

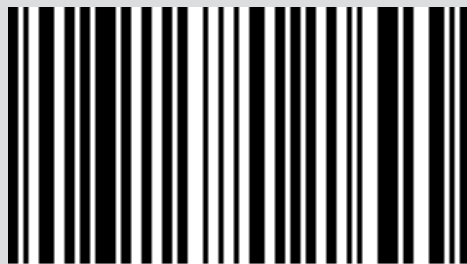


PELLET BOILER

SELECTA 35 HQ S1

PART 1 - REGULATIONS AND ASSEMBLY

Instructions in English



8902111700

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INTRODUCTION

Dear Customer,

Our boilers are designed and built in compliance with the European regulation EN 303-5 (manual or automatic loading solid fuel boilers). They also meet the essential requirements of directive 2006/95/EC (Low Voltage) and directive 2004/108/EC (Electromagnetic Compatibility).

To get the best performance out of your boiler, we suggest you read the instructions in this manual carefully before starting it up for the first time.

This installation guide is an integral part of the product: ensure that the manual is always supplied with the appliance, even if it changes owner. If the manual is lost, you can request another copy from the local Technical Dept. or download it directly from the company's website.

All local regulations, including those referring to national and European standards, must be observed when installing the appliance.

In Italy, for the installation of systems with a biomass below 35KW, refer to Italian Ministerial Decree 37/08 and the qualified installation technician with the suitable requirements must issue a certificate of compliance for the system installed.

REVISIONS TO THE PUBLICATION

The content of this manual is strictly technical and the property of MCZ.





No part of this manual may be translated into other languages, adapted or reproduced, even in part, in other mechanical or electronic forms, photocopies, recordings or other, without the prior written authorisation from MCZ.

The company reserves the right to make changes to the product at any time without prior notice. The proprietary company reserves its rights according to law.

CARE OF THE MANUAL AND HOW TO CONSULT IT

- Take care of this manual and keep it in an easily and quickly accessible place.
- Should the manual be misplaced or destroyed, request a copy from your retailer or directly from the authorised Technical Assistance Department. You can also download it directly from the company's website.
- **"Bold text"** requires special attention.
- *"Text in italics"* is used to draw your attention to other paragraphs in the manual or for any additional clarifications.
- "NOTE" provides the reader with additional information.

SYMBOLS USED IN THE MANUAL

	ATTENTION: Read the corresponding message with care because failure to observe the information provided could result in serious damage to the product and danger to the persons who use it.
	INFORMATION: failure to comply with these provisions will compromise use of the product.
	OPERATING SEQUENCES: sequence of buttons to be pressed to access the menus or change settings.
	MANUAL carefully read this manual or the relative instructions.

SAFETY PRECAUTIONS

- **Installation, electrical connection, function test and maintenance must only be carried out by authorised and qualified personnel.**
- **Install the product in accordance with all local and national legislation and regulations in force in the region or country.**
- **Bad use or improper maintenance of the product can bring to a serious risk of explosion in the combustion chamber.**
- Only use the fuel recommended by the manufacturer. The product must not be used as an incinerator.
- It is strictly forbidden to use alcohol, petrol, liquid fuel for lanterns, diesel, bio-ethanol, fluids for lighting charcoal or similar liquids to light/rekindle the flame in these devices. Keep these flammable liquids well away from the appliance when in use.
- Do not put any fuel other than wood pellets in the tank.
- The instructions provided in this manual must always be complied with to ensure the product and any electronic appliances connected to it are used correctly and accidents are prevented.
- **This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance shall not be carried out by children without supervision.**
- The user, or whoever is operating the product, must read and fully understand the content of this installation guide before performing any operation. Errors or incorrect settings can cause hazardous conditions and/or poor operation.
- Do not climb on or lean on the product.
- Do not put linen on the product to dry. Any drying racks or the like must be kept at a safe distance from the product. **Fire hazard.**
- *All liability for improper use of the product is entirely borne by the user and relieves the Manufacturer of any civil and criminal liability.*
- Any type of tampering or unauthorised replacement with non-original spare

1-WARNINGS AND WARRANTY CONDITIONS

parts could be hazardous for the operator's safety and relieves the company of any civil and criminal liability.

- Many of the surfaces of the product get very hot (door, handle, glass, smoke outlet pipes, etc.). **Avoid coming into contact with these parts, without adequate protective clothing or suitable implements, such as gloves with thermal protection** or "cold handle" operating systems.
- **It is forbidden to operate the product with the door open or the glass broken.**
- **The doors/covers on the appliance must remain closed when it is not used.**
- The product must be powered by an electrical system that is equipped with an effective earthing device.
- Switch the product off in the event of a fault or malfunction.
- Accumulated unburnt pellets in the burner after each "failed ignition" must be removed before lighting again. Check that the burner is clean and positioned properly before lighting again.
- **Shut the stove down in the event of a breakdown or bad running and contact the specialised technician immediately.**
- **Pellets must not be fed manually into the burner – this wrong behaviour can generate an abnormal amount of unburnt gas, with a risk of explosion in the chamber.**
- **Accumulated unburnt pellets in the burner after a failed ignitions must be removed before lighting.**
- Failure to clean and maintain the brazier can result in improper running and explosions within the stove. Make sure to remove all traces of material or deposits from the holes of Make sure you remove and clear the holes in the brazier and any loose encrustations every time you empty the ash from the stove or every time you have a failed ignition. Make sure that the holes in the brazier are never reduced in size as this will affect the safe performance of the stove if not maintained.
- Do not wash the product with water. Water could get inside the unit and damage the electrical insulation and cause electric shocks.
- If there is a fire in the flue, extinguish the stove, disconnect it from the power supply and never open the door. Then contact the competent authorities.

1-WARNINGS AND WARRANTY CONDITIONS

- Do not light the stove with flammable materials if the ignition system breaks down.
- Do not stand for a long time in front of the product in operation. Do not overheat the room you are in and where the product is installed. This could cause injuries and health problems.
- Install the product in a location that does not present a fire hazard and is equipped with power and air supplies and smoke outlets.
- In the event of fire in the chimney, turn off the device, disconnect it from the mains electricity and do not open the hatch. Then contact the competent authorities.
- The product and the cladding must be stored in a dry place and must not be exposed to weathering.
- It is recommended not to remove the feet that support the product in order to guarantee adequate insulation, especially if the flooring is made of flammable materials.
- In the event of a malfunction of the ignition system, do not force it to light by using flammable materials.
- Special maintenance must only be performed by authorised and qualified personnel.
- Assess the static conditions of the surface on which the weight of the product will rest and provide suitable insulation if it is made of flammable material (e.g. wood, fitted carpet or plastic).
- Live electrical parts: only power the product once it has been fully assembled.
- The sound pressure value does not exceed 70 dB.
- Disconnect the product from the 230V power supply before performing any maintenance operations.
- **IF ANY SMOKE LEAKAGE IS SEEN WITHIN THE ROOM OR THE APPLIANCE SUFFERS FROM AN EXPLOSIVE IGNITION PLEASE TURN OFF THE APPLIANCE, VENTILATE THE ROOM AND CONTACT THE INSTALLER/SERVICE TECHNICIAN IMMEDIATELY.**

1-WARNINGS AND WARRANTY CONDITIONS

INFORMATION

- If there are any issues, contact the retailer or a qualified technician authorised by MCZ. In the event of a repair, request the use of original spare parts.
- Only use types of fuel recommended by MCZ (for Italy, pellets with a 6 mm diameter and pellets with a 6-8 mm diameter for other European countries), which must only be loaded with an automatic feed system.
- Periodically check and clean the smoke outlet duct (connection to the flue).
- Accumulated unburnt pellets in the burner after a series of failed ignitions must be removed before lighting it again.
- The pellet stove is not a cooking appliance.
- Always keep the cover of the fuel tank closed.
- Keep this instruction manual, which will be an integral part of the stove for the whole of its service life. If the product is sold or transferred to another user, ensure the manual is also handed over.
- If lost, contact MCZ or the authorised dealer to request a copy.

INTENDED USE

The product only works with wood pellets and must be installed indoors.

PRODUCT PERFORMANCE CHECKS.

All our products undergo ITT TESTS carried out by a notified laboratory (system 3) and in accordance with (EU) regulation number 305/2011 "Construction products", according to standard EN 14785:2006 (pellets) and "Machinery Directive" EN 303-5 (boilers).

