

PLEASE LEAVE THIS INSTRUCTION  
WITH THE USER

GB

# Dewy 30/130 HE FS

*Installation and  
servicing instructions*



**WRAS**  
APPROVED  
PRODUCT



All descriptions and illustrations provided in this manual have been carefully prepared but we reserve the right to make changes and improvements in our products that may affect the accuracy of the information contained in this manual.

# 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)



**Dewy 30/130 HE FS:**  
**Gas Council number 47-283-05**

***These appliances comply with the S.E.D.B.U.K. scheme, band "A"***

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### 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 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

## IMPORTANT

When carrying out commissioning of the boiler, you are highly recommended to perform the following checks:

- Make sure that there are no liquids or inflammable materials in the immediate vicinity of the boiler.
- Make sure that the electrical connections have been made correctly and that the earth wire is connected to a good earthing system.
- Open the gas tap and check the soundness of the connections, including that of the burner.
- Make sure that the boiler is set for operation for the type of gas supplied.
- Check that the flue pipe for the outlet of the products of the combustion is unobstructed and has been properly installed.
- Make sure that any shutoff valves are open.
- Make sure that the system is charged with water and is thoroughly vented.
- Check that the circulating pump is not locked [CAUTION: Remember to release the pump coupled with the control panel, if necessary, to protect the electronic control card].
- Purge the system, bleeding off the air present in the gas pipe by operating the pressure relief valve on the gas valve inlet.
- Check that the syphoned drip is fully filled with water. If necessary, fill it via the special opening.

# 1 DESCRIPTION OF THE BOILER

## 1.1 INTRODUCTION

“DEWY 30/130 HE FS” boilers are premix condensation thermal appliances which use microprocessor technology for function

control and management. They comply with the european directives 90/396/CEE, 2004/108/CE, 2006/95/CE, 92/42/CEE and with the european specifications EN 483 - EN 625.

These appliances can be fired by natural gas (methane) and propane gas (G31). The instructions given in this manual are provided to ensure proper installation and perfect operation of the appliance.

## 1.2 DIMENSIONS

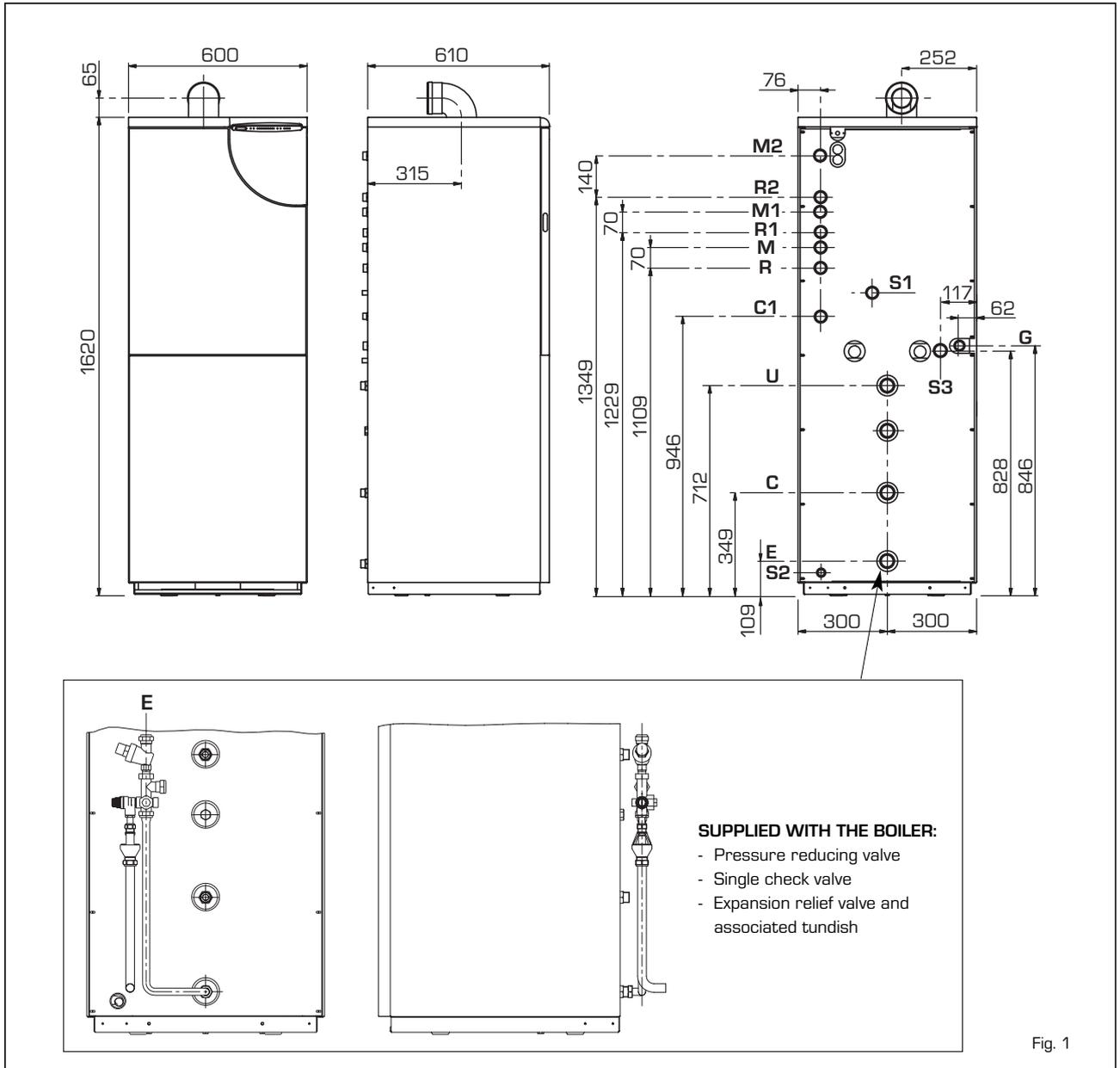


Fig. 1

### CONNECTIONS

<b>R</b>	<b>Zone 1 system return</b>	3/4" [UNHSO 228/1]
<b>R1</b>	<b>Zone 2 system return (optional)</b>	3/4" [UNHSO 228/1]
<b>R2</b>	<b>Zone 3 system return (optional)</b>	3/4" [UNHSO 228/1]
<b>M2</b>	<b>Zone 3 system delivery (optional)</b>	3/4" [UNHSO 228/1]
<b>M1</b>	<b>Zone 2 system delivery (optional)</b>	3/4" [UNHSO 228/1]
<b>M</b>	<b>Zone 1 system delivery</b>	3/4" [UNHSO 228/1]
<b>G</b>	<b>Gas connection</b>	3/4" [UNHSO 228/1]
<b>E</b>	<b>D.H.W. inlet</b>	3/4" [UNHSO 228/1]
<b>U</b>	<b>D.H.W. outlet</b>	3/4" [UNHSO 228/1]
<b>S1/S2</b>	<b>C.H. safety relief valve/tank</b>	
<b>S3</b>	<b>Condensation outlet ø 25</b>	

### SERVICE CLEARANCES

<b>ABOVE THE APPLIANCE CASING</b>	300 mm
<b>AT THE R.H.S.</b>	300 mm
<b>AT THE L.H.S.</b>	300 mm
<b>IN FRONT OF THE APPLIANCE</b>	700 mm

### 1.3 TECHNICAL FEATURES

<b>DEWY 30/130 HE FS</b>		
<b>Heat output</b>		
Nominal (80-60°C)	kW (kcal/h)	29,3 (25.200)
Minimum (80-60°C)	kW (kcal/h)	10,4 (9.000)
Nominal (50-30°C)	kW (kcal/h)	32,0 (27.600)
Minimum (50-30°C)	kW (kcal/h)	11,4 (9.800)
<b>Nominal D.H.W. heat output</b>	kW	29,3
<b>Heat input</b>		
Nominal/Minimum	kW	30,0 / 10,8
<b>Efficiency (80-60°C)</b>		
Nominal/Minimum output	%	97,7 / 96,7
<b>Efficiency (50-30°C)</b>		
Nominal/Minimum output	%	106,8 / 105,8
<b>Water content</b>	l	10,9
<b>Electrical supply</b>		230V 50 Hz Fuse et. 1.6AT
<b>Adsorbed power consumption</b>	W	175
<b>Electrical protection grade</b>		IP X4D
<b>C.H. pressure relief valve setting</b>	bar	3
<b>Maximum C.H. working pressure</b>	bar	2,5
<b>Maximum temperature</b>	°C	85
<b>Expansion vessel</b>		
Capacity	l	10
Preloading pressure	bar	1
<b>C.H. setting range</b>	°C	20 - 80
<b>D.H.W. setting range</b>	°C	10 - 60
<b>D.H.W. production</b>		
Maximum D.H.W. supply pressure	bar	10
D.H.W. flow rate (EN 625)	l/min	21,0
Continuous D.H.W. flow rate $\Delta t$ 30°C	l/min	14
D.H.W. operating pressure	bar	3,5
Maximum D.H.W. pressure	bar	6
D.H.W. tank capacity	l	120
D.H.W. expansion vessel	l	4
D.H.W. expansion vessel charge pressure	bar	3,5
D.H.W. tank heating time between 15 and 60°C	min	18' 7"
Recuperation time between 25 and 55°C	min	9' 40"
Recuperation time to raise 70% of volume to 60°C	min	14' 49"
D.H.W. expansion relief valve setting	bar	6
Combined temperature & pressure relief valve setting	bar	7
Combined temperature & pressure relief valve setting	°C	90
<b>Smokes temperature</b>		
Maximum/ Minimum (80-60°C)	°C	70 / 69
Maximum/ Minimum (50-30°C)	°C	48 / 45
<b>Smokes flow</b>	kg/h	49
<b>Category</b>		II2H3P
<b>Type</b>		B23/C13-33-43-53
<b>Weight</b>	kg	190
<b>Weight (full)</b>	kg	321,1
<b>Main burner nozzles</b>		
Quantity	n°	1
G20	ø mm	6,0
G25	ø mm	7,7
G31	ø mm	4,3
<b>Gas consumption</b>		
Nominal / Minimum (G20)	m³st/h	3,17 / 1,14
Nominal / Minimum (G25)	m³st/h	3,69 / 1,32
Nominal / Minimum (G31)	kg/h	1,22 / 0,44
<b>Gas supply pressure</b>		
G20	mbar	20
G25	mbar	25
G31 (Propan)	mbar	37
<b>CO<sub>2</sub> % methane (G20)</b>	min/max	9,2 / 9,3
<b>CO<sub>2</sub> % methane (G25)</b>	min/max	9,5 / 9,6
<b>CO<sub>2</sub> % propan (G31)</b>	min/max	10,1 / 10,3
<b>CO emission</b>	ppm	27
<b>NOx emission (Class 5)</b>	ppm	35

(1) Flow calculated with a fixed temperature on the hot-water service potentiometer of 60°C for a maximum period of 10 minutes

1.4 FUNCTIONAL DIAGRAM

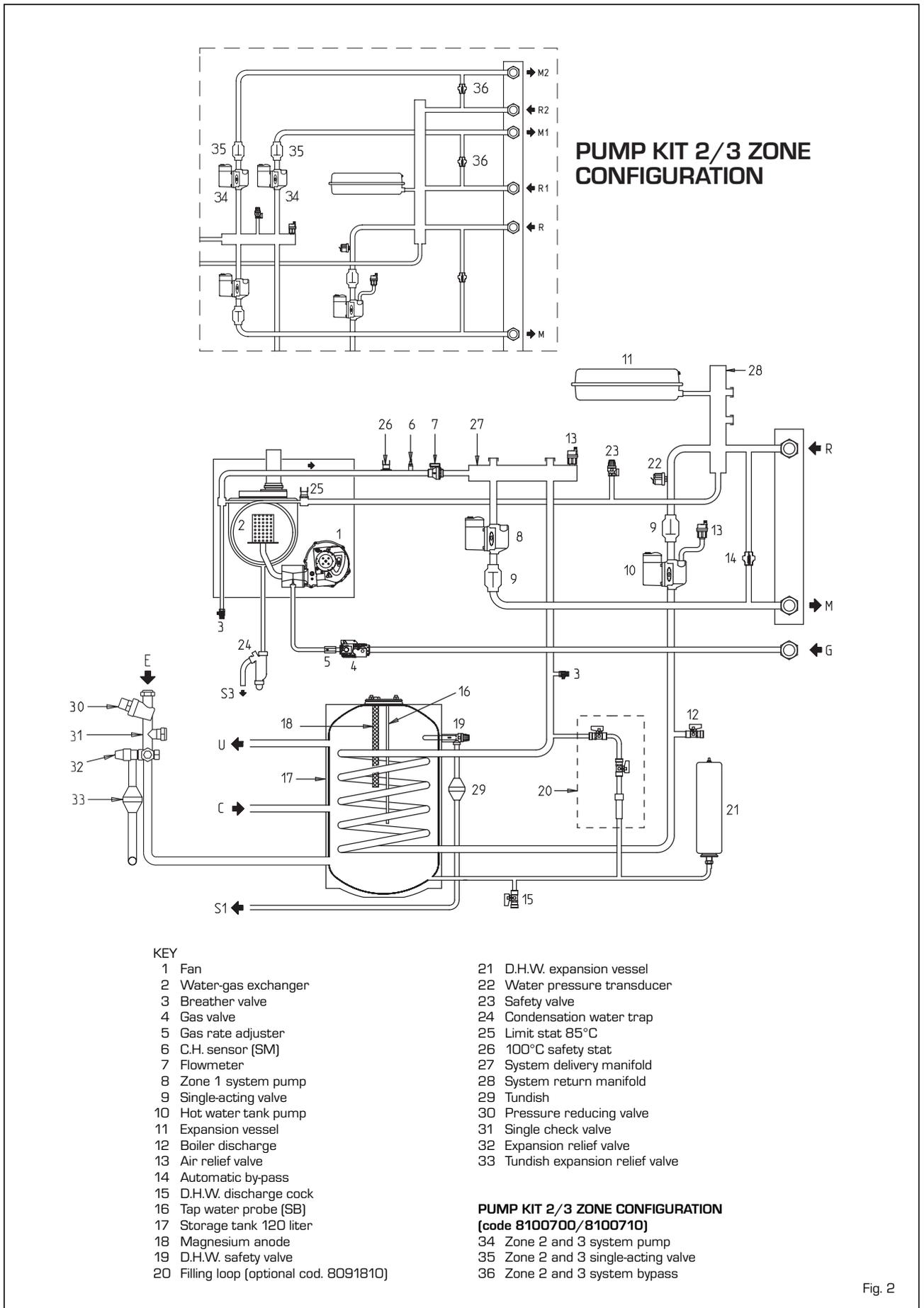
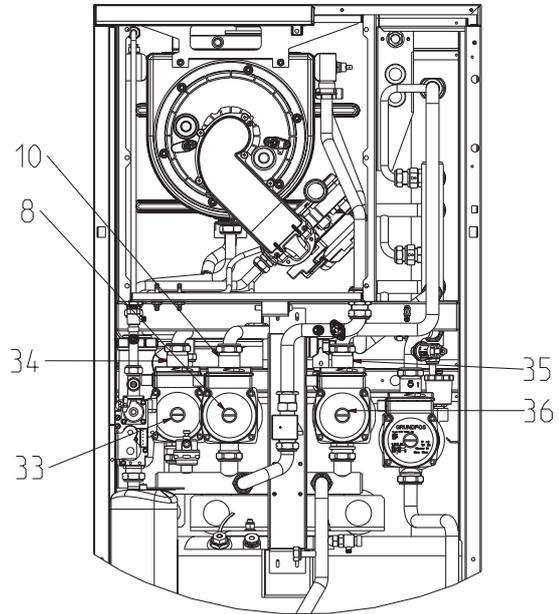
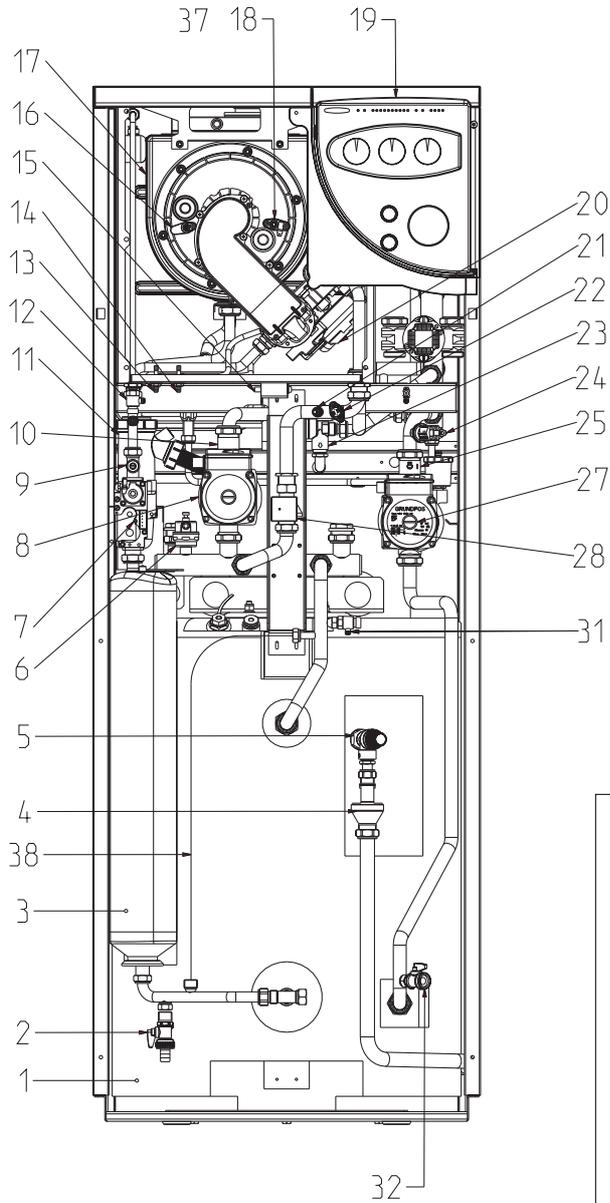


