

Dear Sir / Madam,

Thank you for having chosen ACQUATONDO.

You are kindly asked to read through this information booklet before using the fireplace in order for you to make use of all its features in total safety.

For further clarification or assistance, please contact the Dealer.

Please note that a qualified dealer **MUST** install the fireplace as is stipulated in the Italian Ministerial Decree No. 37 ex Italian Law No. 46/90.

For installations implemented outside Italy, please refer to the local regulations in the country of use. The manufacturer cannot be held liable for any damage caused as a result of incorrect installation, incorrect maintenance procedures and improper use.

In case of anomalies immediately contact the Dealer where you purchased it, presenting the guarantee card and receipt for purchase.

The number on the manufacturer's sticker that identifies, is indicated:

- on the upper part of the packaging
- on the guarantee booklet inside the hearth
- on the nameplate on the front of product

These documents must be kept for subsequent identification.

Keep these instructions, the guarantee booklet and receipt of purchase, as they must be used when requesting information.

Declaration of conformity

The undersigned EDILKAMIN S.p.a. with head office headquarters at Via Vincenzo Monti 47 - 20122 Milano - Italy - VAT T00192220192

Declares under its own responsibility as follows:

The wood Thermo Fireplaces specified below is in accordance with the 89/106/EEC (Construction Products)

THE WOOD THERMO FIREPLACES, trademark EDILKAMIN, called ACQUATONDO 22-29

YEAR OF MANUFACTURE: Ref. Data nameplate

SERIAL NUMBER: Ref. Data nameplate

The compliance with the 89/106/EEC directive is besides determined by the compliance with the European standard:

UNI EN 13229:2006

Also declares as follows:

The wood Thermo Fireplaces ACQUATONDO 22-29 is in compliance with the requirements of the European directives:

2006/95/EEC - Low voltage directive

2004/108/EEC - Electromagnetic compatibility directive

EDILKAMIN will decline all responsibility of malfunctioning or damage to the equipment in case of unauthorized substitution, assembly or modifications of any sort on the said equipment on the part of non-EDILKAMIN personnel.

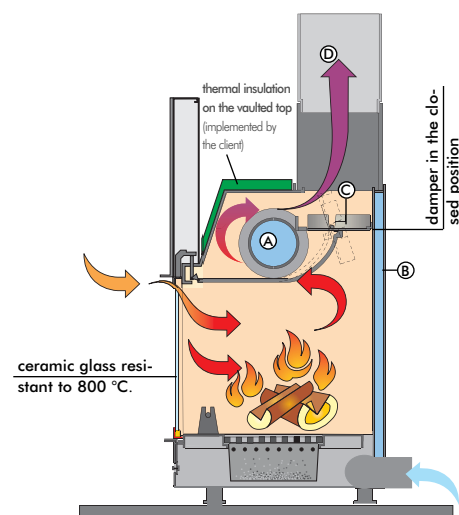
TECHNICAL DATA

Specifications		22	29
Thermal output (burnt)	kW	30	35
Nominal power	kW	23	27
Power water	kW	16,1	18,8
Overall efficiency	%	78,4	78
Efficiency to the water	%	~ 70	~ 70
Optimal wood consumption (min-max)	kg/h	2,5/8,5	3/10
Total weight including the packaging (min-max)	kg	234/254	302/319
ø female smoke outlet	cm	20	25
ø stainless steel chimney flue for a height ranging from 3 to 5 m	cm	25	25
ø stainless steel chimney flue for a height ranging from 5 to 7 m	cm	22	25
ø stainless steel chimney flue for a height exceeding 7 m	cm	20	22
ø external air inlet	cm	12,5	12,5
Water capacity	litres	70	90
Maximum operating pressure	bar	1,5	1,5
Hot sanitary water production (kit 1-3-n3-n3bis-6-ldrokit)*	l/min**	13-14	13-14
Heating capacity ***	m ³	600	705
System return	inches	1"¼	1"¼
System flow	inches	1"¼	1"¼

* Boiler temperature is 70°

** (ΔT=25K)

*** Insulation in accordance with the Legislative Decree 192/2005 ex Italian Law 10/91 and subsequent changes together with an expected heat output of 33 Kcal/m³ hour.



OPERATING DIAGRAM

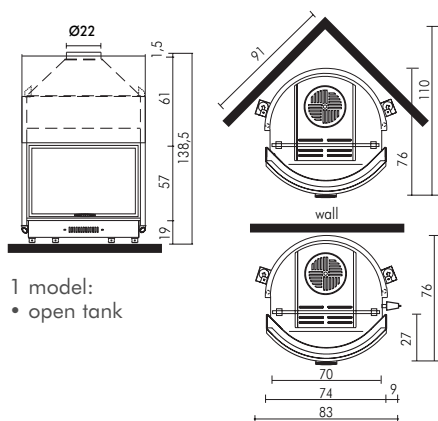
The water of the radiator circuit warms up, circulates in the heat exchanger pipe (A) and the hollow space (B) and skims along the semi-circular wall. The hollow space is created by using thick steel sheet metal.

AUTOMATIC SMOKE BY-PASS

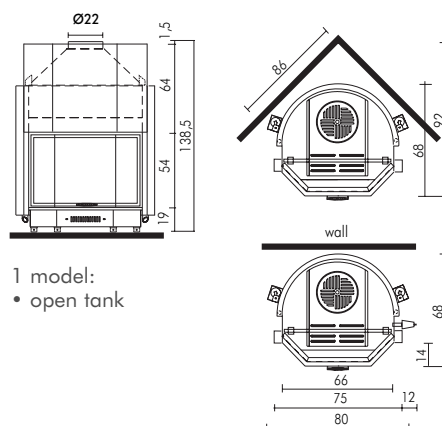
When turning on with the frame open, to facilitate combustion start-up, the smoke damper (C) remains in the opening position so that smoke can directly and easily reach the chimney flue. When combustion has been started up, the smoke damper also closes automatically when the door is closed.

In this mode, before reaching the chimney flue, smoke deviates in such a way to lap and give off heat both to the hollow spaces (B) and to the heat exchanger pipe (A).

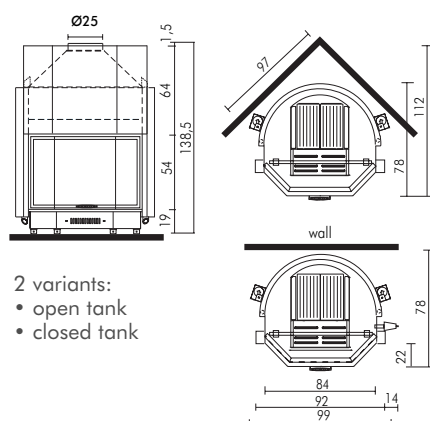
ROUND 22



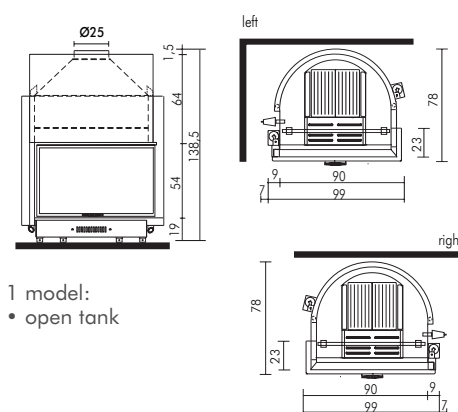
PRISMATIC 22



PRISMATIC 29



GLASS ON ONE SIDE 29



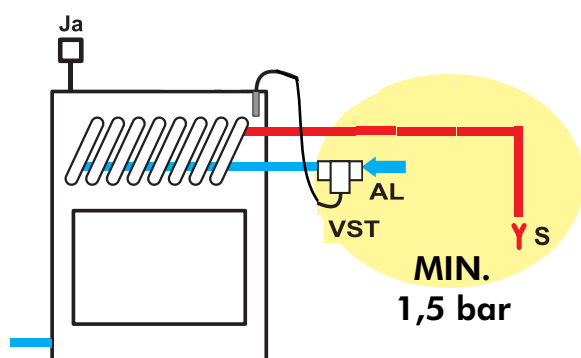
GENERAL SAFETY REGULATIONS



ONLY THERMO FIREPLACES THAT HAVE A THERMAL RELIEF VALVE WHICH ACTUATES THE COIL CAN BE INSTALLED ON CLOSED TANK SYSTEMS

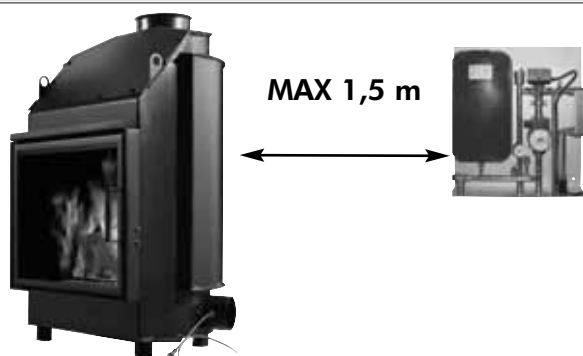
Installations with a closed tank:

- The installer is responsible for the correct installation of the system, which is to be compliant with UNI standards 10683/2005 – 9615/90 – 10412:2
- All must be performed by qualified personnel according to Ministerial Decree 37 ex Law 46/90



- The thermal relief valve (supplied by EDILKAMIN) must be connected to the cooling circuit with a minimum pressure of 1.5 bar.

AL=P= coil power supply, always with a minimum pressure of 1.5 bar



- KITS 5 and 6 must be installed within a MAX distance of 150 cm from the fireplace.



Litres ?

- Another expansion tank must be installed specifically for the thermo fireplace in accordance with the volume of water of the system. (an expansion tank in common with other generators is not permitted).

1 Year

- The safety and thermal relief valves must be checked at least once a year by qualified personnel according to Ministerial Decree 37 ex Law 46/90

- THE THERMO FIREPLACE MUST NEVER FUNCTION WITHOUT WATER IN THE SYSTEM.
- THE THERMO FIREPLACE CAN BE DAMAGED IF IT IS IGNITED WITH NO WATER IN THE SYSTEM.
- The thermo fireplace is designed to heat water by means of wood combustion in the hearth.
- The only hazards that can derive from using the thermo fireplace pertain to non-compliance with the installation instructions, direct contact with live electrical parts (inside), contact made with the fire and hot parts or foreign substances being put in the fireplace.
- For the thermo fireplace to function properly installation must be carried out according to the instructions given in this booklet and the door must only be opened to refill the hearth with wood.
- Never put foreign substances in the hearth or in the tank.
- No flammable products are to be used to clean the smoke outlet channel.
- The glass can be cleaned when COLD with a suitable product (e.g. GlassKamin) and a cloth. Do not clean when hot.
- The exhaust pipes and the door become very hot when the thermo fireplace is used.
- Do not place anything that is not heat resistant close to the thermo fireplace.
- NEVER use liquid fuel to ignite the thermo fireplace or to rekindle the embers.
- Do not obstruct the external air inlets in the room where the fireplace is installed or the air inlets of the thermo fireplace itself.
- Do not wet the thermo fireplace and do not go near the electrical parts of the system with wet hands.
- Do not use reducers on the smoke exhaust pipes.
- The thermo fireplace must be installed in a place that is suitable against fire hazards and equipped with all that is required (power and air inlets/outlets) for it to function properly and safely.

