

UK

PLEASE LEAVE THIS INSTRUCTION
WITH THE USER

Dewy 30/130 HE FS

*Installation and
servicing instructions*



benchmark
COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING
AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

 **sime**[®]

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



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.
- Ensure that the Benchmark checklist in the use and maintenance section of this manual is completed.

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

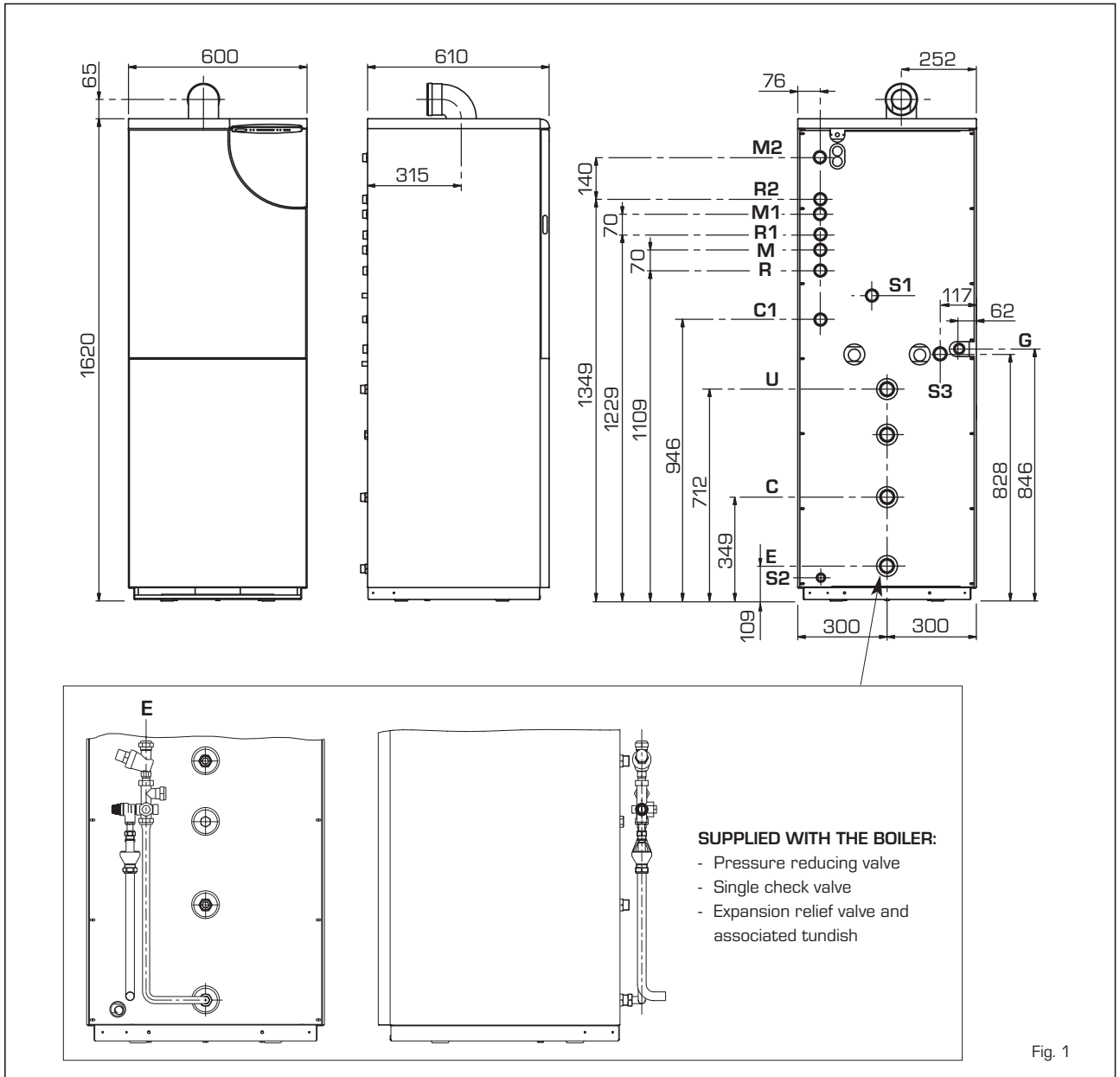


Fig. 1

CONNECTIONS

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

SERVICE CLEARANCES

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

ACCESS TO THE CONNECTIONS AT THE REAR OF THE BOILER MUST BE PROVIDED.

1.3 TECHNICAL FEATURES

DEWY 30/130 HE FS		
Heat output		
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)
Nominal D.H.W. heat output	kW	29,3
Heat input		
Nominal/Minimum	kW	30,0 / 10,8
Efficiency (80-60°C)		
Nominal/Minimum output	%	97,7 / 96,7
Efficiency (50-30°C)		
Nominal/Minimum output	%	106,8 / 105,8
Water content	l	10,9
Electrical supply	230V 50 Hz Fuse et 1.6AT	
Adsorbed power consumption	W	175
Electrical protection grade	IP X4D	
C.H. pressure relief valve setting	bar	3
Maximum C.H. working pressure	bar	2,5
Maximum temperature	°C	85
Expansion vessel		
Capacity	l	10
Preloading pressure	bar	1
C.H. setting range	°C	20 - 80
D.H.W. setting range	°C	10 - 60
D.H.W. production		
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 Δt 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
Smokes temperature		
Maximum/ Minimum (80-60°C)	°C	70 / 69
Maximum/ Minimum (50-30°C)	°C	48 / 45
Smokes flow	kg/h	49
Category	II2H3P	
Type	B23/C13-33-43-53	
Weight	kg	190
Weight (full)	kg	321,1
Main burner nozzles		
Quantity	n°	1
G20	ø mm	6,0
G25	ø mm	7,7
G31	ø mm	4,3
Gas consumption		
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
Gas supply pressure		
G20	mbar	20
G25	mbar	25
G31 (Propan)	mbar	37
CO₂ % methane (G20)	min/max	9,2 / 9,3
CO₂ % methane (G25)	min/max	9,5 / 9,6
CO₂ % propan (G31)	min/max	10,1 / 10,3
CO emission	ppm	27
NOx emission (Class 5)	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

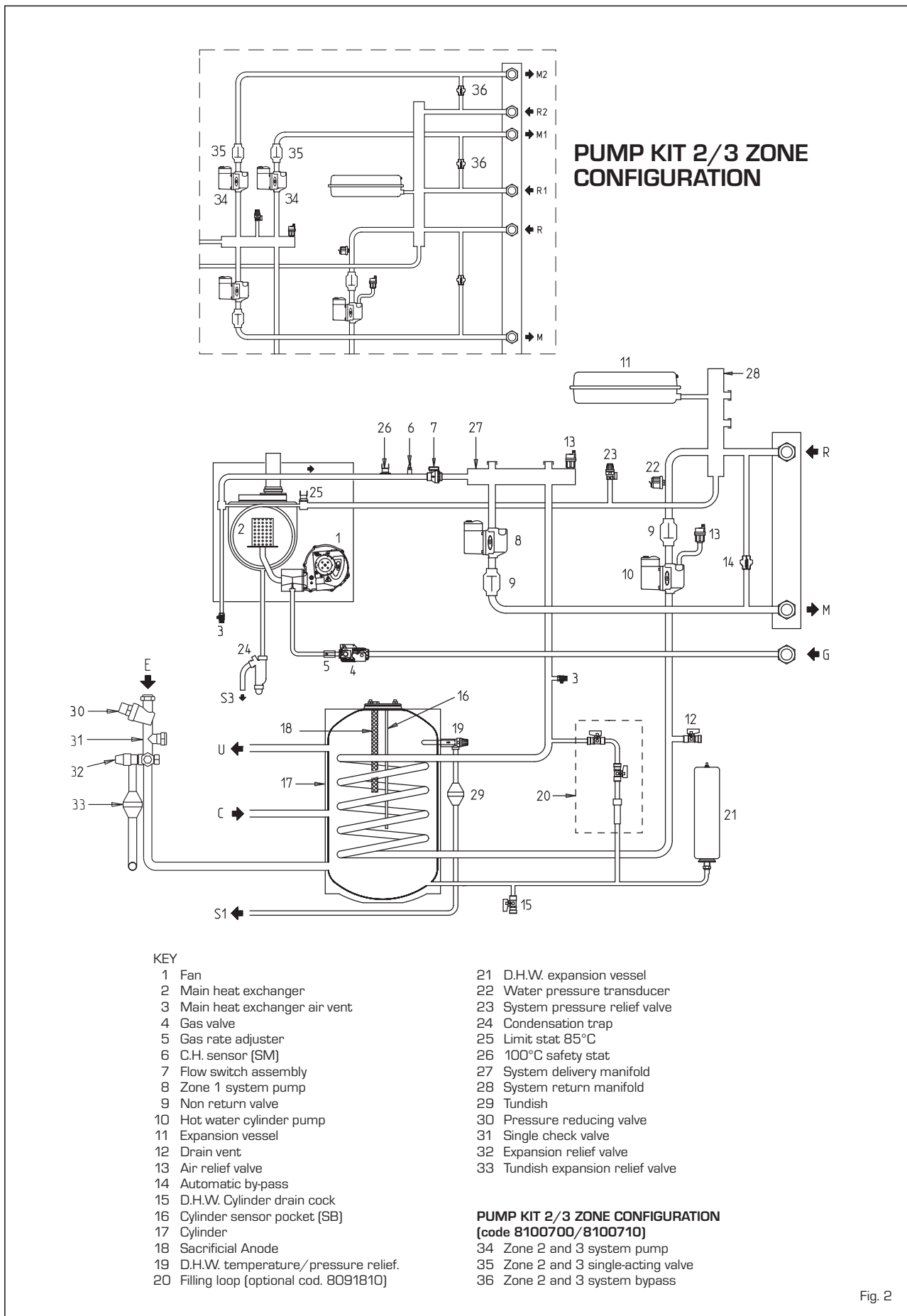


Fig. 2

1.5 MAIN COMPONENTS

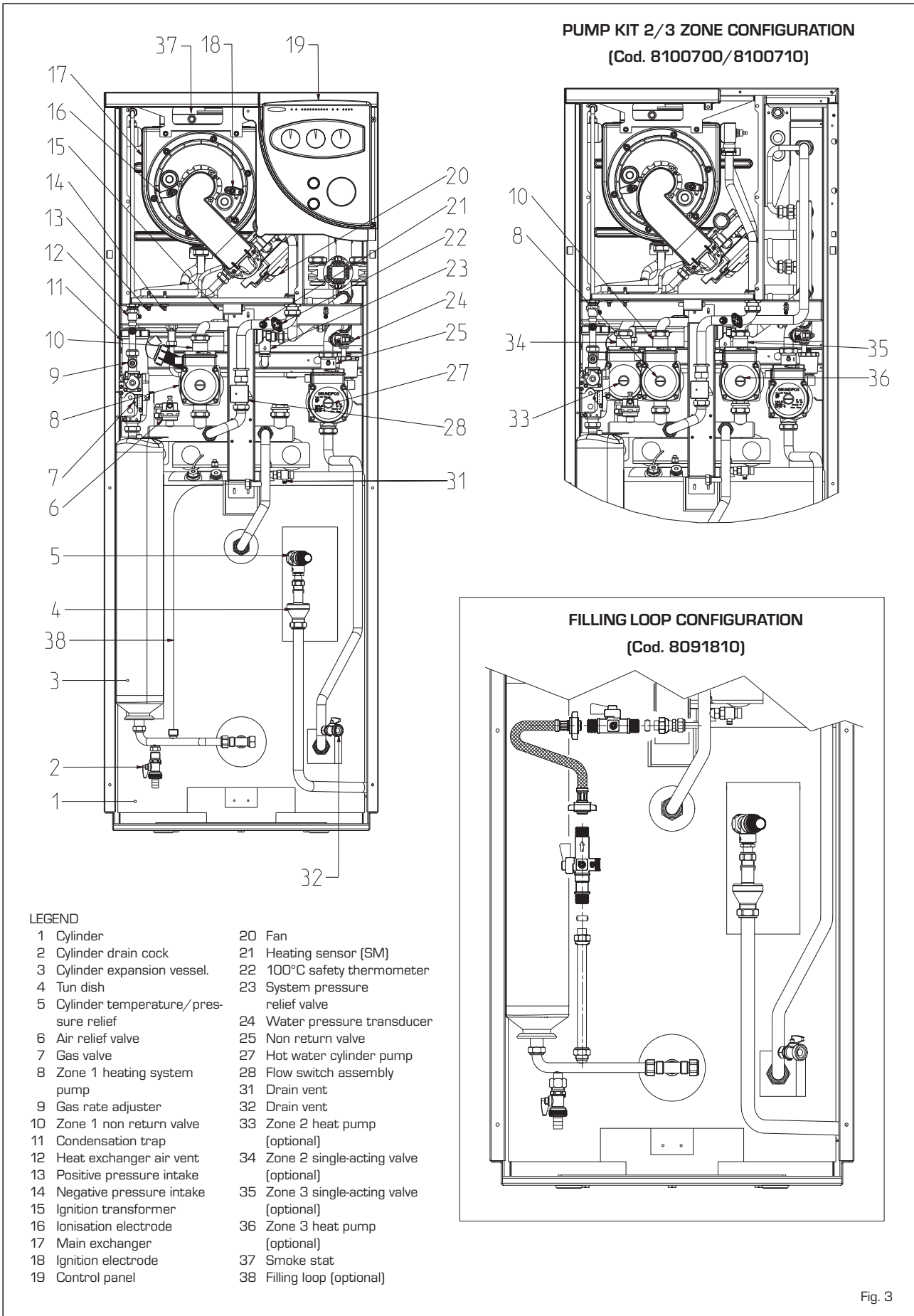


Fig. 3

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 floor 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 connecting the boiler it is recommended that the system is flushed in accordance with BS7593. 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 cock 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 pressure relief discharge pipes must be connected to ensure safe discharge.** 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 m³/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

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 should ideally be discharged internally into an internal waste pipe (washing machine/sink waste) or a soil pipe to avoid the risk of freezing. External pipe runs should be avoided, but if it is necessary, the pipework should be at least 32 mm and protected from the risk of freezing with a waterproof insulation and the length kept to a minimum and not exceeding 3 m termination should be into an external gully or purpose made soakaway. We recommend that the condensate drain at the boiler is in 20 mm solvent weld pipe with a socket covering the connection to the trap. Alternatively a suitable hose can be secured to the trap and terminated as required.