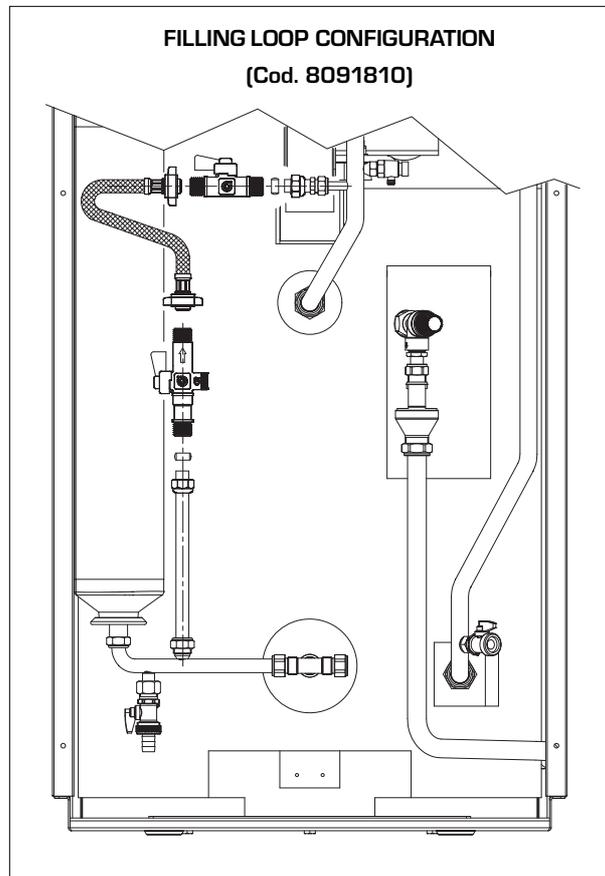
Fig. 2

1.5 MAIN COMPONENTS

**PUMP KIT 2/3 ZONE CONFIGURATION**  
(Cod. 8100700/8100710)



**FILLING LOOP CONFIGURATION**  
(Cod. 8091810)



**LEGEND**

- |                                      |  |
|--------------------------------------|--|
| 1 120 litre hot water tank           | 19 Control panel                         |
| 2 Hot water tank drain cock          | 20 Ventilator                            |
| 3 Hot water tank expansion tank      | 21 Heating probe (SM)                    |
| 4 Funnel for the boiler blowout disc | 22 100°C safety thermometer              |
| 5 Hot water tank safety valve        | 23 Heating system safety valve           |
| 6 Automatic bleed                    | 24 Water pressure transducer             |
| 7 Gas valve                          | 25 Single-acting valve                   |
| 8 Zone 1 heating system pump         | 27 Hot water tank pump                   |
| 9 Gas flow control                   | 28 Flow switch                           |
| 10 Zone 1 single-acting valve        | 31 Manual pressure relief valve          |
| 11 Condensation drain trap           | 32 Boiler drain cock                     |
| 12 Manual pressure relief valve      | 33 Zone 2 heat pump (optional)           |
| 13 Positive pressure intake          | 34 Zone 2 single-acting valve (optional) |
| 14 Negative pressure intake          | 35 Zone 3 single-acting valve (optional) |
| 15 Ignition transformer              | 36 Zone 3 heat pump (optional)           |
| 16 Measurement electrode             | 37 Smoke stat                            |
| 17 Primary exchanger                 | 38 Filling loop (optional)               |
| 18 Ignition electrode                |  |

Fig. 3

## 2 INSTALLATION

Where no specific instructions are given, the installation should be in accordance with the relevant recommendations in the current editions of the following British Standards and Codes of Practice: BS 5440-1, BS 5440-2, BS 5449, BS 5482 (propane installations), BS 5546, BS 6700, BS 6798, BS 6891, Institute of Gas Engineer document IGE/UP-7, BS 7074 (expansion vessel), and to other relevant British Standards or code of Practice as necessary. It is a **Statutory Requirement** that the installation conforms to the appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland), Building Regulations (Northern Ireland), the Water Fitting Regulations or Water Byelaws in Scotland, and the current I.E.E Wiring Regulations. When handling, due consideration should be given to the appliance weight. If the appliance is not to be installed immediately it should be stored in a clean dry place.

### 2.1 BOILER ROOM

The "DEWY 30/130 HE FS" version boilers can be installed in any domestic environment *without any location restrictions*, other than the load bearing capacity of the wall where the appliance is to be sited, (consult section 1.3 for weight), or "Combustion" *air requirements*. However, suitable clearances for maintenance and servicing should be provided, see fig. 1.

### 2.2 CONNECTING UP SYSTEM

Before proceeding to connect up the boiler, you are recommended to make the air circulating in the piping in order to eliminate any foreign bodies that might be detrimental to the operating efficiency of the appliance. When making the hydraulic connections, make sure that the dimensions indicated in fig. 1 are respected.

Fit the supplied; pressure reducing valve (30 fig. 2), check valve (31 fig. 2) and expansion relief valve assembly (32 fig. 2) with its associated tundish (33 fig. 2), in the D.H.W. supply to the appliance, see fig. 2 and fig. 4 for details. It is important that no isolating valve is fitted between the expansion relief valve and the inlet to the D.H.W. tank.

Any additional D.H.W. drain down tap fitted should be positioned as low as possible to ensure that at least 80% of the D.H.W. tank's capacity can be drained.

If installed in a Hard Water area, then a suitable device should be fitted to treat the mains supply to the appliance (Contact your Water Distribution Company for advice on suitable devices).

**The discharge pipe of the safety valve must be connected to a collector funnel for channelling away any discharge if the safety valve goes into action.**

The gas connection must be made using seamless steel pipe (Mannesmann type),

galvanized and with threaded joints provided with gaskets, excluding three-piece connections, except for initial and end connections.

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 demand, 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 plate is stuck inside the front panel; it contains all the technical data identifying the boiler and the type of gas for which the boiler is arranged.

#### 2.2.1 Connection of condensation water trap

The drip board and its water trap must be connected to a civil drain through a pipe with a slope of at least 5 mm per metre to ensure drainage of condensation water.

**The plastic pipes normally used for civil drains are the only type of pipe which is appropriate for conveying condensation to the building's sewer pipes.**

#### 2.2.2 Filter on the gas pipe

The gas valve is supplied ex factory with an inlet filter, which, however, is not adequate to entrap all the impurities in the gas or in gas main pipes. To prevent malfunctioning of the valve, or in certain cases even to cut out the safety device with which the valve is equipped, install an adequate filter on the gas pipe.

#### 2.2.3 Plant filling

The boiler is designed to house a plant filling kit (code 8091810), which can be purchased separately.

#### 2.2.4 Discharge Pipes and fittings

The position of any tundish must be visible to the occupants and any tundish, drain valve and discharge pipe and must be sited away from any electrical components.

The connections to the expansion relief valve and temperature and pressure relief valve should not be used for any other purpose. See fig. 4 for example of the discharge pipe(s) for the temperature and pressure relief valve, and expansion relief valve terminations.

Note: it is permitted to connect discharge pipes together provided that the joint pipe is

sized to accommodate the combined flow.

#### 2.2.5 Expansion Vessel (C.H. only)

C.H. EXPANSION VESSEL – The integral expansion vessel is pre-charged to a pressure of 1.0 bar, which should be checked before the C.H. water system is filled.

This vessel is suitable for correct operation of system capacities up to 82 litre capacity. If the actual C.H. system volume is greater, then an additional vessel must be fitted to the system. For systems where the volume is greater, the additional expansion vessel volume can be determined by multiplying the volume in excess of that which can be accommodated by the appliance by the factor 0.901. BS 7074 gives further details regarding C.H. expansion vessel sizing.

### 2.3 CHARACTERISTICS OF C.H. FEEDWATER

– 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.

– For optimum performance after installation this boiler and its 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".

– This must involve the use of a proprietary cleanser, such as Sentinel X300 or X400, or Fernox Superfloc. Full instructions are supplied with the products, but for immediate information please contact GE Betz (0151 420 9563) or Fernox (01799 550 811) directly.

– For long term protection against corrosion and scale, after flushing it is recommended that an inhibitor such as Sentinel X100, or Fernox MB-1 or Copal is dosed in accordance with the guidelines given in BS 7593.

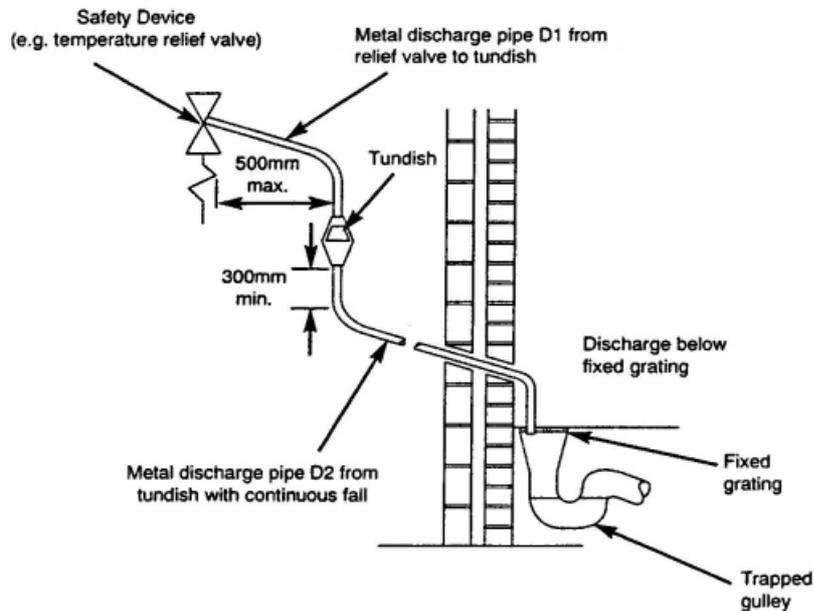
**Failure to flush and add inhibitor to the system may invalidate the appliance warranty.**

– It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the manufacturer's instructions. (Test kits are available from inhibitor stockists).

### 2.4. FILLING AND COMMISSIONING

#### 2.4.1 D.H.W. circuit

Before filling the D.H.W. system, ensure



Valve outlet size	Minimum size of discharge pipe D1	Minimum size of discharge pipe D2 from tundish	Maximum resistance allowed, expressed as a length of straight pipe (i.e. no elbows or bends)	Resistance created by each elbow or bend
G 1/2	15mm	22mm 28mm 35mm	up to 9m up to 18m up to 27m	0.8m 1.0m 1.4m
G 3/4	22mm	28mm 35mm 42mm	up to 9m up to 18m up to 27m	1.0m 1.4m 1.7m
G 1	28mm	35mm 42mm 54mm	up to 9m up to 18m up to 27m	1.4m 1.7m 2.3m

Fig. 4

appliance selector knob is in the "Off" position, then open the hot water tap nearest the appliance. Open the D.H.W. supply isolating valve to the appliance, once water starts to flow from the tap close it, and then open and close each hot water tap in turn to ensure that all the air is removed from the pipework. Open the hot water tap furthest away from the appliance and let water flow for about 10 minutes, or for sufficient time to flush out the system. Check for leaks.

#### 2.4.2 C.H. circuit

Once the D.H.W. circuit is commissioned the C.H. circuit can be filled via the internal filling loop (if fitted), or via any external arrangement. Ensure both the D.H.W. and C.H. temperature controls are set to mini-

mum, and that there is no room thermostat demand. Turn on the electrical supply to the appliance, (see Section 2.8), and turn the selector knob to the summer position. To use the internal filling loop, ensure that the flexible hose is attached to both valves, then open the C.H. isolating valve and then open the D.H.W. double check isolating valve. (See fig. 2). Once the green "1 bar" led lights up close both isolating valves, and disconnect the flexible hose from the D.H.W. double check isolating valve. Check for leaks and free rotation of the circulating pumps. The appliance can then be commissioned by following the User Instructions.

#### 2.5 COAXIAL DUCT ø 60/100

The air inlet-smoke outlet assembly, code

8096250, is included in the standard supply of the appliance complete with mounting instructions.

#### 2.5.1 Coaxial duct accessories

The accessories to be used for this type of installation and some of the connecting systems that may be adopted are illustrated in fig. 5. **With the pipe bend included in the kit, the maximum length of the piping should not exceed 2.8 meter.** When the vertical extension code 8086950 is used, the terminal part of the pipe must always come out horizontally.

#### 2.5.2 Positioning the outlet terminals

The outlet terminals for forced-draught

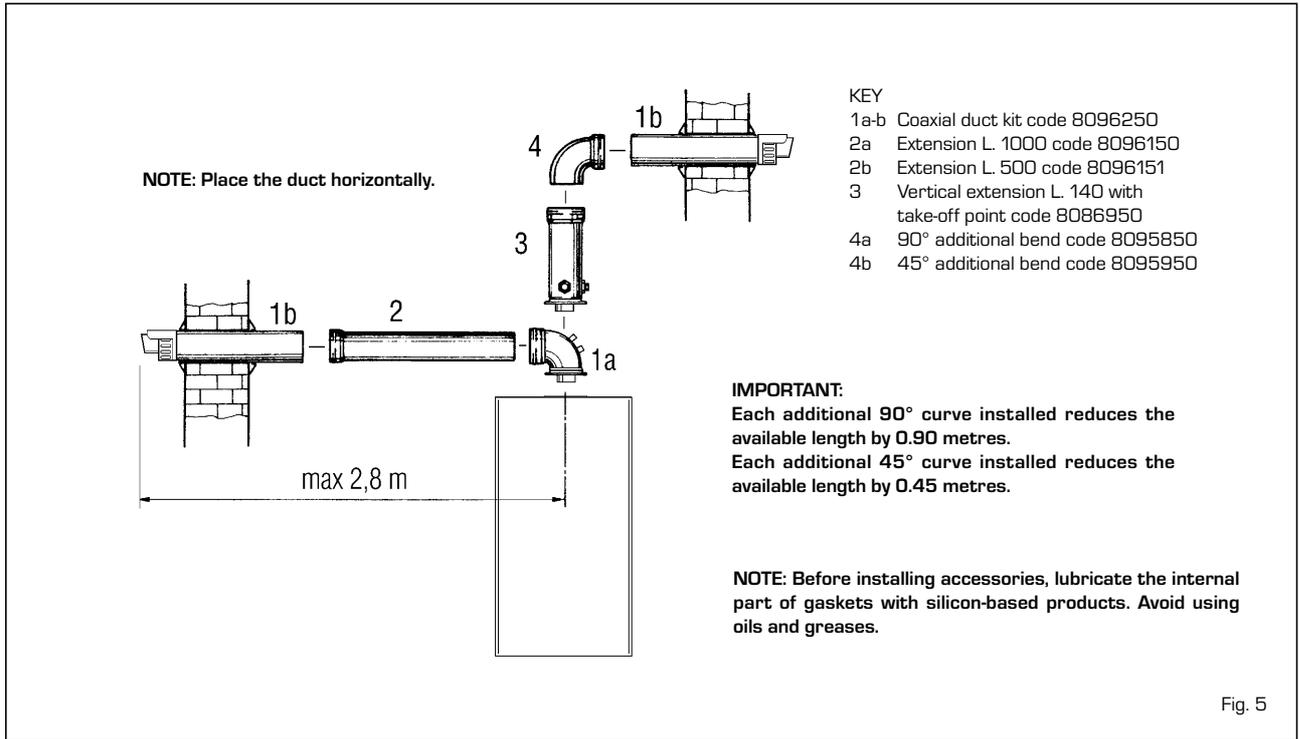


Fig. 5

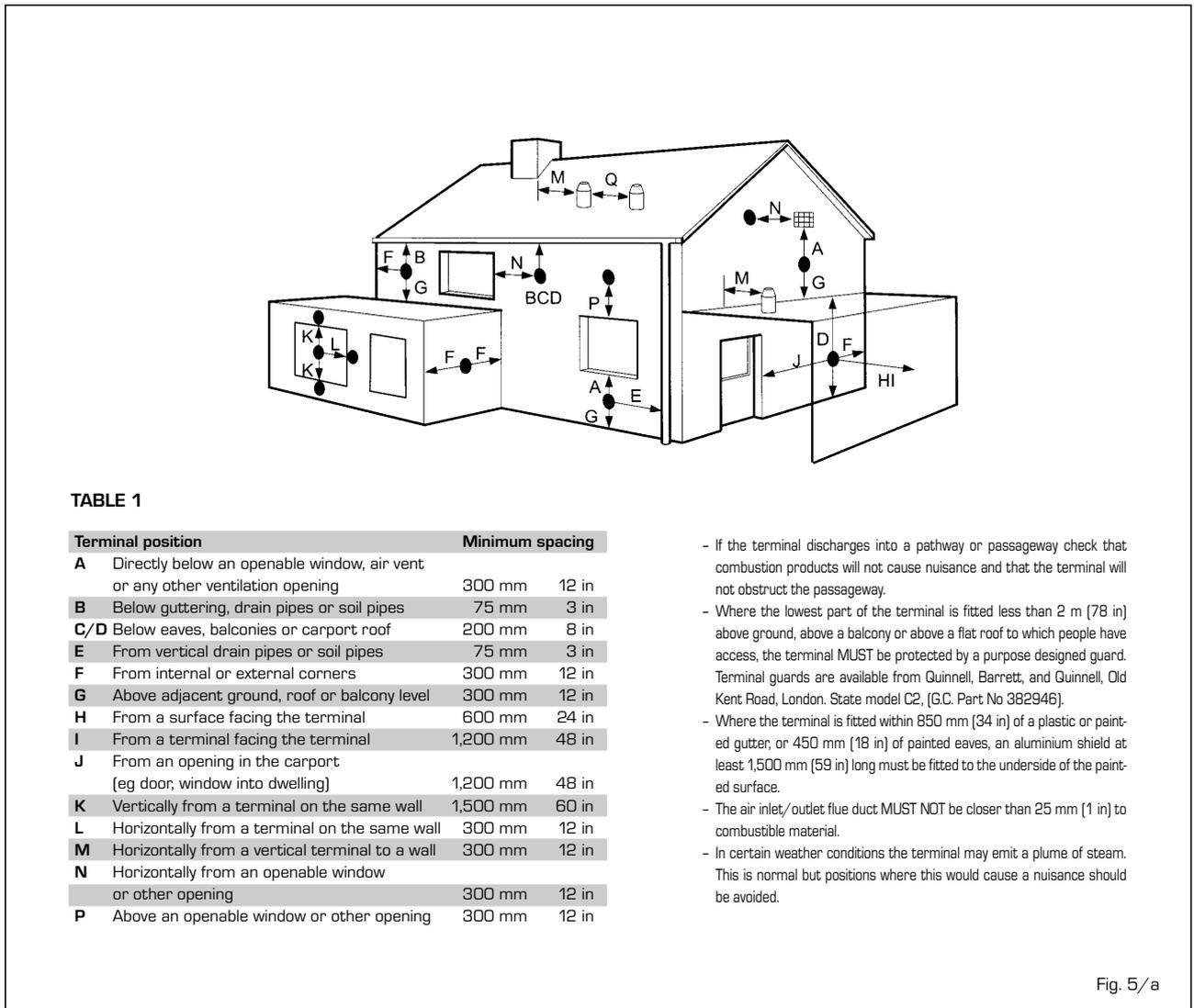


Fig. 5/a

appliances may be located in the external perimeter walls of the building. To provide some indications of possible solutions, **Table 1** gives the minimum distances to be observed, with reference to the type of building shown in fig. 5/a.

