discharge Pipes

Heating engineers should follow manufacturer's instructions on the use of air breaks in condensate discharge pipes. A visible air break is not required if the boiler condensate trap has a minimum condensate seal of 75mm incorporated into the boiler.

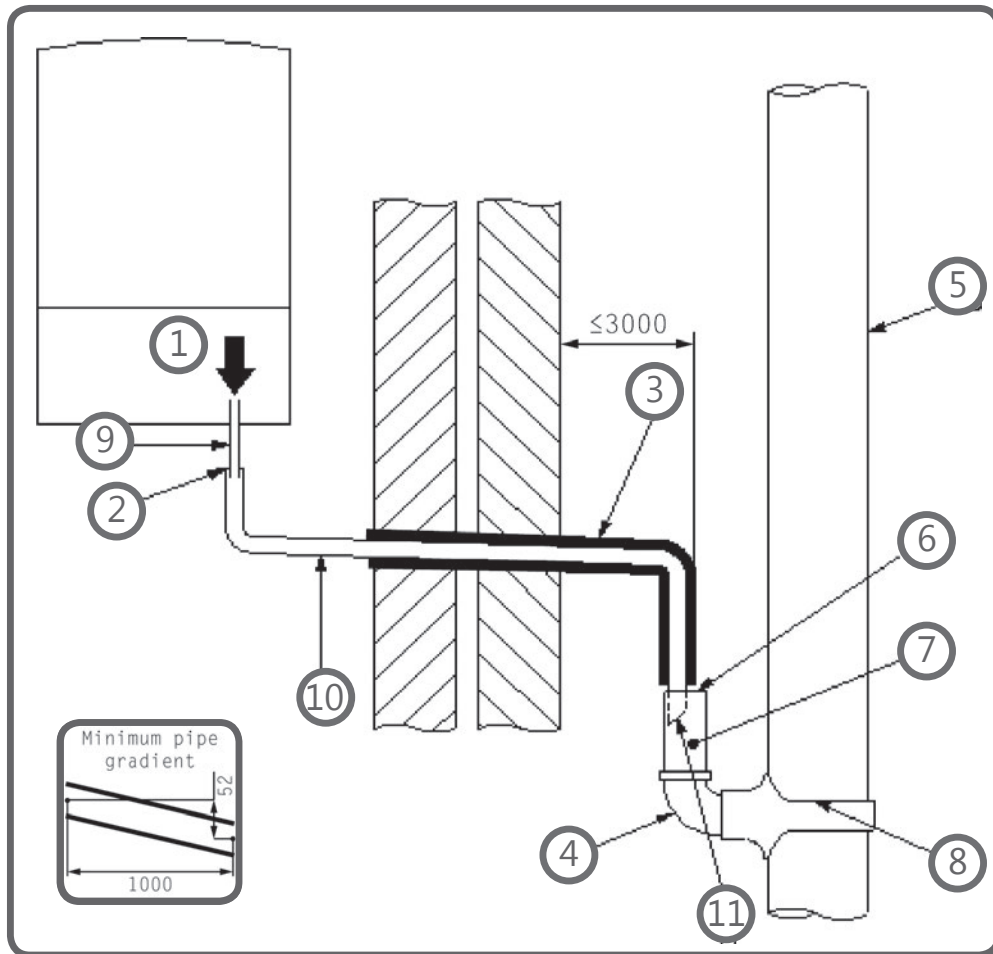
### Connecting to a rain water downpipe/External Soil Stack

When an external soil stack or rain water downpipe is used as the termination (NB only permissible if this downpipe passes to a combined foul and rainwater drainage system) an external air break must be installed between the condensate discharge pipe and the downpipe to avoid reverse flow of rainwater/sewage into the boiler should the downpipe itself become flooded or frozen.

Figure 5 shows a suitable connection method. Pipe insulation should be fitted.