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.

2.2.2 Filter on the gas pipe

The gas valve is supplied with an inlet filter; however, this may not be adequate to entrap all the impurities in the gas or in gas main pipes. To prevent malfunctioning of the valve it may be necessary to install an adequate filter on the gas pipe.

2.2.3 Filling the Condensate Trap

The condensate trap can be filled, prior to fitting the flue by carefully pouring approximately 1 litre of water into the centre of the exhaust terminal of the main heat exchanger.

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)

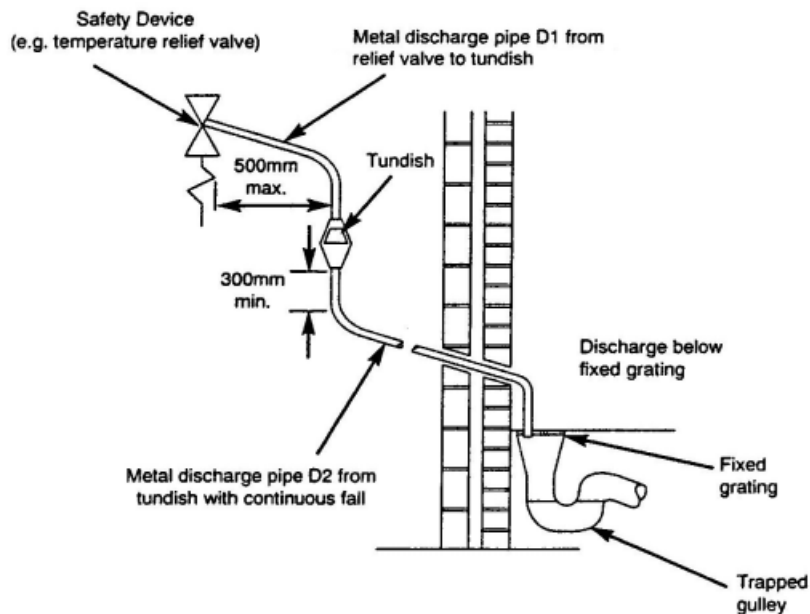
C.H. EXPANSION VESSEL - The integral expansion vessel is pre-charged to a pressure of 1.0 bar, which should be checked before the C.H. water system is filled.

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".
- Sime Ltd recommend 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.
- **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).



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

2.4. FILLING AND COMMISSIONING

2.4.1 D.H.W. circuit

Before filling the D.H.W. system, ensure 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 minimum, 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 ensure that all the radiators are vented, continue opening the filling loop to maintain the 1 bar pressure. When all the radiators are vented ensure the pressure is at 1 bar: then disconnect the flexible hose from the D.H.W. double check isolating valve. Check for leaks and free rotation of the circulating pumps.

2.5 COAXIAL DUCT ø 60/100

Prior to fitting the flue system the conden-

sate trap can be filled see 2.2.3. The coaxial suction and discharge pipes are supplied in a special kit (that can be purchased separately) along with assembly instructions. The diagrams of fig. 5 illustrate some examples of different types of discharge options allowed and the maximum lengths that can be reached. It is essential that a flue gas analysis test point is made available directly above the boiler.

2.5.1 Coaxial duct accessories

The maximum flue length using 60/100 ducts and accessories must not exceed 2.8 metres.

2.5.2 Positioning the outlet terminals

The outlet terminals for forced-draught appliances may be located in the external perimeter walls of the building.

To provide some indications of possible solu-

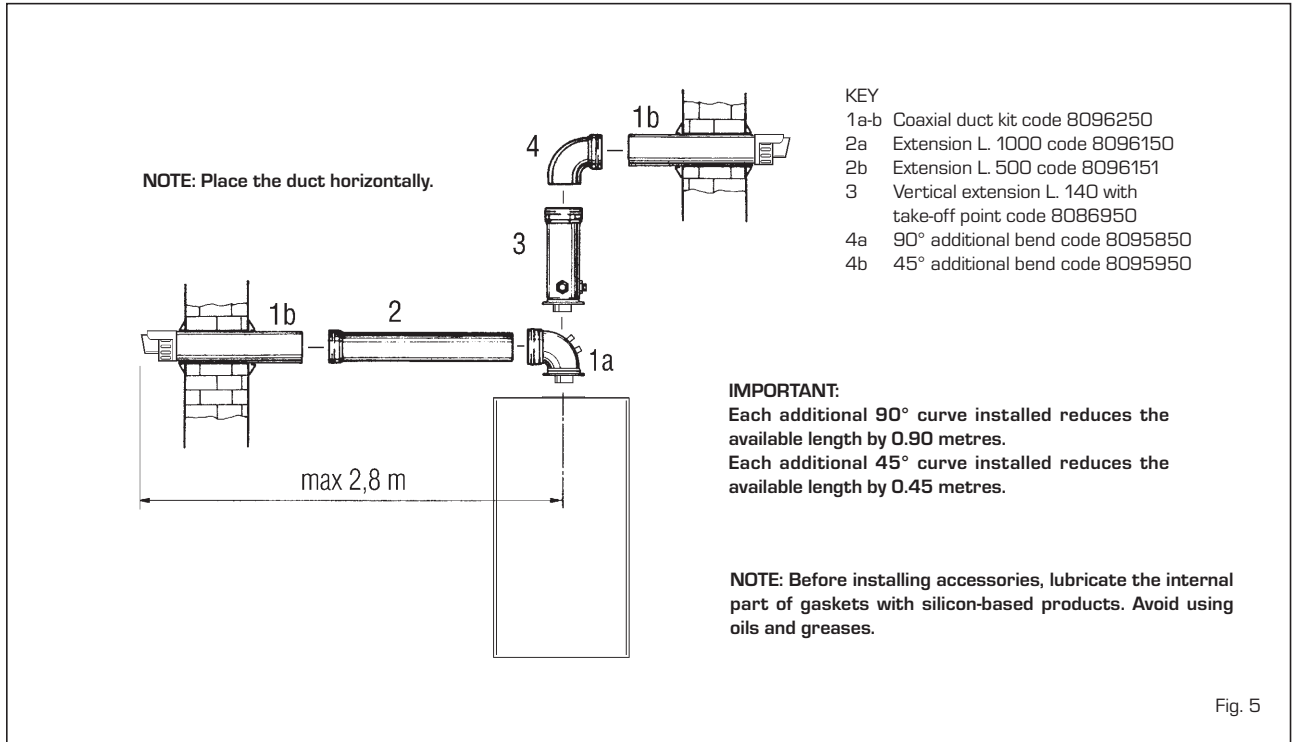


Fig. 5

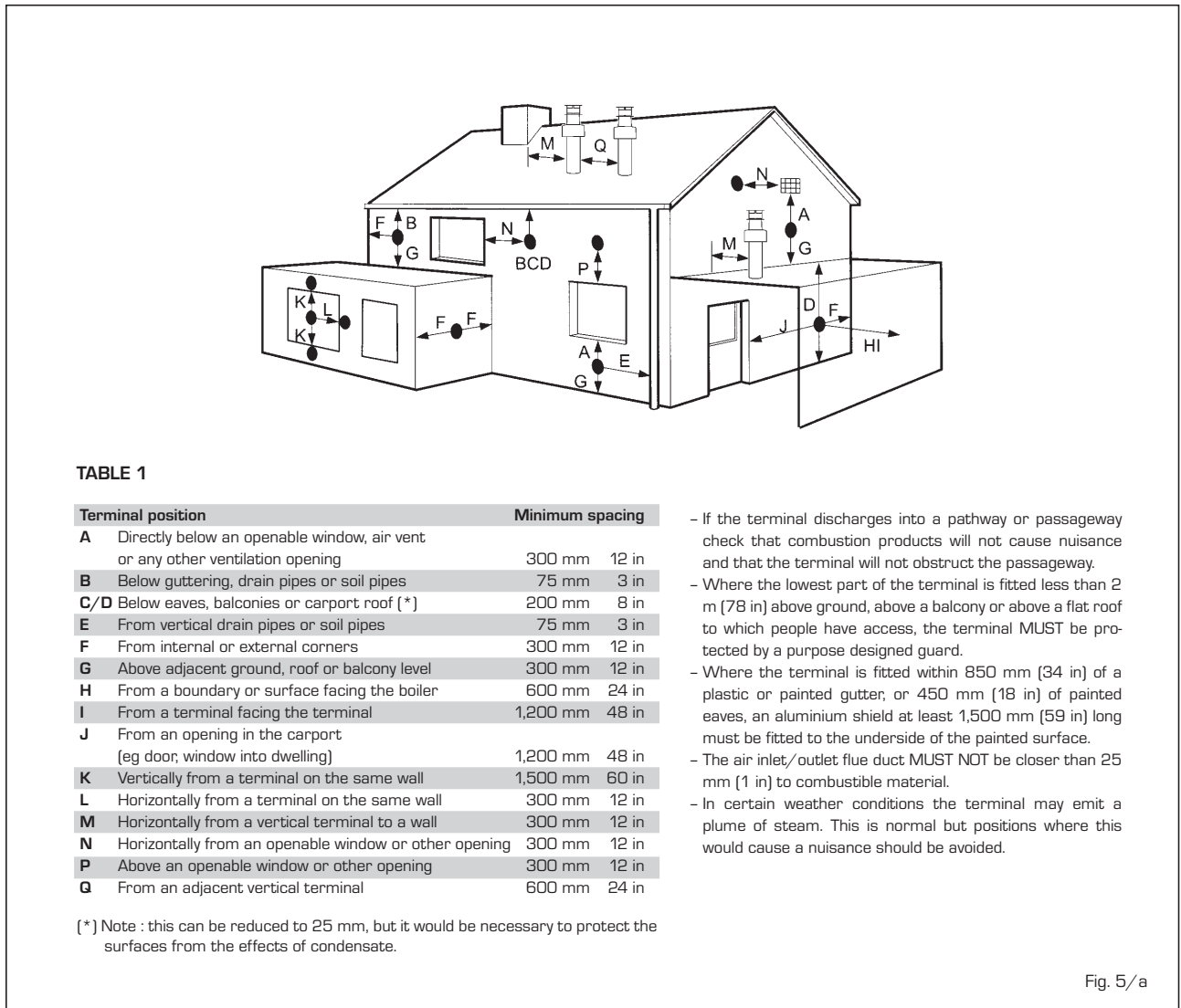


Fig. 5/a

tions, **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 air intake. The intake may be installed to the right or left of the flue gas outlet. It is essential that a flue gas analysis test point is made available directly above the boiler. 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 H₂O.** 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).

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. 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.