In the case of tests for any market surveillance or inspections by third parties, please consider the following warnings:

- to reach the declared performance levels, the product must perform an operating cycle of at least 15/20 hours beforehand
- use the average draught of the combustion smoke specified in the "technical product features" table
- the type of pellets used must comply with current EN ISO 17225-2 regulations
- the amount of fuel may vary according to the length and calorific value of the fuel. This may require some adjustments to stay in line with the hourly consumption specified in the "technical product features" table. A1 pellets ensure an overall calorific value within tight margins compared to the test pellets used. However, size considerably influences performance, so on average it must not be less than 24 mm long and with a 6mm diameter
- in the case of a wood-burning product, check the correct residual moisture content of the fuel, which must not be less than 12% or more than 20%. As the moisture increases, different combustion air settings are required. The settings are to be carried out via the combustion air register, thereby modifying the mixture between primary and secondary air.
- it is necessary to check the operation of devices that can affect performance (for example air fans or electrical safety devices) in case of damage due to handling.
- maximum performance can be achieved at the maximum flame and ventilation power.
- strictly comply with the withdrawal points specified in regulations both in terms of emissions and temperature.

1-WARNINGS AND WARRANTY CONDITIONS

WARRANTY CONDITIONS

The firm covers the product, **with the exception of the parts prone to normal wear** that are listed below, for a period of **2 (two) years** from the date of purchase as proved by:

- a document to serve as proof of purchase (invoice and/or receipt) that shows the name of the vendor and the date on which the purchase was made;

Furthermore, in order for the guarantee to be valid, the device must be installed and calibrated by qualified personnel, and where necessary, the user must be issued with a declaration of conformity and correct functioning of the product.

We suggest performing the product function test before completing the finer calibrations, when foreseen.

Installations that do not meet the current standards, improper use and lack of maintenance as expected by the manufacturer, void the product warranty.

The warranty is valid on the condition that the instructions and warnings contained in the user and maintenance manual are observed, and therefore the product is used correctly.

The replacement of the entire system or the repair of one of its components does not extend the warranty period, and the original expiry date remains unchanged.

The warranty covers the replacement or free repair **of parts recognised as being faulty at source due to manufacturing defects**. In the event of a fault, to benefit from the warranty, the customer must keep the warranty certificate and provide it with the document given at the time of purchase to the Service Centre.

EXCLUSIONS

The warranty does not cover malfunctions and/or damage to the appliance that arise due to the following causes:

- Damage caused during transportation and/or handling
- all parts that develop faults due to negligence or improper use, incorrect maintenance, installation that does not comply with the manufacturer's instructions (always refer to the installation guide provided with the appliance)
- incorrect sizing with regard to the use or faults in the installation or failure to adopt the necessary devices to guarantee proper execution
- improper overheating of the equipment, use of fuels not conforming to the types and quantities indicated in the instructions provided
- further damage caused by incorrect user interventions in an attempt to fix the initial fault
- worsening of the damage caused by the user continuing to operate the appliance even after the fault has been noticed
- in presence of a boiler, any corrosion, incrustations or breakage caused by water flow, condensation, hardness or acidity of the water, improperly performed descaling treatments, lack of water, mud or limescale deposits
- inefficiency of chimneys, flues or parts of the system affecting the appliance
- damage caused by tampering with the appliance, atmospheric agents, natural disasters, vandalism, electrical discharges, fires, faults in the electric and/or hydraulic system.
- Failure to have the annual stove maintenance performed by an authorised technician or qualified personnel will result in the loss of the warranty.

Also excluded from this warranty are:

- parts subject to normal wear such as gaskets, glass, cladding and cast iron grilles, painted, chrome-plated or gilded parts, handles and electric cables, bulbs, indicator lights, knobs, all parts which can be removed from the firebox.
- Variations in colour of the painted or ceramic/serpentine parts and crazed ceramics as they are natural characteristics of the material and product use.
- masonry work
- plant parts (if present) not supplied by the manufacturer

1-WARNINGS AND WARRANTY CONDITIONS

Any technical interventions on the product to eliminate the above defects and consequent damage must be agreed upon with the Service Centre, who reserves the right to accept the relative appointment or not. However, said interventions will not be carried out under warranty but as technical assistance to be granted as part of any eventual and specific agreed conditions and in accordance with the fee in force for the work to be carried out.

The user will also be charged for any costs incurred to remedy the incorrect technical interventions, tampering or damage to the appliance, not attributable to original faults.

Save for the legal or regulatory limits, the warranty does not cover the containment of atmospheric and acoustic pollution.

The company declines all liability for any damage which may be caused, directly or indirectly, to persons, animals or objects as a consequence of non compliance with any provision specified in the manual, especially warnings regarding installation, use and maintenance of the appliance.

SPARE PARTS

In the event of a malfunction, consult the retailer who will forward the call to the Technical Assistance Department.

Only use original spare parts. The retailer or service centre can provide all necessary information regarding spare parts.

We do not recommend waiting for the parts to get worn out before having them replaced. It is important to perform regular maintenance.



The company declines all liability if the product and any other accessory is used improperly or modified without authorisation.

All parts must be replaced with original spare parts.

Information for management of electric and electronic appliance waste containing batteries or accumulators



This symbol, which is used on the product, batteries, accumulators or on the packaging or documents, means that at the end of its useful life, this product, the batteries and the accumulators included must not be collected, recycled or disposed of together with domestic waste.

Improper management of electric or electronic waste or batteries or accumulators can lead to the leakage of hazardous substances contained in the product. For the purpose of preventing damage to health or the environment, users are kindly asked to separate this equipment and/or batteries or accumulators included from other types of waste and to arrange for disposal by the municipal waste service. It is possible to ask your local dealer to collect the waste electric or electronic appliance under the conditions and following the methods provided by national laws transposing the Directive 2012/19/EU.

Separate waste collection and recycling of unused electric and electronic equipment, batteries and accumulators helps to save natural resources and to guarantee that this waste is processed in a manner that is safe for health and the environment.

For more information about how to collect electric and electronic equipment and appliances, batteries and accumulators, please contact your local Council or Public Authority competent to issue the relevant permits.

1-WARNINGS AND WARRANTY CONDITIONS

RULES FOR INSTALLATION

The product is a boiler that uses wood pellets.

Below are some reference European standards for product installation:

EN 303-5:2012: Solid fuel boilers, with manual or automatic loading, nominal thermal power of 500 kW - Terminology, requisites, tests and marking.

EN 12828 Heating systems design.

CEI 64-8 Electrical systems with rated voltage not exceeding 1000 V AC and 1500 V DC.

EN 1443 General chimney regulation

EN 1856-1 metal smoke ducts

EN 1856-2 metal smoke extraction channels

EN 1457 chimneys - Interior terracotta / ceramic flues

EN 13384-1 Chimneys - Thermal and dynamic fluid calculation methods - Part 1: Chimneys connected to a single appliance

Below are some applicable regulations for Italy:

UNI 10683:2012 Heat generators fuelled by wood or other solid bio-fuels - Test, installation, control and maintenance (for thermochemical power at the firebox lower than 35kW)

UNI/TS 11278 general technical regulation for the choice of smoke duct/flue

UNI 10847:2000 Smoke extractor systems for liquid and solid fuelled generators - Maintenance and control - Guidelines and procedures

UNI 8065 water treatment in civil plants.

UNI 9182 Hot and cold (sanitary) air supply and distribution systems.

Installation must be carried out with reference to the diagram of the heating system prepared in accordance with the standards and local recommendations in force:

In any case, respect:

For the heating system

Local requirements concerning the chimney connection.

Local requirements for fire-fighting standards.

For electrical parts - **EN 60335 "Safety of electrical household appliances and similar**

Part 1 - General requirements

Part 2 - Special regulations for appliances with gas, gas oil and solid fuel burners with electrical connections.

2-INSTALLATION



The instructions in this chapter refer explicitly to the Italian installation regulation UNI 10683. In any case, always observe the regulations in force in the country of installation.

PELLETS

Wood pellets are manufactured by hot-extruding compressed sawdust which is produced during the working of natural dried wood. The compactness of the material is guaranteed by the lignin contained in the wood itself and allows pellets to be produced without glue or binders.

The market offers different types of pellets with characteristics that vary according to the wood mixtures used. The diameter varies between 6 and 8 mm, with a standard length ranging from 3 to 40 mm. A good quality pellet has a density of between 600 and 750 or more kg/cubic metres and a moisture content that accounts for 5 to 8% of its weight.

Pellets have technical advantages besides being an ecological fuel, as the wood residue is used completely, thereby achieving cleaner combustion than that of fossil fuels.

While good-quality wood has a calorific value of 4.4 kW/kg (15% moisture, after about 18 months of seasoning), whereas that of pellets is around 4.9 kW/kg. To ensure good combustion, the pellets must be stored in a dry place and protected from dirt. Pellets are usually supplied in 15 kg bags, therefore, storing them is very convenient.