OPEN TANK

- The connections, commissioning and verification of proper operation of the fireplace must be carried out by qualified personnel, who can implement all connections in accordance with the laws in force, particularly with Italian D.M. 37 Law No. 46/90, apart from complying with these instructions.
 - The thermo fireplace and the system are filled with water that flows from the water inlet pipe (the diameter must not be less than 18 mm) to the open expansion tank.
 - All the vents of the radiators must be opened during this phase so as to prevent air pockets from forming in the system, which would obstruct the circulation of water.
- NB:**
- The open tank should be positioned at a height greater than 3 m higher than the highest component of the primary circuit and less than 1.5 m from the edge of the thermo fireplace.
- In any case, the tank must be high enough to create a greater pressure than that produced by the pump (circulator).
 - **The system must never be filled directly from the water mains** as the pressure may be greater than that stipulated on the data plate of the thermo fireplace.
 - The safety pipe to the expansion tank must allow the water to flow freely, must not have taps and must be insulated properly.
 - The water inlet pipe must not have taps nor curves.
 - The maximum operating pressure must not exceed 1.5 bar
 - The testing pressure is 3 bar.
 - In places that reach very low temperatures, antifreeze liquid must be added to the water in the system.
 - Never ignite the fire in the thermo fireplace (not even as a test) unless the system is filled with water as this could cause irreparable damage.
 - Connect the drains of the thermal relief valve (TRV) and the safety valve (SV) (diagrams are found on the following pages).
 - The flow test of the system must be carried out with the expansion tank open.
 - It is recommended to install a 6 bar safety valve on the hot sanitary water circuit so as to drain any excessive increase in the volume of the water in the heat exchanger.
 - Place all the components of the system (circulator, heat exchanger, valves, etc.) in easily accessible points for routine and special maintenance procedures.

WATER TREATMENT

- If need be, antifreeze, descaling and anticorrosive solutions are to be added to the water. A softener must be used if the hardness of the water used to refill and top-up the system exceeds 35°f (French degrees). Please refer to UNI 8065-1989 standard (water treatment in domestic heating systems).

CLOSED TANK additional regulations to those specified above

- Be careful not to exceed 1.5 bar when filling the system.
- All the vents of the radiators must be opened during this phase so as to **prevent air pockets** from forming in the system, which would obstruct the circulation of water.
- Only if a thermal relief valve actuates the coil can the fireplace be installed on a CLOSED TANK system.
- Consider the necessity of installing another CLOSED TANK.
- When connecting a thermo fireplace to an existing system, an assessment must be made regarding a need for another CLOSED TANK on the system.
- The upstream pressure of the cooling circuit must be at least 1.5 bar (UNI 10412/2 point 6.2).

INSTALLATION INSTRUCTIONS

Important advice regarding the installation

Other than that described in this documentation, you are also asked to note the following UNI standards:

- **No. 10683/2005** - firewood heat generators: installation requirements

- **No. 9615/90** - calculating the internal dimensions of fireplaces

- **No. 10412:2** - hot water heating systems. Specific safety requirements for systems provided with residential solid fuel burning appliances and combined boiler, not exceeding a total nominal heat input of 35 kW.

Particularly:

- **Before carrying out any** assembly it is important to verify compatibility of the appliance, as stipulated in UNI 10683/2005 standard, paragraphs 4.1 / 4.1.1 / 4.1.2.

- **When assembly is completed**, the installer must implement "start-up operations" and issue documentation as required by UNI 10683/2005 standard in paragraphs 4.6 and 5, respectively.

- **The connections, commissioning and verification of proper operation of the fireplace** must be carried out by qualified personnel, who can implement the electrical and plumbing connections as required by UNI standards 10683/2005, paragraph 4.5 and 10412:2, apart from complying with these assembly instructions.

- Verification must be carried out with the fireplace on and after having been on for a couple of hours, before covering the fireplace, so that you can intervene if need be. After which, the finishing operations such as:

- setting-up the fireplace mantel
 - mounting the fireplace covering
 - pilasters, painting, etc.
- are carried out, once the tests are completed successfully.

Consequently, EDILKAMIN does not accept responsibility for expenses deriving from demolition as well as construction even if either occurs as a result, after having replaced any damaged parts of the fireplace.

External air inlet (optional)

An external connection with a 12,5 cm diameter crosssection throughout (refer to the technical table) is absolutely necessary for the thermo fireplace to function properly and is therefore imperative for this to be implemented.

This connection must link the air adjustment mechanism (E), delivered separately.

The mechanism, delivered separately, can be assembled either right or left of the thermo fireplace.

Connection can be made with a flexible aluminium pipe.

Ensure that the points where there may be dispersion of air are sealed well.

The air adjustment mechanism (E) can be removed and mounted on the right side of the thermo fireplace.

It is recommended to place a protection grille on the outer part of the air inlet channel, however, ensure that this does not reduce the cross-section.

For distances longer than 3 m or with bends, increase the given cross-section by a minimum of 10% to a maximum of 20%.

The intake of external air must enter at floor level (it cannot enter from above).

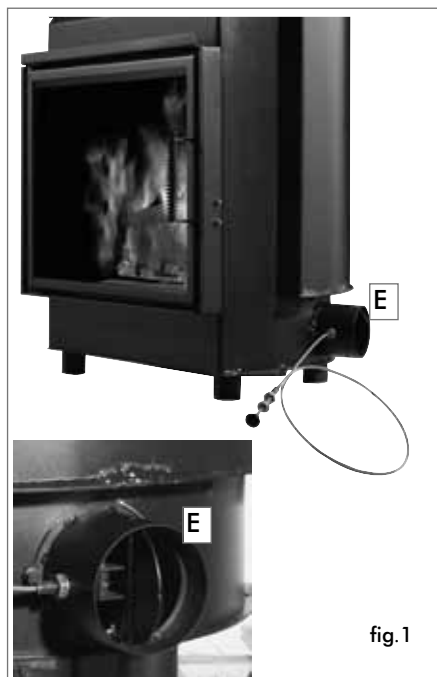


fig.1

Chimney flues and chimneypot

The thermo fireplace smoke outlet has a circular crosssection so that stainless steel pipes can be used.

If the chimney flue inlet is not vertically above the thermo fireplace, the connection from the fireplace to the flue must not have a narrowing section or inclinations greater than 45° (fig.A 1 2 3).

If the chimney flue is not brand new or too big, it is recommended to fit in stainless tubes of an appropriate diameter and with suitable insulation.

If the chimney flue is installed outside, it is recommended to use an insulated, double walled, stainless steel flue.

The characteristics of the construction must be suitable to withstand a smoke temperature of at least 450° C, with particular reference to the mechanical resistance, insulation and the gas tight sealing.

The junction of the steel flue inlet and the smoke outlet of the fireplace must be sealed with high temperature mastic.

The fundamental characteristics of the chimneypot are:

- an internal cross-section at the base, which is the same as that of the chimney flue.
- an outlet cross-section which is no smaller than twice that of the chimney flue.
- its position must be high enough to catch the wind and avoid downdraft areas in turbulent wind.

In addition to that mentioned above, please consider the indications stipulated in UNI 10683/2005 standard, paragraph 4.2: "connection to the smoke outlet system" and its subsections.

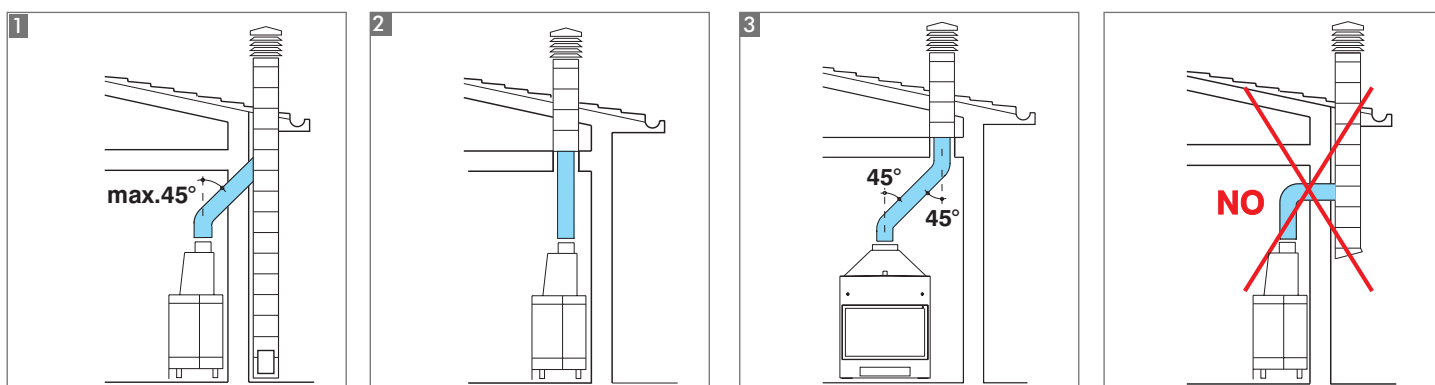


fig.A

INSTALLATION AND USE INSTRUCTIONS

Fireplace

If combining a prefabricated Edilkamin covering, to decide upon the exact positioning of the fireplace, it is important to verify which covering will be applied.

The positioning is implemented according to the model chosen (refer to the installation instructions found inside the packaging of each fireplace covering).

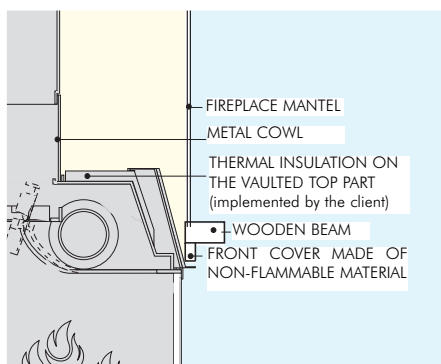
Always ensure the thermo fireplace is level during the installation process.

- Drill a hole into the wall or the flooring for the external air intake and connect the air adjustment mechanism to the hole as described in the chapter called "external air inlet".

- Use a stainless steel flue to connect the fireplace to the chimney flue, adhering with the diameters indicated in the specifications table and the guidelines given in the chapter called "chimney flues".

- Verify that all moving parts function properly before setting the thermo fireplace covering in place.

- This system must be tested and ignited for the first time before the covering is set in place.



Installation of the fireplace covering, fireplace mantel and ventilation outlets (Fig. F)

The base of the fireplace covering must allow the internal air to be recycled. Failing to do so, the fireplace will not function properly with possible smoke backflow.

Therefore, suitable slots or apertures must be made for the air to pass through.

Parts of the fireplace covering that are made of marble, stone and bricks must be mounted with a small gap between them and the fireplace so as to prevent possible breakage due to expansion and excessive overheating.

Wooden parts must be protected by fire resistant panels and no part must touch the thermo fireplace, on the contrary, there must be an appropriate distance of at least 1 cm to allow the air to flow, preventing heat accumulation.

The fireplace mantel can be made of fireproof plasterboard panels or gypsum board and, however, of completely fireproof material.

Air should be allowed to flow inside the fireplace mantel (through the gap between the door and the beam). Through convective motion, the air will flow out from the grille installed at the top, resulting in heat recovery and preventing excessive overheating.