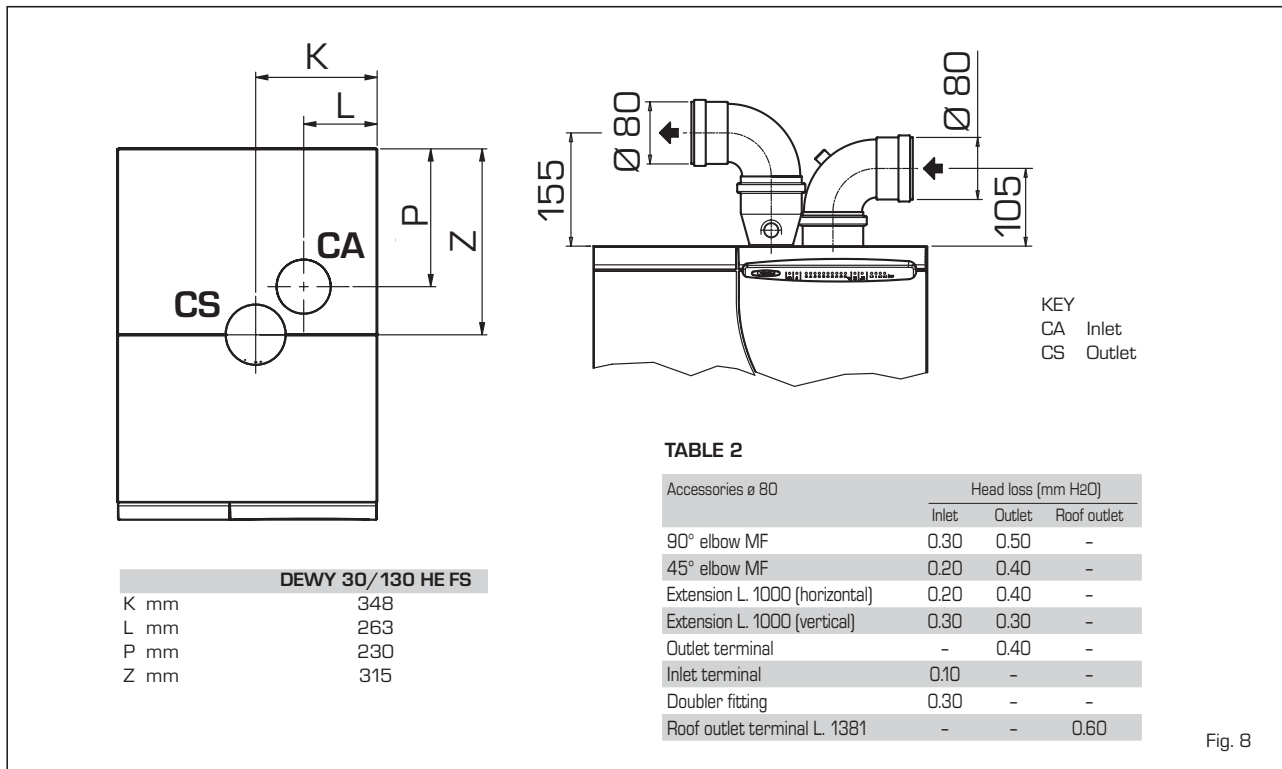
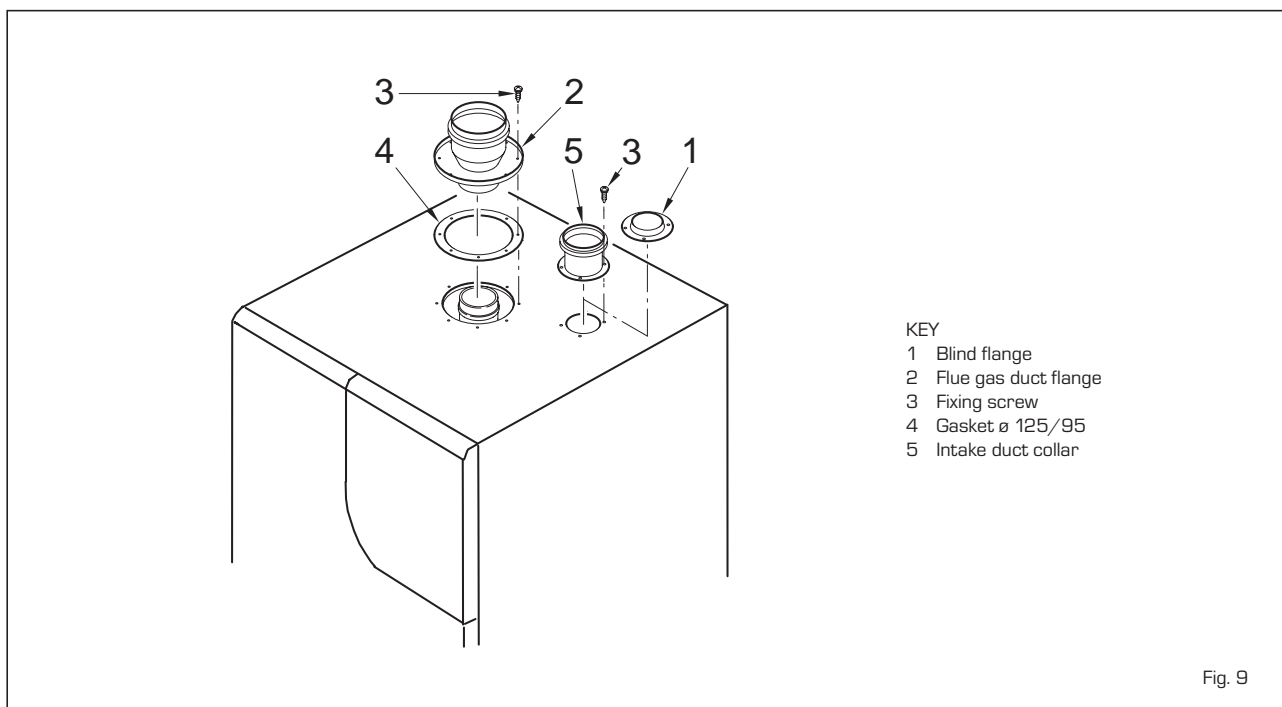


Fig. 8



KEY
 1 Blind flange
 2 Flue gas duct flange
 3 Fixing screw
 4 Gasket ø 125/95
 5 Intake duct collar

Fig. 9

Should this require replacement, it must be purchased exclusively from SIME.
 The electric power supply to the boiler must be 230V - 50Hz single-phase.
 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 thermostat connection (fig. 12 pos. A)

To gain access to the electronic board connector (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, must be class II as specified by standard EN 60730.1 (clean contact).

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

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 voltage safety requirements of EN 60730. For lengths up to 25 m, use cables

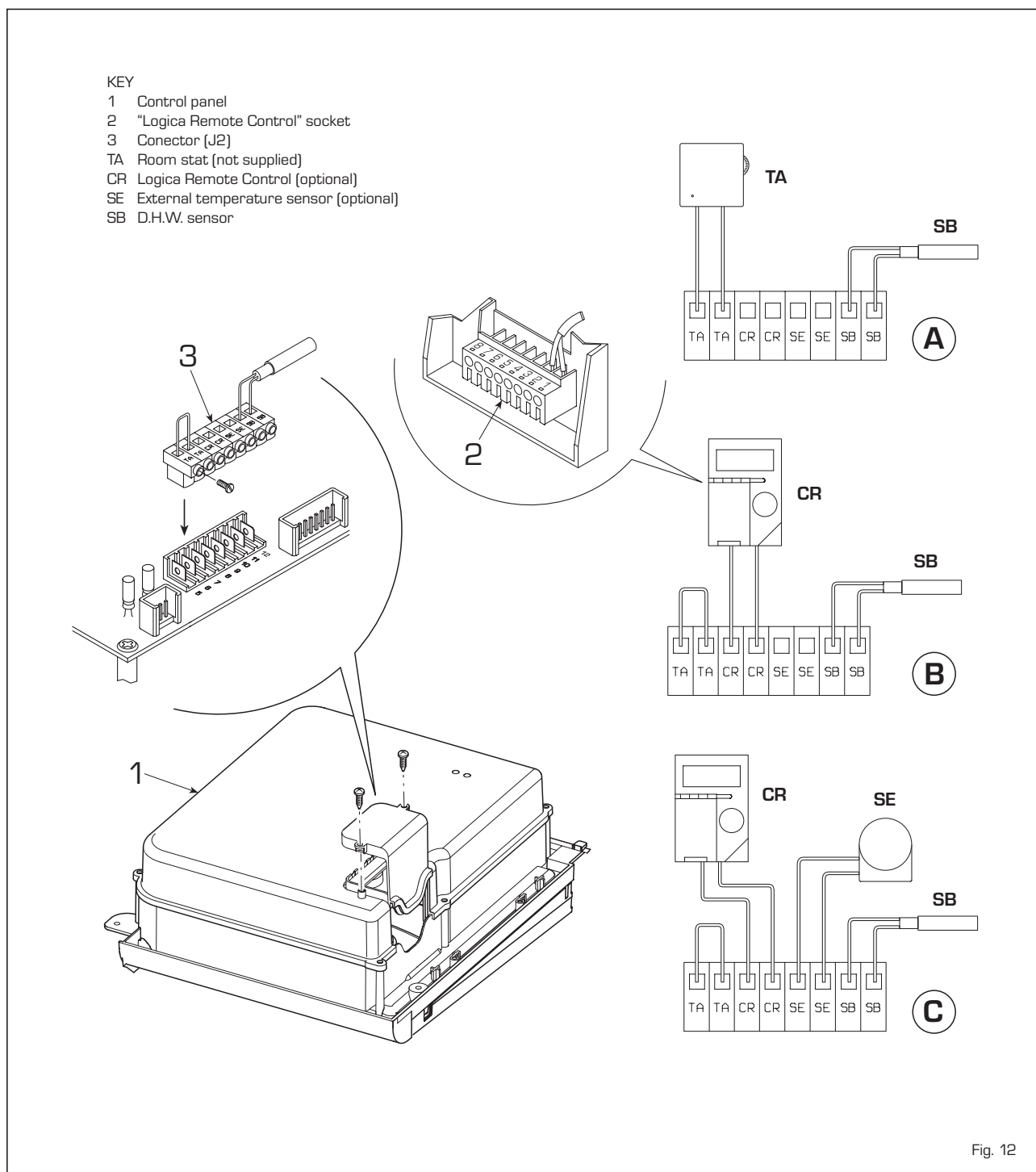


Fig. 12

of section 0.25 mm², for longer lengths up to 50 m use cables of section 0.5 mm². Connect as shown (2). 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".

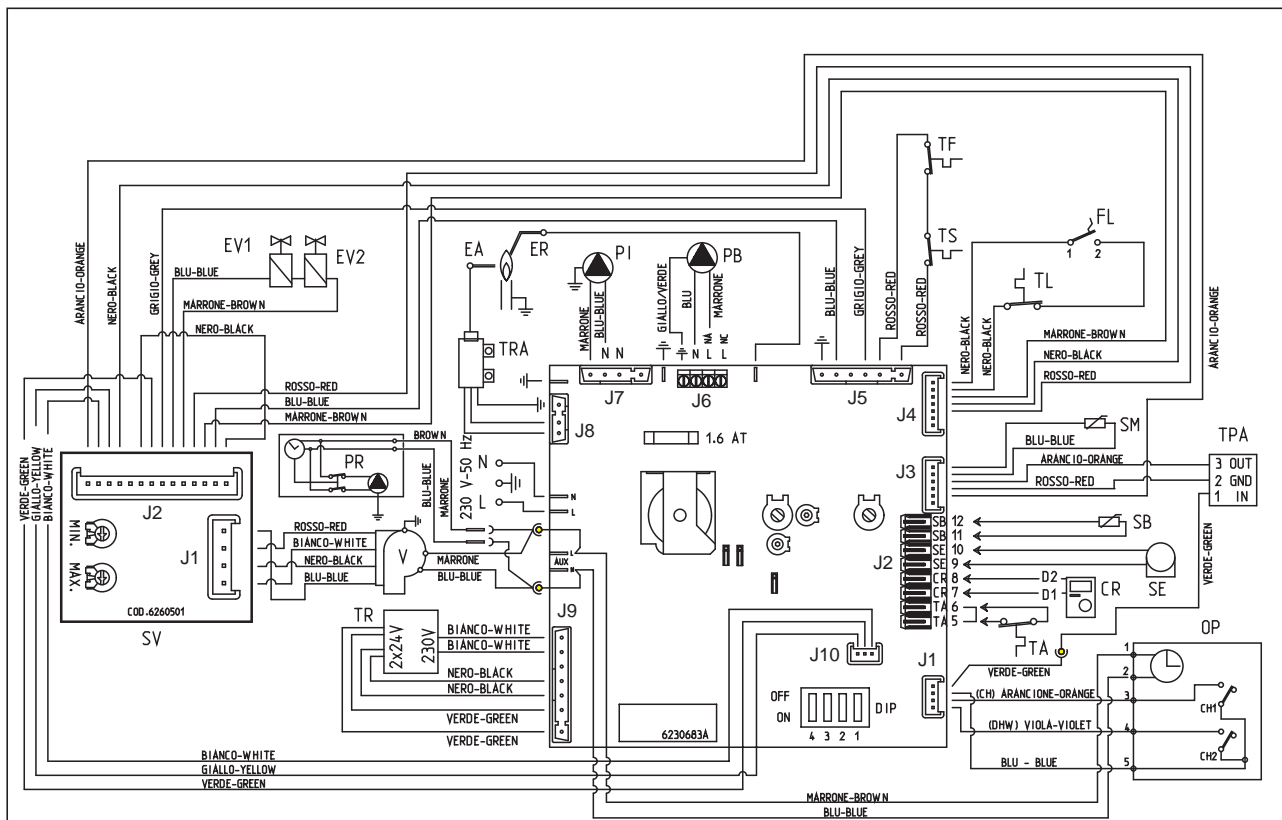
2.8.3 External temperature sensor connection (fig. 12 pos. C)

The cables must comply with low safety vol-

tage requirements of EN 60730. For lengths up to 25 m, use cables of section 0.25 mm², for longer lengths up to 50 m use cables of section 0.5 mm².

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



KEY

- EV1 Gas valve coil
- EV2 Gas valve coil
- EA Ignition electrode
- ER Ionisation electrode
- TS 100°C safety stat
- V Fan
- TPA Water pressure transducer
- PI Pump
- SE External sensor (optional)
- TA Room thermostat
- SM C.H. sensor
- TL Limit stat
- TRA Ignition transformer
- TR Transformer 230 - 24V
- FL Flow switch
- SB D.H.W. sensor
- CR Logica Remote Control (optional)
- SV Fan board
- OP Time programmer

- TF Smoke stat
- PB Hot water cylinder pump
- PR Recirculation pump (optional)

Note: Room thermostats (TA), with voltage free(clean contacts) are connected to terminals 5-6.

CONNECTOR SPARE PART CODES (Main PCB):

- J1 code 6316215
- J2 code 6278613
- J3 code 6299961
- J4 code 6293564
- J5 code 6299921
- J6 code 6278699
- J7 code 6278636
- J8 code 6098305

CONNECTOR SPARE PART CODES (Fan driver PCB):

- J1 code 6260996
- J2 code 6278661

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.