## 2.6 SEPARATE PIPES ø 80

A special kit may be used to separate the flue gas outlet from the fresh air intake. The intake may be installed to the right or left of

the flue gas outlet. Both ducts may be oriented in any direction. Refer to fig. 8 for positioning. **The maximum overall length of the intake and exhaust ducts depends on the head losses of the single fittings installed (excluding the doublers) and must not be greater than 15,5 mm H<sub>2</sub>O.** For head losses in the fittings, refer to **Table 2**.

### 2.6.1 Separate pipe accessories

Kit code 8089911 is supplied for this purpose [fig. 9].

pose [fig. 9].

## 2.8 ELECTRICAL CONNECTION

Wiring external to the appliance must be in accordance with the current I.E.E Wiring regulations (BS 7671) for electrical installation and any local regulations, which apply. Connection to the mains supply must facilitate complete electrical isolation of the appliance. Either a 3A fused three pin plug and un-switched shuttered socket outlet,

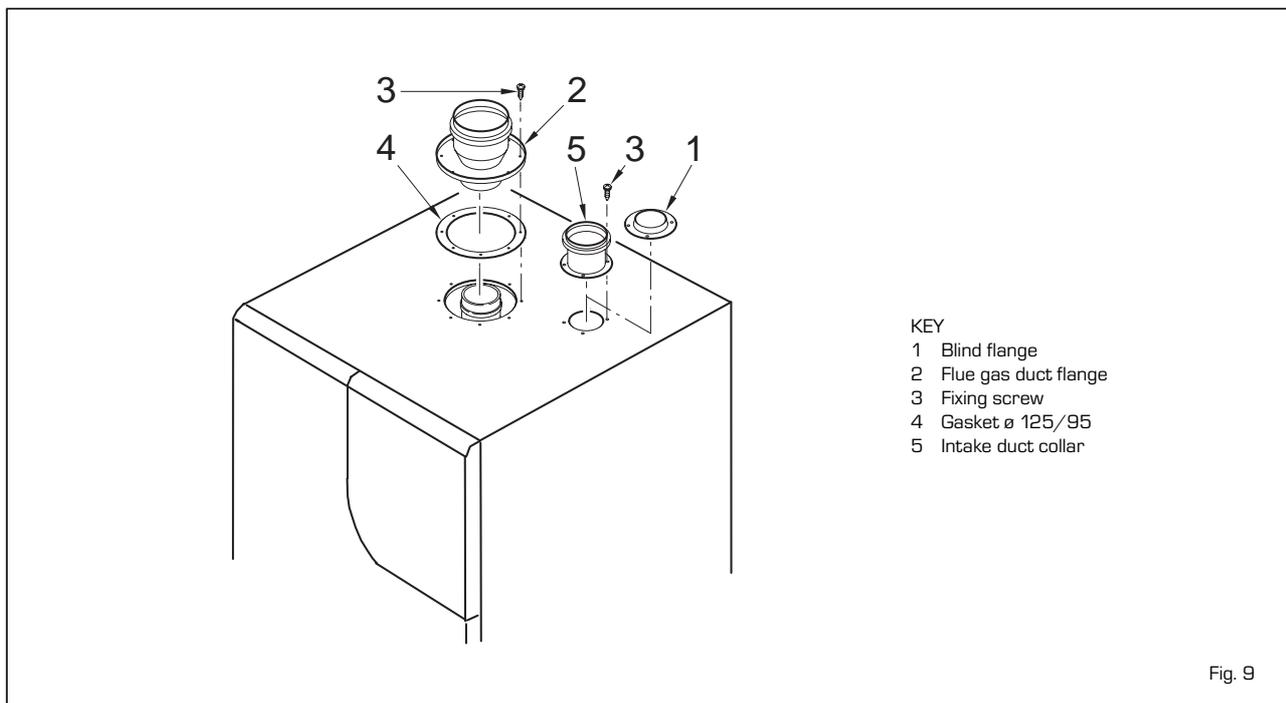


Fig. 9

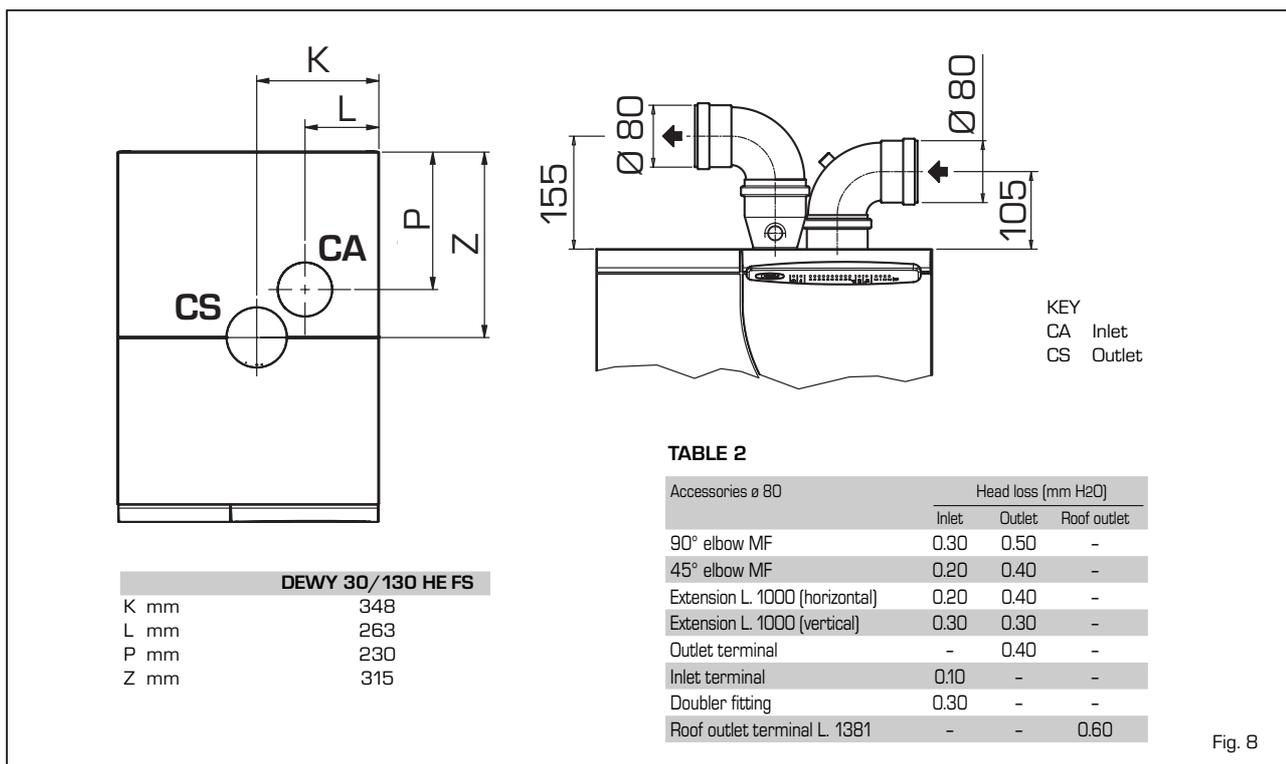


Fig. 8

both complying with BS 1363, or a 3A fused double pole switch having a 3 mm contact separation in both poles and serving only the appliance (and its external controls) may be used.

The boiler is supplied with an electric cable. Should this require replacement, it must be purchased exclusively from SIME.

The electric power supply to the boiler must be 230V - 50Hz single-phase through a fused main switch, with at least 3 mm spacing between contacts.

Respect the L and N polarities and the earth connection.

**NOTE: Device must be connected to an efficient earthing system. SIME declines all responsibility for injury or damage to persons, animals or things, resulting from the failure to provide for property earthing of the appliance. Always turn off the power supply before doing any work on the electrical panel.**

### 2.8.1 Room stat connection (fig. 12 pos. A)

To gain access to the electronic board con-

necter (3), remove the control panel cover and connect the room stat to the terminals TA (5-6) after having removed the jumper. The thermostat or timer-thermostat, recommended for better room temperature control, must be class II as specified by standard EN 60730.1 (clean contact).

**WARNING:**  
Applying mains voltage to the terminals of conector (3) will irreparably damage the control board. Make sure that any connections to be made are not carrying mains voltage.

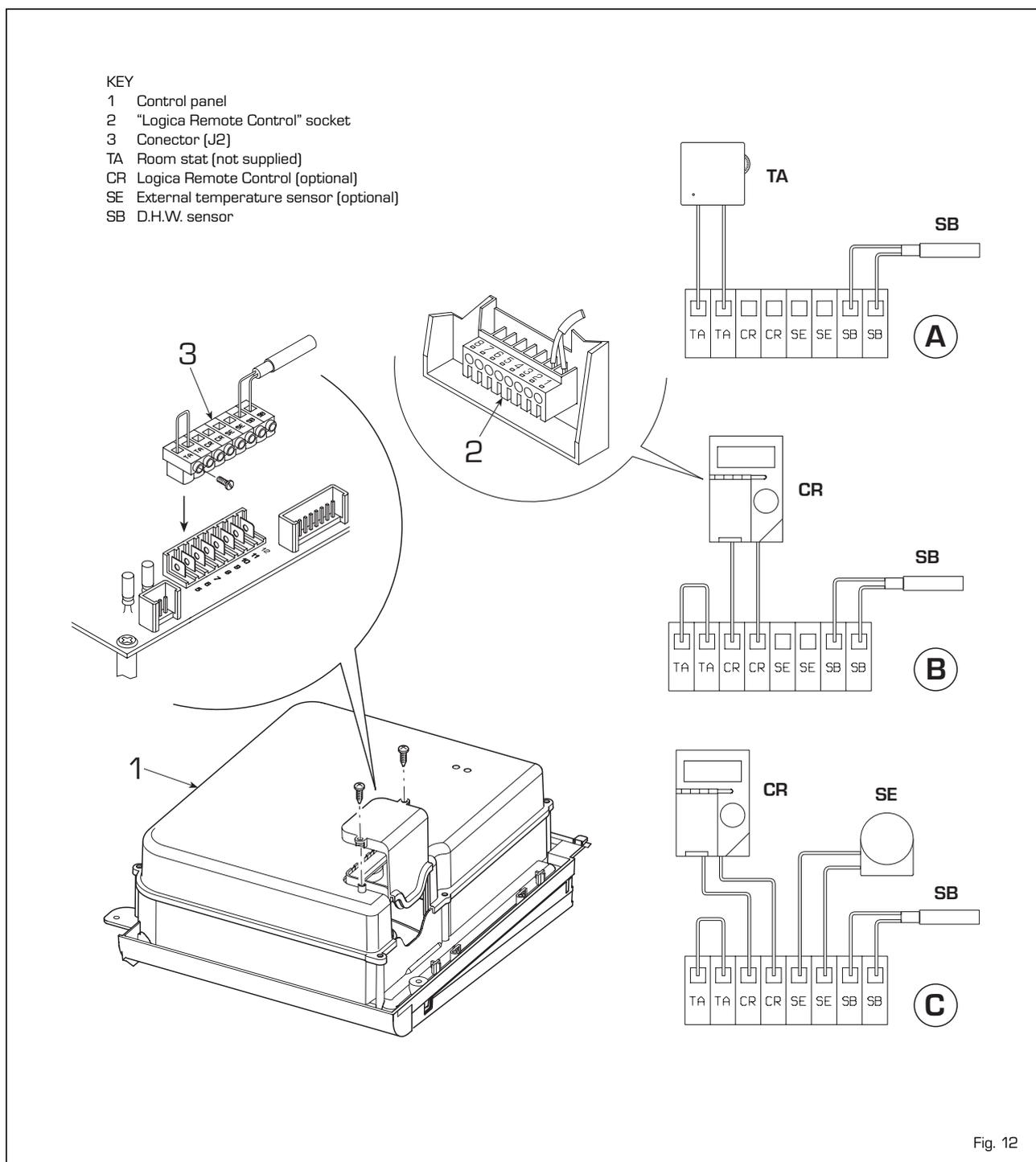


Fig. 12

### 2.8.2 "Logica Remote Control" connection (fig. 12 pos. B)

The electrical plant must comply with local standards and all cables must comply with low safety voltage requirements of EN 60730. For lengths up to 25 m, use cables of section 0.25 mm<sup>2</sup>, for longer lengths up to 50 m use cables of section 0.5 mm<sup>2</sup>. First of all, assemble and wire the socket (2), then insert the equipment which will start-up as soon as it receives current.

To gain access to connector (3) remove the control panel cover and connect the climate regulator to terminals CR (7-8).

**WARNING: External voltage must not be connected to terminals 1-2-3-4 of the "Logica Remote Control". A telephone remote switch with a zero potential contact or a window contact can be connected to terminals 3-4. Equipment for the checking of civil plants via a telephone line includes the model TEL 30.4 LANDIS & STAЕFA.**

### 2.8.3 External temperature sensor connection (fig. 12 pos. C)

The cables must comply with low safety voltage requirements of EN 60730. For lengths up to 25 m, use cables of section 0.25 mm<sup>2</sup>, for longer lengths up to 50 m use cables of section 0.5 mm<sup>2</sup>.

To gain access to boiler connector (3) remove the control panel cover and connect the external temperature sensor to terminals SE (9-10).

### 2.8.4 Wiring diagram

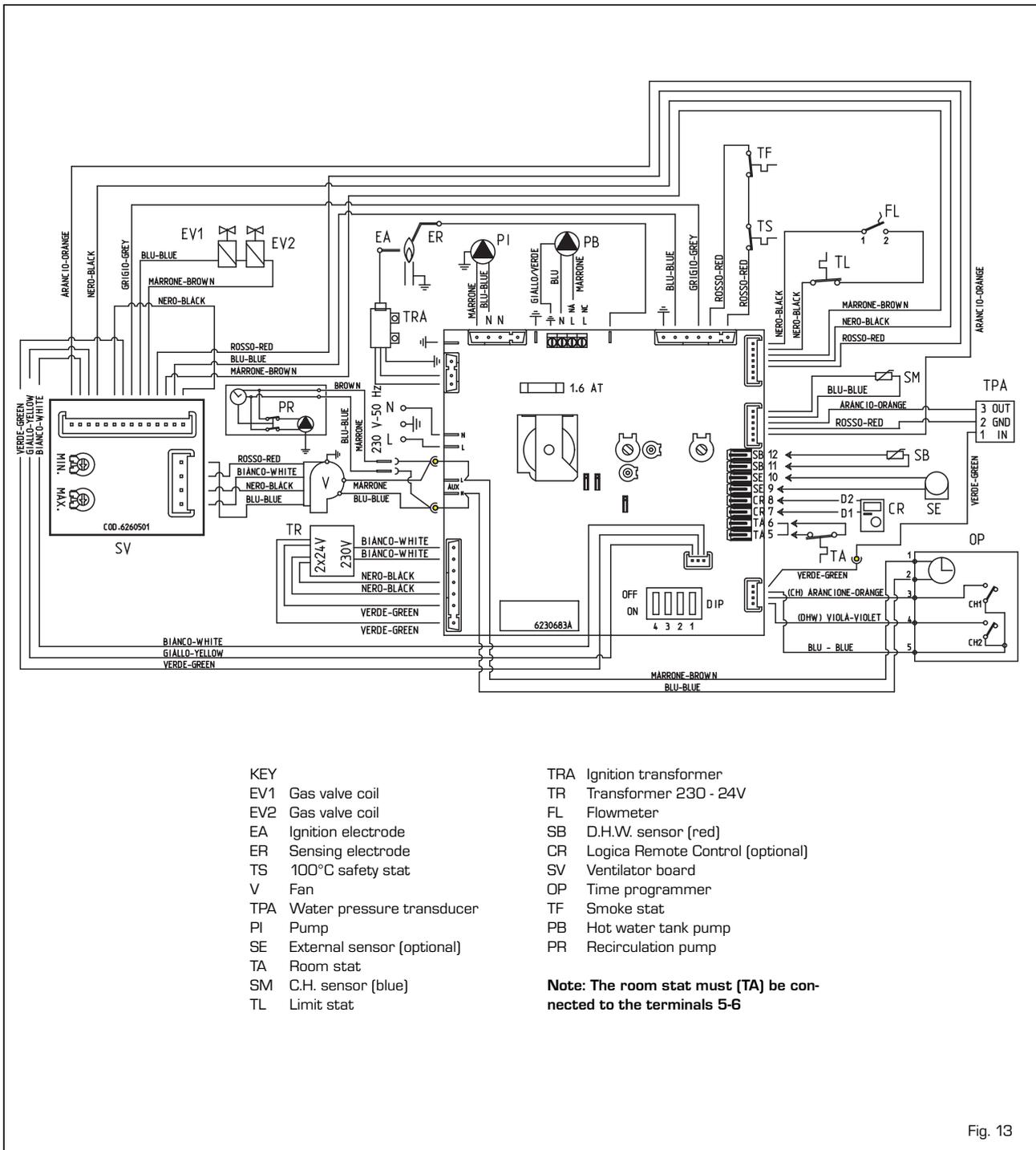


Fig. 13

## 2.9 TIME PROGRAMMER

The boiler is supplied with a programmer clock (fig. 14).