The fireplace mantel must have appropriate openings to carry out maintenance on the fittings.

In addition to that mentioned above, please consider the indications stipulated in the UNI 10683/2005 standard, paragraphs 4.4 and 4.7: "insulation, finishing, fireplace covering and safety recommendations".

Insulating mats must be applied when using an installation KIT so as to protect it from the heat radiation emitted by the fireplace.

Important advice when using the fireplace

- It is important to ensure that there is water in the thermo fireplace and the system before igniting the fireplace. It is recommended to connect the inlet and outlet pipes as shown in the diagrams.

- The maximum operating pressure must not exceed 1.5 bar

- The Company is responsible for the proper functioning of the product only if this is handled in accordance with the documentation supplied with the product itself.

- First ignition (or re-igniting): remove any ash residue from the hearth.

Practical advice

- It is recommended to keep the radiators closed in the room where the thermo fireplace is installed since the heat radiated from the opening of the fireplace itself is enough.

- An incomplete combustion process causes excessive fouling on the heat exchanger pipe. To prevent this you must:

- burn dry wood.
- ensure the hearth contains a bed of embers and burning carbon before adding more wood.
- place larger logs together with smaller ones.

Igniting the fireplace

- Ensure that at least one radiator is always open.
- Actuate the switches of the electronic regulator.

- Place a pile of medium-thin dry wood in the thermo fireplace and ignite the fire.

- Wait a few minutes until it reaches sufficient combustion.

- Close the door

- Adjust the combustion setting via the damper control at the front.

- Set the thermostat on the electronic regulator (*) at a temperature between 50 and 70° C.

- The 3-way valve (*) diverts the water flow directly to the thermo fireplace; when the set temperature is reached, the 3- way valve (*) diverts the flow to the system.

- When the door is opened, the damper bypass opens automatically, allowing the smoke to reach the smoke flue directly, preventing it from coming out of the inlet.

- When the door is opened, the damper bypass opens automatically, allowing the smoke to reach the smoke flue directly, preventing it from coming out of the inlet.

(*) these components of the system are to be provided by the installer.

During the combustion process

If the water temperature exceeds 90° C because of too much wood being placed in the hearth, the thermal relief valve will be activated and the acoustic signal heard.

In this case you must proceed as follows:

- Wait until the temperature is lower than 80° C; check the warning lights on the electronic regulator, without loading any additional fuel.
- The hot water tap can be opened to speed up the cooling process if the thermo fireplace is equipped with a hot sanitary water production KIT.

External air regulation

- The damper control found on the external air inlet (refer to Fig. 1 on pag. 22), regulates the amount of primary air that is necessary for the combustion process. Pushing the knob will close the external air inlet and pulling the knob will open it.

Primary air regulation

- Air regulation Control "A" (see fig.2) located under the door regulates the amount of air that is necessary for the combustion process.

- Control all the way to the right: fully open
- Control all the way to the left: closed.

During the thermo fireplace start-up phase, the control must be kept in the fully open position, while, when running, it must be kept in the intermediate or closed position.

Maintenance

Cleaning the hearth

- Fouling that tends to accumulate on the internal walls of the thermo fireplace decreases the efficiency of heat transfer.

- It is therefore necessary to clean the fireplace regularly, by bringing the water temperature to 80 / 85° C to soften the fouling and then remove this with a steel spatula.

Glass cleaning

- Use an appropriate spray for ceramic glass to clean the glass.

- The glass must be cleaned when cold.

- To open the door, it must be locked in the closed position, positioning control "B" (see fig. 2) under the door all the way to the right.

- Insert the "cold handle" door handle on the latch (see fig.3) and turn to open.

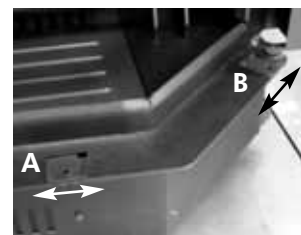


fig. 2

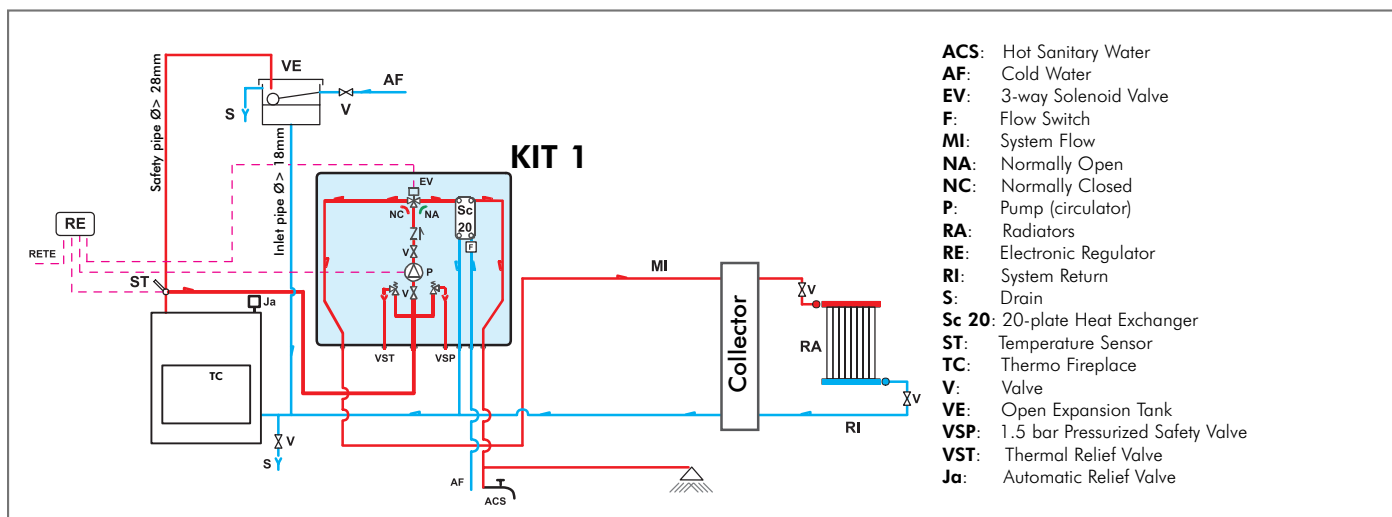


fig. 3

SYSTEM FOR AN OPEN TANK INSTALLATION

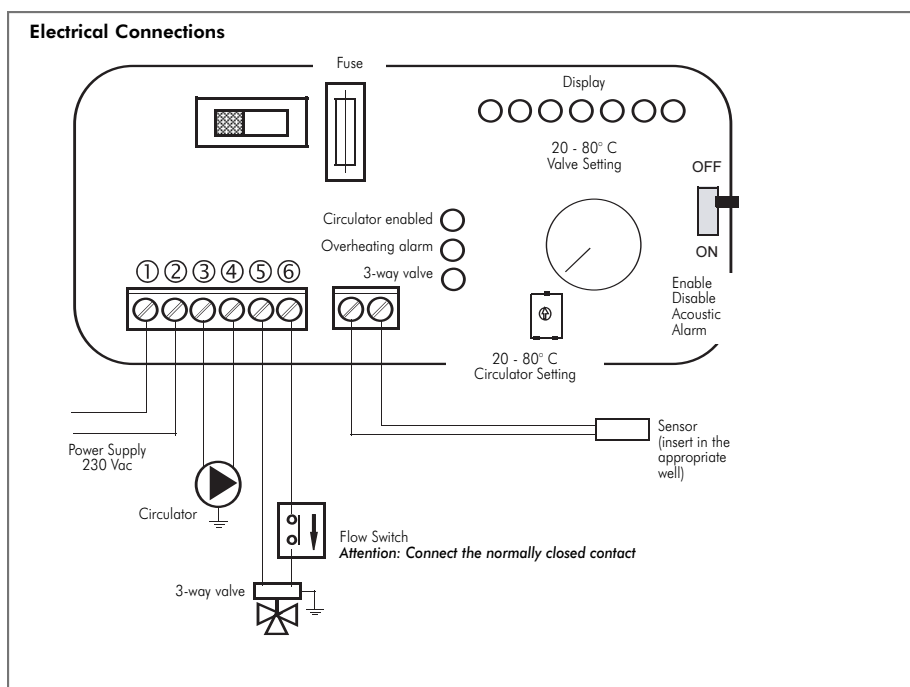
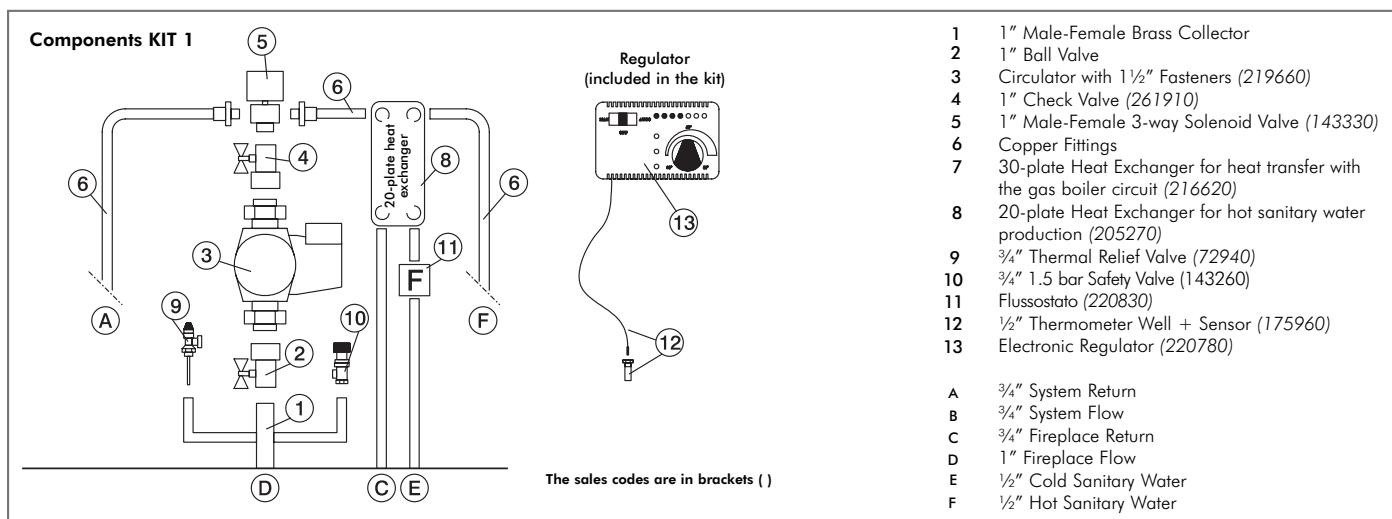
AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE WITH HOT SANITARY WATER PRODUCTION USING KIT 1

ENGLISH



Kit 1 is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

NB: insulating mats must be applied so that the components of the kit are well-protected from the heat radiation emitted by the fireplace.