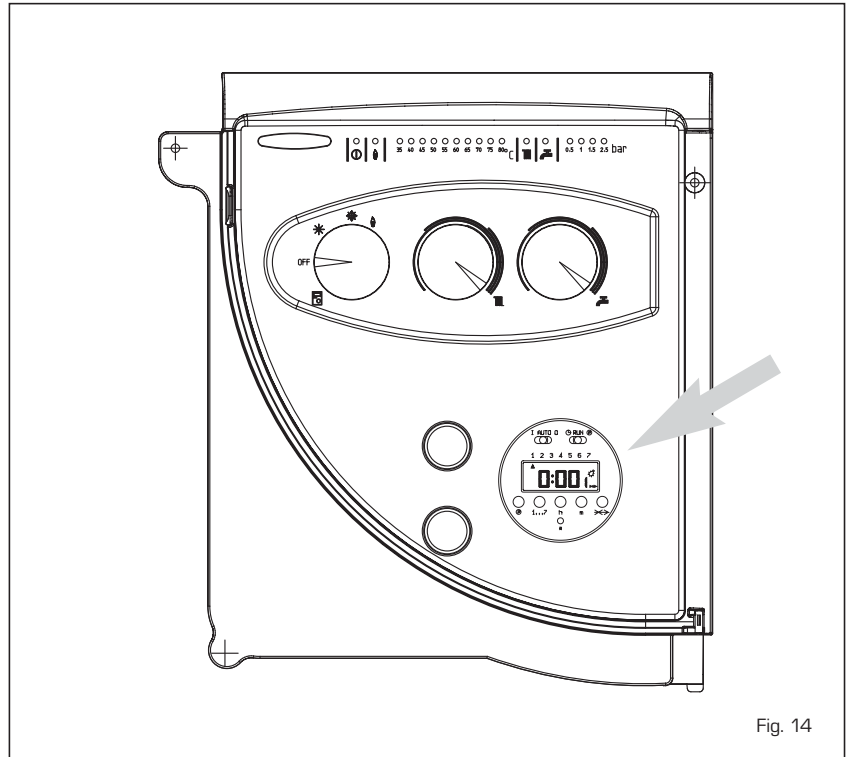


Fig. 14

2.10 LOGICA REMOTE CONTROL

The boiler's functions can be remotely controlled with the use of an optional programmer 8092204. Climatic influence can also be achieved with the further additional external sensor 8094100.

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 previous 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 , 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>Antifreeze protection "Pre-set ambient temperature value"</p>	<p>51</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>Summer/Winter switch-over temperature</p>	<p>52</p>	<p>This parameter regulates the temperature of the automatic summer/winter switch-over.</p>
<p>Type of control: 0 = with ambient influence 1 = without ambient influence</p>	<p>53</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>Influence of ambient temperature</p>	<p>54</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>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.</p>
<p>Maximum limit of delivery temperature</p>	<p>55</p>	<p>The delivery temperature is limited to the maximum set value.</p>
<p>Variation of the maximum speed of the delivery temperature</p>	<p>56</p>	<p>The increase per minute of the prescribed delivery temperature value sent in °C is limited to the imposed value.</p>
<p>Activation of adaptation</p>	<p>57</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 is deactivated.</p>
<p>Optimisation of switch-on time</p>	<p>58</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 0 = off 1 = on</p>
<p>Heating gradient</p>	<p>59</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-o time has not been pre-set (function disabled).</p>
<p>Presetting switch-off time (00 = off)</p>	<p>60</p>	<p>If the switch-off time optimisation is active (value > 0), the "Logica Remote Control" modifies the pre-set time until it finds the optimum switch-off time..</p>

DOMESTIC HOT WATER SETTINGS

Reduced domestic hot water pre-set value		<p>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).</p>
Domestic hot water load		<p>0 = 24 hours/ day - Hot water is always available at the temperature set with user parameter n°3.</p> <p>1 = 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.</p> <p>2 = service disconnected</p> <p>3 = 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>

SERVICE VALUES

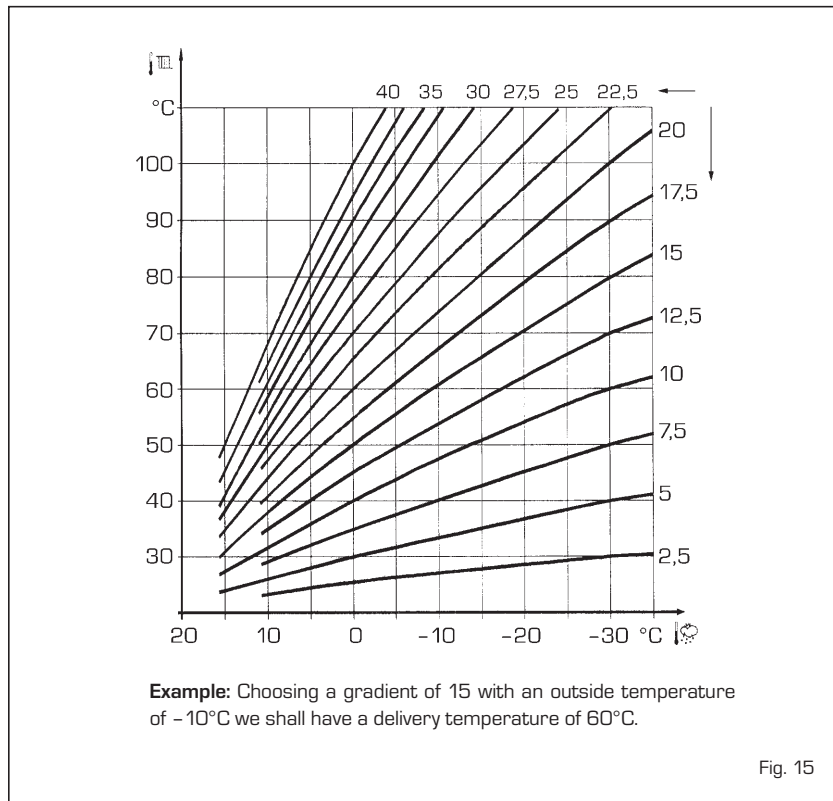
Final user level 2 programming block		<p>This block (1) can be activated to display all the parameters without modifying them. Pressing buttons  or  displays "OFF".</p> <p>WARNING: The activation block can be deactivated temporarily by pressing buttons  and  simultaneously; a confirmation sign appears 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>
Input function terminal 3-4		<p>The freely programmable input (terminals 3-4) allows three different functions to be activated. The parameter has the following significance:</p> <p>1 = If an external sensor is connected, the display will show the temperature of the external sensor [_ _] = no sensor connected, function disabled).</p> <p>2 = With an external contact, it is possible to switch-over to "reduced pre-set value of the ambient temperature".</p> <p>3 = 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>
Operating mode of external contact		<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>
External and ambient sensor influence		<p>Determines the mix ratio between the internal and external ambient sensor when parameter 64 = 1.</p> <p>0 % = internal sensor only active (0% external - 100% internal) 50 % = mean value of external + internal sensor 100 % = 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>
Anti-bacterial function (with storage capacity boiler unit)		<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>0 = not active 1 = 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.



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 diverter 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.

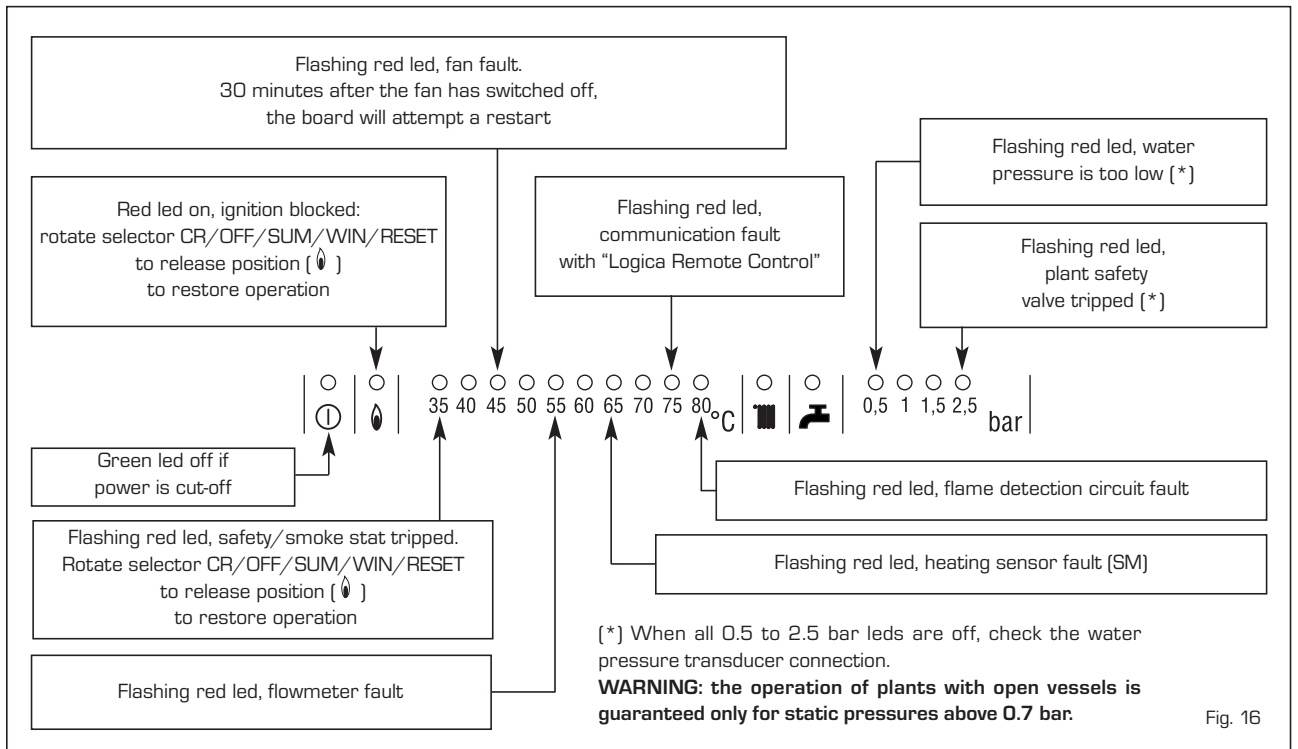
According to the type of gas for which the boiler is equipped, the trimmer must be regulated so as to obtain a pressure of approx. 3 mbar at the burner for methane gas and 7 mbar for propane gas (G31).

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 **linked-off**, the boiler



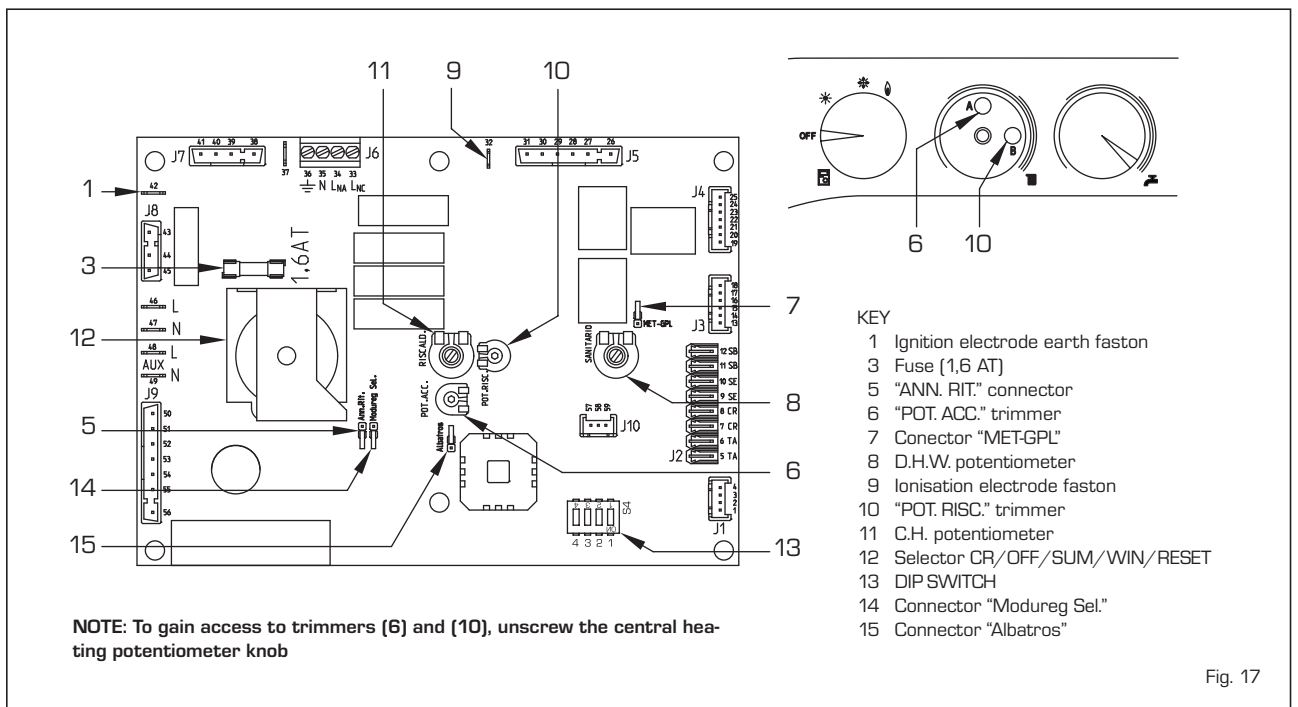
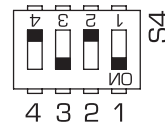
is set-up for NATURAL GAS; with the connector **linked-on**, the boiler is ready for LPG.