BAG OF PELLETS 15 kg

Good quality pellets guarantee good combustion, thereby decreasing harmful emissions into the atmosphere.



The poorer the quality of the fuel, the more often the internal parts of the brazier and combustion chamber must be cleaned.

The main quality certifications for pellets currently available on the European market guarantee that the fuel complies with class A1/A2 according to ISO 17225-2 (ex EN 14961). These certifications include, for example, **ENplus**, **DINplus**, **Ö-Norm M7135**, and in particular, guarantee the following characteristics:

- calorific value: 4.6 ÷ 5.3 kWh/kg.
- Water content: ≤ 10% of the weight.
- Percentage of ash: max 1.2% of the weight (A1 less than 0.7%).
- Diameter: 6±1/8±1 mm.
- Length: 3÷40 mm.
- Content: 100% untreated wood without the addition of binding agents (max 5% bark).
- Packaging: in sacks made from ecologically compatible or biologically decomposing material.



The company strongly recommends using certified fuel for its products (ENplus, DINplus, Ö-Norm M7135). Poor quality pellets or others that do not comply with the characteristics specified previously may compromise the operation of your product and can therefore make the guarantee and product liability invalid.

2-INSTALLATION

PRECAUTIONS REGARDING INSTALLATION



IMPORTANT!

Product installation and assembly must be carried out by qualified personnel.

The product must be installed in a suitable place that allows easy access for it to be opened regularly and for routine maintenance to be performed.

The installation area must be:

- suitable to enable the appliance to operate correctly.
- Equipped with an adequate smoke expulsion system.
- Equipped with adequate ventilation from outside.
- Equipped with 230V 50 Hz power supply with an EC compliant earthing system.



IMPORTANT!

The product must be connected to a chimney that expels the smoke at the highest point of the building.

The chimney must be of suitable dimensions, caulked, and fitted with a condensation collector for collecting the water vapour that can form due to the high performance of the appliance and the consequently low temperatures of the outgoing fumes.

The chimney must comply with regulations in force.

The holes of the external air inlet and the smoke outlet pipe must be drilled before positioning the product.

THE OPERATING AREA

The boiler must be installed indoors in an area well protected from atmospheric elements.

The surface on which it stands and/or support points must have sufficient load bearing capacity to support the total weight of the appliance, its accessories and covers.

To ensure the appliance works well, we recommend installing the boiler detached from any walls or furniture, and with good air circulation to allow effective ventilation for the appliance. The product should be located in an area that allows sufficient space for normal use and maintenance operations.

The volume of the room should be no less than 15 m³.

It is essential that an adequate outdoor air inlet is provided that supplies the air for combustion needed for the product to function correctly.

These air inlets must be arranged so that it is impossible for them to be obstructed.

Protect the inlets with grilles, metal mesh, etc., without reducing the net cross-section.



Remember that the ventilation grilles always have the useful cross-section in cm² indicated on one side. When choosing the grille and size of the inlet, check that the useful cross-section of the grille is larger or equal to the section required for product operation.

The flow of air between the outside and the room of installation may be direct, through an inlet in an external wall of the building; or indirect, through the intake of air from rooms adjoining and connecting permanently with the room of installation. Adjoining areas may not include sleeping areas, garages or general areas that present a fire hazard.

For air ducts, up to 3m increase the cross-section by approximately 5%, while for ducts that run for longer increase it by 15%.



IMPORTANT!

The air flow can also be drawn from an adjoining room to that of the room where the product is installed, provided the air can flow freely through permanent openings to the outside; avoid connection to sleeping areas and rooms that present a fire hazard in general.

2-INSTALLATION

POSITIONING AND RESTRICTIONS

In the case of simultaneous installation with other heating appliances, provide appropriate air inlets for each one (according to the instructions of each product).



Installation of the product is not permitted:

- **in rooms where there are liquid fuel appliances with continuous or intermittent operation that draw the combustion air from the room they are installed in;**
- **in rooms where there are B-type gas heating appliances, with or without domestic hot water production and interconnecting rooms;**
- **in rooms in which the decrease in pressure during use, as measured between the pressure outside and the pressure in the room, is greater than 4 Pa.**

The product may not be installed in rooms used as sleeping areas, bathrooms, garages or in rooms that present a fire hazard in general.

BOILER ROOM

Check that the room meets the requirements and provisions of the standards in force. There must also be a flow of at least enough air in the room for normal combustion. Vents must be installed in the walls of the room that meet the following requirements:

- Increase the cross-section by at least 6 cm² for each 1 kW (859.64kcal/h) The minimum cross-section of the opening must not, however, measure less than 100 cm². The cross-section can be calculated using the following relations:

$$S = K * Q \geq 100 \text{ cm}^2$$

Where "S" is in cm², "Q" in kW, "K" = 6 cm²/kW

- The opening must be located at the base of an external wall, preferably opposite the one with the outlet for combusted gases.



Heat-sensitive or flammable objects cannot be stored near the product; keep such objects at a minimum distance of 80 cm from the outermost point of the product.

CONNECTION OF THE SMOKE OUTLET DUCT

When making the hole for the passage of the smoke outlet pipe, it is necessary to take into account the possible presence of flammable materials. If the hole has to be in a wall made of wood or other thermolabile material, **THE INSTALLER MUST** first set up the relative wall fitting (diameter 13 cm minimum) and insulate the pipe the product passes with appropriate insulating material (1.3 - 5 cm thick with minimum heat conductivity of 0.07 W/m²K).

The same minimum distance must be applied if the pipe of the product must pass through vertical or horizontal sections near the thermolabile wall.

It is recommended to use an insulated double-wall pipe in external sections in order to prevent condensation from forming.

The combustion chamber works in negative pressure.

2-INSTALLATION

FOREWORD

The Flue chapter has been drawn up with reference to the provisions of European Standards (EN13384 - EN1443 - EN1856 - EN1457). The chapter provides indications for installing an efficient and correct flue but is under no circumstances to substitute the regulations in force, which the qualified technician must be in possession of. Check with local authorities whether there are any restrictive regulations in force regarding the intake of air for combustion, the smoke outlet system, the flue or the chimneypot. The company declines all liability relating to the poor functioning of the stove if this is due to the use of an insufficiently sized flue in violation of the Standards in force.

FLUE

Have the efficiency of the flue checked by an authorised technician.

The flue or chimney is vital to the correct functioning of a forced draught solid fuel heating appliance, given that boilers with high performance have cooler fumes with consequently weaker draught and the possible formation of condensation.

It is therefore essential that the flue meets all construction standards and is always maintained in perfect condition.

A flue that serves a pellet/wood fuelled appliance must be at least category T400 (or greater if the appliance requires so) and resistant to soot fires. Smoke must be extracted through a single flue made of insulated steel (A) or an existing flue that complies with the intended use (B).

A simple air shaft made of cement must be suitably lined. In either case, ensure to include an inspection cap (AT) or inspection door (AP) and a suitable device for collecting condensation - FIG.1.

It is prohibited to connect more than one wood/pellet (*) or any other type of appliance (vent cowl...) to the same flue.

(*) unless there are national derogations (for instance in Germany), which under suitable conditions allow for the installation of several appliances in the same fireplace. In any case, strictly follow the product/installation requirements of the relative regulations/legislation in force in that country

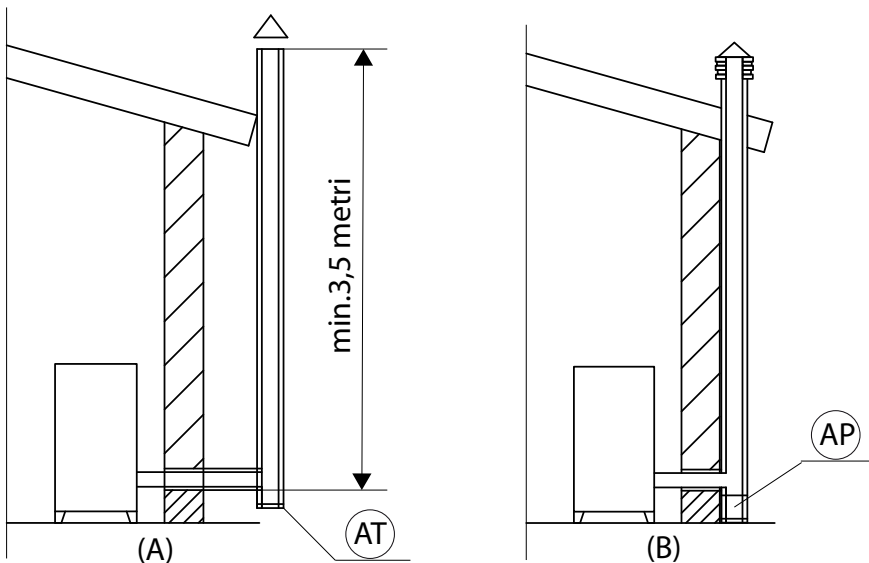


FIGURE 1 - FLUE

2-INSTALLATION

TECHNICAL CHARACTERISTICS

Flues serving a pellet/wood fuelled appliance must meet the following requirements:

- be made of materials that are sufficiently resistant to mechanical stress, heat, the action of the products of combustion and their vapours.
- be made of materials that are impermeable to fumes, condensation, be thermally insulated and resistant to normal mechanical stress over time
- go in a vertical direction and deviate no more than 45° from the vertical axis and be free of choke points
- be suited to the specific operating conditions of the product and have CE marking (EN1856-1, EN1443).
- Be of the correct size to suit the draught/smoke extraction requirements necessary for the product to work properly (EN13384-1)
- Be suitably caulked externally to avoid condensation and reduce the cooling of the smoke.
- Be at least category T400 (or greater if the appliance requires) and resistant to soot fires.