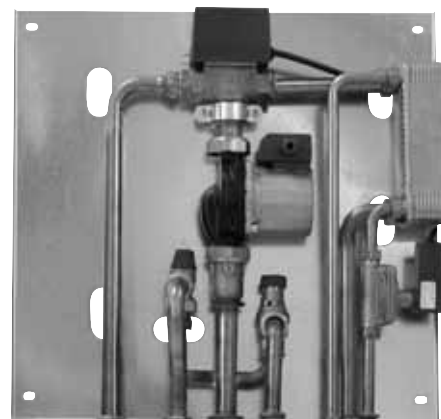
SELECTOR FUNCTIONS

Selector: **OFF** Everything is switched off

Selector: **MAN** Driven Circulator Valve is set

Selector: **AUTO** Circulator is set Valve is set

Alarm selection No acoustic signal in the OFF position



KIT 1

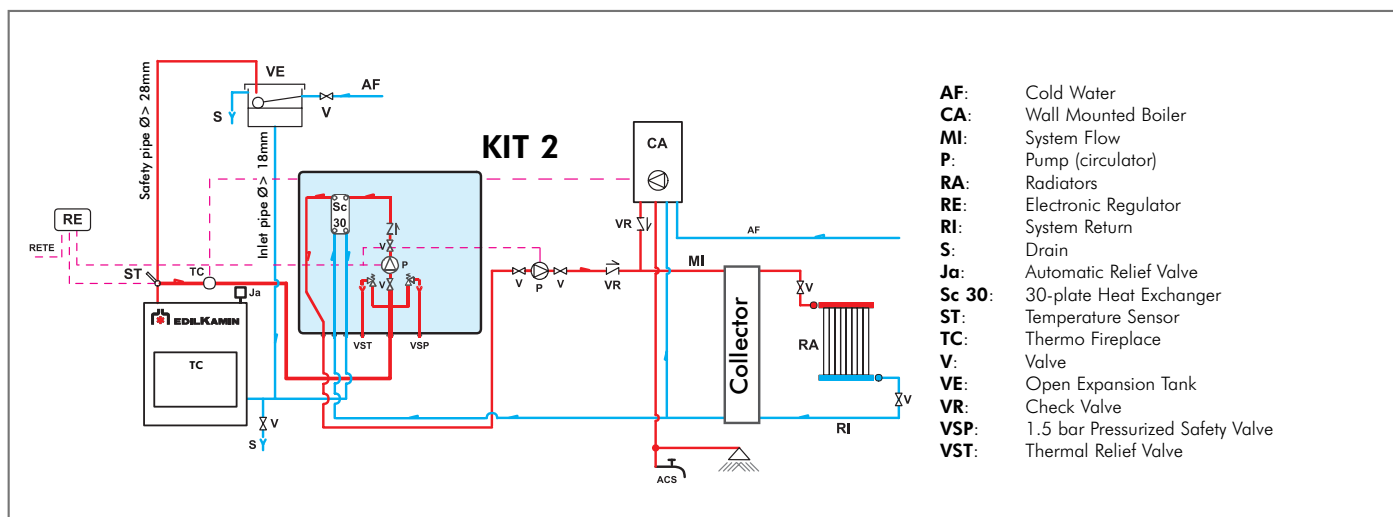
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THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR AN OPEN TANK INSTALLATION

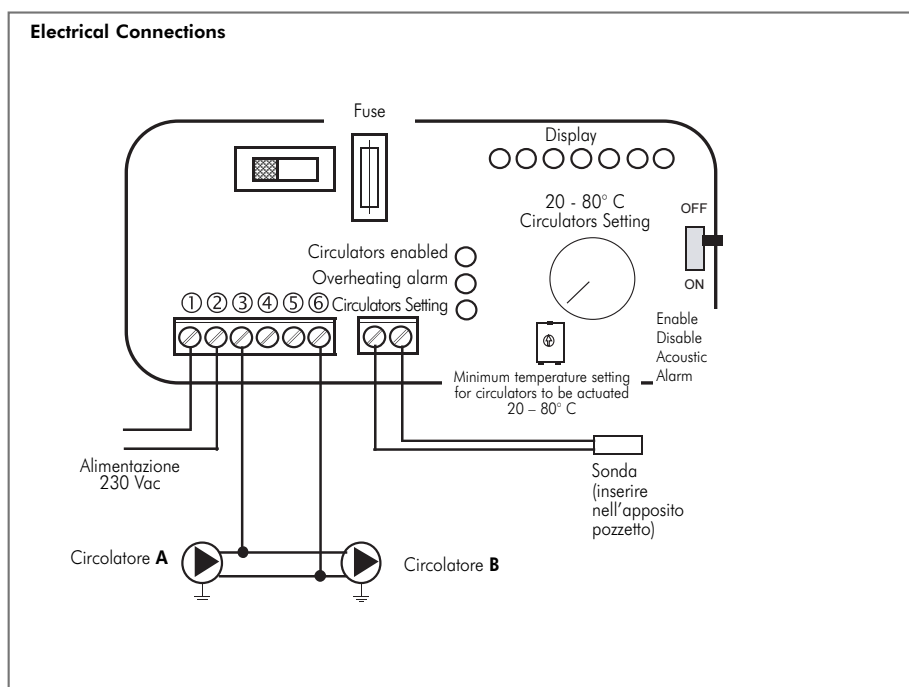
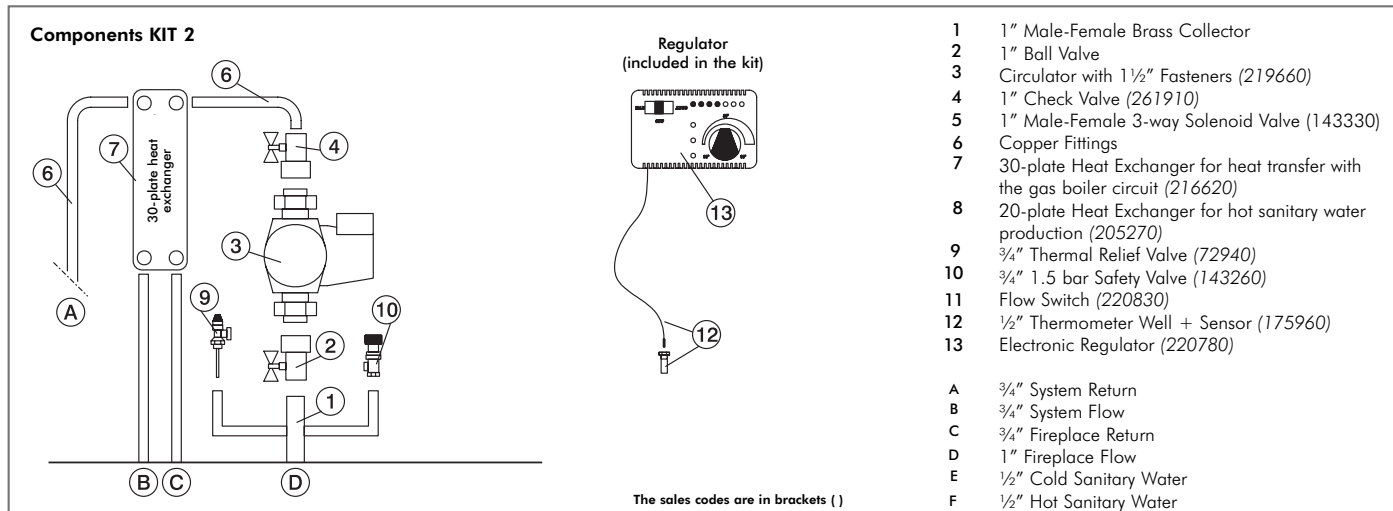
AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE THAT DOES NOT PRODUCE HOT SANITARY WATER BUT HAS A WALL MOUNTED BOILER USING **KIT 2**

ENGLISH



Kit 2 is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

NB: insulating mats must be applied so that the components of the kit are well-protected from the heat radiation emitted by the fireplace.



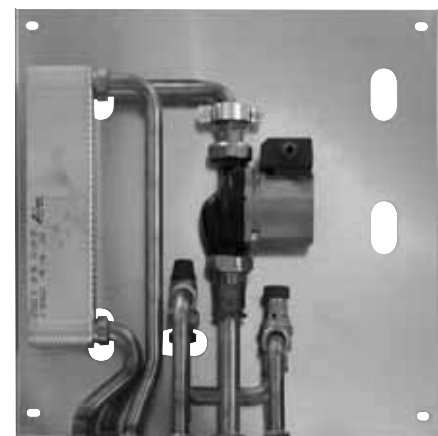
SELECTOR FUNCTIONS

Selector: **OFF** Everything is switched off

Selector: **MAN** Driven Circulator Valve is set

Selector: **AUTO** Circulator is set Valve is set

Alarm selection No acoustic signal in the OFF position



KIT 2

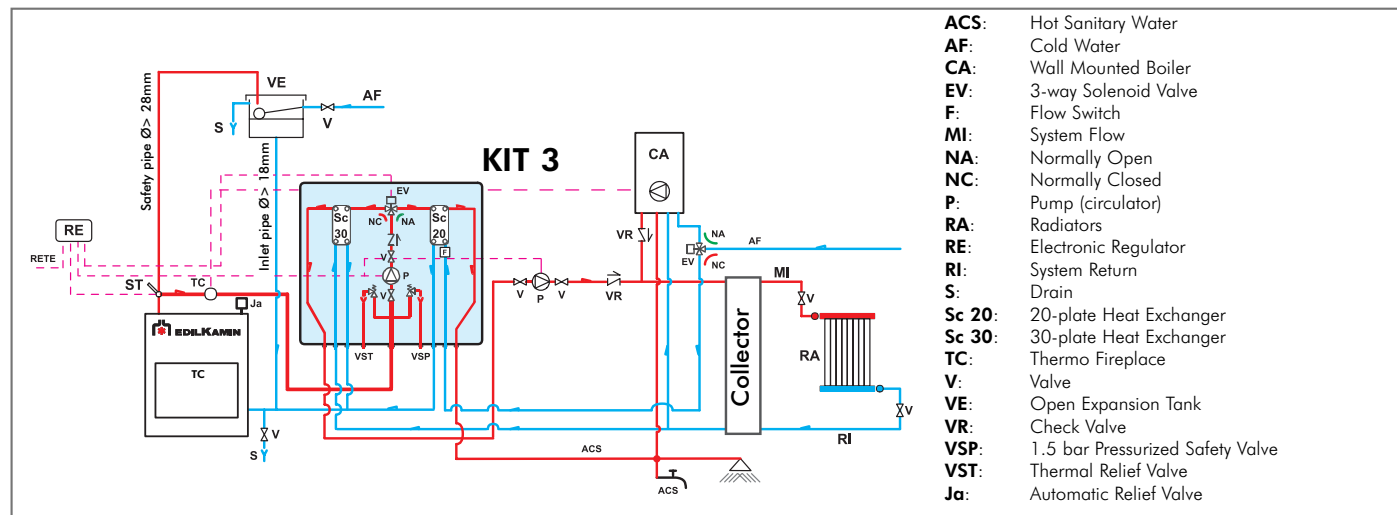
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THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR AN OPEN TANK INSTALLATION