For instructions on how to use this clock, see the user's manual.

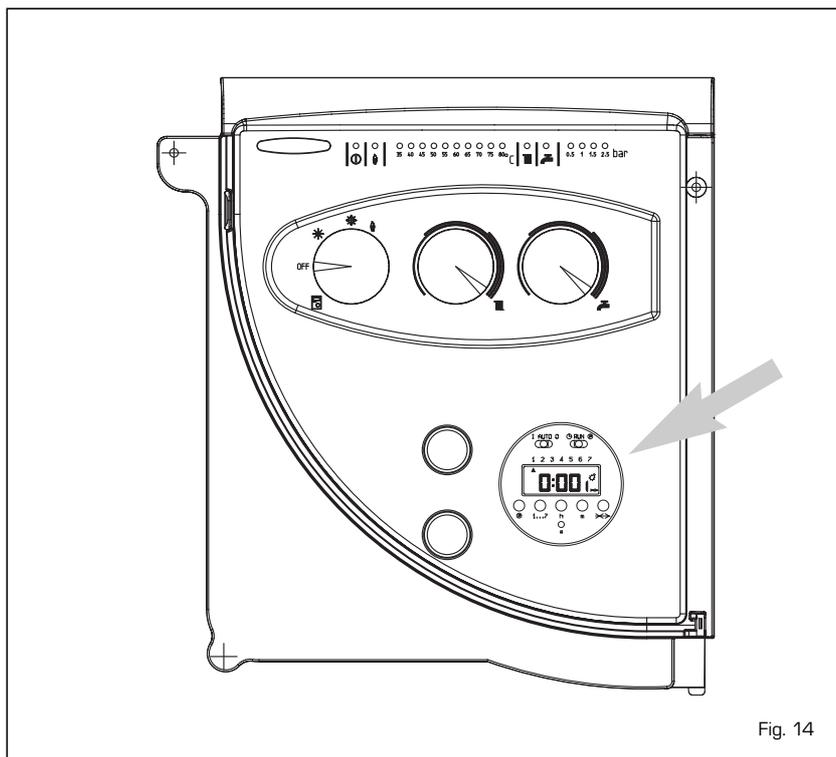


Fig. 14

## 2.10 LOGICA REMOTE CONTROL

All the boiler's functions can be managed by an optional digital multifunctional device code 8092204 for the remote of the boiler itself and for regulating room climatic conditions with an operational reserve of 12 hours.

The heating circuit is controlled by the room temperature sensor built-in the equipment or by the atmospheric conditions, with or without environmental inflow, if the boiler is connected to an external sensor:

### Characteristics:

- Ergonomic control unit divided according to function (control levels).
- Clear division of basic functions:
  - operating regime, correction of set value and presence button are directly accessible;
  - Different real current values are accessible through the "info" button;
  - other functions can be programmed after the cover has been opened;
  - special service level with protected access;
- Each setting or modification is displayed and confirmed.
- Time setting (special line for changing BST/CET).
- Heating programme with max. 3 heating periods per day, individually selectable.
- Copy function for easy transfer of heating programme to the next or pre-

vious day.

- Holiday programme: the programme is interrupted for the holiday period and automatically restarted on returning home.
- Option to return the heating program to default values.
- Programming lock (child safety).

### Functions:

- Delivery temperature control guided by the atmospheric conditions, taking into account the dynamics of the building.
- Delivery temperature control guided by atmospheric conditions with influence of ambient temperature.
- Ambient temperature control only.
- Adjustable influence of ambient temperature shift.
- Switch-on and switch-off optimisation.
- Rapid lowering.
- ECO functions (daily heating limiter; automatic summer/winter switch-over).
- Controllable maximum delivery temperature limit (specifically for floor plants).
- Limitation of increase in pre-set delivery temperature.
- Anti-freeze protection for buildings.
- Hourly programming of the tank unit temperature on two levels: comfort and reduced.
- Domestic hot water control with nominal value requirement and enable.
- Connection to room sensor or switching of operating regime through the telephone system with external contact or

through a window contact.

- Anti-bacterial.

### 2.10.1 Installation

The unit must be installed in the main living room. For installation, follow the assembly instructions inserted in the package.

At this point, with the selector knob on (Fig. 14), the installer can adjust the basic parameters settings according to the individual needs (point 2.8.2).

**If there is a thermostatic radiator valve fitted, this must be set to maximum.**

### 2.10.2 Installation settings

The settings for the basic operating parameters for individual needs are reported in the instruction leaflet supplied with the "Logica Remote Control" and in the section reserved for the user in this manual.

For further adjustments which can be carried out by the installer, the "Logica Remote Control" offers a level of service and parameterising which can only be accessed through a special combination of buttons.

To activate this level of service or parameterising press buttons and least 5 seconds. This will activate the parameterising level. Then use the same arrow buttons to select the individual input lines and adjust the values with or .

HEATING CIRCUIT SETTINGS

<p><b>Antifreeze protection</b> "Pre-set ambient temperature value"</p>	<p><b>51</b></p>	<p>Heating takes place up to this pre-set value if the plant is activated in standby (e.g. holidays). In this way, the building antifreeze function is active, preventing an excessive lowering of the ambient.</p>
<p><b>Summer/Winter switch-over temperature</b></p>	<p><b>52</b></p>	<p>This parameter regulates the temperature of the automatic summer/winter switch-over.</p>
<p><b>Type of control:</b> 0 = with ambient influence 1 = without ambient influence</p>	<p><b>53</b></p>	<p>This parameter de-activates the ambient influence and as a result all the optimisations and adaptations. If a valid external temperature is not transmitted, the controller switches to the pure ambient control guide variable.</p>
<p><b>Influence of ambient temperature</b></p>	<p><b>54</b></p>	<p>If the ambient controller is used only as a remote control (placed in the reference room and without an external sensor connected), the value must be set at 0 (zero). If the change in ambient temperature from the pre-set value remains high during the entire day, the influence must be increased. If the ambient temperature is around the pre-set value (control oscillation), the influence must be reduced.</p> <p><b>Note: If the ambient temperature influence constant is set at 0, the adaptation of the heating curve is deactivated. In this case, parameter 57 will have no effect at all.</b></p>
<p><b>Maximum limit of delivery temperature</b></p>	<p><b>55</b></p>	<p>The delivery temperature is limited to the maximum set value.</p>
<p><b>Variation of the maximum speed of the delivery temperature</b></p>	<p><b>56</b></p>	<p>The increase per minute of the prescribed delivery temperature value sent in °C is limited to the imposed value.</p>
<p><b>Activation of adaptation</b></p>	<p><b>57</b></p>	<p>With the activation of the adaptation, the pre-set value transmitted to the boiler regulator is adapted to the effective heat need. The adaptation functions with both the atmospheric guide with ambient influence and with pure ambient control. If the "Logica Remote Control" is set as a remote control only, the adaptation must be deactivated.</p>
<p><b>Optimisation of switch-on time</b></p>	<p><b>58</b></p>	<p>If the switch-on time optimisation is active, the "Logica Remote Control" modifies the heating gradient until it finds the optimum heating point <b>0 = off      1 = on</b></p>
<p><b>Heating gradient</b></p>	<p><b>59</b></p>	<p>The "Logica Remote Control" selects the switch-on time such that the set value has more or less been reached at the start of the usage time. The more severe the night-time cooling, the earlier the heating time starts.</p> <p>Example: Current ambient temperature 18.5°C Nominal ambient temperature 20°C Heating gradient 30 min/K Presetting of switch-on time: 1.5 K x 30 min/K = 45 minutes</p> <p>00 means that the switch-on time has not been pre-set (function disabled).</p>
<p><b>Presetting switch-off time (00 = off)</b></p>	<p><b>60</b></p>	<p>If the switch-off time optimisation is active (value &gt; 0), the "Logica Remote Control" modifies the pre-set time until it finds the optimum switch-off time.</p>

## DOMESTIC HOT WATER SETTINGS

<b>Reduced domestic hot water pre-set value</b>		The reduced pre-set value of the temperature of the domestic hot water allow the required water temperature to be obtained outside the programmed usage times (daily programme 8).
<b>Domestic hot water load</b>		<p> <b>0</b> = 24 hours/ day - Hot water is always available at the temperature set with user parameter n°3.  <b>1</b> = standard - Hot water according to the daily heating programme. In the comfort areas of heating the temperature of the boiler unit is regulated to the value set with user parameter n° 3. In the reduced areas of heating the temperature of the boiler unit is regulated to the value set with parameter n° 61 of the service level.  <b>2</b> = service disconnected  <b>3</b> = second daily programme (8) - Every day of the week the temperature of the hot water is set according to programme 8. In this case there is a single programming for all the days of the week and three time zones are available. In the time spans set the temperature of the boiler unit is regulated according to that set in parameter n°3. In the remaining hours the boiler unit is controlled to the temperature set with parameter n° 61 the of service level.         </p>
<b>SERVICE VALUES</b>		
<b>Final user level 2 programming block</b>		<p>           This block (1) can be activated to display all the parameters without modifying them. Pressing buttons  or  displays "OFF".         </p> <p> <b>WARNING:</b>            The activation block can be deactivated temporarily by pressing buttons  and  simultaneously; a confirmation sign appears on the display. At this point press simultaneously the buttons  and  for at least 5 seconds.            To permanently remove the activation block, set parameter 63 on 0.         </p>
<b>Input function terminal 3-4</b>		<p>           The freely programmable input (terminals 3-4) allows three different functions to be activated. The parameter has the following significance:         </p> <p> <b>1</b> = If an external sensor is connected, the display will show the temperature of the external sensor ( _ _ = no sensor connected, function disabled).  <b>2</b> = With an external contact, it is possible to switch-over to "reduced pre-set value of the ambient temperature".  <b>3</b> = With an external contact, it is possible to switch-over to "reduced pre-set value of the antifreeze ambient temperature" (short circuit 0 0 0 or interruption _ _ _). The display shows the current status of the external contact.         </p>
<b>Operating mode of external contact</b>		<p>           If the entrance (terminals 3 and 4 of the base) is connected to a zero potential external contact (parameter 64 = 2 or 3), the operating mode of the contact can be determined (remote telephone switch or window contact). The operating mode specifies the status of the contact in which the required function is active.         </p> <p>           Display:    Operating mode closed (short circuit)    0 0 0                              Operating mode open (interruption)        _ _ _         </p>
<b>External and ambient sensor influence</b>		<p>           Determines the mix ratio between the internal and external ambient sensor when parameter 64 = 1.         </p> <p> <b>0 %</b> = internal sensor only active (0% external - 100% internal)  <b>50 %</b> = mean value of external + internal sensor  <b>100 %</b> = external sensor only active         </p> <p>           The set mix is used for ambient control and display.            If the external sensor is short circuited or interrupted, the operation continues with the internal sensor.         </p>
<b>Anti-bacterial function (with storage capacity boiler unit)</b>		<p>           This function allows the hot water to be brought to a high temperature once a week in order to eliminate eventual pathogenic agents. It is active every Monday for a maximum duration of 2.5 hours at a delivery temperature of 65°C.         </p> <p> <b>0</b> = not active      <b>1</b> = active         </p>

### 2.10.3 Gradient of the characteristic heating curve

The gradient of the characteristic heating curve is imposed on the current value "15" of Logica. Increasing the gradient as shown in the drawing of fig. 15, the delivery temperature increases in correspondence to the outside temperature.

### 2.11 EXTERNAL TEMPERATURE SENSOR

The "Logica Remote Control" can be connected to an external temperature sensor available as an optional extra (code 8094100). This configuration ensures and maintains the required temperature constant in the room. The ambient temperature is, in fact, indicated and evaluated as the calculated mean of the value measured inside and outside the dwelling. For installation, follow the assembly instructions inserted in the package.

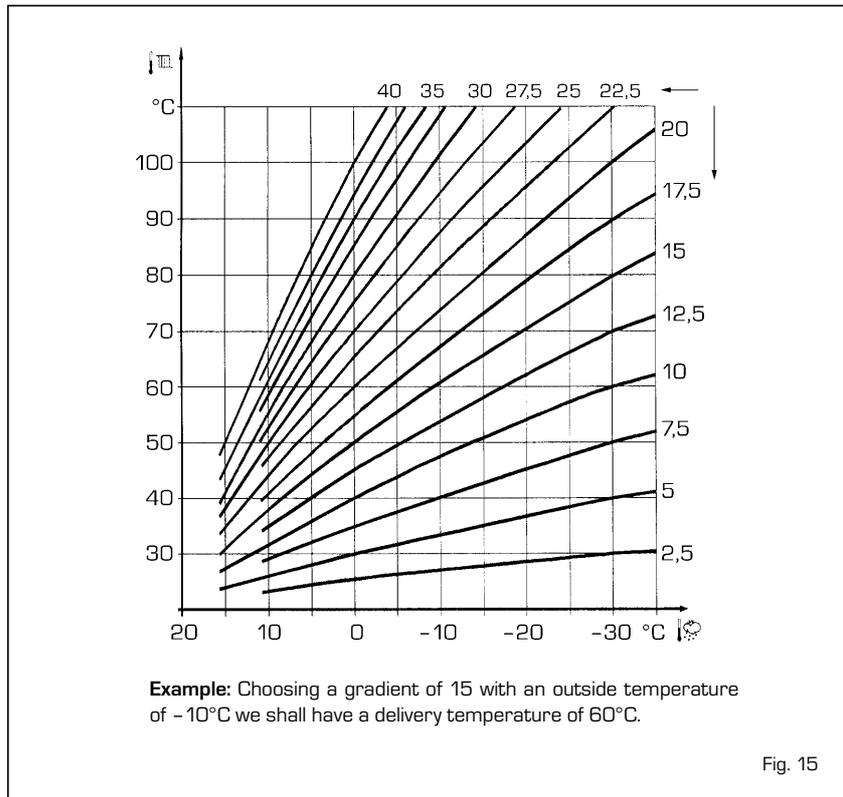


Fig. 15

## 3 CHARACTERISTICS

### 3.1 ELECTRONIC BOARD

The electronic boards are manufactured in compliance with the EEC 73/23 low-voltage directives.

They are supplied with 230V and, through a built-in transformer, send a voltage of 24V to the following components: gas valve, safety stat, C.H. and D.H.W. sensor; external temperature sensor (optional), modulator; micro divertor valve, flow switch safety valve, water pressure transducer; room stat or "Logica Remote Control".

An automatic and continuous modulation system enables the boiler to adjust the heat output to the various system requirements or the User's needs.

The electronic components are guaranteed against a temperature range of 0 to  $+60^{\circ}\text{C}$ .

#### 3.1.1 Fault finding

The indicator leds signalling irregular and/or incorrect operation of the equipment are indicated in fig. 16.

#### 3.1.2 Devices

The electronic board is equipped with the following devices:

- "POT. RISC." trimmer (10 fig. 17)  
Sets the maximum heating power value. To increase the value turn the trimmer clockwise; to reduce the value turn the trimmer anticlockwise.
- "POT. ACC." trimmer (6 fig. 17)  
Trimmer to vary the pressure level upon

ignition (STEP), of the gas valve.

According to the type of gas for which the boiler is equipped, the trimmer must be regulated so as to obtain a pressure of approx. 3 mbar at the burner for methane gas and 7 mbar for propane gas (G31).

To increase pressure, turn the trimmer clockwise; to reduce pressure, turn the trimmer counterclockwise.

The slow ignition pressure level can be set during the first 3 seconds following burner ignition.