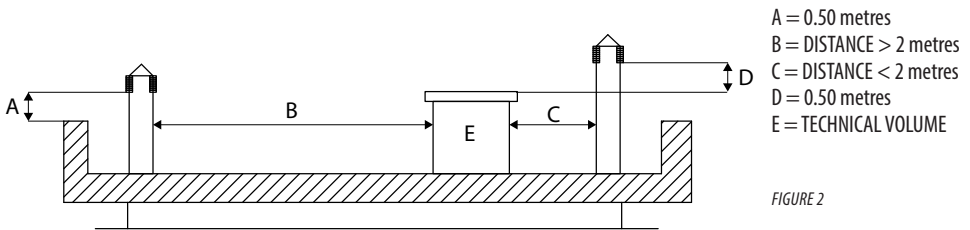
We recommend in particular to check on the data tags of the flue (in accordance with EN1856-1, EN1443) the safety distances that must be respected in presence of passing combustible materials and the type of insulating material to be used. These indications must be followed rigorously to avoid serious harm to personnel and surrounding infrastructure.

The chimney opening must be in the same room as the appliance, or at most in the adjoining room, and have a soot and condensation collection chamber beneath the opening, and be accessible via a sealed metal hatch.

Smoke must be extracted through a single flue (see fig. 3) with insulated steel tubes (A) or through an existing flue that complies with the intended use (B). A simple air shaft in cement must be suitably lined. In either case, ensure to include an inspection cap (AT) and/or inspection door (AP) and a suitable device for collecting condensation - FIG.1.

It is prohibited to connect more than one wood/pellet or any other type of appliance (vent cowling...) to the same flue.

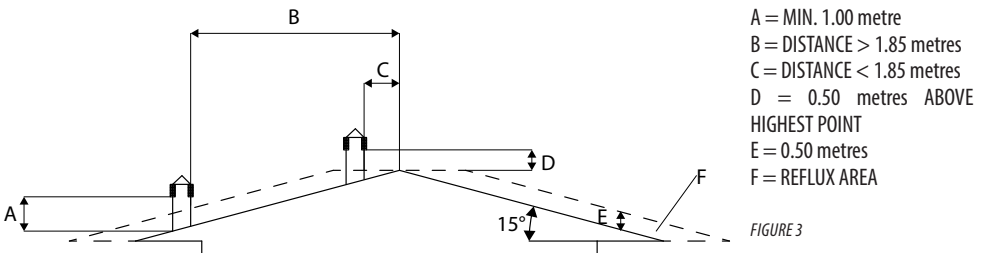
FLAT ROOF



A = 0.50 metres
B = DISTANCE > 2 metres
C = DISTANCE < 2 metres
D = 0.50 metres
E = TECHNICAL VOLUME

FIGURE 2

ROOF AT 15°



A = MIN. 1.00 metre
B = DISTANCE > 1.85 metres
C = DISTANCE < 1.85 metres
D = 0.50 metres ABOVE
HIGHEST POINT
E = 0.50 metres
F = REFLUX AREA

FIGURE 3

2-INSTALLATION

ROOF AT 30°

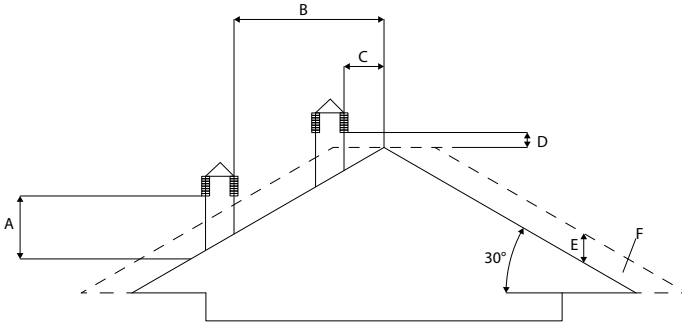


FIGURE 4

A = MIN. 1.30 metres
B = DISTANCE > 1.50 metres
C = DISTANCE < 1.50 metres
D = 0.50 metres ABOVE
HIGHEST POINT
E = 0.80 metres
F = REFLUX AREA

ROOF AT 60°

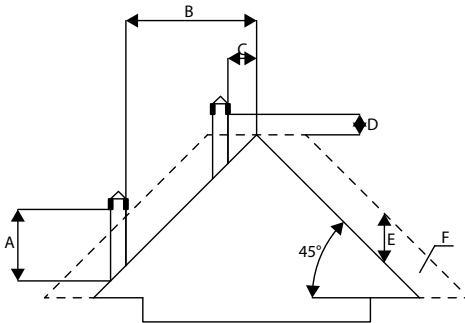


FIGURE 5

A = MIN. 2.00 metres
B = DISTANCE > 1.30 metres
C = DISTANCE < 1.30 metres
D = 0.50 metres ABOVE
HIGHEST POINT
E = 1.50 metres
F = REFLUX AREA

ROOF AT 45°

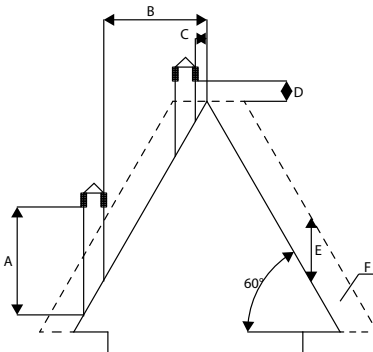


FIGURE 6

A = MIN. 2.60 metres
B = DISTANCE > 1.20 metres
C = DISTANCE < 1.20 metres
D = 0.50 metres ABOVE
HIGHEST POINT
E = 2.10 metres
F = REFLUX AREA

2-INSTALLATION

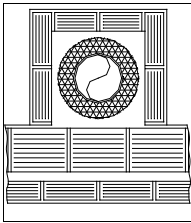
SIZING

The negative pressure (draught) of a flue depends on its height. Check the negative pressure with the values indicated in the technical characteristics. The minimum height of the chimney is 3.5 metres.

The interior cross-section of the flue can be round (best), square or rectangular (the ratio between the internal sides must be ≤ 1.5) with the sides joined with a minimum radius of 20 mm. The dimension of the cross-section must be a **minimum Ø150mm**.

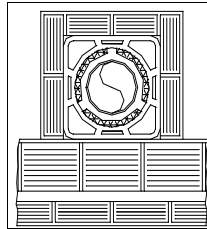
The cross-sections/lengths of the chimneys shown in the technical data tables are indications for correct installation. Any alternative configurations must be correctly sized in accordance with the general method of calculation of UNI EN13384-1 or other proven efficiency methods.

Below is a list of some flues available on the market:



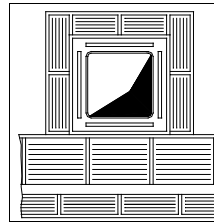
AISI 316 steel chimney with double chamber insulated with ceramic fibre or equivalent resistant up to 400°C.

EXCELLENT



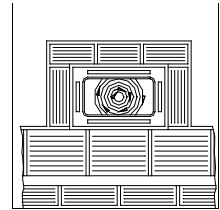
Refractory chimney with double insulated chamber and external lightweight concrete cladding with cellular material such as clay.

GOOD



Traditional square-section clay chimney with insulating empty inserts.

POOR



Avoid products with an internal rectangular section where the larger side is 1.5 times the smaller side (e.g. 20x40 or 15x30).