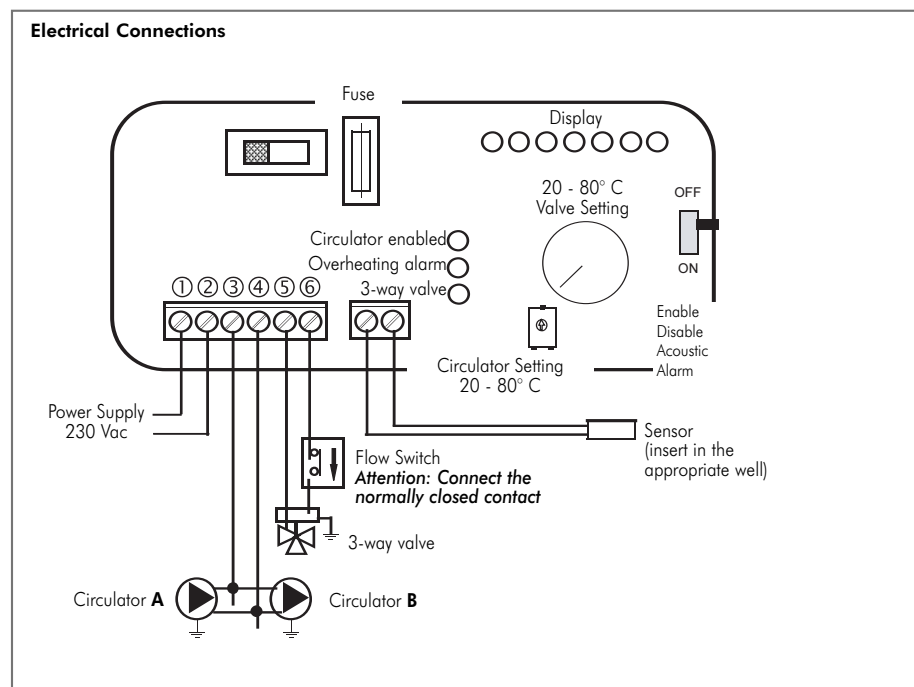
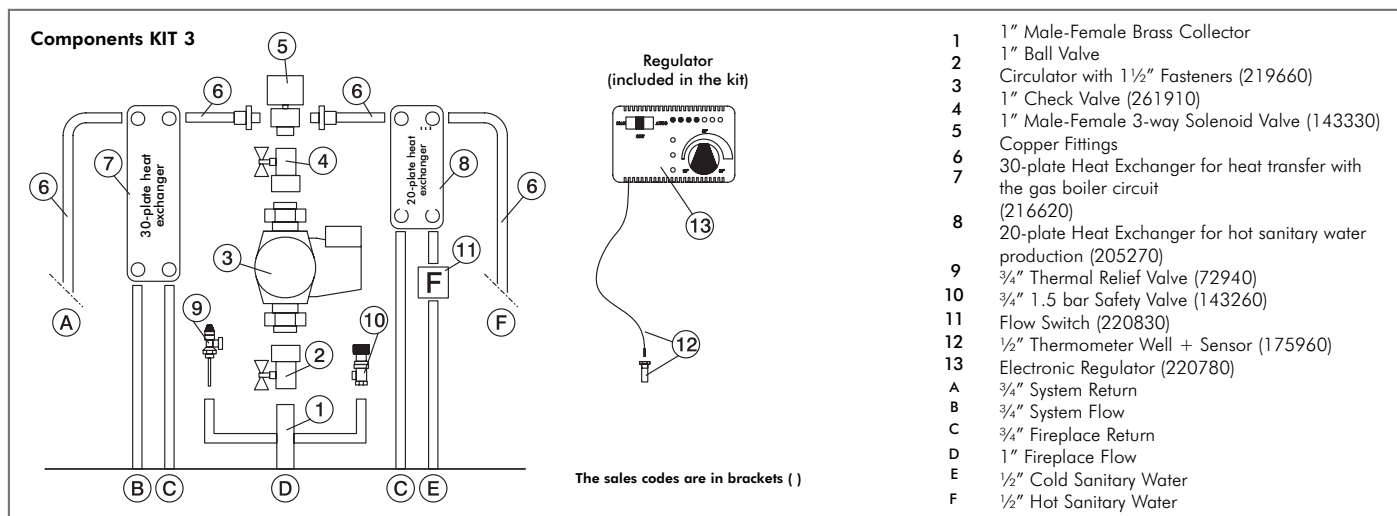
AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE HOT SANITARY WATER PRODUCTION AND A WALL MOUNTED BOILER USING **KIT 3**

ENGLISH



Kit 3 is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

NB: insulating mats must be applied so that the components of the kit are well-protected from the heat radiation emitted by the fireplace.



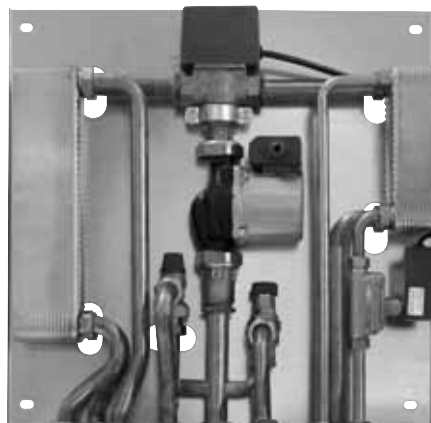
SELECTOR FUNCTIONS

Selector: **OFF** Everything is switched off

Selector: **MAN** Driven Circulator Valve is set

Selector: **AUTO** Circulator is set Valve is set

Alarm selection No acoustic signal in the OFF position



KIT 3

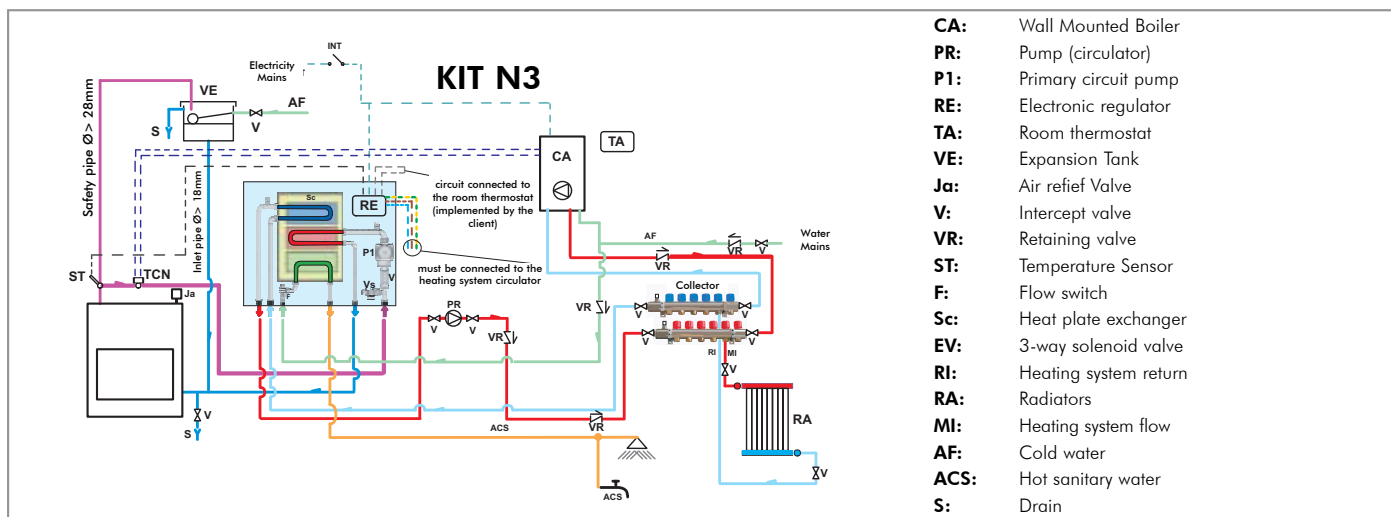
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THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR AN OPEN TANK INSTALLATION

AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE HOT SANITARY WATER PRODUCTION AND A WALL MOUNTED BOILER USING KIT N3

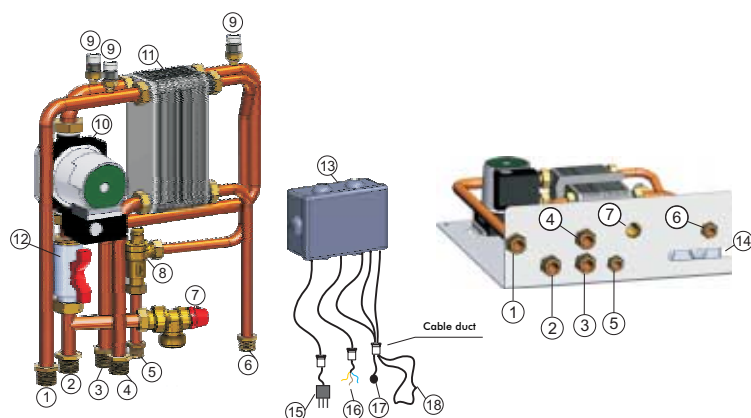
ENGLISH



Kit N3 is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

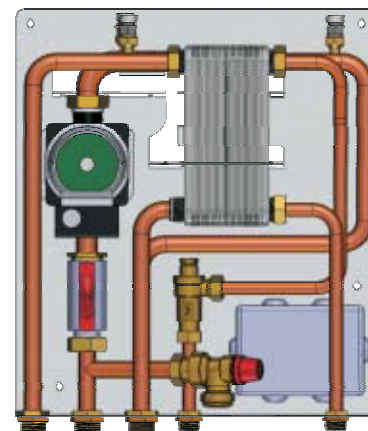
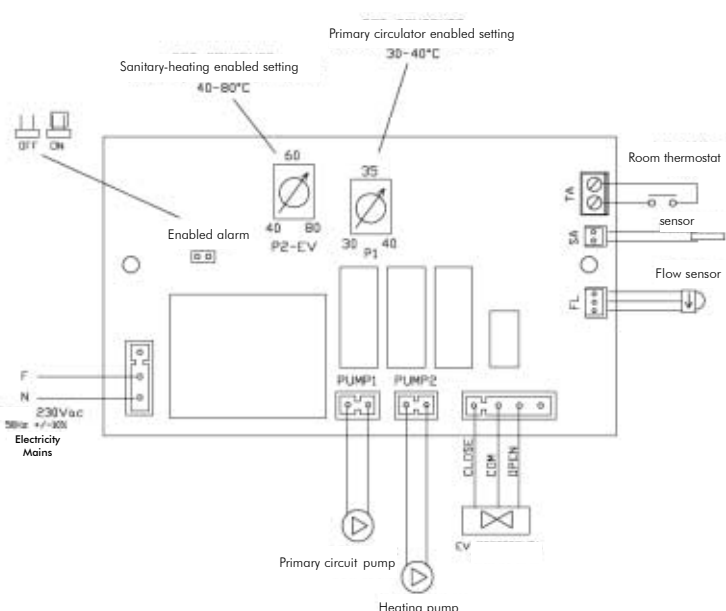
NB: insulating mats must be applied so that the components of the kit are well-protected from the heat radiation emitted by the fireplace.