## External Connections

Figure 5 – External termination to rainwater downpipe (NB only combined foul/rainwater drain)



### Key

- 1 Condensate discharge pipe from boiler
- 2 Pipe size transition point
- 3 Water/weather proof insulation
- 4 43mm 90° male/female bend
- 5 External rain water pipe into foul water
- 6 External air break
- 7 Air gap
- 8 68mm PVCu strap on fitting
- 9 Minimum internal diameter 19mm
- 10 Minimum internal diameter 30mm
- 11 End cut at 45°

## External Connections

### External Termination of the Condensate Pipe

Where the condensate discharge pipe is terminated over an open foul drain or gully, the pipe should terminate below the grating level, but above water level, in order to minimise “wind chill” at the open end. Pipe drainage and resistance to freezing will be improved if the termination end of the condensate pipe is cut at 45 degrees as opposed to a straight cut.

The use of a drain cover (such as those used to prevent blockage by leaves) **must** be fitted to offer further protection from wind chill. Figure 6 (following page) shows a suitable connection method. Where the condensate drain pipe terminates in a purpose-designed soakaway (see BS 6798:2014 or boiler installation manual for soakaway design requirements) any above-ground section of condensate discharge pipe should be run and insulated as described above. Figure 7 (following page) shows a suitable connection method.

### Unheated Areas in Buildings

Internal condensate drainage pipes run in unheated areas such as lofts, basements and garages should be treated as external connections and insulated accordingly. Weather proof materials may not be necessary and should be assessed by the heating engineer.

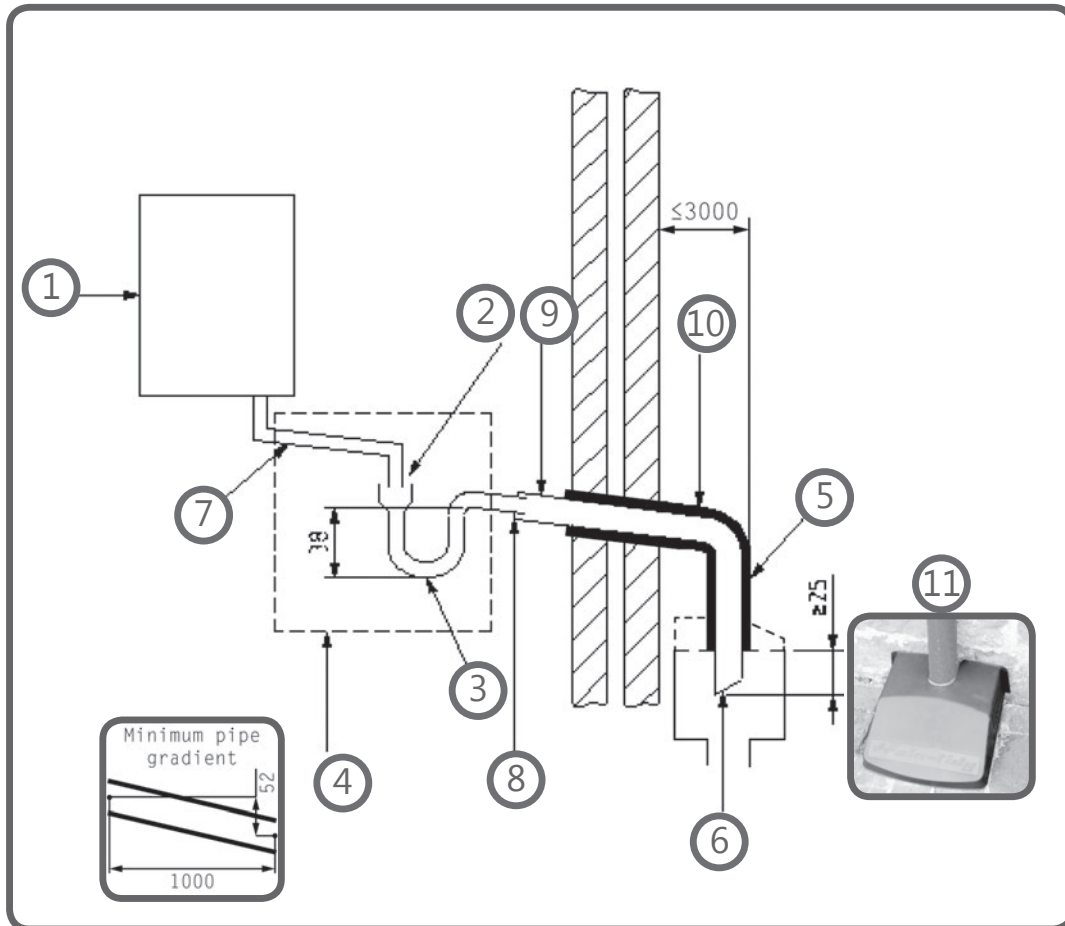
### Use of Air Breaks In Condensate Discharge Pipes