**After setting the pressure level upon ignition (STEP) according to the type of gas, check that the pressure for heating is still at the value previously set.**

- "MET-GPL" connector (7 fig. 17)  
With the connector **switched-off**, the

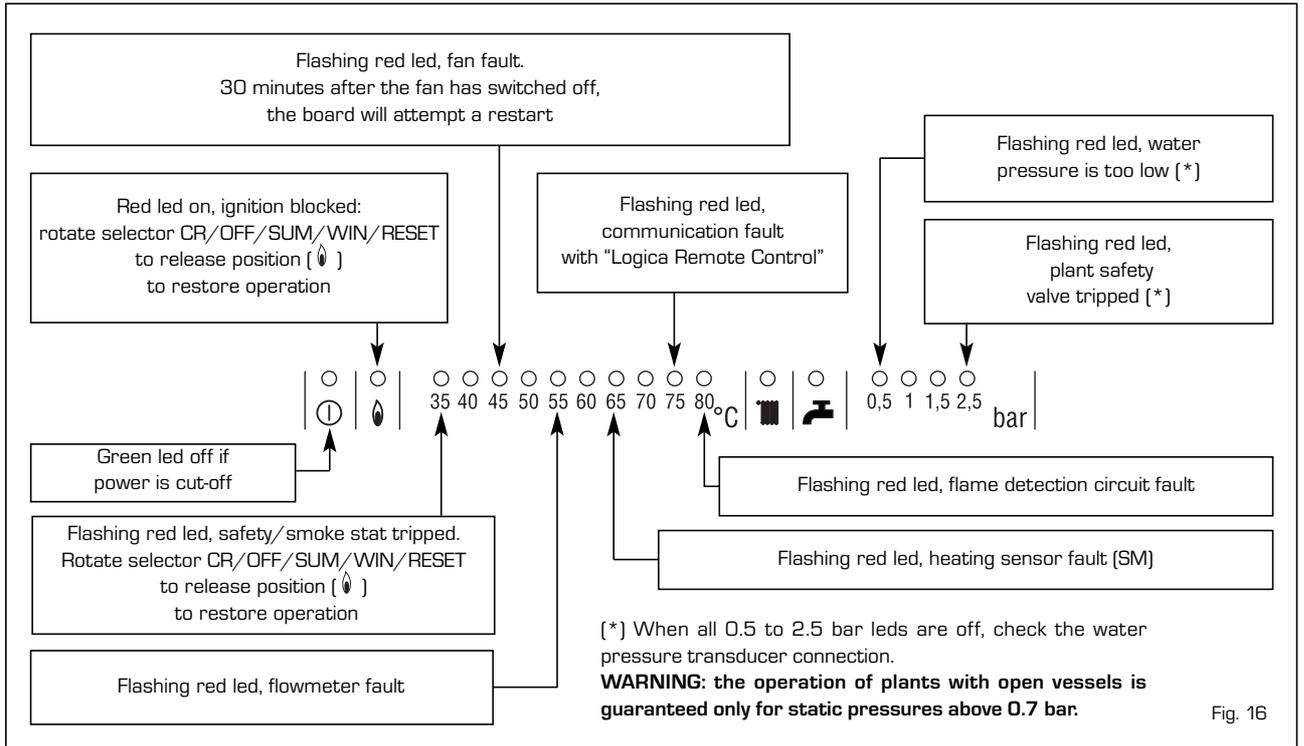


Fig. 16

boiler is set-up for NATURAL GAS; with the connector **switched-on**, the boiler is ready for LPG.

- **"ANN. RIT." connector** [5 fig. 17]  
In the heating phase, the electronic board is programmed to include a burner technical delay interval of approx. 90 seconds, which occurs both at system cold starting and at subsequent re-ignitions. The aim is to overcome the problem of repeated ignitions and turning off with very short time intervals between. This could

occur in particular in systems presenting high head losses.  
At each restart after the period of slow ignition, the boiler will set itself for about 1 minute at the minimum modulation pressure, and will then move to the heating pressure value set.  
When the connecting link is inserted, both the programmed technical pause and the period of operation at minimum pressure in the startup phase will be cancelled. In this case, the times elapsing between turning off and subsequent re-

ignition will depend on a temperature difference of 5°C detected by the SM sensor (heating flow sensor).

- **DIP SWITCH** [13 fig. 17]  
Check that the cordless plugs are inserted in the position indicated:

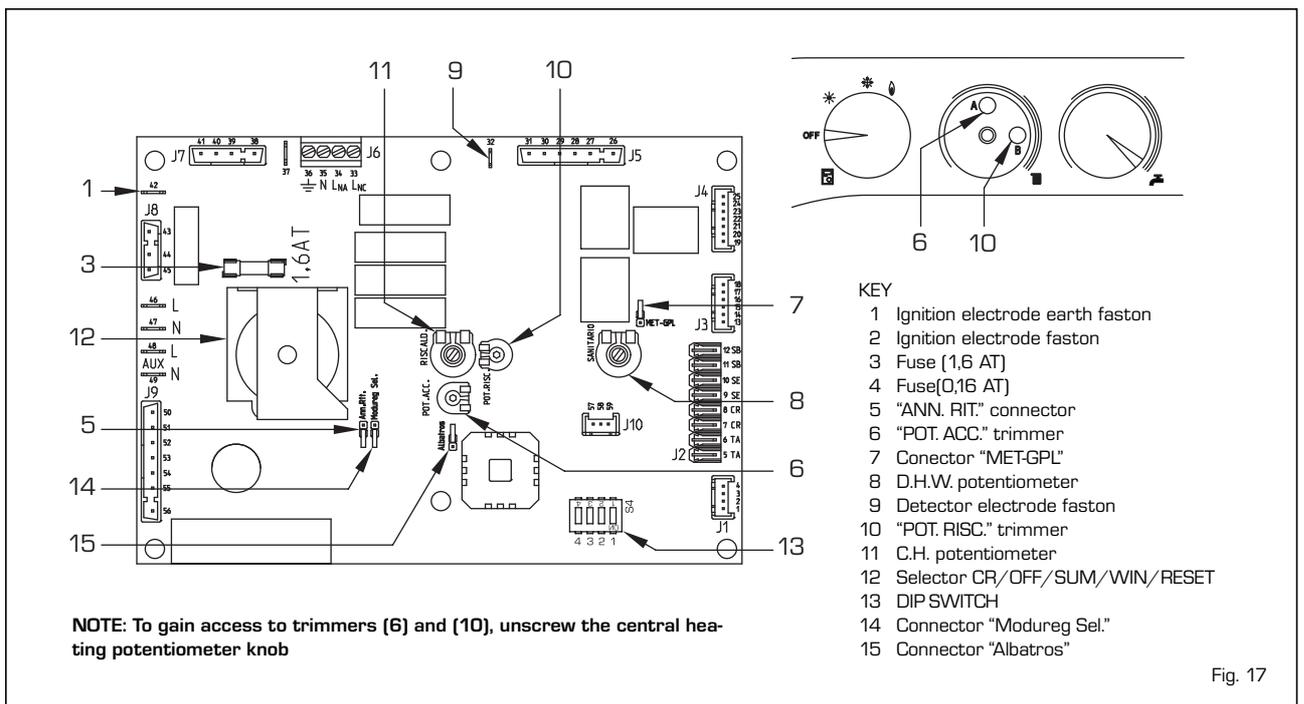
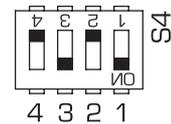


Fig. 17

- "Modureg Sel." connector [14 fig. 17]  
The bridge must always be **connected**.
- "Albatros" connector [15 fig. 17]  
The bridge must always be **disconnected**.  
It is **connected** only when multiple boilers are installed in a sequence/cascade.

**ATTENTION: It is essential that the operations described above be carried out by authorized technical staff.**

### 3.2 TEMPERATURE SENSOR AND WATER PRESSURE TRANSDUCER

Antifreeze system made up of the NTC heating sensor that activates when the water temperature reaches 6°C.

Tables 3 - 3/a show the resistance values ( $\Omega$ ) that are obtained on the sensor as the temperature varies and the transducer values obtained as the pressure varies.

**When sensor (SM) is interrupted, neither of the boiler's heating services will function. With D.H.W. sensor (SB) interrupted, the boiler will only work in heating mode.**

TABLE 3 (Sensors)

Temperature (°C)	Resistance ( $\Omega$ )
20	12.090
30	8.313
40	5.828
50	4.161
60	3.021
70	2.229
80	1.669

TABLE 3/a (Transducer)

Pressure (bar)	Resistance ( $\Omega$ )	
	min	max
0	297	320
0,5	260	269
1	222	228
1,5	195	200
2	167	173
2,5	137	143
3	108	113
3,5	90	94

### 3.3 ELECTRONIC IGNITION

Ignition and flame detection is controlled by two electrodes located on the burner. These guarantee maximum safety with intervention times, for accidental switching off or gas failure, of within one second.

#### 3.3.1 Operating cycle

Rotate the selector knob to summer or winter, and verify that green led (Ⓛ) lights up to confirm the presence of voltage. The burner must be ignited within 10 seconds. However, it is possible for ignition failures to occur, with consequent activa-

tion of signal indicating that the control box has "locked out".

#### - Gas failure

The control box runs through the cycle normally sending electric power to the ignition electrode. The electrode continues spark discharge for a maximum of 10 sec. If the burner does not light, the lock-out indicator will light up. This may occur upon first ignition or after long periods of boiler lay-off when there is air in the pipes. It may be caused by the gas cock being closed or by one of the valve coils having a break in the winding, so that the valve cannot open.

#### - Ignition electrode fails to spark

In the boiler, only the gas to the burner is seen to open. After 10 sec. the warning light indicating equipment "lock-out" lights up.

This may be due to a break in the wire of the electrode or to the wire not properly fastened to the electric terminal of the control box;

#### - No detection of flame

The continuous spark discharge of the electrode is noted starting from ignition even though the burner is lit.

After 10 seconds have elapsed, the sparks cease, the burner goes out, and the warning light indicating equipment

"lock-out" lights up.

There could have a break in the wire of the sensing electrode or the electrode itself is touching earth: the electrode is worn out and needs replacing. The control box is defective.

When there is a sudden voltage failure, the burner shuts out immediately; when power supply returns, the boiler will start up again automatically.

### 3.4 FLOW SWITCH SAFETY VALVE

A flow switch safety valve [15 fig. 3] intervenes, blocking the operation of the burner if the boiler is without water due to the formation of an air lock in the heat exchanger or if the circulator is not working.

**NOTE: If replacing the flow switch valve, make sure that the arrow stamped on the valve points in the same direction as the flow of water.**

### 3.5 SYSTEM AVAILABLE HEAD

For boilers with the standard fittings, the residual head for the heating system on the basis of rate of flow is represented in the diagram in figure 18.

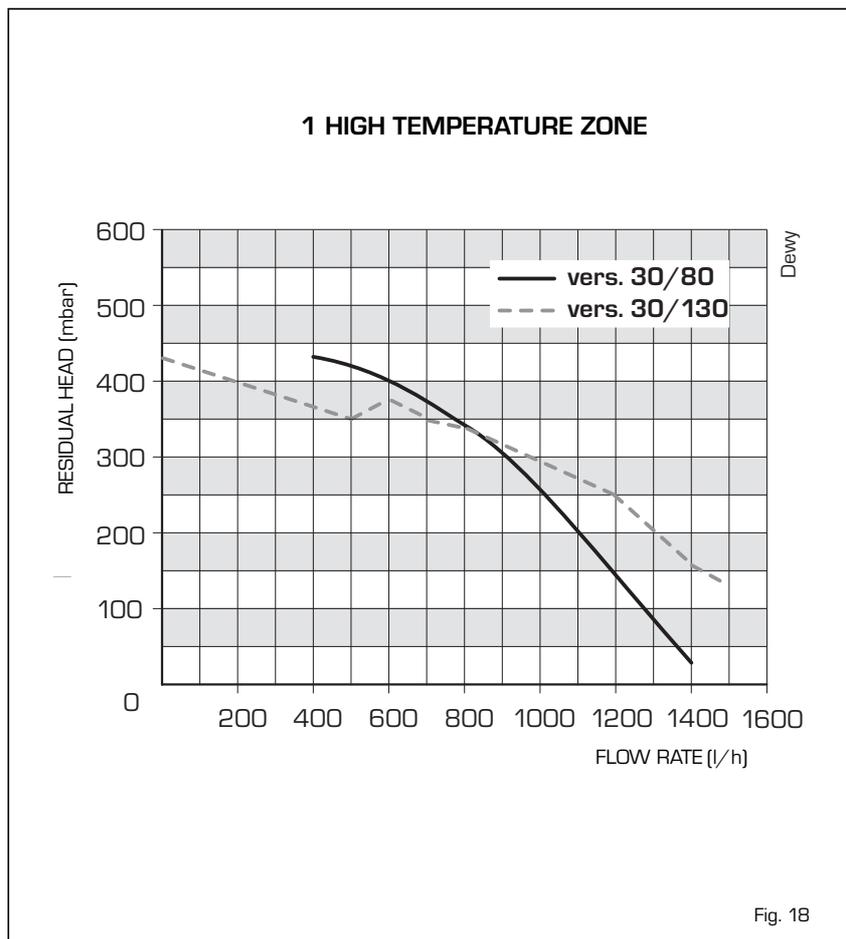


Fig. 18

**3.5.1 Head with total rate of flow to other zones**

In "DEWY 30/130 HE FS" versions using the second and third zone kit, determine the head available to the zones as shown in the following example:

Rate of flow calculated for zone 1 = 350 l/h  
 Rate of flow calculated for zone 2 = 400 l/h  
 Rate of flow calculated for zone 3 = 400 l/h

To obtain head available to zone 1, add the

total rate of flow to the other zones (in this case zones 2 and 3): 400 l/h + 400 l/h = 800 l/h.

As shown in the graph (fig. 18/a) at the 800 l/h curve, head at 350 l/h for zone 1 = 180 mbar.

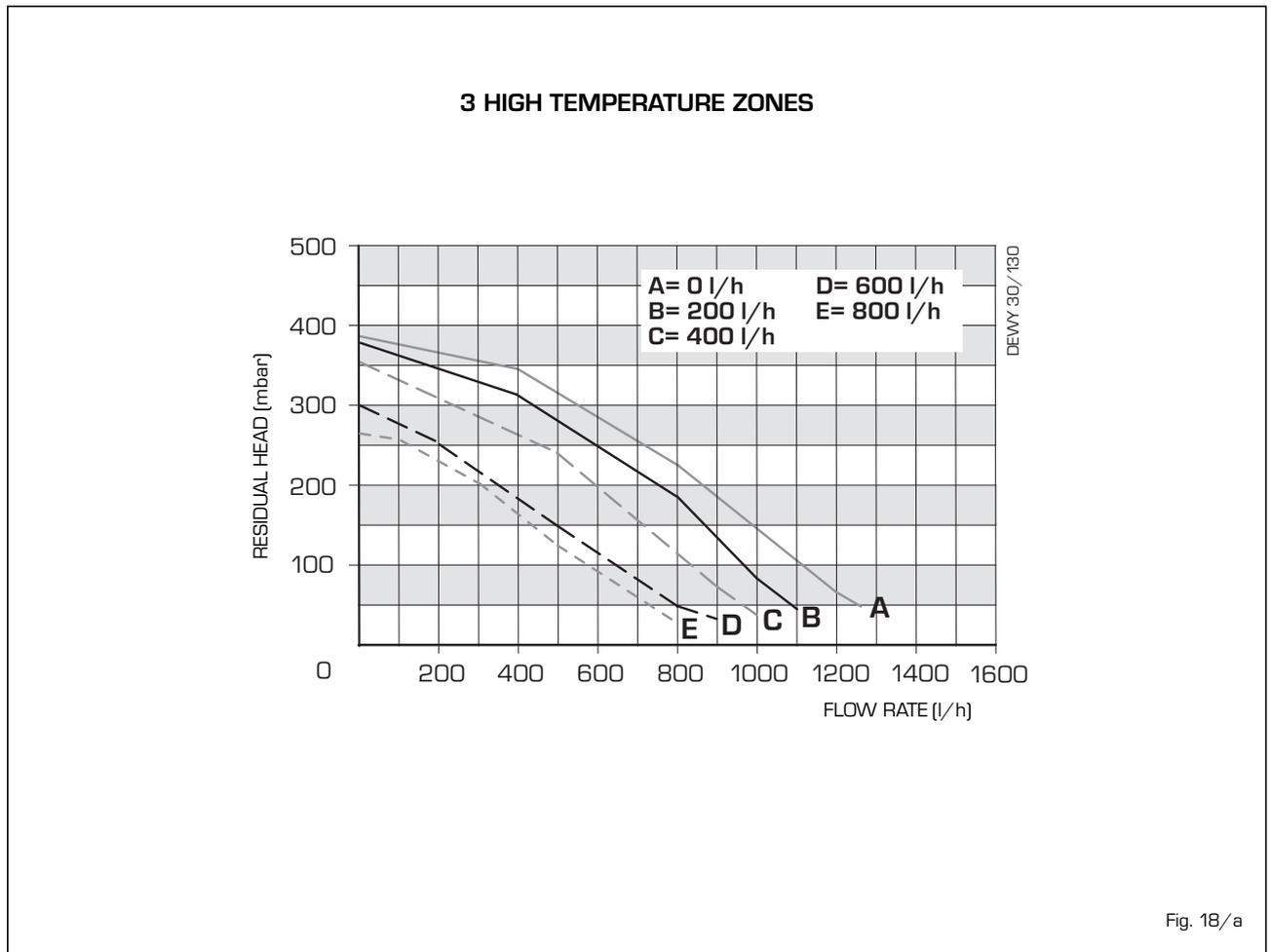
The same procedure may be applied to other zones to obtain:

Zone 2 = 350 l/h + 400 l/h = 750 l/h.  
 As shown in the graph at the 800 l/h curve, head at 400 l/h = 160 mbar.

Zone 3 = 350 l/h + 400 l/h = 750 l/h.  
 As shown in the graph at the 800 l/h curve (curve E), head at 400 l/h = 160 mbar.

**3.6 SMOKE STAT**

To ensure an effective protection of the channel in polypropylene from smoke, the boiler is supplied with a standard smoke thermostat (27 Fig. 3 - 37 Fig. 3/a).



## 4 USE AND MAINTENANCE

### 4.1 D.H.W. PRODUCTION

The preparation of hot water is guaranteed by the glass storage tank unit with magnesium anode for the protection of the boiler unit and inspection flange for its control and cleaning.

**The magnesium anode must be checked annually and substituted when it is worn.** It is advisable to place a sluice gate at the entrance of the D.H.W. tank unit which, apart from the total closure, allows the regulation of the supply capacity.

**If the boiler does not produce hot water, make sure that the air has been released by pressing on the manual vents after having switched off the main switch.**

The temperature and pressure relief valve and expansion relief valves should not be used for venting air out the system.