Components KIT N3



- 1 Heating system flow G 3/4"
- 2 EDILKAMIN generator flow G 3/4"
- 3 EDILKAMIN generator return G 3/4"
- 4 Heating system return G 3/4"
- 5 Cold sanitary water inlet G 1/2"
- 6 Hot water return to the sanitary system G 1/2"
- 7 Safety valve - temperature and pressure (90 °C - 3bar)
- 8 Flow Switch
- 9 Air relief valve G 3/8"
- 10 EDILKAMIN generator circuit circulator
- 11 3-way heat exchanger
- 12 Intercept valve G 1"
- 13 Electronic regulator with wiring
- 14 Appropriate aperture for the cable duct to pass through
- 15 Power cable
- 16 Cables for the heating system circulator (phase, neutral, earth)
- 17 Temperature sensor
- 18 Room thermostat circuit

Electrical Connections



KIT N3

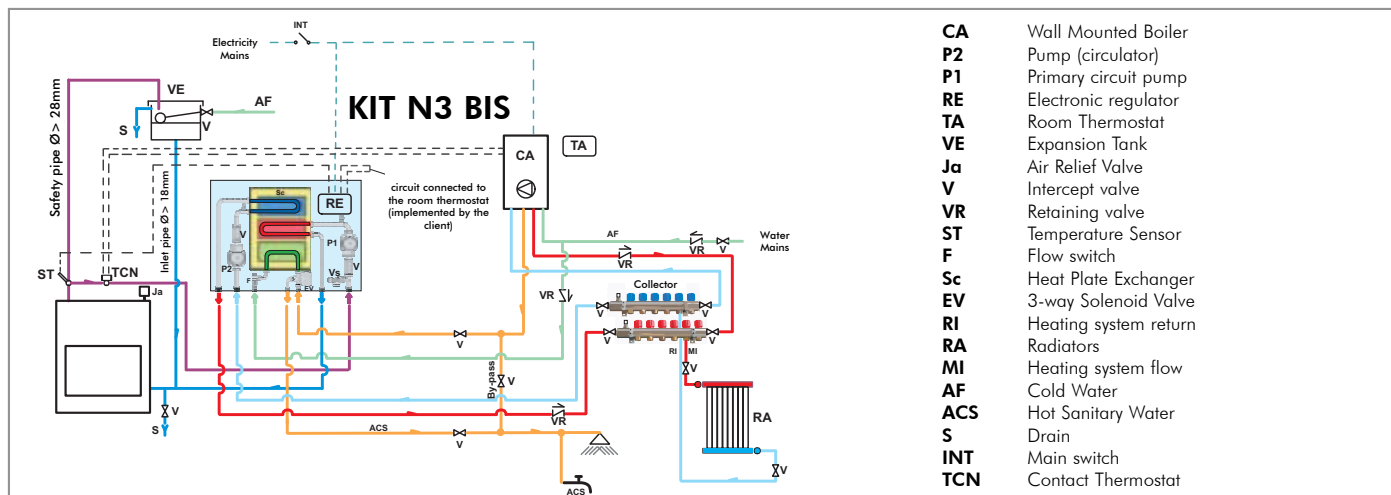
code 627690

THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR AN OPEN TANK INSTALLATION

AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE WITH HOT SANITARY WATER PRODUCTION AND A WALL MOUNTED BOILER USING **KIT N3 BIS**

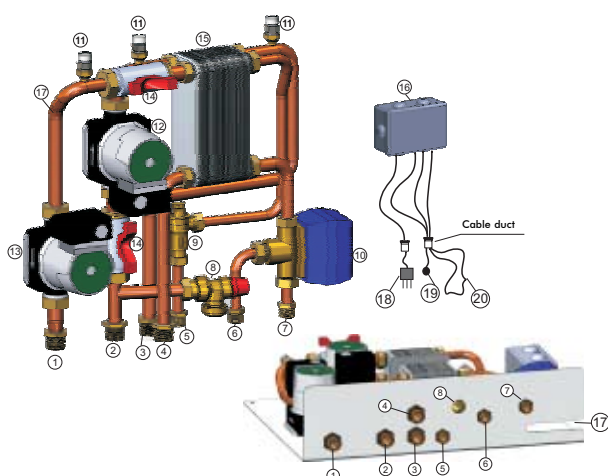
ENGLISH



Kit N3 BIS is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

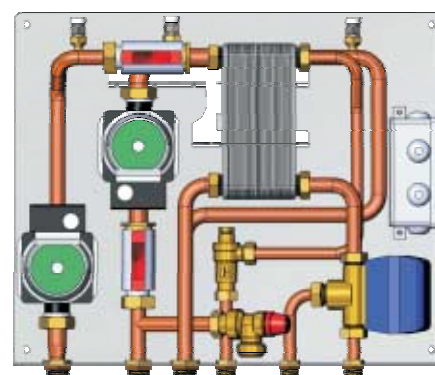
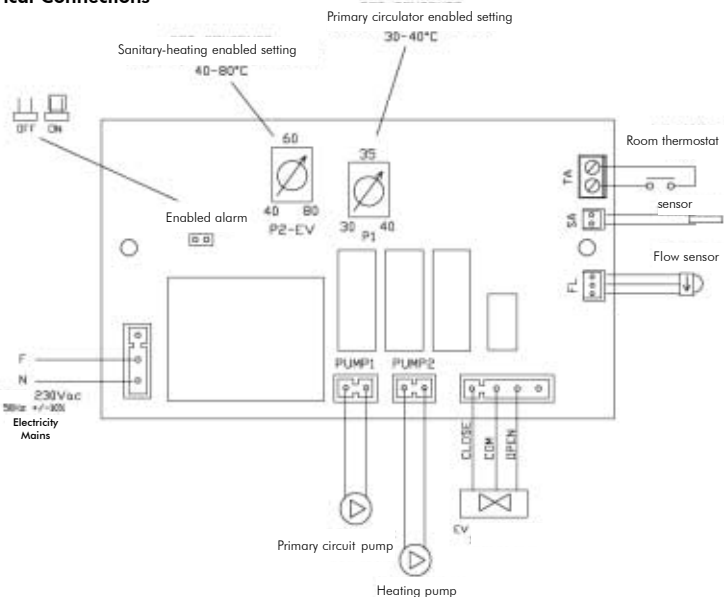
NB: insulating mats must be applied so that the components of the kit are well-protected from the heat radiation emitted by the fireplace.

Components KIT N3 BIS



- 1 Heating system flow G 3/4"
- 2 EDILKAMIN generator flow G 3/4"
- 3 EDILKAMIN generator return G 3/4"
- 4 Heating system return G 3/4"
- 5 Cold sanitary water inlet G 1/2"
- 6 Hot water return to the sanitary system G 1/2"
- 7 Sanitary hot water inlet to the gas boiler G 1/2"
- 8 Safety valve - temperature and pressure (90 °C - 3bar)
- 9 Flow Switch
- 10 3-way deviation solenoid valve
- 11 Air relief valve G 3/8"
- 12 EDILKAMIN generator circuit circulator
- 13 Heating system circuit circulator
- 14 Intercept valve G 1"
- 15 3-way heat exchanger
- 16 Electronic regulator with wiring
- 17 Appropriate aperture for the cable duct to pass through
- 18 Power cable
- 19 Temperature sensor
- 20 Room thermostat circuit