VERY POOR

2-INSTALLATION

MAINTENANCE

The flue must be kept clean, since the deposit of soot or unburnt oils reduces the cross-section reducing the draught and thus compromising the efficient operation of the stove and, if large build-ups accumulate, can catch fire. The flue and chimneypot must be cleaned and checked by a qualified chimney sweep at least once a year. Once the inspection/maintenance has been performed, request a written report that the system is safe.

Failure to perform cleaning jeopardises the system's safety.

CHIMNEYPOT

The chimneypot is a crucial element for the heating appliance to work properly: we recommend a wind proof chimneypot (A), see Figure 7. The area of the opening for smoke extraction must be at least double the cross-section of the flue/lined system, and arranged so that smoke outlet is ensured even in strong wind. The chimneypot must prevent rain, snow or animals from entering the chimney. The height of outflow into the atmosphere must be beyond the reflux area due to the shape of the roof or any obstacles near the outlet (see Figures 2-3-4-5-6).

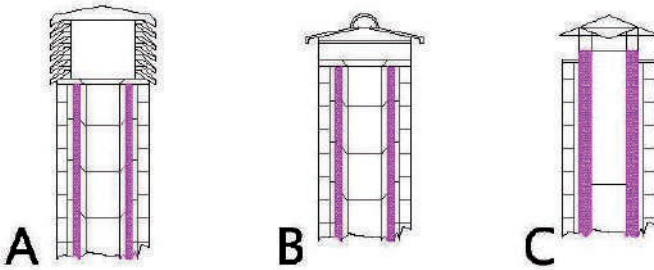
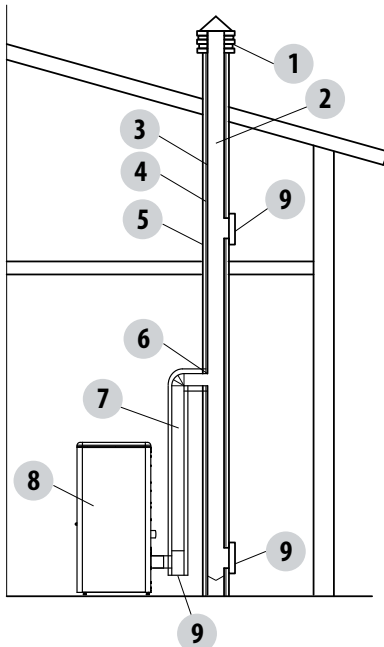


FIGURE 7

CHIMNEY COMPONENTS



- KEY:
- (1) CHIMNEYPOT
 - (2) REFLUX CHANNEL
 - (3) SMOKE DUCT
 - (4) THERMAL INSULATION
 - (5) OUTSIDE WALL
 - (6) CHIMNEY FITTING
 - (7) SMOKE DUCT
 - (8) HEAT GENERATOR
 - (9) INSPECTION ACCESS PANEL

FIGURE 8

2-INSTALLATION

CONNECTION TO THE FLUE

The connection between the flue and the appliance must be via a smoke duct that complies with EN 1856-2. The connecting section must extend no more than 4 m horizontally, with a minimum slope of 3% and with a maximum of 3 90° bends (accessible for inspection - do not count the Tee fitting at the appliance outlet).

The diameter of the smoke duct must be equal to or greater than that of the outlet of the appliance (Ø 100 mm).

TYPE OF SYSTEM	SMOKE DUCT
Maximum length (with 1 accessible 90° bend)	6.5 metres
Maximum length (with 3 accessible 90° bends)	4.5 metres
Maximum number of accessible 90° bends	3
Horizontal sections (minimum slope 3%)	4 metres

Use smoke ducts with a diameter 100 mm and silicone gaskets or similar gaskets that can withstand the high operating temperatures of the appliance (min. T200 class P1). **The use of flexible metal hoses made of fibre cement or aluminium is forbidden. For direction changes, we always recommend the use of a Tee fitting** with an inspection cap ensuring easy access to clean the pipes. Always ensure that the inspection cap is put back in place and sealed hermetically with the relevant seal intact after cleaning.

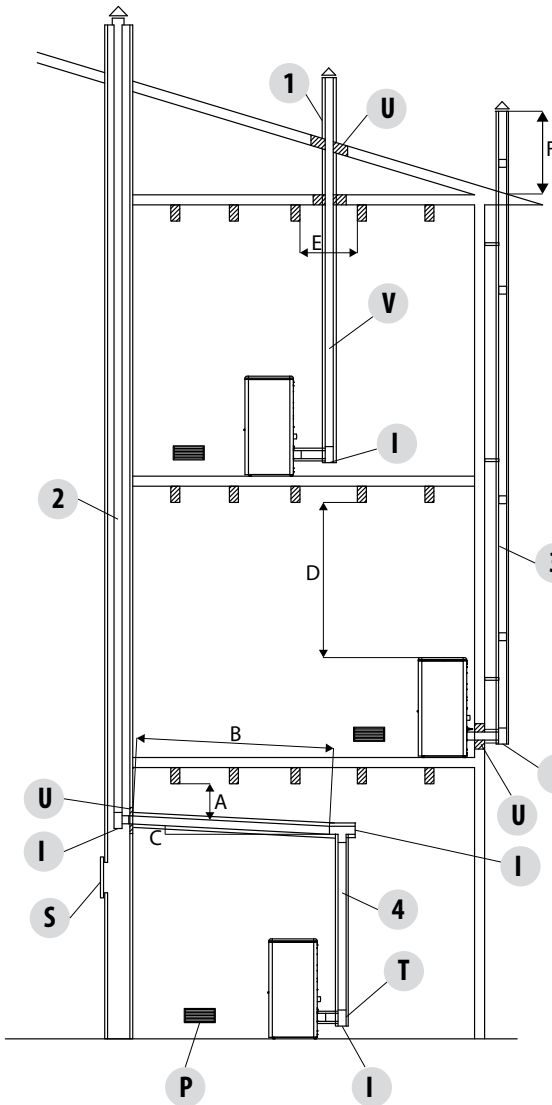
It is prohibited to connect more than one appliance to the same smoke duct, or the discharge from hoods above it. It is forbidden to extract the combustion products directly through the wall, whether into indoor spaces or outdoors.

The smoke duct must be at a minimum distance of 400 mm from flammable or heat-sensitive structures.

We recommend in particular to check the data tags of the flue for the safety distances that must be respected in presence of combustible materials and the type of insulating material to be used. These indications must be followed rigorously to avoid serious harm to personnel and surrounding infrastructure.

2-INSTALLATION

EXAMPLES OF CORRECT INSTALLATION



1. Installation of $\varnothing 150\text{mm}$ flue with hole for the passage of the pipe increased by:
 minimum 100mm around the pipe if next to non flammable parts such as cement, brick, etc.; or
 minimum 300mm around the pipe (or as required by rating plate) if next to flammable parts such as wood etc.
 In both cases, install suitable insulation between the flue and the ceiling.

Always check and respect the data tags on the flue, in particular the minimum safety distances from combustible materials.

The previous rules also apply for holes made in walls.

2. Old flue, minimum tube $\varnothing 150\text{mm}$ with the inclusion of an external access door for chimney cleaning.

3. External flue made of insulated stainless steel pipes, i.e. with double walls minimum $\varnothing 150\text{mm}$: all securely mounted to the wall. With windproof chimneypot. See fig. 7 type A.