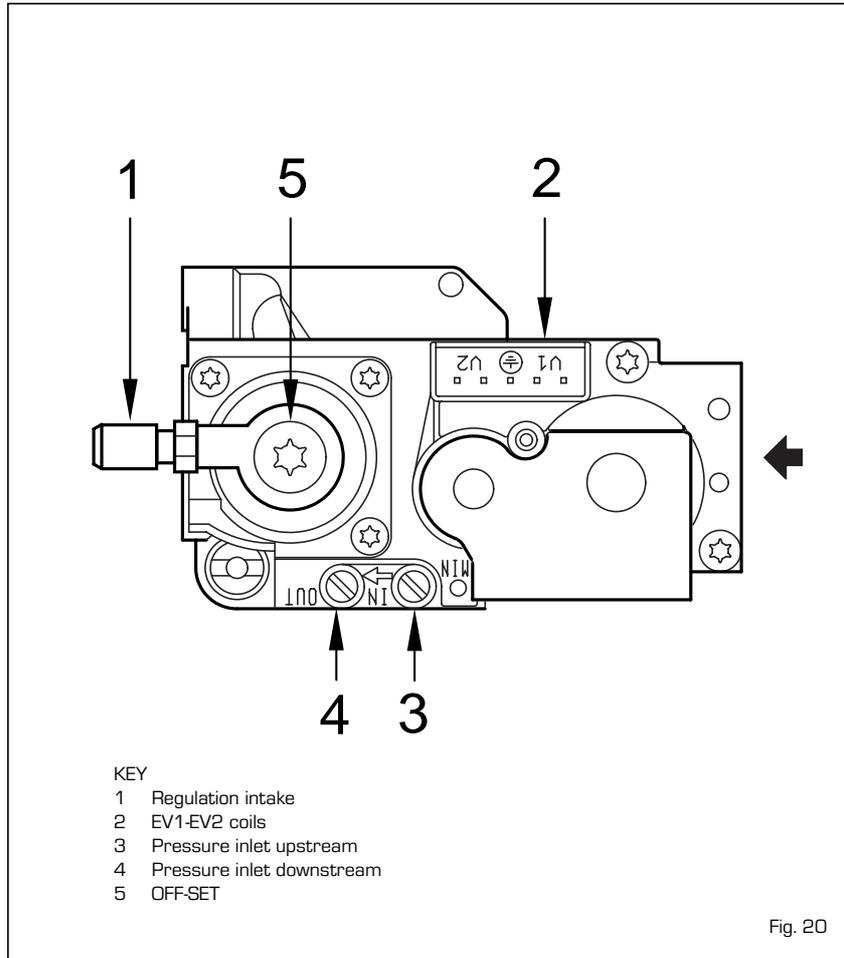
To drain the D.H.W. circuit, turn off the gas and electricity supplies and close the D.H.W. supply isolating valve to the appliance. Connect a hose to the D.H.W. discharge cock (See fig. 2-2/a) and feed to a suitable drain. Open a hot water tap, and then open the D.H.W. discharge cock, to drain the tank.

### 4.2 GAS VALVE

The boiler is equipped standard with the HONEYWELL VK 8115M gas valve (fig. 20).

### 4.3 ADJUSTMENT OF HEAT OUTPUT FOR HEATING

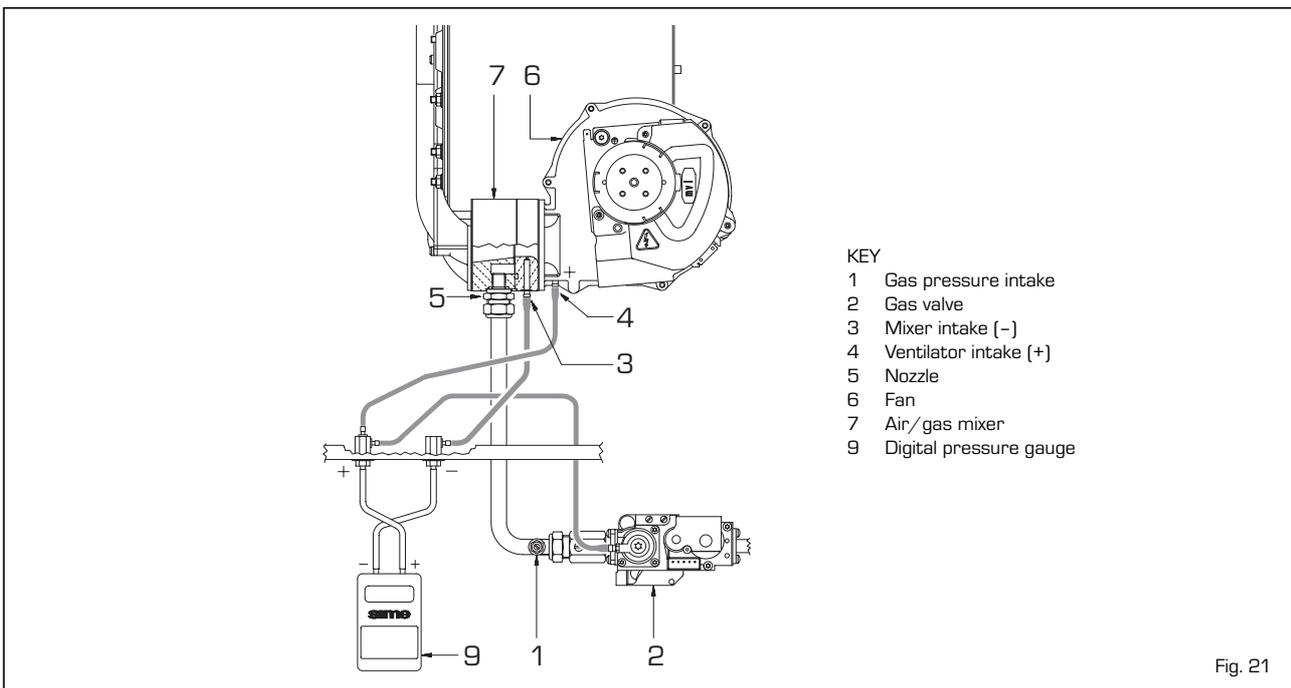
To adjust boiler heat output for heating purposes, i.e., modifying the setting made at the factory which is approximately 17 kW, use a screwdriver to adjust the heating heat output trimmer (10 fig. 17).



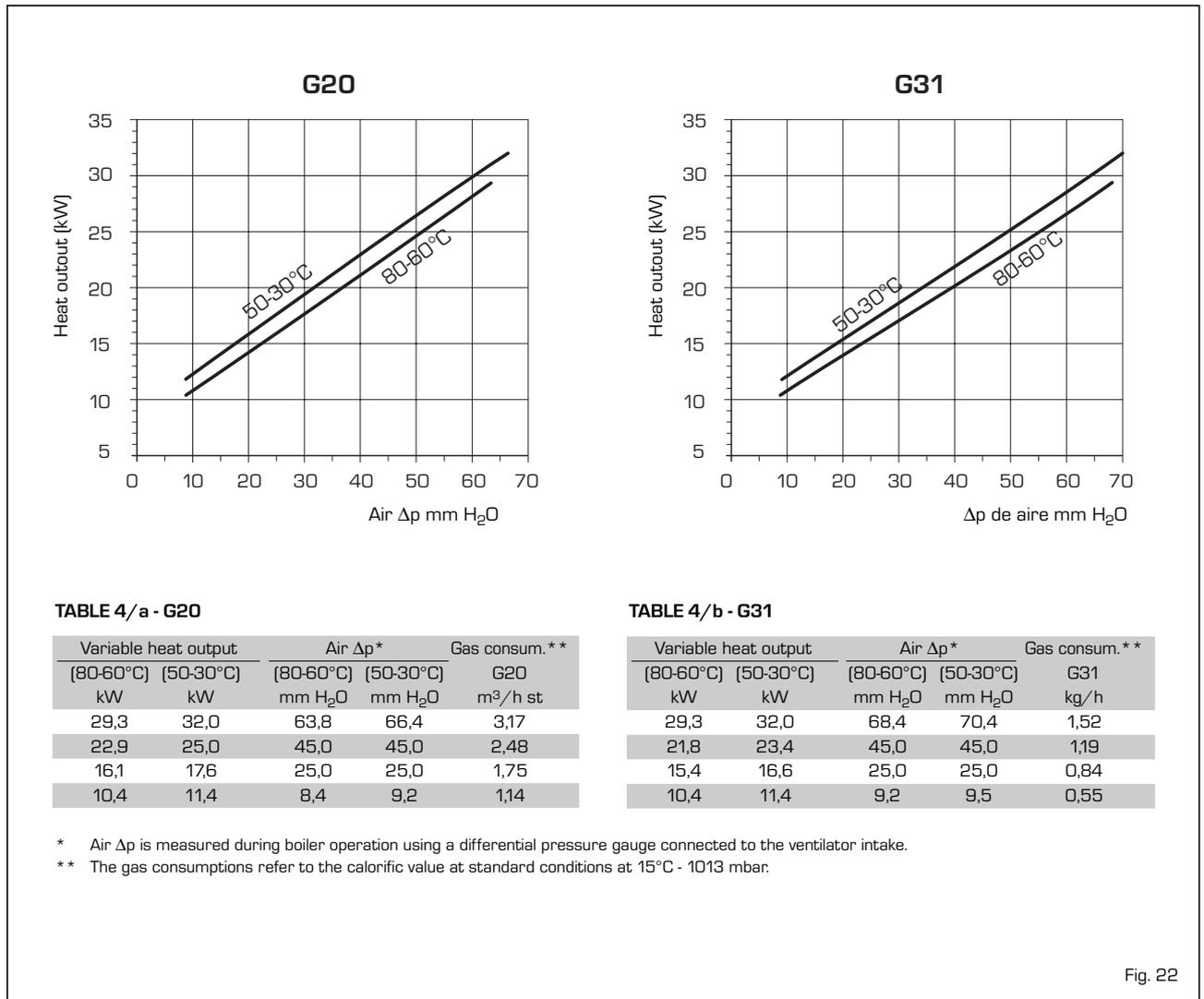
To increase working pressure, turn the trimmer clockwise; to reduce pressure, turn the trimmer counterclockwise.

To determine boiler heat output setting, check energy consumption by observing the meter and then compare with the

values shown in **Tables 4 - 4/a - 4/b**; or measure "air  $\Delta p$ " with a digital pressure gauge connected up as shown in fig. 21. Compare values with those shown in **Tables 4 - 4/a - 4/b**.



4.3.1 Diagram illustrating heat output in relation to "air Δp"

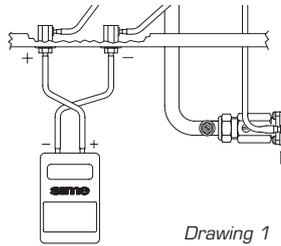


#### 4.4 BOILER CALIBRATION

The boiler must always be calibrated while set on heating.

##### “ $\Delta p$ air” ADJUSTMENT

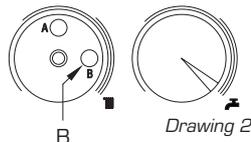
To measure “ $\Delta p$  air” simply connect a differential pressure gauge with a decimal or Pascal scale to the positive and negative tap, observing the symbols (*Drawing 1*).



*Drawing 1*

##### Sequence of operations:

- 1) Turn the heating power control trimmer clockwise as far as it will go (*B* - *Drawing 2*) with the fan at its top speed.
- 2) Attempt to achieve the “ $\Delta p$  air” values given in the table by adjusting the MAX trimmer on the fan board (*Drawing 3*):

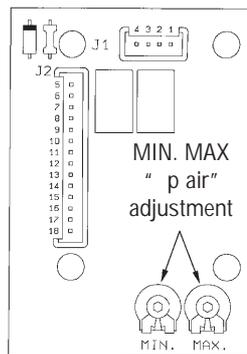


*Drawing 2*

##### $\Delta p$ air max.

Dewy	25	30
Natural gas (G20)	49,5	63,8
Propane (G31)	49,5	68,4

- 3) Turn the heating power control trimmer anti-clockwise as far as it will go (*B* - *Drawing 2*) with the fan at its top speed.



*Drawing 3*

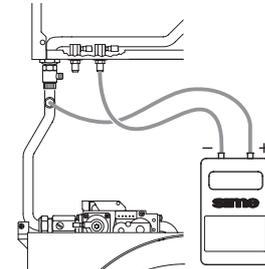
- 4) Attempt to achieve the “ $\Delta p$  air” values shown in the table using the “MIN” trimmer on the fan board (*Drawing 3*):

##### $\Delta p$ air min.

Dewy	25	30
Natural gas (G20)	7,1	8,4
Propane (G31)	7,1	9,2

##### “ $\Delta p$ air-gas” ADJUSTMENT

To measure “ $\Delta p$  air-gas”, simply connect the positive tap of the differential pressure gauge to the gas tap and the negative tap to the corresponding tap on the boiler (*Drawing 4*).

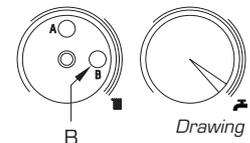


*Drawing 4*

Always adjust gas pressure with the fan at its top speed.

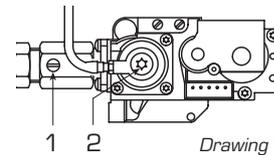
##### Sequence of operations:

- 1) Turn the heating power control trimmer anti-clockwise as far as it will go (*B* - *Drawing 5*) with the fan at its top speed.



*Drawing 5*

- 2) Open the gas capacity step (*1* - *Drawing 6*) all the way so that the notch is in a horizontal position.



*Drawing 6*

- 3) Adjust the gas valve OFFSET regulation (*2* - *Drawing 6*), aiming to achieve the “ $\Delta p$  air-gas” shown in the table:

##### Capacity step open

Dewy	25	30
Natural gas (G20)	7,3	7,0
Propane (G31)	8,1	10,1

- 4) Using the capacity step (*1* - *Drawing 6*), attempt to achieve the “ $\Delta p$  air-gas” shown in the table:

##### Capacity step regulated

Dewy	25	30
Natural gas (G20)	5,3	6,3
Propane (G31)	4,4	9,0

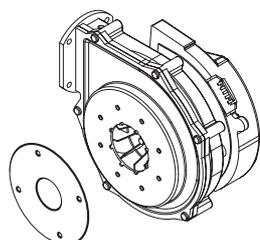
Upon completion of the calibration procedure, check CO<sub>2</sub> values using a combustion analyser. If a difference which is more than 0.2 above or below the values indicated in the table is found, it will be necessary to correct it:

	“Dewy 25”		“Dewy 30”	
	CO <sub>2</sub> (Natural gas)	CO <sub>2</sub> (Propane)	CO <sub>2</sub> (Natural gas)	CO <sub>2</sub> (Propane)
“MIN” output	9,3	10,2	9,0	10,1
“MAX” output	8,9	10,0	9,1	10,3

- Use the OFFSET screw (*2* - *Drawing 6*) to correct CO<sub>2</sub> at “MIN” output.
- Use the capacity step to correct CO<sub>2</sub> at “MAX” output (*1* - *Drawing 6*).

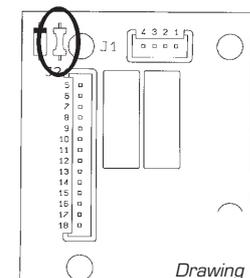
##### ATTENTION:

- On PROPANE - G31 boilers it is a good idea to check that the position of the GPL bridge on the control board is correct.
- Diaphragm code 6028640 (*Drawing 7*) is assembled on the “Dewy 25” model functioning on PROPANE - G31 only.



*Drawing 7*

- If the fan control board code 8260501 is replaced on “Dewy” models running on PROPANE - G31 it is very important to remember to cut the specified resistance (*Drawing 8*).



*Drawing 8*

Fig. 23

#### 4.5 DISASSEMBLY OF EXPANSION VESSEL

To disassemble the expansion vessel, proceed as follows:

- Make sure that the water has been emptied out of the boiler.
- Unscrew the connection and the locknut.
- Remove the expansion vessel.

Before refilling the system, using a pressure gauge attached to the valve make sure that the expansion vessel is preloaded at a pressure of 0.8 to 1 bar.

#### 4.6 CLEANING AND MAINTENANCE

Preventive maintenance and checking of efficient operation of equipment and safety devices must be carried out exclusively by authorized technical personnel.

**During maintenance operations the authorised technician must check that the syphoned drip is full of water** (this check is of importance particularly when the generator has been out of use for a long period of time). Filling is done via the special opening (fig. 24).

##### 4.6.1 Disassembly the control panel and skirt cover lid (fig. 25)

To remove the cover, take out the screws (1 - 2) that hold it in place on the instrument panel. Position side "A" of the bracket on the skirt side so that the instrument panel is hooked on the side in order to facilitate this operation.

##### 4.6.2 Chimney sweep function

To carry out the verification of combustion in the boiler, turn the selector and stop on the position (🌀) until the orange led (🔴) starts to flash intermittently (fig. 29).

From that moment the boiler will start functioning in heating mode at the maximum power, with switching off at 80°C and restarting at 70°C.

**Before activating the chimney sweep function make sure that the radiator valves or eventual zone valves are open.**

The test may be carried out also during hot water functioning.

To do so it is enough, after having activated the chimney sweep function, to take some hot water from one or more taps; after a few minutes the request of the hot-water service feeler is activated and it automatically switches on the led (🔴).

Even in this condition the boiler functions at the maximum temperature always with the primary controlled between 80°C and 70°C. During the entire duration of the testing the hot water taps must remain open.