Installers should follow the manufacturer’s instructions on the use of air breaks in condensate discharge pipes. A visible air break and trap is not required if the boiler condensate trap has a minimum condensate seal of 75 mm incorporated into the boiler.



## External Connections

Figure 6 – External drain, gully or rainwater hopper

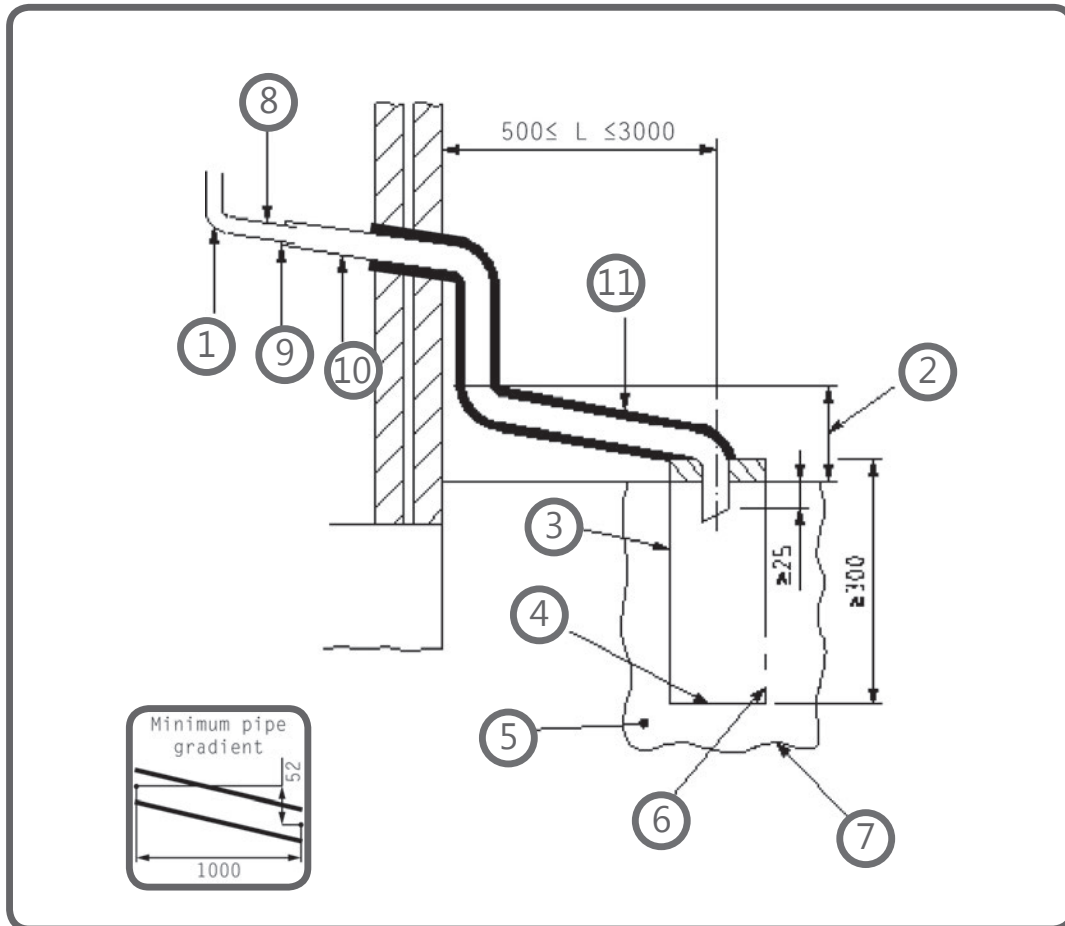


Key

- 1 Boiler
- 2 Visible air break
- 3 38mm minimum trap
- 4 Visible air break and trap not required if there is a trap with a minimum condensate seal of 38 mm incorporated into the boiler – refer to manufacturers instructions
- 5 External length of pipe 3 m maximum
- 6 Open end of condensate discharge pipe direct into gully 25 mm min below grating but above water level; end cut at 45 °
- 7 Minimum internal diameter 19 mm
- 8 Pipe size transition point
- 9 Minimum internal diameter 30 mm
- 10 Water/weather proof insulation
- 11 Fit drain cover/leaf guard

## External Connections

Figure 7 – Example of a purpose made soakaway



Key

- 1 Condensate discharge pipe from boiler
- 2 Ground (this section of the condensate discharge pipe may be run either above or below ground level); End cut at 45°
- 3 Diameter 100 mm minimum plastic tube
- 4 Bottom of tube sealed
- 5 Limestone chippings
- 6 Two rows of three 12 mm holes at 25 mm centres, 50 mm from bottom of tube and facing away from house
- 7 Hole depth 400 mm minimum by 300 mm diameter
- 8 Minimum internal diameter 19 mm
- 9 Pipe size transition point
- 10 Minimum internal diameter 30 mm
- 11 Water/weather proof insulation