4. Ducting system using Tee fittings that allow easy access for cleaning without having to remove the pipes.

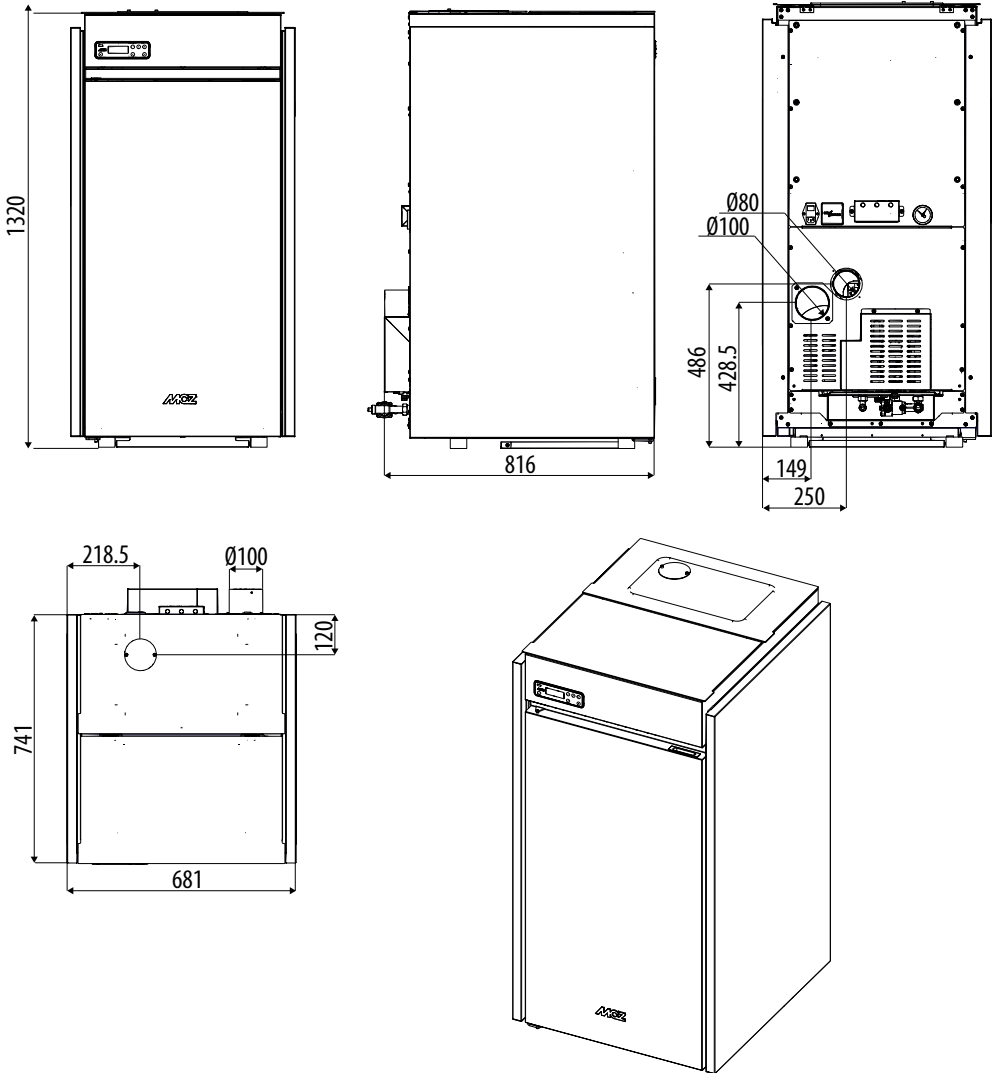
FIGURE 11

U = INSULATION
 V = ANY REDUCTION FROM 100 TO 80 MM
 I = INSPECTION CAP
 S = INSPECTION ACCESS PANEL
 P = AIR INLET
 T = TEE FITTING WITH INSPECTION CAP

A = MINIMUM 40 MM
 B = MAXIMUM 4 M
 C = MINIMUM 3°
 D = MINIMUM 400 MM
 E = HOLE DIAMETER
 F = SEE FIG.2-3-4-5-6

3-DRAWINGS AND TECHNICAL CHARACTERISTICS

DRAWINGS AND CHARACTERISTICS SELECTA 35 HQ S1 DIMENSIONS (dimensions in mm)



3-DRAWINGS AND TECHNICAL CHARACTERISTICS

TECHNICAL CHARACTERISTICS	SELECTA 35 HQ S1
Energy Efficiency Class	A+
Product class (EN 303-5/2012)	5
Rated thermal capacity of the firebox	34.1 kW (29326 kcal/h)
Nominal output power:	31.7 kW (27262 kcal/h)
Minimum output power	7.2 kW (6192 kcal/h)
Efficiency at Max	92.8%
Efficiency at Min	92.4%
Temperature of exhaust smoke at Max	100°C
Temperature of exhaust smoke at Min	61°C
Max configurable temperature	80°C
Max operating temperature	85°C
Particles/OGC/Nox (10%O ₂)	13,3 mg/Nm ³ - 2 mg/Nm ³ - 175 mg/Nm ³
CO at 10% O ₂ , at Min and at Max	0.037 - 0.008%
CO ₂ at Min and at Max	6.6 - 13.1%
Recommended draught at Max power	0.10 mbar - 10 Pa
Recommended draught at Min power	0.05 mbar - 5 Pa
Smoke mass	17.7 g/sec
Tank capacity	100 litres - 65 kg
Type of pellet fuel	Pellet diameter 6 mm and size 3-40 mm
Pellet hourly consumption	Min ~ 1.6 kg/h* - Max ~ 7.2 kg/h*
Autonomy	At min ~ 41 h* - At max ~ 9 h*
Heatable volume m ³	682/40 - 779/35 - 909/30**
Moisture content	38 litres
Max operating pressure	3 bar - 300 kPa
Combustion air inlet	Ø 80 mm
Smoke outlet	Ø 100 mm
Air inlet	100 cm ²
Rated electrical power (EN 60335-1)	102 W (Max 480 W)
Supply voltage and frequency	230 Volt / 50 Hz
Net weight	290 kg
Weight with packaging	305 kg

* Data that may vary depending on the type of pellets used.

** Volume that can be heated, according to the power requirement in m³ (respectively 40-35-30 Kcal/h per m³)

MCZ GROUP

TECHNICAL DOCUMENTATION FOR SOLID FUEL BOILERS ACCORDING TO COMMISSION REGULATIONS (EU) 2015/1187 - (EU) 2015/1189

Manufacturer: **MCZ GROUP S.p.A.**
 Trademark: **MCZ**
 Model Identifier: **SELECTA 35HQ S1**
 General description: **Solid Fuel Boiler fired by wood pellets**
 Condensing Boiler: **no**
 Solid fuel cogeneration boiler: **no**
 Combination boiler: **no**
 Stoking mode: it is recommended that the boiler be operated with a hot water storage tank of a volume of at least **634 liter**
 Useful heat output at rated heat output (P_n): **31,7 kW**
 Test according to: **EN 303-5**
 Notified Body: **IMQ (N.B. 0051)**
Via Quintiliano 43, 20138 Milano, IT

Fuel	Preferred fuel (only one)	Other suitable fuel(s)	η_s [%]	EEL [%]
Log wood, moisture content ≤ 25 %	no	no		
Chipped wood, moisture content 15-35 %	no	no		
Chipped wood, moisture content > 35 %	no	no		
Compressed wood in the form of pellets or briquettes	yes	no	81	120
Sawdust, moisture content ≤ 50 %	no	no		
Other woody biomass	no	no		

Emissions when operating with the preferred fuel (mg/Nm ³ at 10% O ₂)	CO	NO _x	OGC	PM
at Nominal heat output (E _{s,n})	98	175	2	13
at Minimum heat output (E _{s,p})	467	142	5	25
Seasonal space heating emissions (E _s)	412	147	5	23

Observe the specific precautions for installation, assembly and maintenance indicated in the manual accompanying the product

Energy Efficiency Class (A+++ to D scale) **A+**

Characteristics when operating with the preferred fuel

Useful heat output			
Item	Symbol	Value	Unit
Nominal heat output	P _n	31,7	kW
Minimum heat output	P _p	7,2	kW
For solid fuel cogeneration boilers: Electrical efficiency			
Minimum heat output	$\eta_{el,n}$	n.a.	kW

Auxiliary electricity consumption			
Item	Symbol	Value	Unit
At nominal heat output	e _{l,max}	0,053	kW
At minimum heat output	e _{l,min}	0,021	kW
Of incorporated secondary emission abatement equipment, if applicable		n.a.	kW
In standby mode	P _{sb}	0,002	kW

Useful efficiency (GCV)			
Item	Symbol	Value	Unit
At nominal heat output	η_n	84,8	%
At minimum heat output	η_p	85,1	%

Issue date: **27.08.2021**

MCZ GROUP S.p.A.
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 Tel. +39 0434 599599 - Fax +39 0434 599598
 Cod. Fisc., P.IVA IT 01791730938

Alessandro Di Bacco (Legal Representative)

MCZ GROUP S.p.A. - Via La Croce n.8 - 33074 Vigonovo di Fontanafredda (PN) - Italia - Tel. +39 0434 599599 - Fax +39 0434 599598 - www.mcz.it - mcz@mcz.it
 Iscr. al Registro delle Imprese di Fordenone n. 01791730938 - Cod. Fisc. e P. IVA IT 01791730938 - R.E.A. Pordenone 104889 - Capitale Sociale € 10.000.000,00 i.v.