- **"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 switches are positioned as shown.



- "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

Boiler frost protection is achieved via the NTC heating sensor that activates when the water temperature reaches 6°C.

Tables 3 - 3/a show the resistance values (Ω) 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 (Ω)
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 (Ω)	
	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 activation 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 down immediately; when the power supply returns, the boiler will start up again automatically.

3.4 FLOW SWITCH

A flow switch (28 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 pump is not working.

NOTE: the flow switch assembly is replaced, 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.

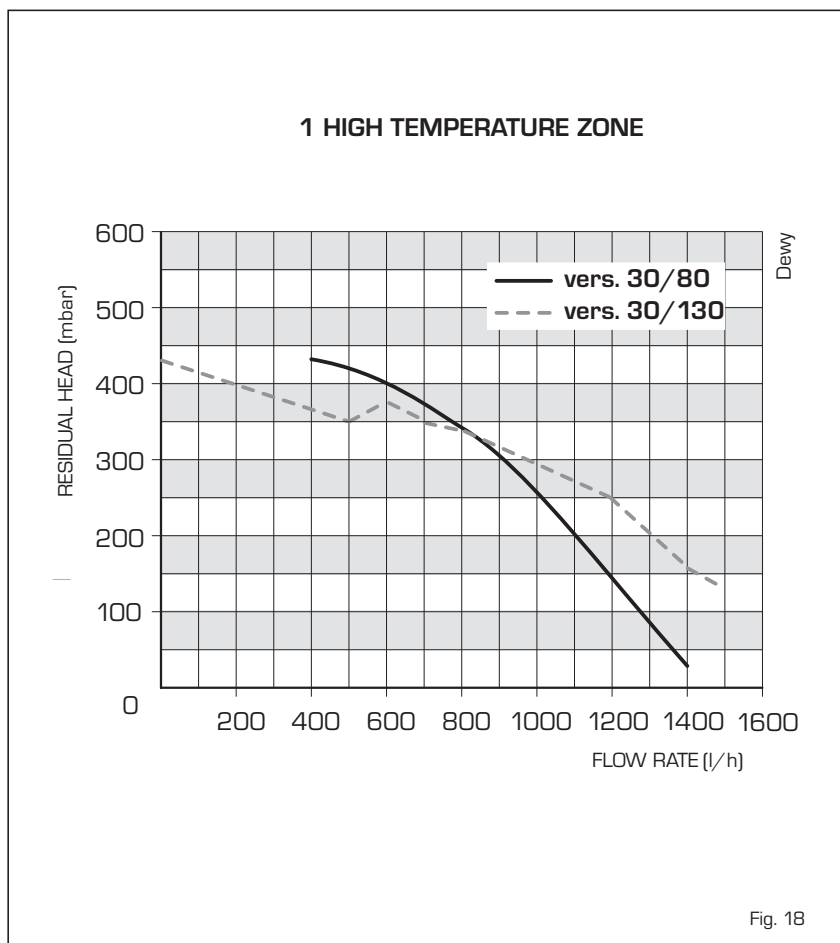


Fig. 18

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.

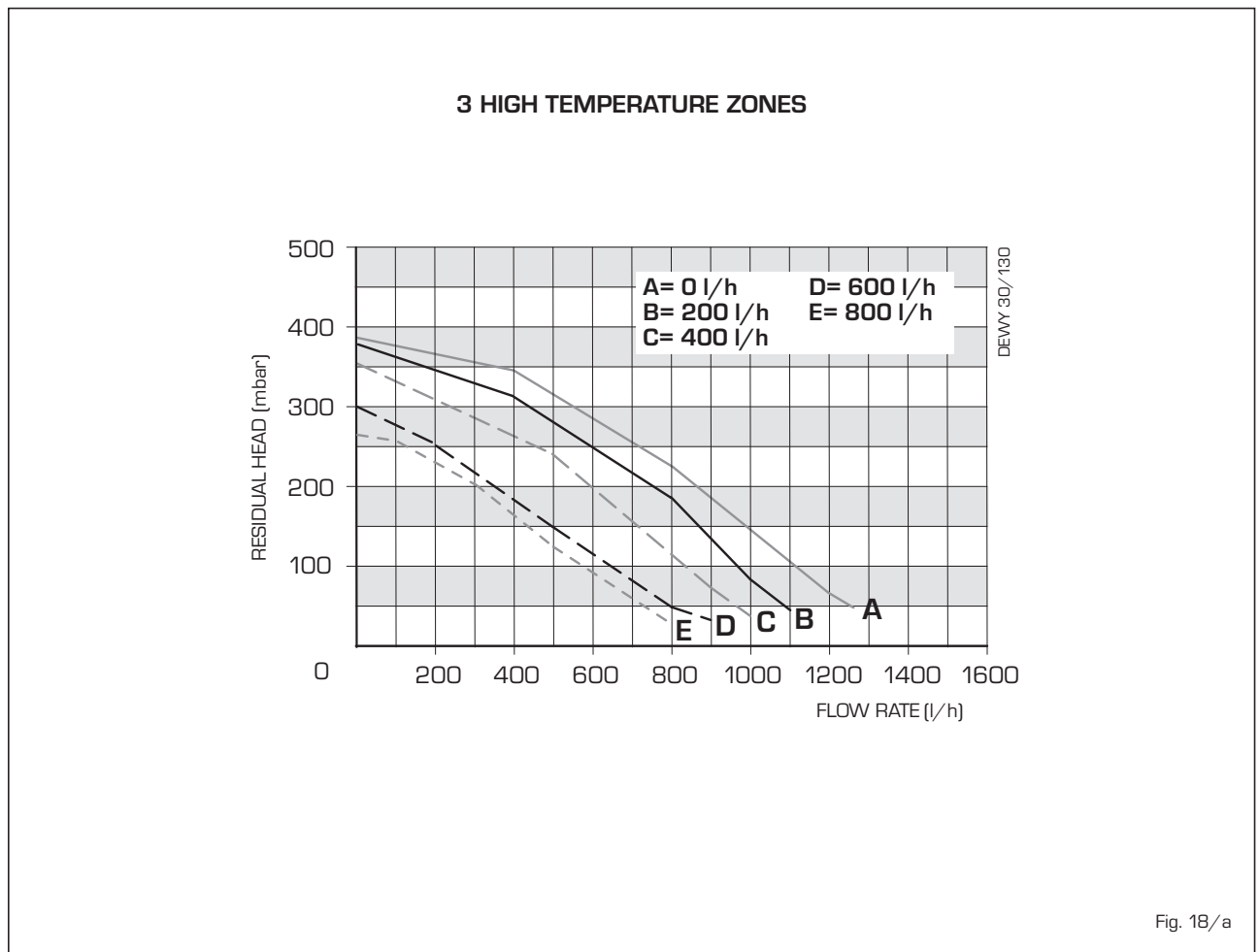
The same procedure may be applied to other zones to obtain:

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 flue from becoming damaged from excessive heat, the boiler is supplied with a standard smoke thermostat (37 Fig. 3).



4 USE COMMISSIONING, AND MAINTENANCE

To ensure correct operation and efficiency it is important that the boiler is serviced at regular intervals, at least once a year.

This must be done only by a qualified technician.

During the routine service the condensate drain can be checked. It is important should the boiler not be used for some time that the trap is checked and filled if required.

4.1 D.H.W. PRODUCTION

The cylinder is equipped with a sacrificial magnesium anode, and inspection flange.

The magnesium anode must be checked annually and substituted when it is worn.

It is advisable to incorporate a isolation valve in the domestic supply to the boiler. It must be positioned upstream of the combined pressure/backflow valves. Adjustment of the flow rate through the boiler can be achieved by adjustment of the isolation valve.

The temperature and pressure relief valve and expansion relief valves should not be used for venting or draining 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 item 2, fig 3) 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 B115M gas valve (fig. 20).

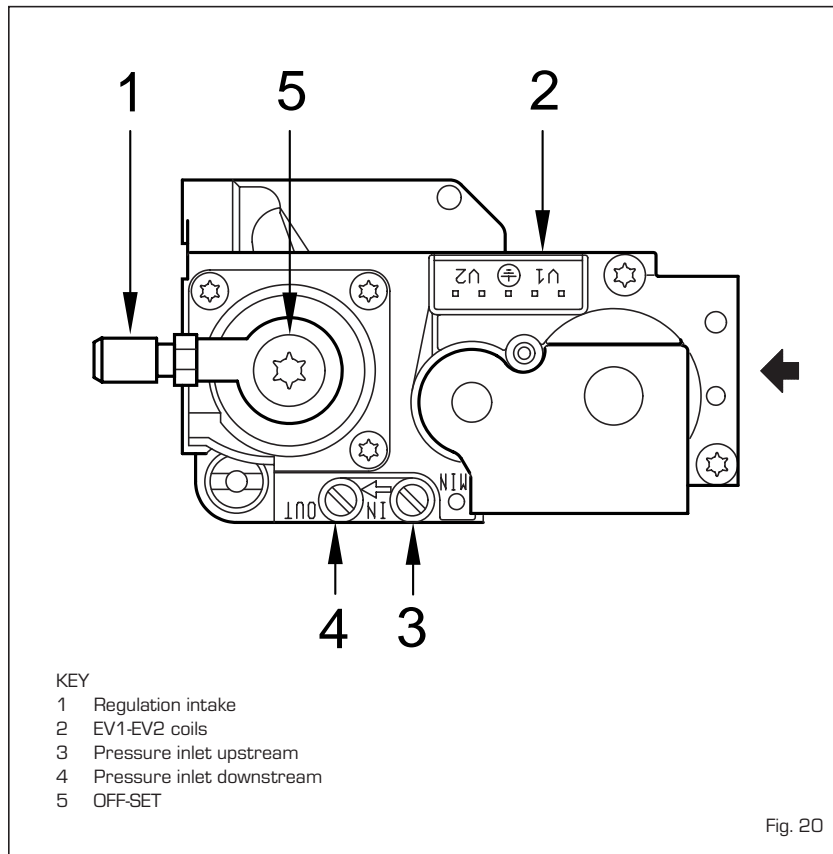


Fig. 20

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. Remove the heating control knob to access the trimmer "B". To increase the heating output, turn the trimmer clockwise;

to reduce the heating output, turn the trimmer counterclockwise. To establish the output of the boiler conduct a gas rate test and compare with the values shown in fig. 21 **Tables 4 - 4/a - 4/b**; or measure "air Δp " with a digital pressure gauge connected up as shown in fig. 21. Compare values with those shown in **Tables 4 - 4/a - 4/b**.