# 11 APPENDIX 2

## FLOWCHART FOR CO AND COMBUSTION RATIO CHECK ON COMMISSIONING A CONDENSING BOILER

### PRIOR TO CO AND COMBUSTION RATIO CHECK

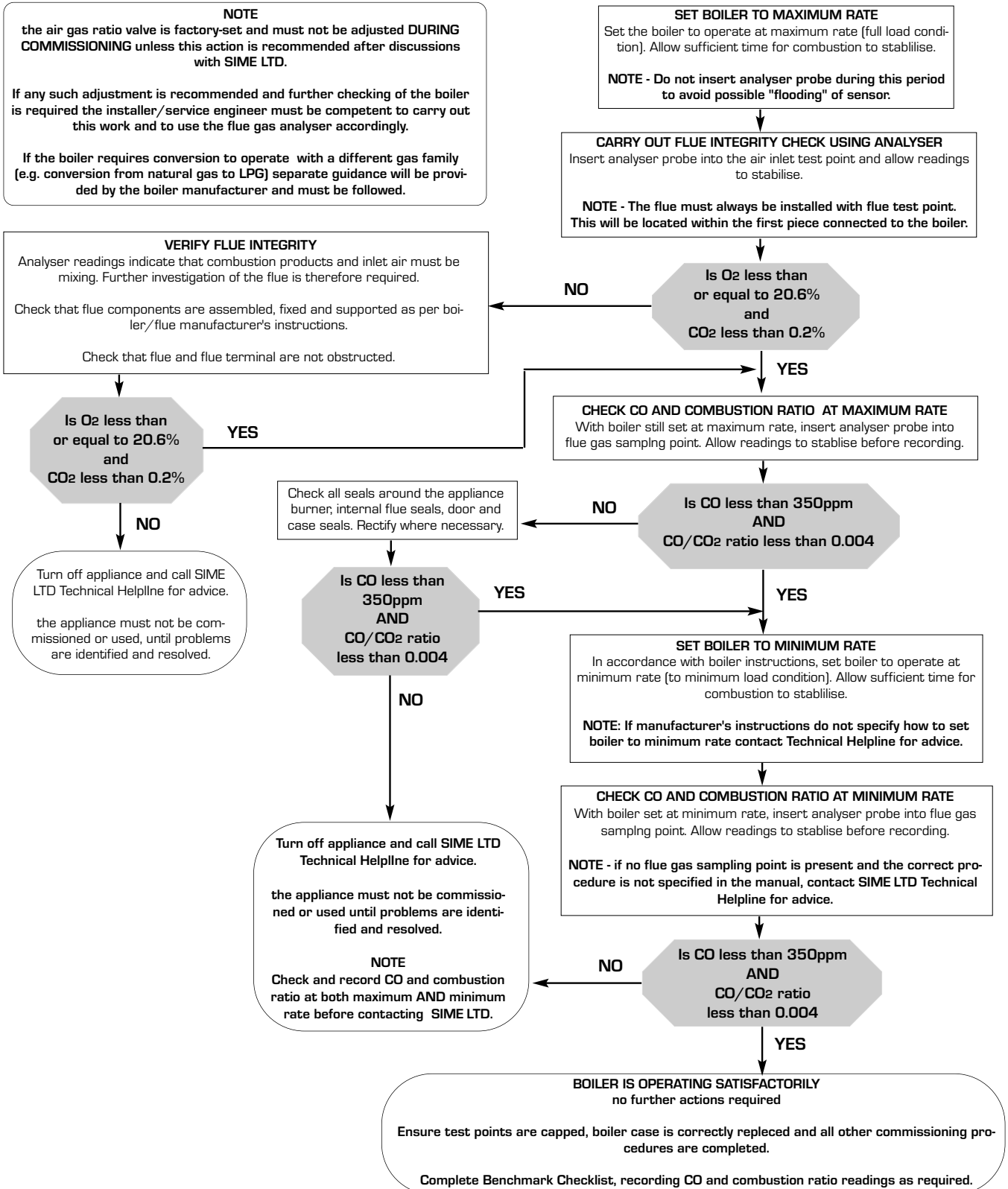
The installation instructions should have been followed, gas type verified and gas supply pressure/rate checked as required prior to commissioning.

As part of the installation process, **ESPECIALLY WHERE A FLUE HAS BEEN FITTED BY PERSONS OTHER THAN THE BOILER INSTALLER**, visually check the integrity of the whole flue system to confirm that all components are correctly assembled, fixed and supported. Check that manufacturer's maximum flue lengths have not been exceeded and all guidance has been followed (e.g. Gas Safe Technical Bulletin TBO08).


The flue gas analyser should be of the correct type, as specified by BS 7967

Prior to its use, the flue gas analyser should have been maintained and calibrated as specified by the manufacturer. The installer must have the relevant competence for use of the analyser.

Check and zero the analyser IN FRESH AIR as per analyser manufacturer's instructions.



## 12 PRODUCT DATA SHEET

		
<b>EDEA</b>	<b>25 T</b>	<b>35 T</b>
C.H. energy efficiency class	<b>A</b>	<b>A</b>
Heat output (kW)	<b>25</b>	<b>34</b>
C.H. seasonal energy efficiency (%)	<b>42</b>	<b>60</b>
C.H. annual energy consumption (GJ)	<b>93</b>	<b>93</b>
Sound power dB(A)	<b>55</b>	<b>56</b>
<p>Specific precautionary measures to be adopted at the time of assembly, installation or maintenance of the equipment are contained in the boiler instruction manual</p> <p>Conforming to Annex IV (item 1) of the Delegated Regulations (EU) No. 811/2013 which supplements Directive 2010/30/EU</p>		