Electrical Connections



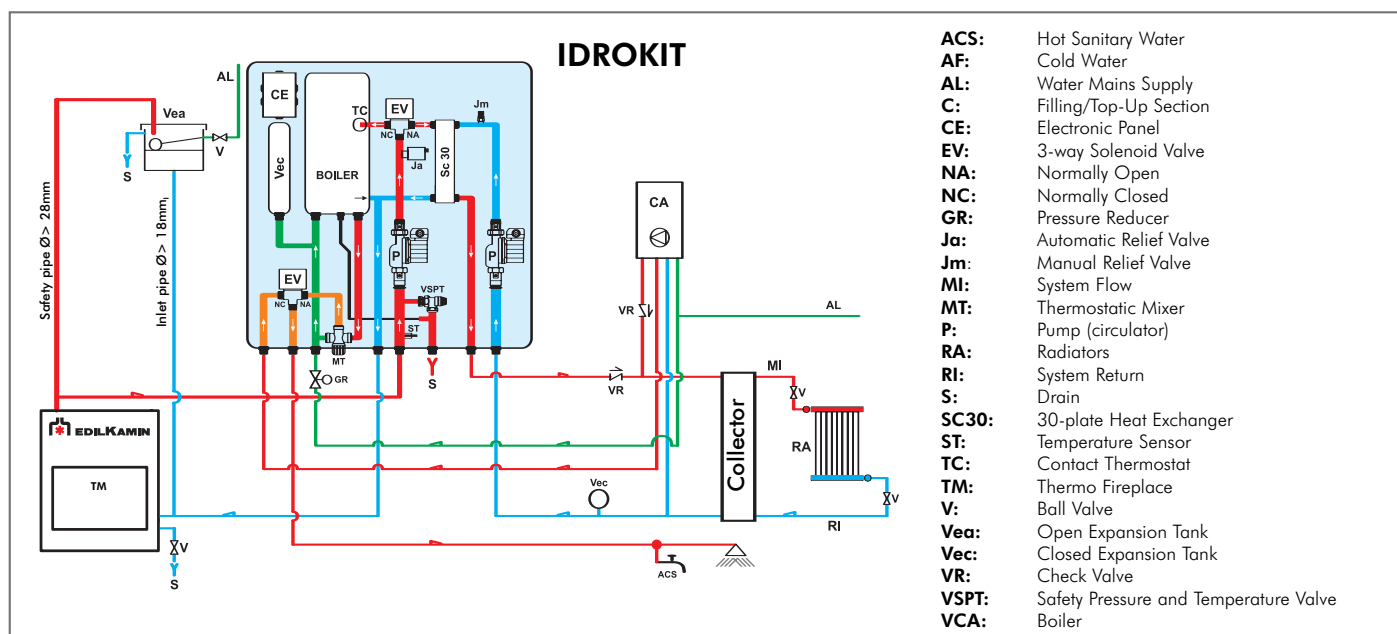
KIT N3 BIS

code 627860

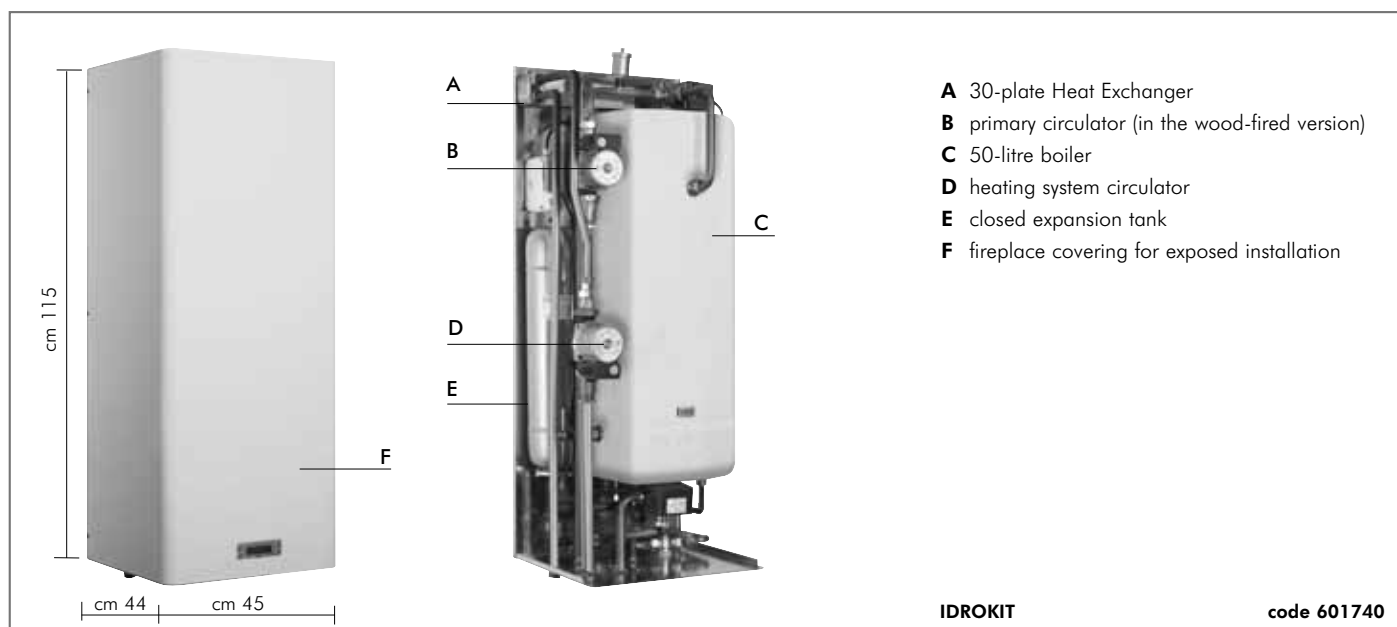
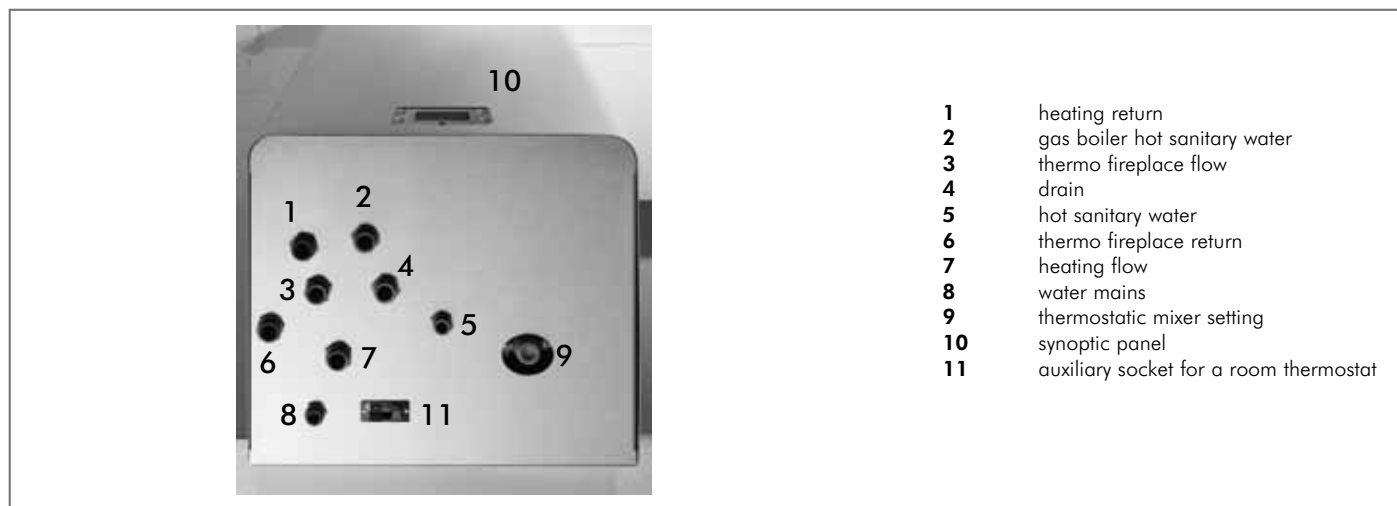
THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR AN OPEN/CLOSED TANK INSTALLATION

AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE THAT PRODUCES AND STORES HOT SANITARY WATER AND HAS A WALL MOUNTED BOILER USING **IDROKIT**



IDROKIT is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.



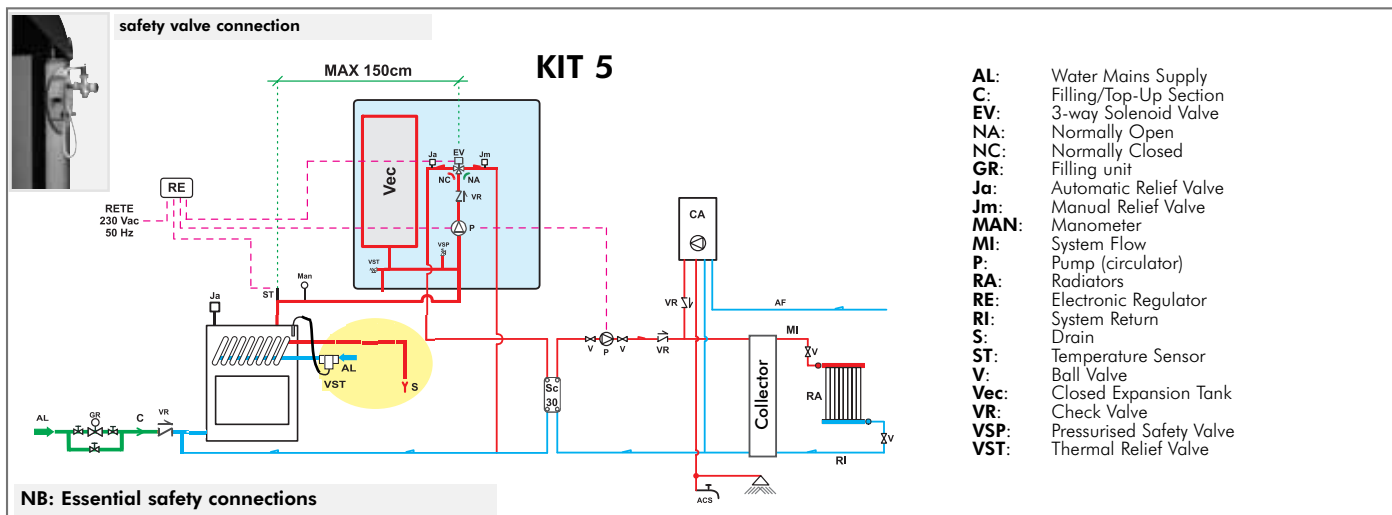
THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

SYSTEM FOR A CLOSED TANK INSTALLATION

AN EXAMPLE OF A HYDRAULIC SYSTEM FOR A THERMO FIREPLACE - ONLY HEATING

USING **KIT 5**

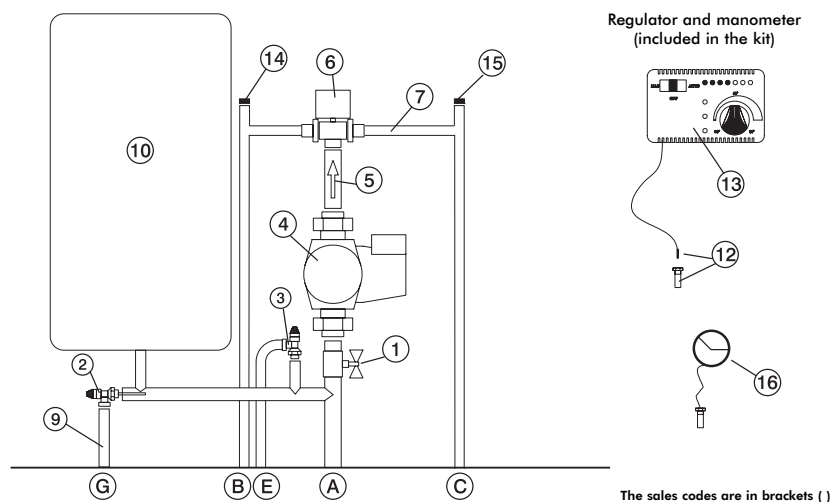
ENGLISH



KIT 5 is designed to facilitate the work carried out by the installers. In fact, it consists of all the necessary components for the product to be properly installed.

NB: insulating mats must be applied so that the components of the kit are well protected from the heat radiation emitted by the fireplace.

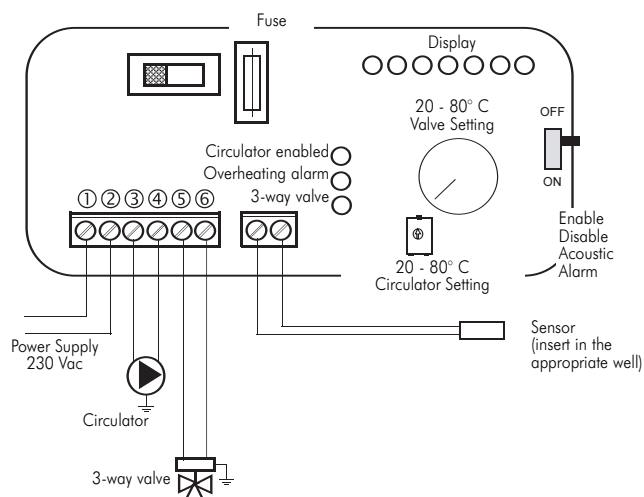
Components KIT 5



- 1" Ball Valve
- Thermal Relief Valve (72940)
- Pressure Relief Valve (284220)
- Circulator (219660)
- Fittings with 1" Check Valve (284180)
- 3/4" Male 3-way Solenoid Valve (283690)
- Fittings
- Temperature Relief Valve Nozzle
- Closed Expansion Tank (283680)
- 1/2" Thermometer Well + Sensor (175960)
- Electronic Regulator (220780)
- 3/8" Automatic Relief Valve (284150)
- 1/4" Manual Relief Valve (284170)
- Manometer (269590)

- A Fireplace Flow
- B System return
- C Fireplace Return
- E Pressure Relief Valve
- G Temperature Relief Valve

Electrical Connections



SELECTOR FUNCTIONS

- Selector: **OFF** Everything is switched off
- Selector: **MAN** Driven Circulator Valve is set
- Selector: **AUTO** Circulator is set Valve is set
- Alarm** selection No acoustic signal in the OFF position



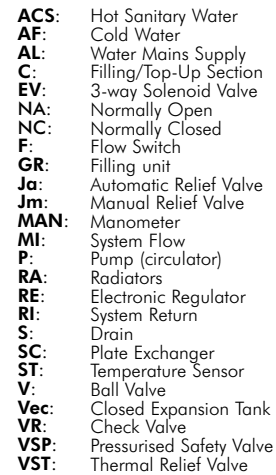
KIT 5

code 280590

THE INLET AND OUTLET PIPES MUST BE CROSSED FOR THIS TO FUNCTION PROPERLY

ENGLISH

USING KIT 6



NB: insulating mats must be applied so that the components of the kit are well protected from the heat radiation emitted by the fireplace.

Componenti KIT 6

The main schematic diagram illustrates the installation of the heating system. It shows a boiler connected to a circulator pump, which feeds water into a 20-plate heat exchanger. The system includes a closed expansion tank, a pressure relief valve, a thermal relief valve, and a manual relief valve. Various fittings and a flow switch are also shown. The components are numbered 1 through 16 and labeled with letters A through G for identification.

Regulator and manometer (included in the kit)

The regulator and manometer are shown in detail. The regulator is an electronic unit with a dial and a sensor. The manometer is a gauge used to measure system pressure. Both are included in the kit and are numbered 12 and 16 respectively.