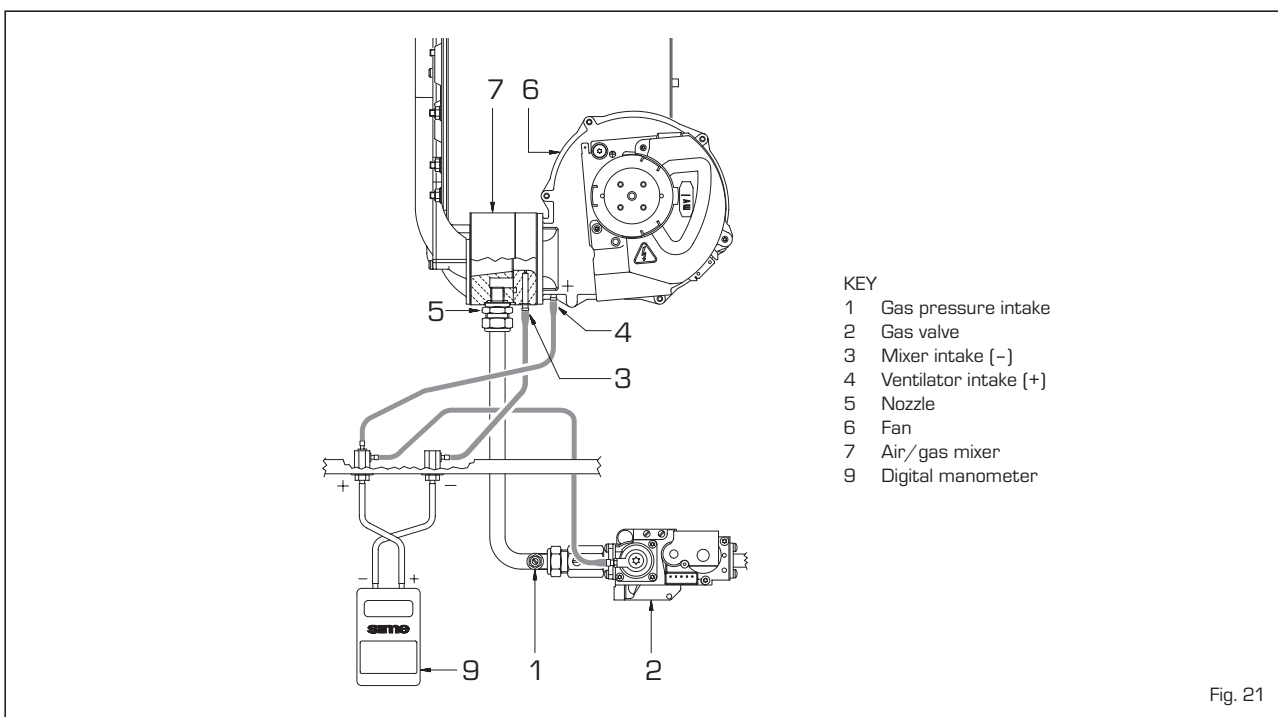


Fig. 21

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

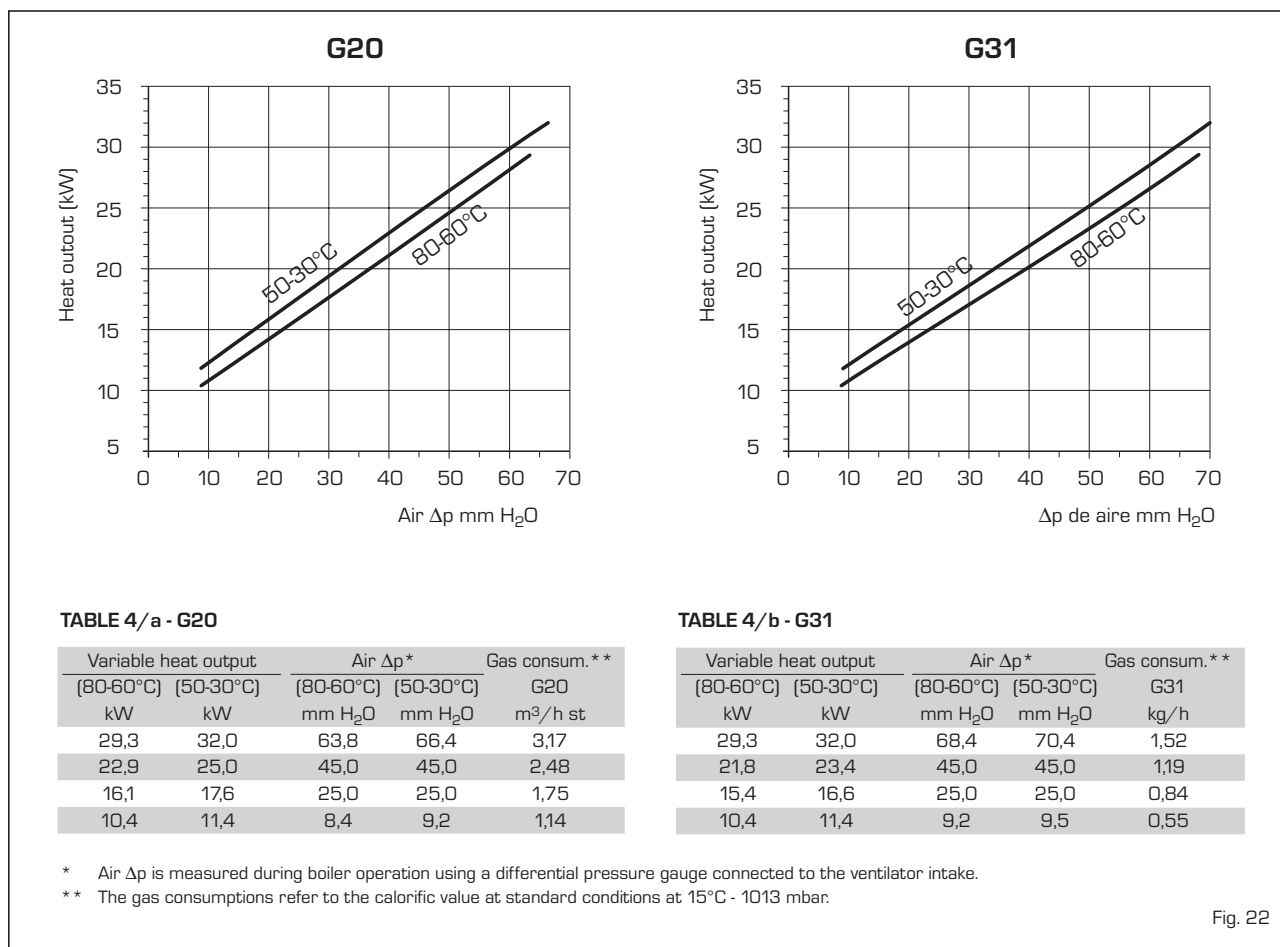


Fig. 22

4.4 COMMISSIONING

The gas valve is factory set and should require no adjustment.

PLEASE NOTE: The combustion for this appliance has been checked, adjusted and preset at the factory for operation on the gas type specified on the appliance data plate. However it is advisable to check for correct combustion having first checked:

- That the boiler has been installed in accordance with these instructions.
- The integrity of the flue system and the flue seals
- The integrity of the boiler combustion circuit and the relevant seals.

Proceed to put the boiler into operation as follows, after installation a gas purge and tightness/drop test have been made.

Ensure that the pump has been manually rotated. Switch the boiler to the SUMMER position. Open the gas cock. Ensure that any timers or room thermostats are in the on position.

The boiler will attempt to light.

4.5 CHECK THE OPERATIONAL (WORKING) GAS INLET PRESSURE

Set up the boiler to operate at maximum

rate condition (chimney sweep) as described in 4.6.2.

With the boiler operating in the maximum rate condition, check that the operational (working) gas pressure at the inlet test point [see fig. 20 item 3], complies with the requirements of 1.3.

Ensure that this inlet pressure can be maintained with all other appliances in the property working.

4.5.1 Combustion Check

Competence to carry out the check of the combustion performance.

PLEASE NOTE: BS 6798: 2009 Specification for installation and maintenance of gas-fired boilers of rated input not exceeding 70 kw net advises that:

- The person carrying out a combustion measurement should have been assessed as competent in the use of a flue gas analyser and the interpretation of the results;
- The flue gas analyser should be one meeting the requirements of BS7927 or BS-EN50379-3 and be calibrated in accordance with the analyser manufacturers requirements, and competence can be demonstrated by satisfactory completion of the CPA1 ACS assessment

which covers the use of electronic portable combustion gas analysers in accordance with BS7967, parts 1 to 4.

Connect the flue gas analyser to the flue gas sampling point as shown in fig 23 and check the combustion following the sequence described in 4.4.

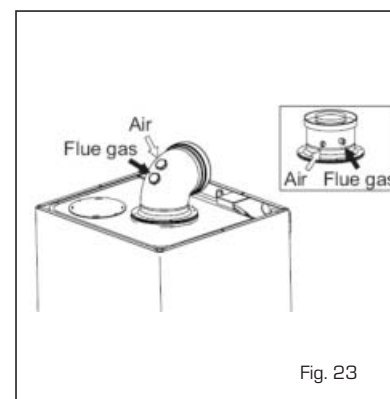


Fig. 23

CO / CO₂ RATIO

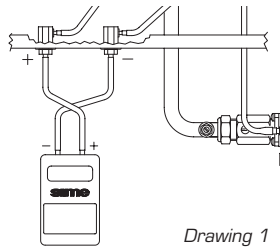
CO ₂ %		CO ppm	
		100	400
NG 9%		0,0011	0,0044
LPG 10%		0,0010	0,0040

4.6 BOILER CALIBRATION

The boiler must always be calibrated while set on heating.

" Δp air" ADJUSTMENT

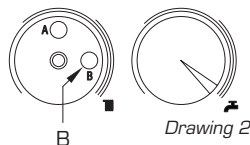
To measure " Δp air" simply connect a differential pressure gauge with a decimal or Pascal scale to the positive and negative tap, observing the symbols (Drawing 1).



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 " Δp air" values given in the table by adjusting the MAX trimmer on the fan board (Drawing 3):



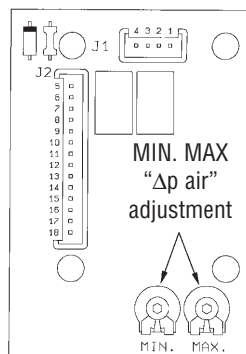
Drawing 2

Δp 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.

- 4) Attempt to achieve the " Δp air" values shown in the table using the "MIN" trimmer on the fan board (Drawing 3):



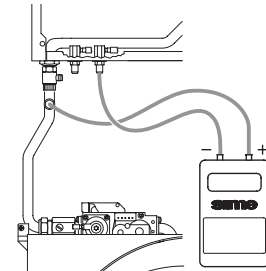
Drawing 3

Δp air min.

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

" Δp air-gas" ADJUSTMENT

To measure " Δp 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).

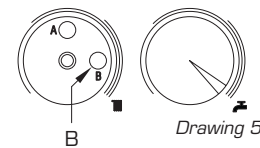


Drawing 4

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

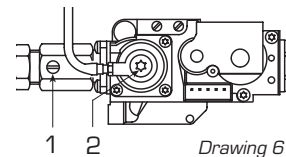
Sequence of operations:

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



Drawing 5

- 3) Adjust the gas valve OFFSET regulation (2 - Drawing 6), aiming to achieve the " Δp air-gas" shown in the table:



Drawing 6

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 " Δp 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

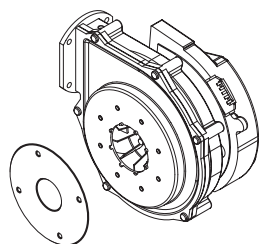
Upon completion of the calibration procedure, check CO_2 values using a combustion analyser. If a difference which is more than 0.2 above or below the values indicated in the table is found, it will be necessary to correct it:

	"Dewy 25"		"Dewy 30"	
	CO_2 (Natural gas)	CO_2 (Propane)	CO_2 (Natural gas)	CO_2 (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_2 at "MIN" output.
- Use the capacity step to correct CO_2 at "MAX" output (1 - Drawing 6).

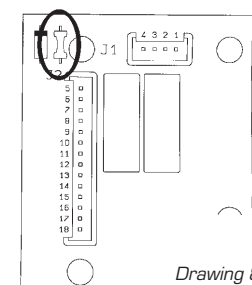
ATTENTION:

- 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. 24

4.7 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.

4.8 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 condensate trap 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. 25).

4.8.1 Disassembly the control panel and skirt cover lid (fig. 26)

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.

4.8.2 Chimney sweep function

To carry out the verification of combustion in the boiler, turn the selector and stop on the position (I) until the orange led (III) starts to flash intermittently (fig. 27).

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

Before activating the chimney sweep function make sure that the radiator valves and any zone valves are open.

The test may be carried out using the hot water function.

It may be necessary to draw off domestic water until the cylinder temperature reduces and the switches on the led (II). In this condition the boiler ignites at the maximum output with the primary circuit controlled between 80°C and 70°C.

During the duration of the testing the hot water taps must remain open. After verifying the combustion the boiler should be switched off by placing the selector on the

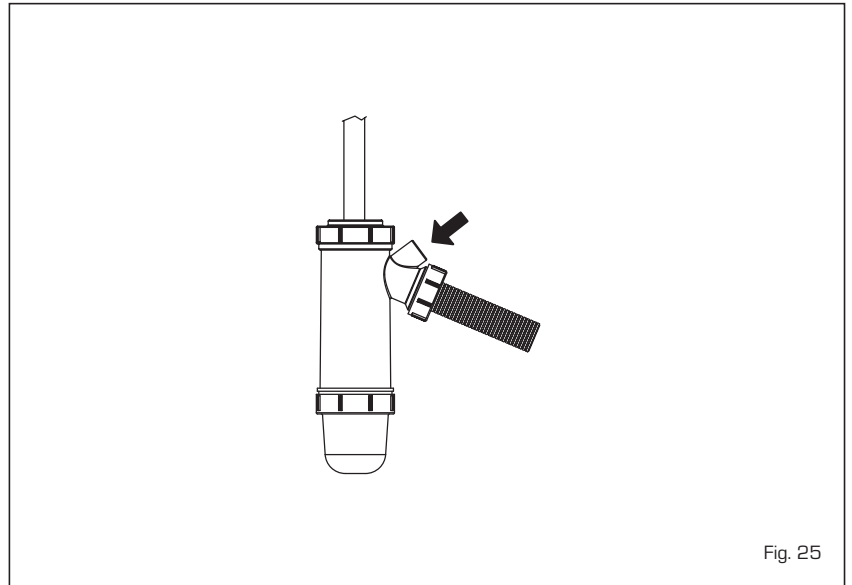


Fig. 25

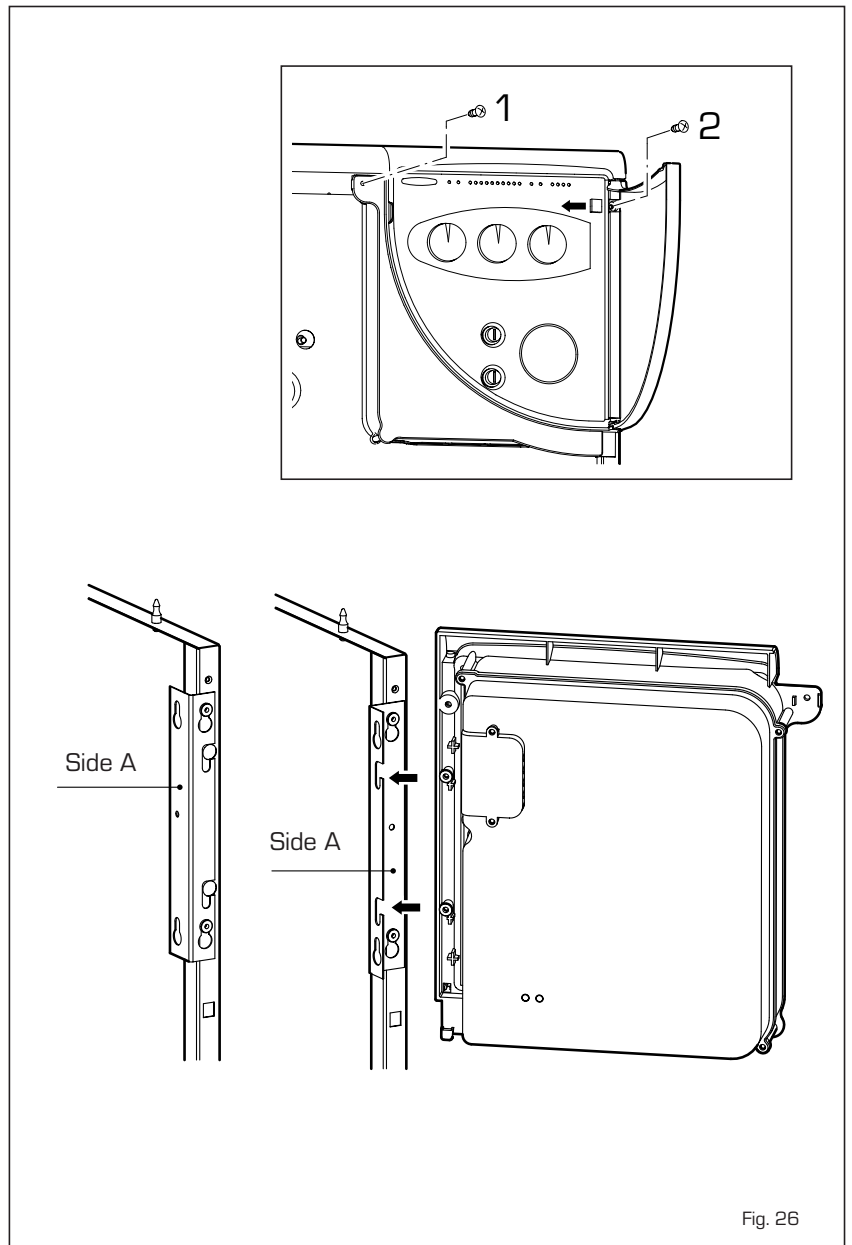


Fig. 26

(OFF) position; then return the selector to the desired function.