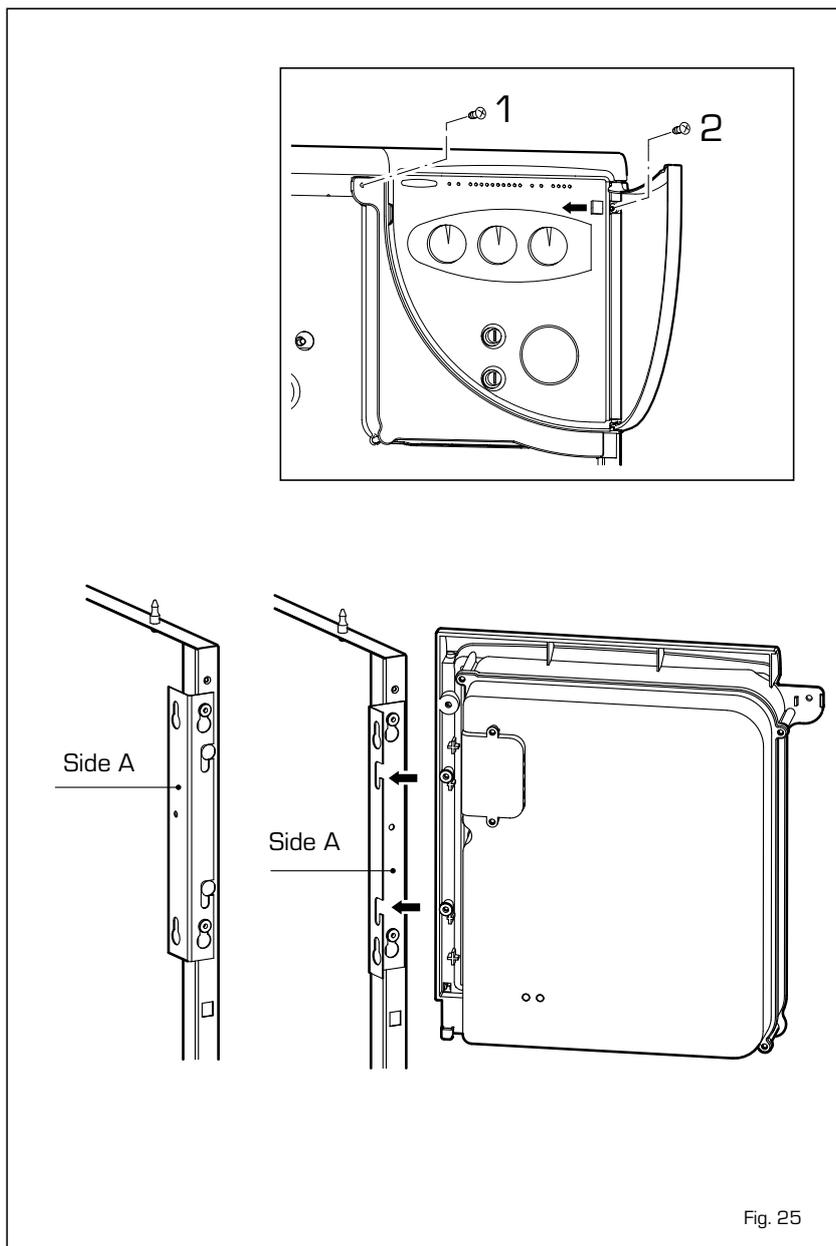


Fig. 25

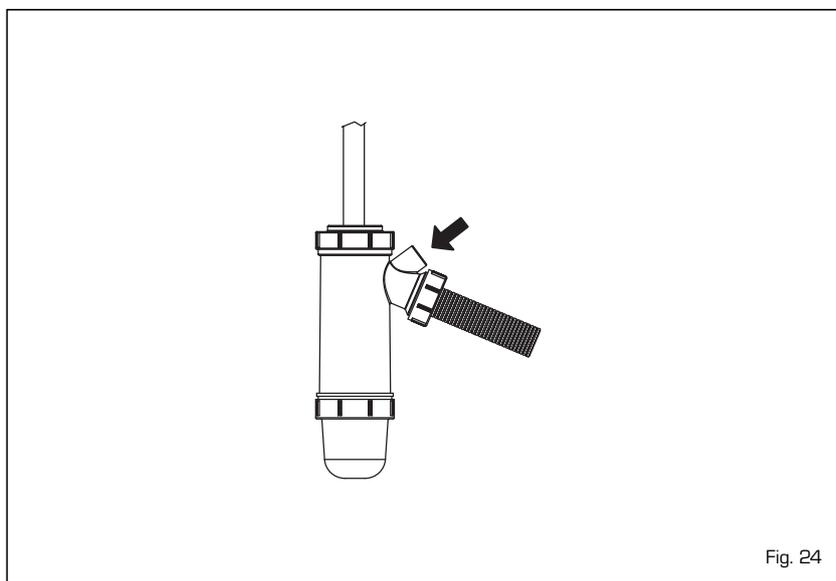
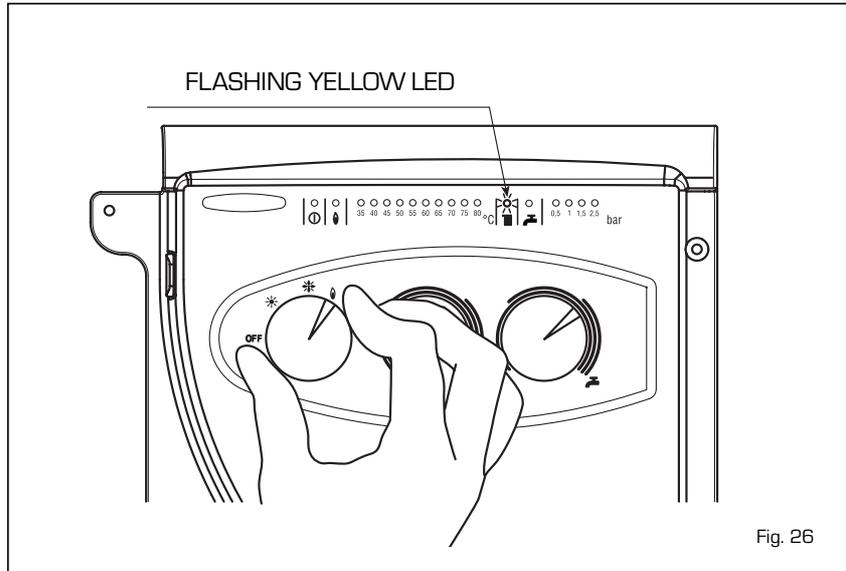


Fig. 24

After verifying the combustion the boiler should be switched off by placing the selector on the **(OFF)** position; then return the selector to the desired function.

**ATTENTION:** After about 15 minutes the chimney sweep function automatically deactivates.





# CHECKLIST

**Ensure the following is completed after the boiler has been installed and commissioned:-**

**BOILER SERIAL No.** ..... **NOTIFICATION No.** .....

**CONTROLS To comply with the Building Regulations, each section must have a tick in one or other of the boxes**

- |   |   |  |
|---|---|--|
| Time & temperature control to heating   | room t/stat & programmer/timer <input type="checkbox"/>     | Programmable roomstat <input type="checkbox"/> |
| Time & temperature control to hot water | cylinder t/stat & programmer/timer <input type="checkbox"/> | Combi boiler <input type="checkbox"/>          |
| Heating zone valves                     | Fitted <input type="checkbox"/>                             | Not required <input type="checkbox"/>          |
| Hot water zone valves                   | Fitted <input type="checkbox"/>                             | Not required <input type="checkbox"/>          |
| Thermostatic radiator valves            | Fitted <input type="checkbox"/>                             |  |
| Automatic by-pass to system             | Fitted <input type="checkbox"/>                             | Not required <input type="checkbox"/>          |

**FOR ALL BOILERS CONFIRM THE FOLLOWING:**

- The system has been flushed in accordance with the boiler manufacturer's instructions?  Yes  No
- The system cleaner used .....
- The inhibitor used .....

**FOR CENTRAL HEATING MODE, MEASURE AND RECORD THE FOLLOWING:**

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| Gas rate                                  | <input type="text"/> m /hr   | <input type="text"/> ft /hr |
| Burner operating pressure (if applicable) | <input type="checkbox"/> N/A | <input type="text"/> mbar   |
| Central heating flow temperature          |                              | <input type="text"/> °C     |
| Central heating return temperature        |                              | <input type="text"/> °C     |

**FOR COMBINATION BOILERS ONLY**

- Has a water scale reducer been fitted?  Yes  No
- What type of scale reducer has been fitted? .....

**FOR DOMESTIC HOT WATER MODE, MEASURE AND RECORD THE FOLLOWING:**

- |   |                              |                              |
|---|------------------------------|------------------------------|
| Gas rate  | <input type="text"/> m /hr   | <input type="text"/> ft /hr  |
| Maximum burner operating pressure (if applicable) | <input type="checkbox"/> N/A | <input type="text"/> mbar    |
| Cold water inlet temperature                      |                              | <input type="text"/> °C      |
| Hot water outlet temperature                      |                              | <input type="text"/> °C      |
| Water flow rate                                   |                              | <input type="text"/> lts/min |

**FOR CONDENSING BOILERS ONLY CONFIRM THE FOLLOWING:**

- The condensate drain has been installed in accordance with the manufacturer's instructions?  Yes

**FOR ALL INSTALLATIONS CONFIRM THE FOLLOWING:**

- The heating and hot water system complies with current Building Regulations  Yes
- The appliance and associated equipment has been installed and commissioned in accordance with the manufacturer's instructions  Yes
- If required by the manufacturer, have you recorded a CO/CO<sub>2</sub> ratio reading  N/A  Yes  CO/CO<sub>2</sub> ratio
- The operation of the appliance and system controls have been demonstrated to the customer  Yes
- The manufacturer's literature has been left with the customer  Yes

**COMMISSIONING ENG'S NAME:**

Print ..... Gas Safe Register ID No.....

Sign ..... Date .....

# SERVICE RECORD

It is recommended that your heating system is serviced regularly and that you complete the appropriate Service Interval Record below.

**Service Provider:** Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in this instruction manual. Always use the manufacturer's specified spare parts when replacing all controls.

**SERVICE 1:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 3:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 5:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 7:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 9:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 2:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 4:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 6:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 8:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....

**SERVICE 10:** Date .....  
Engineers Name .....  
Company Name .....  
Telephone No. ....  
Gas Safe Register ID card serial No .....  
Comments .....  
.....  
Signature .....