## 13 ANNEX AA.1

Information requirements for boiler space heaters, boiler combination heaters							
Model(s):		EDEA 25 T					
Condensing boiler:		Yes					
Low-temperature boiler:		Yes					
B11 boiler:		No					
Cogeneration space heater:		No		Equipped with a supplementary heater:		No	
Combination heater:		Yes					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Nominal heat output for space heating</b>	$P_n$	25	kW	<b>Seasonal space heating energy efficiency</b>	$\eta_s$	93	%
For boiler space heaters and boiler combination heaters: useful heat output				For boiler space heaters and boiler combination heaters: useful efficiency			
At nominal heat output and high-temperature regime <sup>a</sup>	$P_4$	24,5	kW	At nominal heat output and high-temperature regime (*)	$\eta_4$	87,9	%
At 30% of nominal heat output and low-temperature regime <sup>b</sup>	$P_1$	8,2	kW	At 30% of nominal heat output and low-temperature regime (*)	$\eta_1$	97,8	%
Auxiliary electricity consumption				Other items			
At full load	$e_{l_{max}}$	0,032	kW	Standby heat loss	$P_{stby}$	0,105	kW
At part load	$e_{l_{min}}$	0,017	kW	Ignition burner power consumption	$P_{ign}$	0	kW
In standby mode	PSB	0,004	kW	Emissions of nitrogen oxides	NOx	14	mg/kWh
For combination heaters:							
<b>Declared load profile</b>		-		<b>Water heating energy efficiency</b>		$\eta_{wh}$	-
Daily electricity consumption		$Q_{elec}$	-	kWh	Daily fuel consumption		$Q_{fuel}$
Contact details		Sime Ltd - 1a Blue Ridge Park - Thunderhead Ridge - Glasshoughton, Castleford, WF10 4UA					
<p>a. High-temperature regime means 60°C return temperature at heater inlet and 80°C feed temperature at heater outlet.</p> <p>b. Low-temperature regime means for condensing boilers 30°C, for low-temperature boilers 37°C and for other heaters 50°C return temperature.</p>							
(*) The yield data have been calculated using the higher heating value.							

Information requirements for boiler space heaters, boiler combination heaters							
Model(s):		EDEA 35 T					
Condensing boiler:		Yes					
Low-temperature boiler:		Yes					
B11 boiler:		No					
Cogeneration space heater:		No		Equipped with a supplementary heater:		No	
Combination heater:		Yes					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
<b>Nominal heat output for space heating</b>	$P_n$	34	kW	<b>Seasonal space heating energy efficiency</b>	$\eta_s$	93	%
For boiler space heaters and boiler combination heaters: useful heat output				For boiler space heaters and boiler combination heaters: useful efficiency			
At nominal heat output and high-temperature regime <sup>a</sup>	$P_4$	34,1	kW	At nominal heat output and high-temperature regime (*)	$\eta_4$	87,9	%
At 30% of nominal heat output and low-temperature regime <sup>b</sup>	$P_1$	11,3	kW	At 30% of nominal heat output and low-temperature regime (*)	$\eta_1$	97,7	%
Auxiliary electricity consumption				Other items			
At full load	$e_{l_{max}}$	0,032	kW	Standby heat loss	$P_{stby}$	0,115	kW
At part load	$e_{l_{min}}$	0,015	kW	Ignition burner power consumption	$P_{ign}$	0	kW
In standby mode	PSB	0,006	kW	Emissions of nitrogen oxides	NOx	34	mg/kWh
For combination heaters:							
<b>Declared load profile</b>		-		<b>Water heating energy efficiency</b>		$\eta_{wh}$	-
Daily electricity consumption	$Q_{elec}$	-	kWh	Daily fuel consumption	$Q_{fuel}$	-	kWh
Contact details	Sime Ltd - 1a Blue Ridge Park - Thunderhead Ridge - Glasshoughton, Castleford, WF10 4UA						
<p>a. High-temperature regime means 60°C return temperature at heater inlet and 80°C feed temperature at heater outlet.</p> <p>b. Low-temperature regime means for condensing boilers 30°C, for low-temperature boilers 37°C and for other heaters 50°C return temperature.</p>							
(*) The yield data have been calculated using the higher heating value.							





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