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

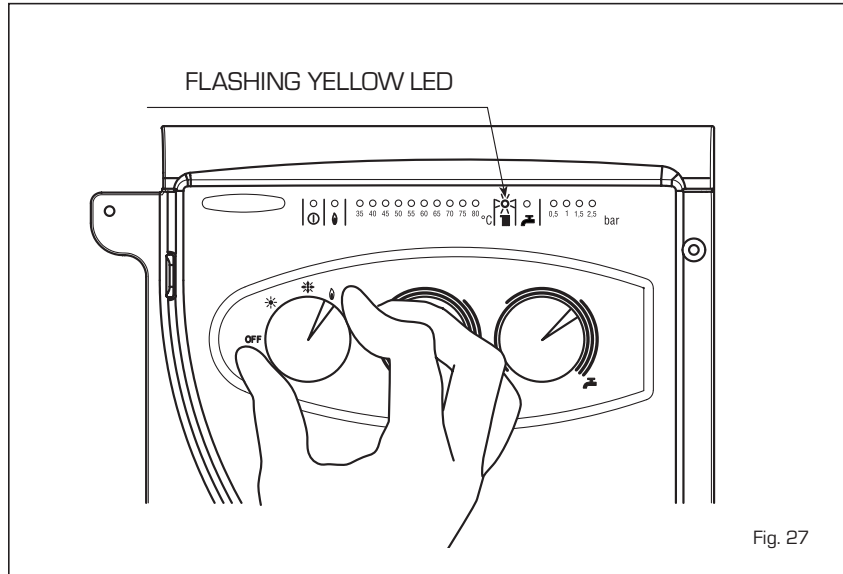


Fig. 27

GAS BOILER SYSTEM COMMISSIONING CHECKLIST

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 manufacturer's instructions and complete this Benchmark Commissioning Checklist will invalidate the warranty. This does not affect the customer's statutory rights.

Customer Name _____ Telephone Number _____
 Address _____
 Boiler Make and Model _____
 Boiler Serial Number
 Commissioned by (print name) _____ Gas Safe Register Number _____
 Company Name _____ Telephone Number _____
 Company Address _____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number (if applicable) _____

CONTROLS Tick the appropriate boxes

Time and Temperature Control to Heating	Room Thermostat and Programmer/Timer <input type="checkbox"/>	Programmable Room Thermostat <input type="checkbox"/>	Load/Weather Compensation <input type="checkbox"/>	Optimum Start Control <input type="checkbox"/>
Time and Temperature Control to Hot Water	Cylinder Thermostat and Programmer/Timer <input type="checkbox"/>	Combination 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"/>	Not Required <input type="checkbox"/>		
Automatic Bypass to System	Fitted <input type="checkbox"/>	Not Required <input type="checkbox"/>		
Boiler Interlock			Provided <input type="checkbox"/>	

ALL SYSTEMS

The system has been flushed and cleaned in accordance with BS7593 and boiler manufacturer's instructions Yes
 What system cleaner was used? _____
 What inhibitor was used? _____ Quantity litres

CENTRAL HEATING MODE Measure and Record:

Gas Rate m³/hr OR ft³/hr
 Burner Operating Pressure (if applicable) mbar OR Gas Inlet Pressure mbar
 Central Heating Flow Temperature °C
 Central Heating Return Temperature °C

COMBINATION BOILERS ONLY

Is the installation in a hard water area (above 200ppm)? Yes No
 If yes, and if required by the manufacturer, has a water scale reducer been fitted? Yes No
 What type of scale reducer has been fitted? _____

DOMESTIC HOT WATER MODE Measure and Record:

Gas Rate m³/hr OR ft³/hr
 Burner Operating Pressure (at maximum rate) mbar OR Gas Inlet Pressure (at maximum rate) mbar
 Cold Water Inlet Temperature °C
 Hot water has been checked at all outlets Yes Temperature °C
 Water Flow Rate l/min

CONDENSING BOILERS ONLY

The condensate drain has been installed in accordance with the manufacturer's instructions and/or BS5546/BS6798 Yes
 If the condensate pipe terminates externally has the pipe diameter been increased and weatherproof insulation fitted? Yes

ALL INSTALLATIONS

If required by the manufacturer, record the following CO₂ % OR CO ppm OR CO/CO₂ Ratio
 The heating and hot water system complies with the appropriate Building Regulations Yes
 The boiler and associated products have been installed and commissioned in accordance with the manufacturer's instructions Yes
 The operation of the boiler and system controls have been demonstrated to and understood by the customer Yes
 The manufacturer's 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 manufacturer's 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.



Service Record

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

Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

Always use the manufacturer's specified spare part when replacing controls.

Service 1 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 2 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 3 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 4 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 5 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 6 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Operative ID No. _____
Comments: _____
Signature: _____

Service 7 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 8 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 9 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

Service 10 Date: _____
Engineer Name: _____
Company Name: _____
Telephone No. _____
Gas Safe Register No. _____
Comments: _____
Signature: _____

MAINS PRESSURE HOT WATER STORAGE SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the storage system 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 this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name _____ Telephone Number _____
 Address _____
 Cylinder Make and Model _____
 Cylinder Serial Number _____
 Commissioned by (*print name*) _____ Registered Operative ID Number _____
 Company Name _____ Telephone Number _____
 Company Address _____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:
 Building Regulations Notification Number (*if applicable*) _____

ALL SYSTEMS PRIMARY SETTINGS (indirect heating only)

Is the primary circuit a sealed or open vented system? Sealed Open
 What is the maximum primary flow temperature? _____ °C

ALL SYSTEMS

What is the incoming static cold water pressure at the inlet to the system? _____ bar
 Has a strainer been cleaned of installation debris (if fitted)? Yes No
 Is the installation in a hard water area (above 200ppm)? Yes No
 If yes, has a water scale reducer been fitted? Yes No
 What type of scale reducer has been fitted? _____
 What is the hot water thermostat set temperature? _____ °C
 What is the maximum hot water flow rate at set thermostat temperature (measured at high flow outlet)? _____ l/min
 Time and temperature controls have been fitted in compliance with Part L of the Building Regulations? Yes
 Type of control system (if applicable) Y Plan S Plan Other
 Is the cylinder solar (or other renewable) compatible? Yes No
 What is the hot water temperature at the nearest outlet? _____ °C
 All appropriate pipes have been insulated up to 1 metre or the point where they become concealed Yes

UNVENTED SYSTEMS ONLY

Where is the pressure reducing valve situated (if fitted)? _____
 What is the pressure reducing valve setting? _____ bar
 Has a combined temperature and pressure relief valve and expansion valve been fitted and discharge tested? Yes No
 The tundish and discharge pipework have been connected and terminated to Part G of the Building Regulations Yes
 Are all energy sources fitted with a cut out device? Yes No
 Has the expansion vessel or internal air space been checked? Yes No

THERMAL STORES ONLY

What store temperature is achievable? _____ °C
 What is the maximum hot water temperature? _____ °C

ALL INSTALLATIONS

The hot water system complies with the appropriate Building Regulations Yes
 The system has been installed and commissioned in accordance with the manufacturer's instructions Yes
 The system controls have been demonstrated to and understood by the customer Yes
 The manufacturer's 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 manufacturer's 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.



SERVICE RECORD

It is recommended that your hot water system is serviced regularly and that the appropriate Service Record is completed.

Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

SERVICE 1 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 2 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 3 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 4 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 5 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 6 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 7 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 8 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 9 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

SERVICE 10 _____ Date _____

Engineer Name _____

Company Name _____

Telephone Number _____

Comments _____

Signature _____

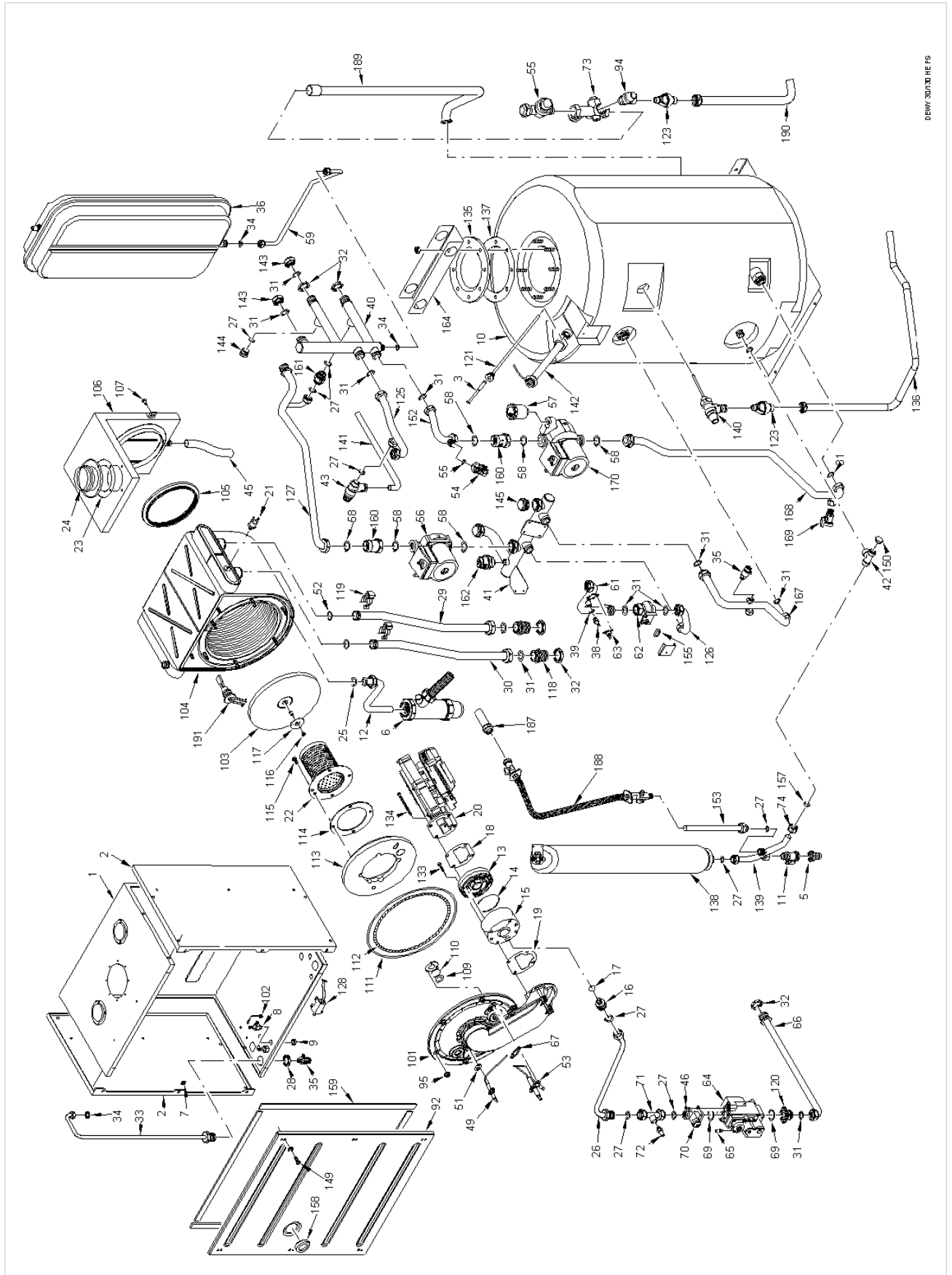
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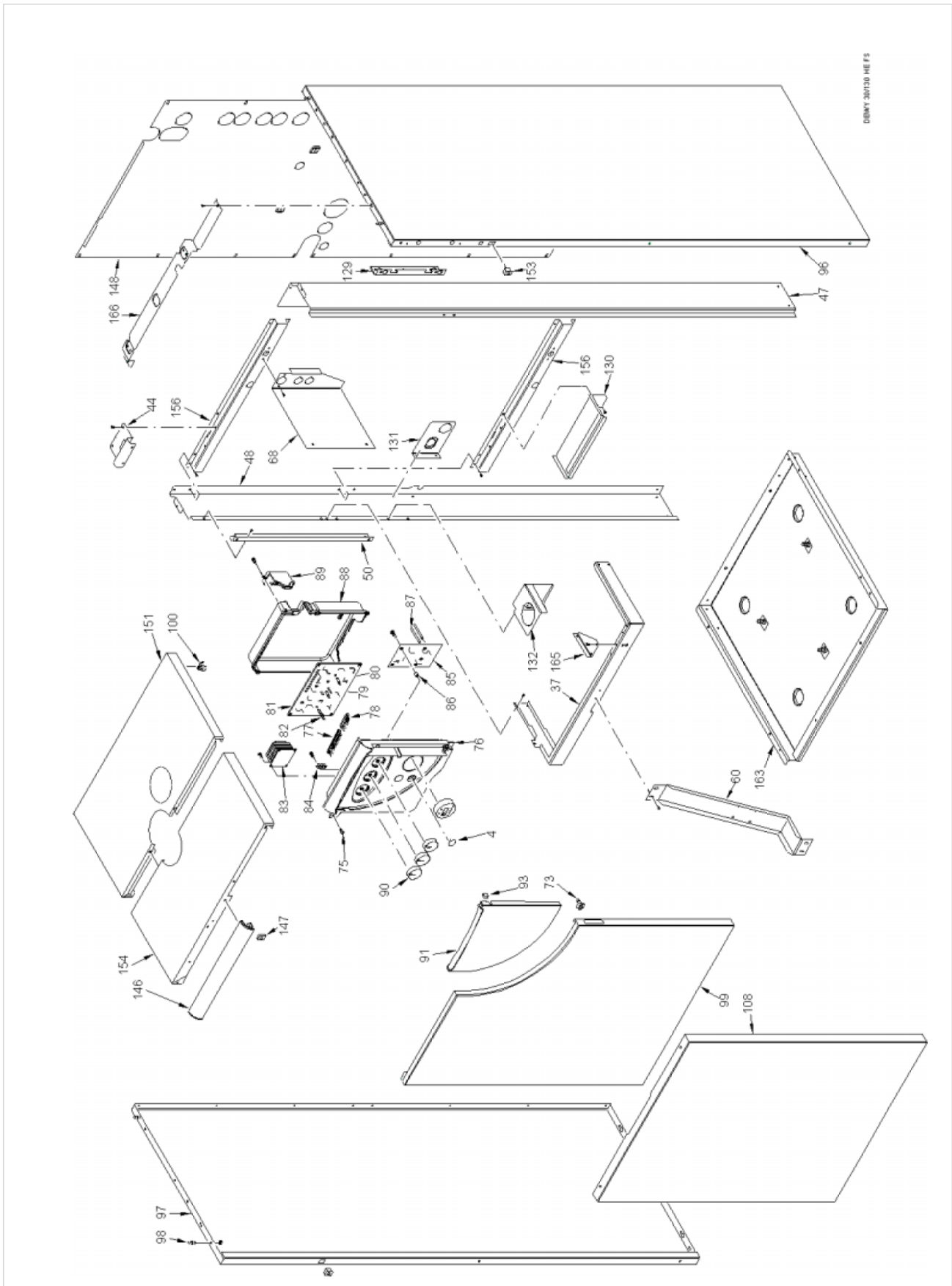
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TYPE DEWY 30/130 HE FS