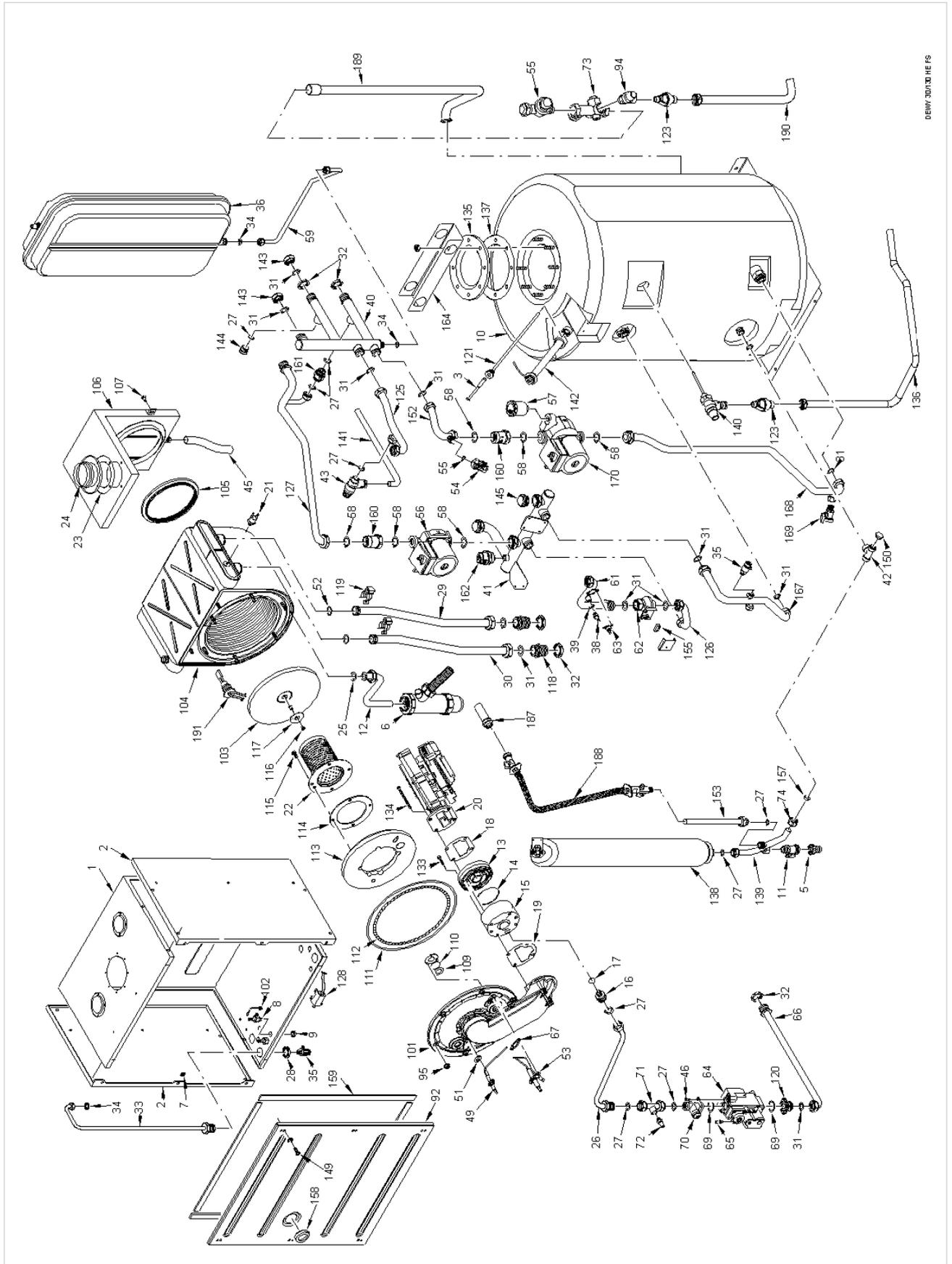
# 5 EXPLODED VIEWS

COD. 3810009/505

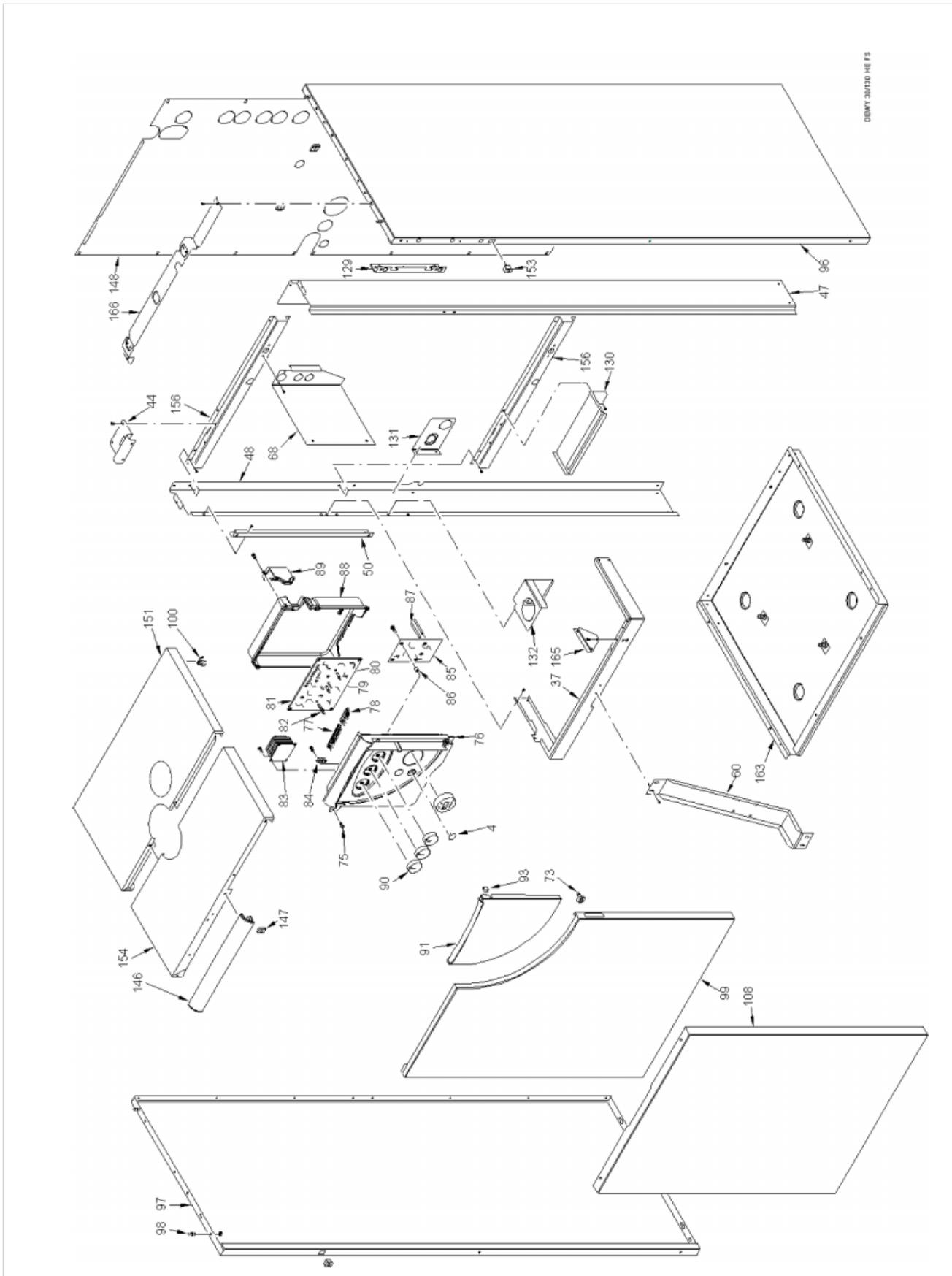
TYPE DEWY 30/130 HE FS

DATE 31.10.2007

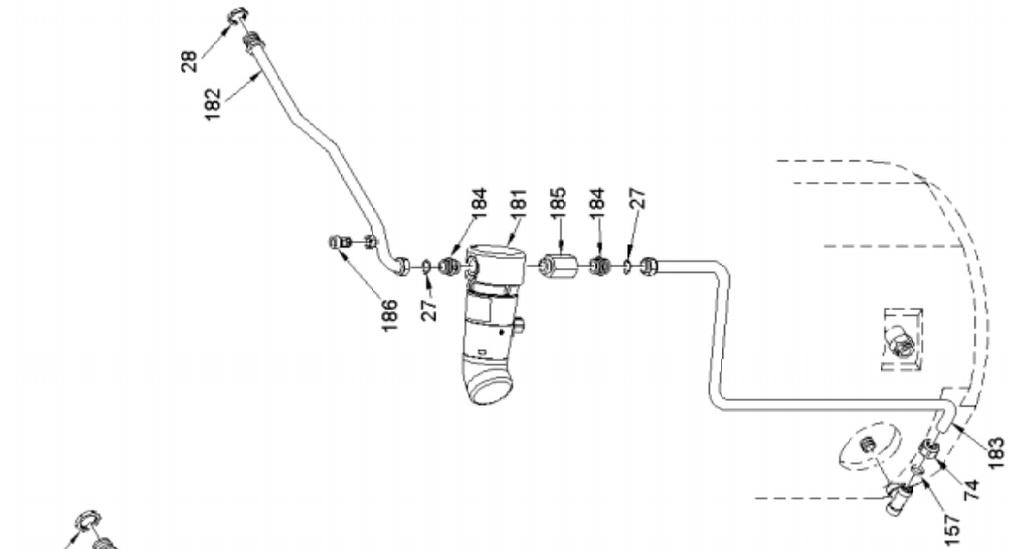
PAGE 1/6



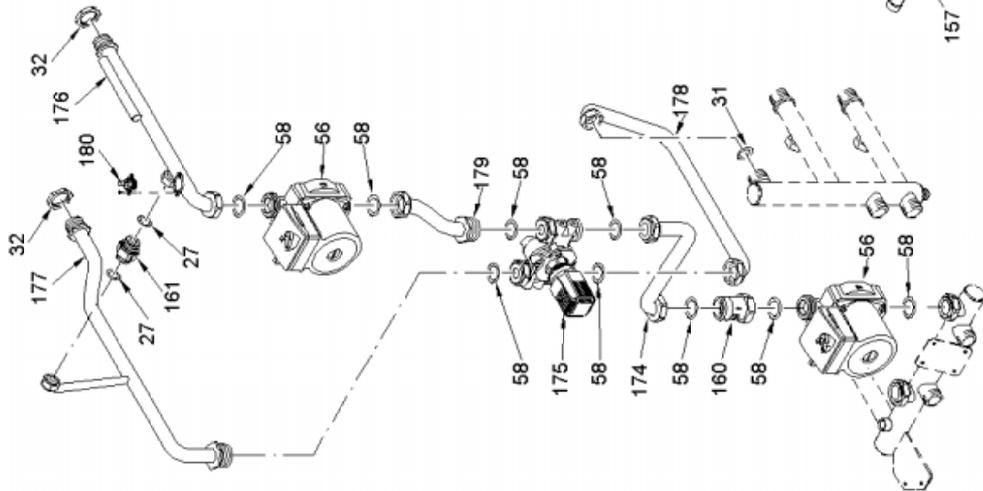
DEWY 30/130 HE FS



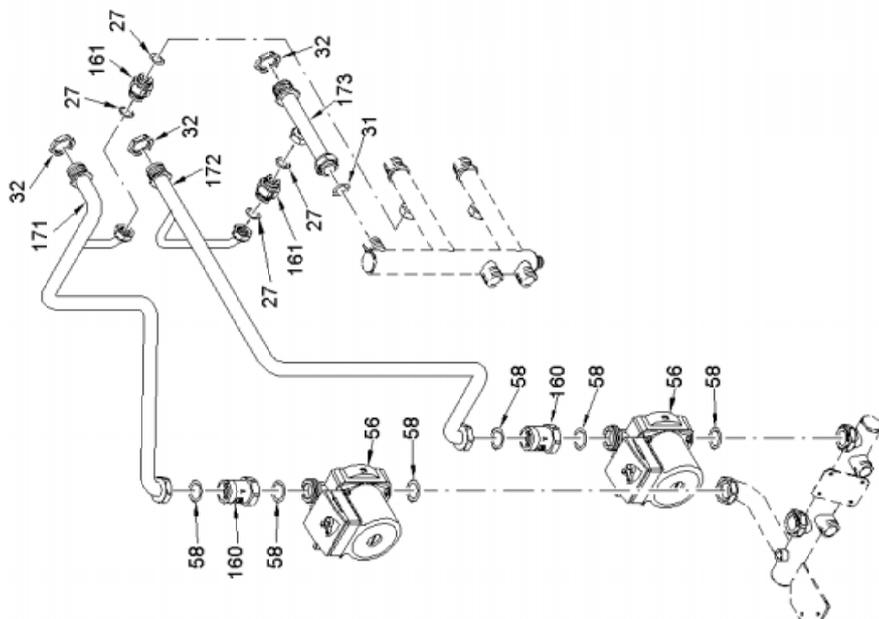
KIT POMPA RICIRCOLO



KIT ZONA BASSA TEMPERATURA



KIT POMPA SECONDA E TERZA ZONA



DEWY 30/130 HE FS

POSITION	CODE	DESCRIPTION	MODEL	NOTE	POSITION	CODE	DESCRIPTION	MODEL	NOTE
1	6266034	Sealed chamber rear panel			38	6231351	Plunged sensor		
2	6266121	Sealed chamber side panel			39	6022010	Sensor gasket		
3	6231331	D.H.W. tank sensor			40	6291900	C.H. return manifold		
4	6119343	Cap for stat hole			41	6291810	C.H. flow manifold		
5	6179200	Holder complete with locking nut			42	6297400	Tee joint M 1/2"x16		
6	6277201	Water trap			43	6040202	Pressure relief valve 1/2"x3 bar		
7	2013302	Fastener for self tapping screw			44	6073315	Expansion vessel fixing bracket		
8	6280500	3-ways junct. with press. test nipple			45	1010213	Condensate drainage rubber pipe		
9	6146303	Brass Nut 1/8"			46	2000716	Screw T.C.B. M4x8		
10	5003105	Glass-lined H.W. cylinder l. 130			47	6292510	Right rear frame part		
11	6179102	Drain cock 1/2"			48	6292610	Left rear frame part		
12	6277301	Condensate drainage pipe			49	6221617	Ionisation electrode		
13	6274303	Upstream side mixer part			50	6258613	Sealed chamber LH side rear support		
14	6226427	O-ring 156			51	6174810	Gasket for ionisation electrode		
15	6274304	Downstream side mixer part			52	6226412	O-ring 3068		
16	6274105	Burner nozzle ø 6,00 natural gas			53	6221616	Ignition electrode		
16 A	6274104	Burner nozzle ø 4,30 LPG			54	6273603	Water pressure reducer		
17	6226428	O-ring 115			55	6037580	Water pressure reducer 3/4"		
18	6174804	Gasket for fan flange			56	6254605	Grundfos circulating pump UPS 15-60		
19	6174807	Gasket for downstream side mixer part			57	6013100	Automatic air vent 3/8"		
20	6261401	Fan RG130/0800-3612			58	2030229	Gasket Ø 22x30x2		
21	6146713	Limit stat			59	6227656	Pipe connecting expansion vessel		
22	6278303	Premix burner			60	6293001	Boiler frame-D.H.W. tank fixing brack.		
23	6028703	Gasket for duct flange			61	6215814	Pipe conn. exch. flow-waterflow switch		
24	6083052	Duct flange			62	6149304	Flow water switch		
25	2030240	Teflon gasket Ø 17x24x2			63	6146701	100°C safety stat		
26	6277401	Pipe connecting gas valve-mixer			64	6243809	Honeywell gas valve type VK8115V		
27	2030227	Gasket Ø 12x18x2			65	6235802	Pressure test point M5		
28	6146301	Brass nut 1/2"			66	6195206	Gas inlet pipe		
29	6227413	Heat exchanger inlet pipe			67	6174809	Gasket for ignition electrode		
30	6227414	Heat exchanger outlet pipe			68	6258614	Sealed chamber RH side rear support		
31	2030228	Gasket Ø 17x24x2			69	6226407	O-ring 130 ø 22,22x2,62 XP70		
32	6146302	Brass nut 3/4"			70	6216607	Gas shutter 1/2"		
33	6277800	Pipe connecting air vent			71	6277504	Pipe conn. gas valve-sealed chamber		
34	2030226	Gasket Ø 10,2x14,8x2			72	6023100	Pressure test nipple Ø 1/8"		
35	6017210	Manual air vent 1/4"			73	6265850	5 ways water collector		
36	5183720	Rectang. expansion vessel 10 l. 3/8" M			74	6229515	Fixing nut 1/2"x16 OT		
37	6292901	Sealed chamber supporting bracket			75	2004110	Self tapping screw TCB 8Px1/2" Zn		

\* Recommended stock parts - Componenti da tenere a scorta

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COD. **3810009/505**TYPE **DEWY 30/130 HE FS**DATE **31.10.2007**

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POSITION	CODE	DESCRIPTION	MODEL	NOTE
152	5152040	Pope conn. H.W. circ.pump-return man.		
153	6142550	TRONCH.COLLA VALLE FILLILOOP		
154	6287840	Front casing cover		
155	• 6131401	Microswitch for flowmeter		
156	6292710	Rear frame bracket		
157	6100206	Copper ogive for pipe Ø 16		
158	6001210	Peephole		
159	5192203	Gasket for sealed chamber		
160	• 6238303	Non return valve 1"Mx1"F		
161	• 6270900	Bypass		
162	• 6013102	Automatic air vent 1/4"		
163	6261685	Tray		
164	6052404	Loading bracket		
165	6010818	Sealed chamber right fixing bracket		
166	6199411	Side panels fixing bracket		
167	6292301	D.H.W. tank inlet pipe		
168	6194803	D.H.W. tank outlet pipe		
169	6179100	Drain cock 3/8"		
170	• 6124808	Circulating pump Grundfos UPS 15-50		
171	6292104	2nd zone flow pipe		
172	6292105	3rd zone flow pipe		
173	6292200	3rd zone return pipe		
174	6293201	Pipe conn. low temp. pump-mixer valve		
175	6112510	Mixer valve		
176	6293301	Low temperature system flow pipe		
177	6293101	Low temperature system return pipe		
178	6293401	Pipe mixer valve-lt.return manifold		
179	6293202	Pipe conn. low temp. pump-mixer valve		
180	6146719	50°C safety stat		
181	6297100	Grundfos UP 15-14 pump		
182	6297300	Pipe conn. recircul. pump-fixing jig		
183	6297200	Pipe conn. D.H.W. tank-recircul. pump		
184	6120501	Nipple 1/2"x1/2" OT		
185	6078603	Non return valve 1/2"		
186	• 6017201	Air vent 1/4"		
187	6149850	Pipe connecting filling to tank		
188	5199100	Filling Loop		
189	6157627	H.W. supply tube conn.		

POSITION	CODE	DESCRIPTION	MODEL	NOTE
190	6157629	Tundish drain pipe		
191	• 5191990	Smoke stat kit		
	5064603	Pipe for smoke sensor		
	5188351	Complete main exchanger		
	6118152	Square bayonet joint		
	6127210	Main cable L=2000		
	6186538	Ignition lead L=550		
	6186596	Cable for ionisation electrode L=1100		
	6245338	Honeywell gas valve connector		
	6260996	4 pole female cable connector Lumberg		
	6260999	3 pole female cable connector Inarca		
	6278600	5 pole female cable connector		
	6278613	8 pole cable connector TACR-SE-SB		
	6278636	4 pole female cable connector J7		
	6278661	14 pole female cable connector J2		
	6278699	Circulating pump connector L=720		
	6293564	7 pole female cable connector J4		
	• 6233506	Fuse T16A 250V		
	5185121	Conversion kit to the L.P.G.		
	5190127	Control panel assembly		
	6299921	6 pole Stocko connector		
	6299961	6 pole Lumberg cable connector		
	6299965	4 pole Lumberg cable connector		
	6197713	Digital time programmer		
	6248851	Smoke chamber outlet gasket		
		Products reference:		
	8101905:	Dewy 30/130 HE FS		
		Check the correspondence with the boiler data plate.		

• Recommended stock parts - Componenti da tenere a scorta

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POSITION	CODE	DESCRIPTION	MODEL	NOTE
76	6281600	Control panel		
77	6273200	Guidelight - 12 ways out		
78	6273201	Guidelight - 6 ways out		
79	6201501	Trimmer spindle Ø 5		
80	6201502	Trimmer spindle Ø 6		
81	6230683	Main PCB with ignition		
82	6201503	Selecter spindle		
83	6240703	Transformer 230/24V		
84	2211610	Earth faston		
85	6260501	Fan driver PCB		
86	2213230	Spacer h=6.4		
87	6201504	Trimmer spindle Ø 5 L=34		
88	6281800	Control panel protecting cover		
89	6281900	Room stat cover		
90	6230921	Knob Ø 40		
91	6281700	Flap door		
92	6228891	Sealed chamber front panel		
93	6282000	Flap door tap		
94	6040208	Pressure relief valve		
95	6278964	Nut for exchanger flange		
96	6280941	Casing right hand side panel		
97	6281041	Casing left hand side panel		
98	2003000	Pin M5 Zn		
99	6280671	Casing front door		
100	2015000	Spring clip MO/AB		
101	6278850	Complete flange for main exchanger		
102	6280550	Cap for 3-ways junction		
103	6269005	Combustion chamber rear insulation		
104	6278993	Main exchanger body		
105	6248850	Gasket for smoke chamber		
106	6278700	Smoke chamber		
107	6278962	Smoke chamber fixing screw		
108	6266741	Front lower panel		
109	6174813	Gasket for peephole		
110	6020102	Glass for peephole		
111	6278965	O-ring Ø 223x231x4		
112	6278966	Glass fibre sealing cord Ø 6		
113	6269004	Combustion chamber door insulation		
114	6174808	Gasket for burner flange		
115	6278963	Burner fixing screw		
116	6278961	Comb. chamber rear insul. fixing screw		
117	6278960	Comb. chamber rear insul. fixing plate		
118	6120511	Nipple 3/4"x3/4" OT		
119	6226601	Spring for heat exchanger connection		
120	6163102	Gas valve flange c/w brass nut. 3/4"		
121	5002404	Bulb holder 1/2" Ø 7x8x400		
122	6100202	Ogive for pipe Ø 15		
123	6269405	Tundish		
124	6168401	Locking nut for pipe Ø 15		
125	6292401	Pipe conn. exchanger-return manifold		
126	6215815	Pipe conn. w. flow switch-flow manif.		
127	6292103	First zone C.H. flow pipe		
128	6098305	Ignition transformer		
129	6257102	Control panel supporting bracket		
130	6189547	Expansion vessel supporting bracket		
131	6189549	Gas pipe supporting bracket		
132	6189548	Water trap supporting bracket		
133	2000206	Screw M4 x 25		
134	2000504	Screw M5 x 70		
135	6258305	D.H.W. cylinder flange Ø 196		
136	6157624	Pressure relief valve drain pipe		
137	6052702	Flange oval gasket		
138	6245105	D.H.W. expansion vessel l. 4		
139	6227657	Pipe connecting D.H.W. expans. vessel		
140	6029002	Pressure relief valve 1/2" - 7 bar		
141	6157616	Pressure relief valve drain pipe		
142	6072706	Magnesium anode Ø 21 L=300		
143	6229550	Plug 3/4"		
144	2041032	Plug 1/2"		
145	2041080	Plug 1"		
146	6282103	Section for casing top cover L=337		
147	2013304	Fastener for self tapping screw		
148	6281335	Rear panel		
149	2004180	Self-tapping screw TCB 8SPx3/4"		
150	6229500	Plug 1/2"		
151	6284721	Rear casing cover		

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## Dealing with Condensate

Five suitable drainage points

1. Internal drain stack pipe
2. Waste water pipe \*
3. External drain or gully \*
4. Rainwater hoppers that carry both rain water and foul water \*
5. Purpose-made soakaways

\* Care should be taken not to contaminate any "Grey Water Systems"

### Pipework

Condensate pipework should be plastic, same as used for standard wastewater plumbing.

Similarly the drainage system where the condensate discharges to should also be resistant to the acidic condensate.

Connection to the internal trap in the boiler can be achieved by using a 20mm solvent weld socket.

Pipework should be kept as short as possible.

External runs should be avoided, but when necessary be a minimum of 3 meters in 32mm diameter pipework and lagged to avoid freezing, this also applies to pipe runs in unheated areas such as garages.

To reduce the possibility of condensate being trapped in the pipe, the number of bends should be kept to a minimum.

Pipework must be angled down from the boiler with a fall of at least 2.5.

The pipework must be supported at a distance of 0.5m for inclined runs and 1.0m for vertical runs.

### Condensate traps

Where the condensate drain is not sealed to the discharge connection a trap will be required. The water seal should be 38mm or more for external discharge and 75mm or more for internal discharge. When connecting to an external stack the trap should be located within the building.

### Stack Pipes

Condensate connections should be at least 450mm above any bend at the bottom of a stack pipe in a single or multi-story dwelling up to 3 storeys.

There are specific requirements when connecting to a stack pipe serving multi-storey buildings greater than 3 storeys.

All connections to stack pipes should avoid across flow between other Branch pipes.

### Soakaways

Any soakaways have to be purpose-made and located as close to the boiler as possible, but clear of the buildings foundations and any buried services. The best option is to purchase a soakaway from a drainage manufacturer and install it to the manufacturers recommendation.





**Sime Ltd**

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