MCZ GROUP

TECHNICAL DOCUMENTATION FOR SOLID FUEL BOILERS ACCORDING TO COMMISSION REGULATIONS (EU) 2015/1187 - (EU) 2015/1189

Manufacturer: **MCZ GROUP S.p.A.**
 Trademark: **MCZ**
 Model Identifier: **SELECTA 35HQ ACS S1**
 General description: **Solid Fuel Boiler fired by wood pellets**
 Condensing Boiler: **no**
 Solid fuel cogeneration boiler: **no**
 Combination boiler: **no**
 Stoking mode: it is recommended that the boiler be operated with a hot water storage tank of a volume of at least **634 liter**
 Useful heat output at rated heat output (P_n): **31,7 kW**
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Compressed wood in the form of pellets or briquettes	yes	no	81	120
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Other woody biomass	no	no		

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Observe the specific precautions for installation, assembly and maintenance indicated in the manual accompanying the product

Energy Efficiency Class (A+++ to D scale) **A+**

Characteristics when operating with the preferred fuel

Useful heat output			
Item	Symbol	Value	Unit
Nominal heat output	P _n	31,7	kW
Minimum heat output	P _p	7,2	kW
For solid fuel cogeneration boilers: Electrical efficiency			
Minimum heat output	$\eta_{el,n}$	n.a.	kW

Auxiliary electricity consumption			
Item	Symbol	Value	Unit
At nominal heat output	e _{l,max}	0,053	kW
At minimum heat output	e _{l,min}	0,021	kW
Of incorporated secondary emission abatement equipment, if applicable		n.a.	kW
In standby mode	P _{sb}	0,002	kW

Useful efficiency (GCV)			
Item	Symbol	Value	Unit
At nominal heat output	η_n	84,8	%
At minimum heat output	η_p	85,1	%

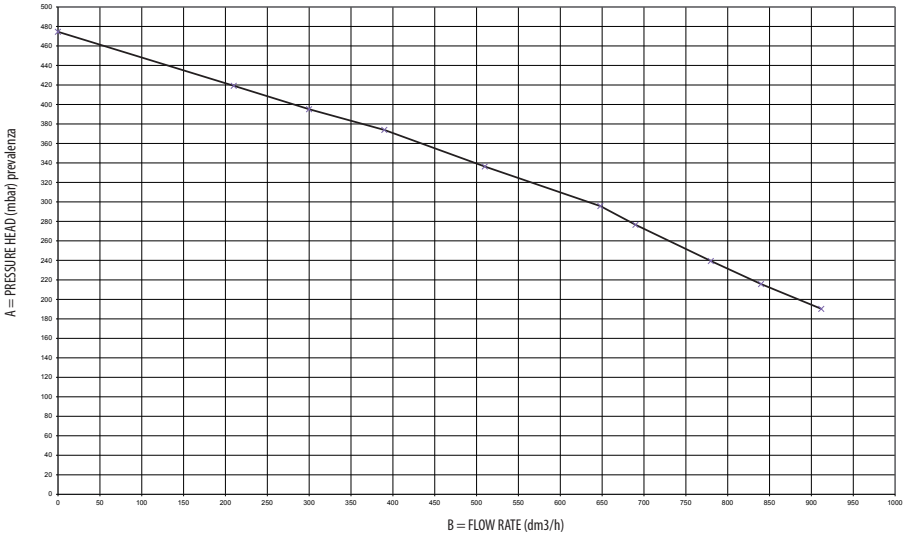
Issue date: **27.08.2021**

MCZ GROUP S.p.A.
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Alessandro Di Bacco (Legal Representative)

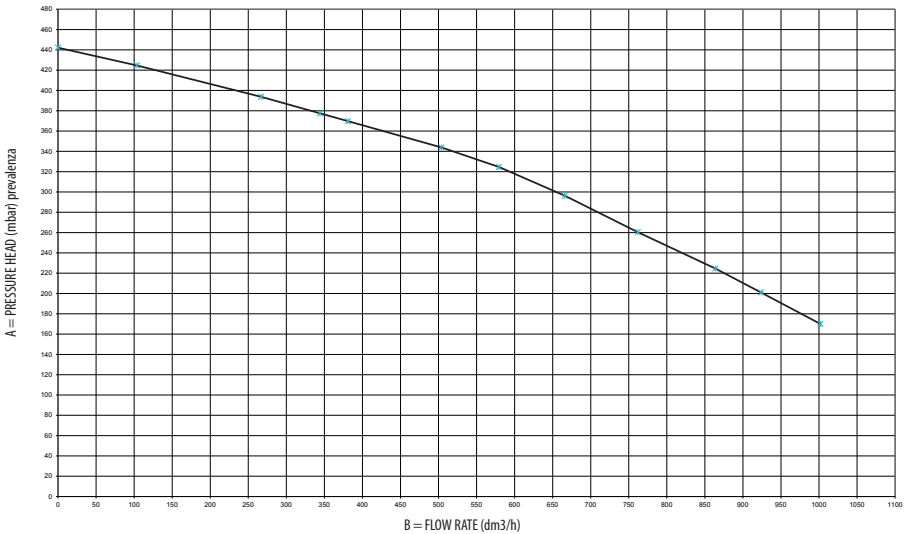
3-DRAWINGS AND TECHNICAL CHARACTERISTICS

RESIDUAL PRESSURE HEAD WITH DHW KIT CHART



A = Residual pressure head (mbar)
B = Flow rate (l/h)

RESIDUAL PRESSURE HEAD WITHOUT DHW KIT CHART



4-UNPACKING

PREPARATION AND UNPACKING

The boiler is delivered complete with all its electrical, mechanical, and hydraulic components after it has been tested in the factory: Remove the cardboard, remove the brackets that secure the boiler to the pallet as well as the polystyrene. To remove the rear bracket (fig.2) one must remove the three screws "x" that secure the boiler to the pallet and the three screws "y" that secure it to the structure.

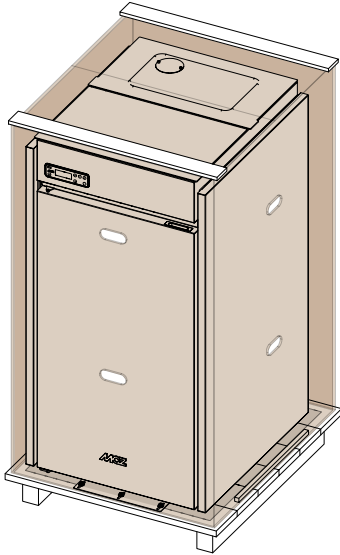


Figure 1 - Packaging

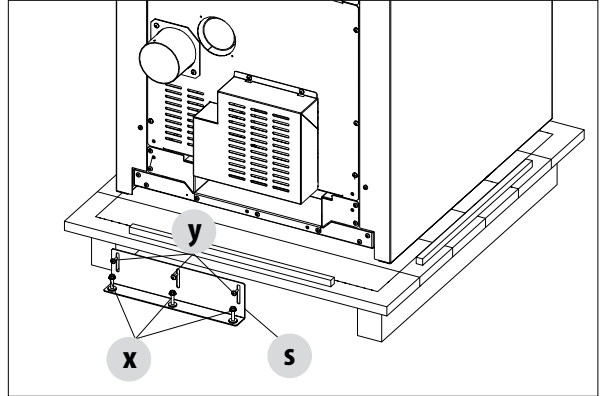


Figure 2 - Rear bracket removal

4-UNPACKING

To remove the front bracket (fig.3) proceed as follows:

- open the door
- remove the screws "x"
- remove the screws "y"
- extract the bracket "s"

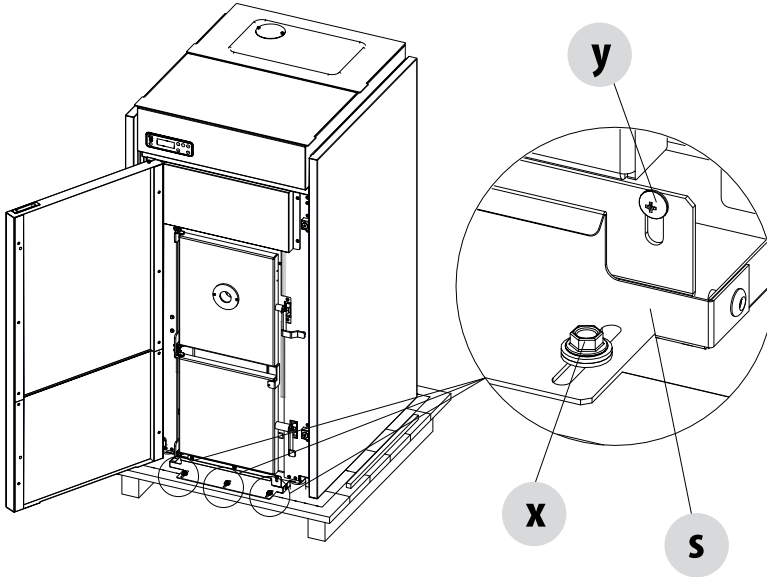


Figure 3 - Front bracket removal

Install the boiler in the area set aside for it, making sure it conforms to the requirements. The boiler body or unit must always be kept in a vertical position when moved, and only using suitable lifting trolleys. Pay particular attention to the door and its glass, protecting them from mechanical knocks that would compromise their integrity.