Legend:

- A Fireplace Return
- B System Return
- C Fireplace Return
- D Cold Sanitary Water
- E Pressure Relief Valve
- F Hot Sanitary Water
- G Temperature Relief Valve

- 1 1" Ball Valve
- 2 Thermal Relief Valve (72940)
- 3 Pressure Relief Valve (284220)
- 4 Circulator (219660)
- 5 Fittings with 1" Check Valve (284180)
- 6 3/4" Male 3-way Solenoid Valve (283690)
- 7 Fittings
- 8 20-plate Heat Exchanger for hot sanitary water production (284300)
- 9 Temperature Relief Valve Nozzle
- 10 Closed Expansion Tank (283680)
- 11 Flow Switch (220830)
- 12 1/2" Thermometer Well + Sensor (175960)
- 13 Electronic Regulator (220780)
- 14 3/8" Automatic Relief Valve (284150)
- 15 1/4" Manual Relief Valve (284170)
- 16 Manometer (269590)

The sales codes are in brackets ()

- 1 1" Ball Valve
 - 2 Thermal Relief Valve (72940)
 - 3 Pressure Relief Valve (284220)
 - 4 Circulator (219660)
 - 5 Fittings with 1" Check Valve (284180)
 - 6 ¾" Male 3-way Solenoid Valve (283690)
 - 7 Fittings
 - 8 20-plate Heat Exchanger for hot sanitary water production (284300)
 - 9 Temperature Relief Valve Nozzle
 - 10 Closed Expansion Tank (283680)
 - 11 Flow Switch (220830)
 - 12 ½" Thermometer Well + Sensor (175960)
 - 13 Electronic Regulator (220780)
 - 14 3/8" Automatic Relief Valve (284150)
 - 15 1/4" Manual Relief Valve (284170)
 - 16 Manometer (269590)
-
- | | |
|---|--------------------------|
| A | Fireplace Return |
| B | System Return |
| C | Fireplace Return |
| D | Cold Sanitary Water |
| E | Pressure Relief Valve |
| F | Hot Sanitary Water |
| G | Temperature Relief Valve |

Electrical Connections

The diagram illustrates the electrical connections for the control panel. The panel features a power supply input (230 Vac), a circulator motor, a flow switch, a 3-way valve, a display, a 20-80°C valve setting knob, a 20-80°C circulator setting knob, a flow switch, a 3-way valve, a circulator enabled indicator, an overheating alarm indicator, a 3-way valve indicator, a sensor well, and a display.

Connections:

- Power Supply (230 Vac):** Connect to the power supply input terminals (1 and 2).
- Circulator:** Connect to the circulator motor terminals (3 and 4).
- Flow Switch:** Connect to the flow switch terminals (5 and 6).
- 3-way valve:** Connect to the 3-way valve terminals (7 and 8).
- Sensor:** Insert the sensor into the appropriate well.
- Display:** Connect to the display terminals (9 and 10).
- 20-80°C Valve Setting:** Connect to the 20-80°C valve setting knob.
- 20-80°C Circulator Setting:** Connect to the 20-80°C circulator setting knob.
- Flow Switch:** Connect to the flow switch terminals (5 and 6).
- 3-way valve:** Connect to the 3-way valve terminals (7 and 8).
- Circulator Enabled:** Connect to the circulator enabled indicator.
- Overheating Alarm:** Connect to the overheating alarm indicator.
- 3-way Valve:** Connect to the 3-way valve indicator.

Attention: Connect the normally closed contact of the flow switch to the 3-way valve.

Selector: OFF	Everything is switched off
Selector: MAN	Driven Circulator Valve is set
Selector: AUTO	Circulator is set Valve is set
Alarm selection	No acoustic signal in the OFF position



code 280600

31

ELECTRONIC REGULATOR (KIT 1-2-3-5-6)

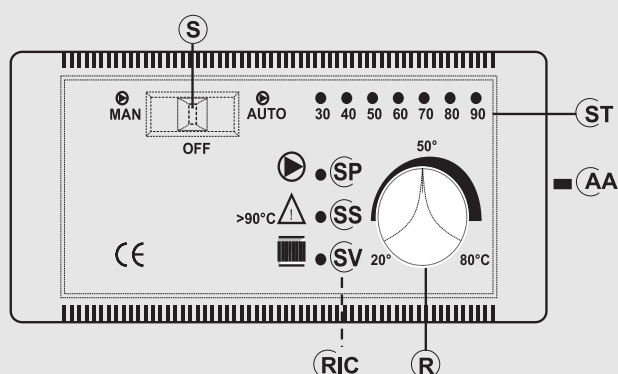
electronic regulator

IMPORTANT ADVICE REGARDING THE INSTALLATION

The connections, commissioning and verification of proper operation of the fireplace must be carried out by qualified personnel, who can implement all connections in accordance with the laws in force, particularly with Italian Law No. 46/90, apart from complying with these instructions.

Compliance with regulations regarding the earth connection is fundamental for the safety of people.

It is obligatory to install a differential circuit breaker switch before the device and the entire electrical circuit of the thermo fireplace. It is also obligatory to connect the pump, valve and metal parts of the thermo fireplace to an earthing system.



LEGEND

- AA** acoustic alarm switch
- R** way valve opening setting (KITS 1-3-5-6)
- R** circulators operation setting (KIT 2)
- RIC** internal pump setting
- S** MAN-OFF-AUTO selector
- SP** pump light
- SS** overheating light
- ST** temperature scale
- SV** 3-way valves light (KITS 1-3-5-6)
- SV** circulators setting (KIT 2)

fig. M

The electric control regulator allows you to monitor the operating conditions and is equipped with:

- MAN-OFF-AUTO selector (S)
- temperature scale (ST)
- acoustic alarm (AA)
- 3-way valve opening setting (R) (KIT1-3)
- circulators operation setting (R) (KIT2)
- internal pump setting (RIC)
- 3-way valve light (SV) (KIT1-KIT3)
- circulators setting light (SV) (KIT2)
- overheating pump (SS)
- pump light (SP)

Operation

- Control device:

- Thermometer

- Protection device

(acoustic alarm system):

- Acoustic alarm (AA)
- Overheating alarm (SS)

This system intervenes when the water temperature exceeds 90° C and warns the user to stop adding fuel.

The acoustic alarm can be disabled from the switch (AA).

However, the alarm remains enabled by means of the overheating light (SS).

To restore the initial settings, the switch (AA) must be enabled after the water temperature in the thermo fireplace has cooled down.

- Power supply device

(circulation system):

- MAN-OFF-AUTO selector (S)
- Pump light (SP)

The pump remains on when in manual mode and off when in OFF mode. When in AUTO mode, the pump is activated by the system when the desired temperature is reached, by means of the internal setting (RIC), which ranges from 20 to 80° C (this is pre-set at 20° C).

- Operation device (setting system):

- 3-way valve opening setting (R)
- 3-way valve operating light (SV)

When the fluid reaches the temperature set through the regulator, the 3-way valve diverts the fluid to the radiators and the operating light (SV) goes on.

When the temperature of the fluid drops below the set value, the system opens the electrical circuit and the 3-way valve bypasses the fluid directly to the thermo fireplace.

Attention:

During normal operation check that the warning lights (SV) and (SP) are lit.

Positioning

The electronic regulator must be installed close to the thermo fireplace.

The sensor of the operation, protection and control devices must be placed directly on the thermo fireplace or at most on the flow pipe, no more than 5 cm away from the thermo fireplace and in any case before any intercepting device.

The sensor must be immersed in the well.

Installation

The power supply must be disconnected from the mains and the AUTO-OFF-MAN selector (S) must be in the OFF position when all these operations are carried out.

Follow this procedure to install the electronic regulator correctly: loosen the fastening screw, remove the cover and fasten it in place against the wall with the dowels supplied.

Then make the connections, paying utmost attention to the wiring diagram and pass the wires through ducts that are in conformity with the regulations in force. Put the cover back in place and tighten the screw.

Connect the brown wire (phase) and blue wire (neutral) of the 3-way Valve, respectively, to terminals 5 and 6 of the regulator.

Connect the yellow/green wire to the earth.

Follow the assembly instructions contained in the package to connect the regulator to the system properly.

Technical Data		
Power Supply (+15 – 10%)	Vac	230
Degree of protection	IP	40
Min/Max Room Temperature	°C	0 to +50
Sensor range	m	1,2
Thermometer	°C	30 to 90
Maximum contact rating of the circulator	W	400
Maximum contact rating of the 3-way valve	W	250
Fuse	mA	500

ELECTRONIC REGULATOR (Optional)

This lets you monitor the operating conditions and is equipped with:

- MAN-OFF-AUTO selector
- temperature scale
- acoustic alarm
- 3-way valve opening setting
- internal pump setting
- pump light
- 3-way valve light
- overheating light



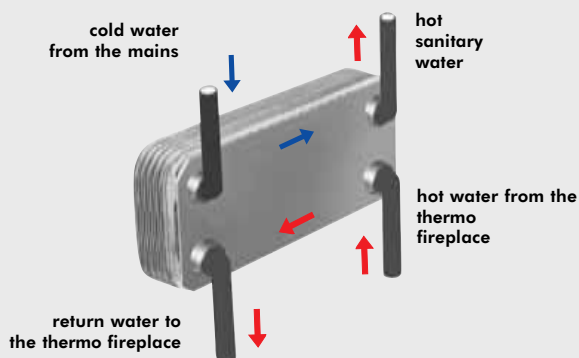
Electronic Regulator (220780)

HEAT EXCHANGER 20-PLATE FOR SANITARY WATER (Optional)

This is a very simple and inexpensive device with guaranteed performance that produces 13-14 litres of hot water per minute according to the power plant.

It is easily installed on the flow pipe to the radiators, in the most suitable position according to the layout of the system.

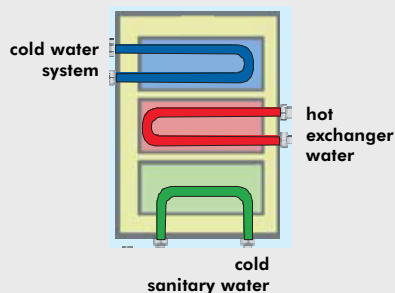
Alternatively, it can be purchased as part of installation KITS 1/3/6 offered by EDILKAMIN. This has the great advantage of being removed for maintenance or replacement without affecting the thermo fireplace.



The electronic regulator and the plate exchanger are included in the installation KITS (supplied as optional extras)

EXCHANGER 3-WAY (optional)

It produces hot water for a domestic circuit and a secondary circuit (radiators), excluding, with respect to KIT 3, use of 3-way valve and a plate heat exchanger.



Valves Kit (421600) consisting of:
automatic air relief valve,
1.5 bar safety valve,
90 ° C thermal relief valve



1 " 3-way valve (143330) to set the
water flow to the
system



Electronic Regulator (220780)



Flow Switch (220830)



Circulator
UPS 25-50 code 219660
UPS 25-60 code 238270



20-plate Heat Exchanger for sanitary water (262570)
30-plate Heat Exchanger for sanitary water (216620)



Exchanger 3-way
code 627780



Roaster
Acquatondo 22 code 234560
Acquatondo 29 code 236710
Acquatondo 29 prismatic code 241090