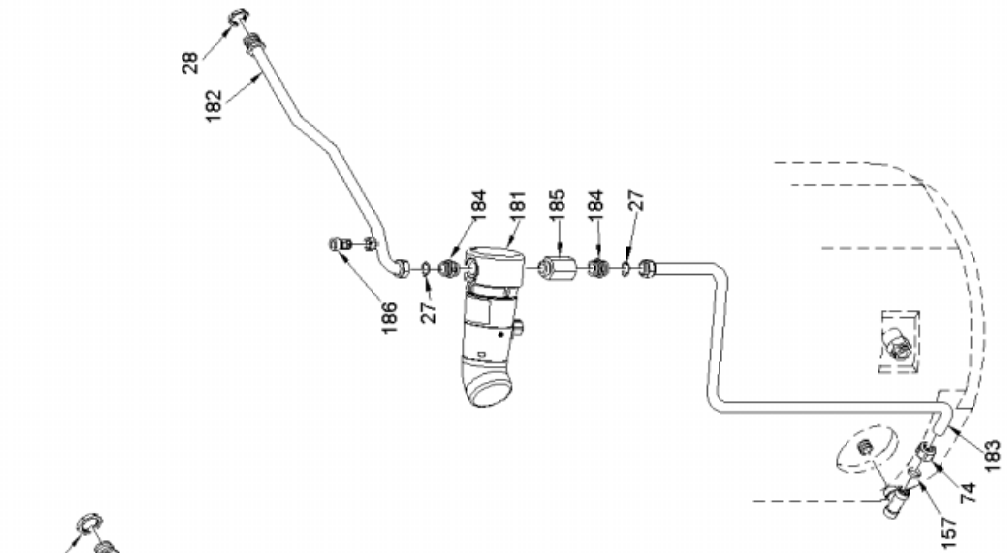
DATE 31.10.2007

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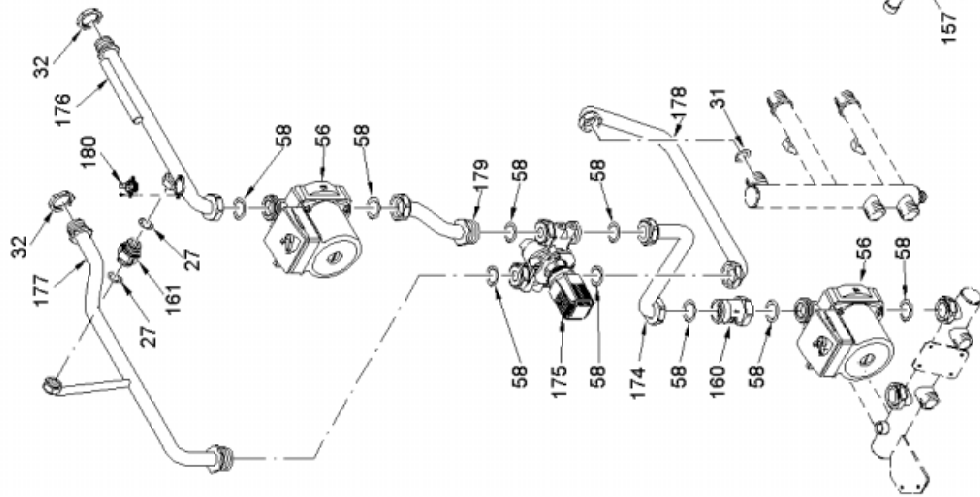




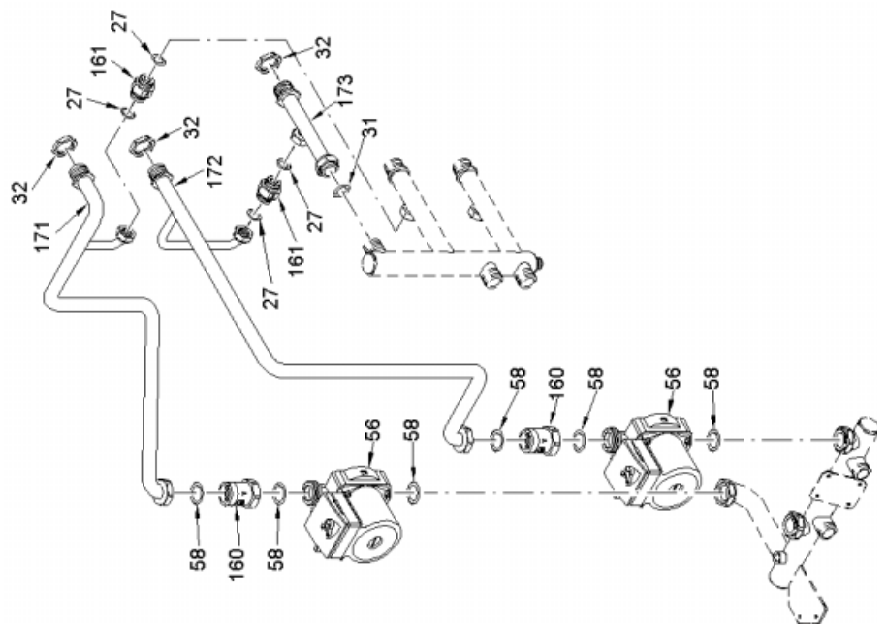
KIT POMPA RICIRCOLO



KIT ZONA BASSA TEMPERATURA



KIT POMPA SECONDA E TERZA ZONA



DEWY 30/130 HE FS

POSITION	CODE	DESCRIPTION	MODEL	NOTE
1	6266034	Sealed chamber rear panel		
2	6266121	Sealed chamber side panel		
3	6231331	D.H.W. tank sensor		
4	6119343	Cap for stat hole		
5	6179200	Holder complete with locking nut		
6	6277201	Water trap		
7	2013302	Fastener for self tapping screw		
8	6280500	3-ways junct. with press. test nipple		
9	6146303	Brass Nut 1/8"		
10	5003105	Glass-lined H.W. cylinder l. 130		
11	6179102	Drain cock 1/2"		
12	6277301	Condensate drainage pipe		
13	6274303	Upstream side mixer part		
14	6226427	O-ring 156		
15	6274304	Downstream side mixer part		
16	6274105	Burner nozzle ø 6,00 natural gas		
16 A	6274104	Burner nozzle ø 4,30 LPG		
17	6226428	O-ring 115		
18	6174804	Gasket for fan flange		
19	6174807	Gasket for downstream side mixer part		
20	6261401	Fan RG130/0800-3612		
21	6146713	Limit stat		
22	6278303	Premix burner		
23	6028703	Gasket for duct flange		
24	6083052	Duct flange		
25	2030240	Teflon gasket Ø 17x24x2		
26	6277401	Pipe connecting gas valve-mixer		
27	2030227	Gasket Ø 12x18x2		
28	6146301	Brass nut 1/2"		
29	6227413	Heat exchanger inlet pipe		
30	6227414	Heat exchanger outlet pipe		
31	2030228	Gasket Ø 17x24x2		
32	6146302	Brass nut 3/4"		
33	6277800	Pipe connecting air vent		
34	2030226	Gasket Ø 10,2x14,8x2		
35	6017210	Manual air vent 1/4"		
36	5183720	Rectang. expansion vessel 10 l. 3/8" M		
37	6292901	Sealed chamber supporting bracket		

POSITION	CODE	DESCRIPTION	MODEL	NOTE
38	6231351	Plunged sensor		
39	6022010	Sensor gasket		
40	6291900	C.H. return manifold		
41	6291810	C.H. flow manifold		
42	6297400	Tee joint M 1/2"x16		
43	6040202	Pressure relief valve 1/2" 3 bar		
44	6073315	Expansion vessel fixing bracket		
45	1010213	Condensate drainage rubber pipe		
46	2000716	Screw T.C.B. M4x8		
47	6292510	Right rear frame part		
48	6292610	Left rear frame part		
49	6221617	Ionisation electrode		
50	6258613	Sealed chamber LH side rear support		
51	6174810	Gasket for ionisation electrode		
52	6226412	O-ring 3068		
53	6221616	Ignition electrode		
54	6273603	Water pressure reducer 3/4"		
55	6037580	Water pressure reducer 3/4"		
56	6254605	Grundfos circulating pump LPS 15-60		
57	6013100	Automatic air vent 3/8"		
58	2030229	Gasket Ø 22x30x2		
59	6227656	Pipe connecting expansion vessel		
60	6293001	Boiler frame-D.H.W. tank fixing brack.		
61	6215814	Pipe conn. exch. flow-waterflow switch		
62	6149304	Flow water switch		
63	6146701	100°C safety stat		
64	6243809	Honeywell gas valve type VK8115V		
65	6235802	Pressure test point M5		
66	6195206	Gas inlet pipe		
67	6174809	Gasket for ignition electrode		
68	6258614	Sealed chamber RH side rear support		
69	6226407	O-ring 130 ø 22,22x2,62 XP70		
70	6216607	Gas shutter 1/2"		
71	6277504	Pipe conn. gas valve-sealed chamber		
72	6023100	Pressure test nipple Ø 1/8"		
73	6265850	5 ways water collector		
74	6229515	Fixing nut 1/2"x16 OT		
75	2004110	Self tapping screw TCB 8Px1/2" Zn		

• Recommended stock parts - Componenti da tenere a scorta

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POSITION	CODE	DESCRIPTION	MODEL	MODEL	NOTE
152	5152040	Pope conn. H.W. circ.pump-return man.			
153	6142550	TRONCH.COLL.A VALLE FILLI.LOOP			
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"1Mx1"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-l.t.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.			
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 TA-CR-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 T1.6A 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.				

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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	Selector 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	6280871	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	6095305	Ignition transformer		
129	6267102	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		

• Recommended stock parts - Componenti da tenere a scorta

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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.



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