The product must always be handled with care. If possible, unwrap the boiler near the chosen place of installation. The packaging materials are neither toxic nor harmful, and therefore no particular disposal measures are required.

The product, as indicated in figure 1 consists of a single packaged unit.

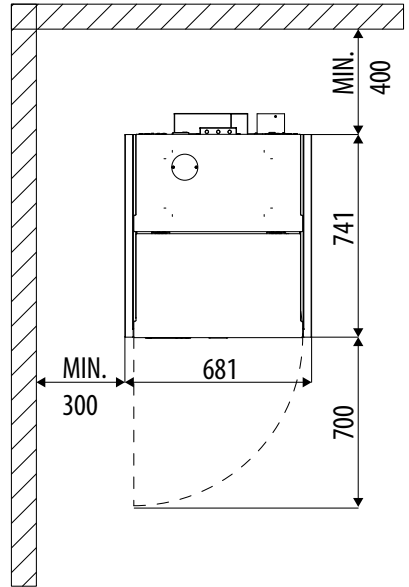
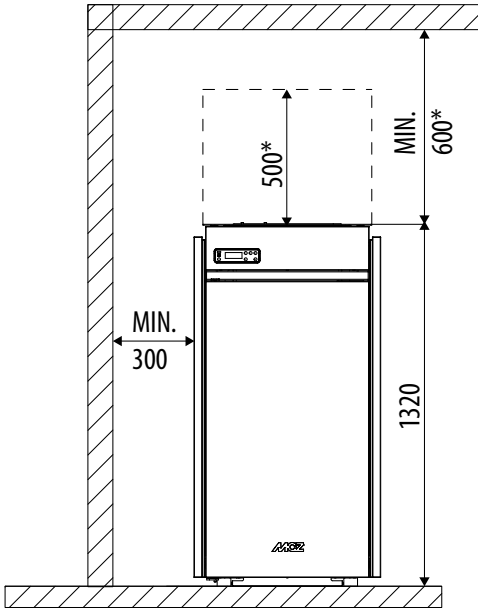
After removing all the packaging, check that the boiler is complete and not damaged. If in doubt, contact the retailer.

5 - POSITIONING

REQUIREMENTS FOR INSTALLATION OF THE PLANT - POSITIONING

The most important thing to do before installation of the boiler is to set aside a suitable area that meets the minimum requirements for installation.

- the minimum clearance in front of the product for the purpose of cleaning, maintenance, etc. must be **700 mm**;
- the minimum permissible distance between the back of the product and a wall must be **400 mm**;
- the minimum distance between the top of the product and a wall (ceiling) must be **600 mm** to ensure easy access to the heat exchanger for cleaning and maintenance (e.g. for removing ash and possible installation of the pellet suction kit);
- the minimum clearance between the product and the wall (side) must be **300 mm**.

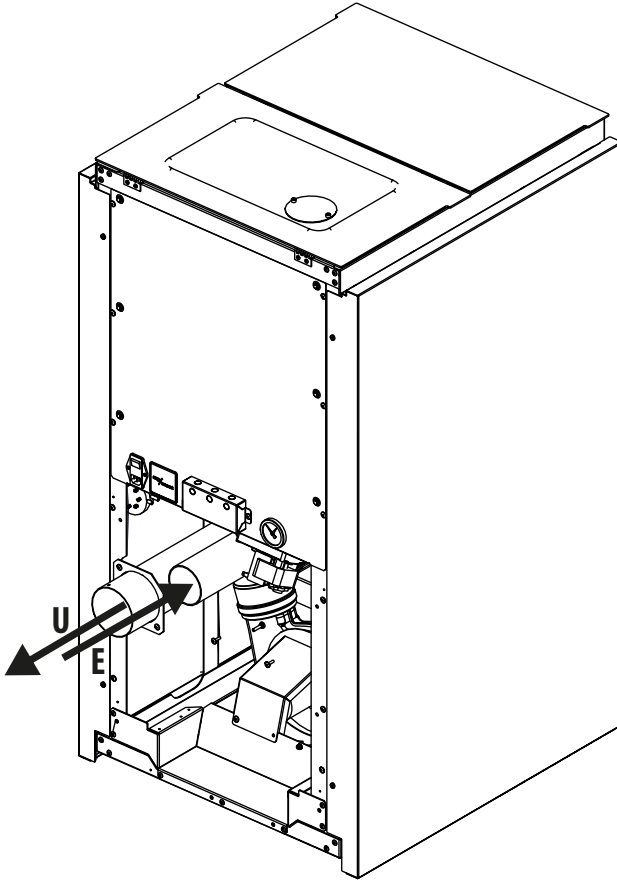


SELECTA BOILER MINIMUM REQUIREMENTS
* in the event of suction kit installation

6 - INSTALLATION AND DISASSEMBLY

FUMES EXHAUST AND COMBUSTION AIR INLET

The boiler is fitted at the back with a pipe "U" \varnothing 100 mm for fumes exhaust and with a pipe "E" \varnothing 80 mm for combustion air inlet.



6 - INSTALLATION AND DISASSEMBLY

BOILER DOORS OPENING/CLOSING



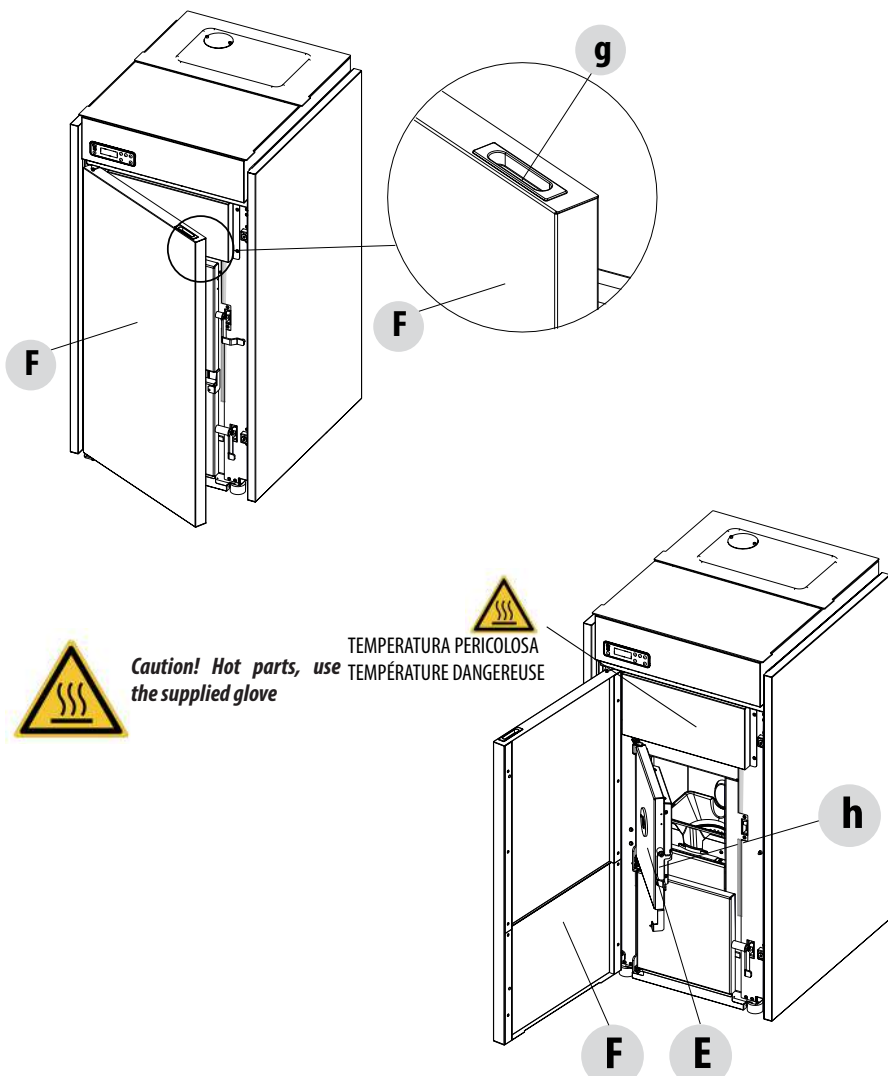
ATTENTION!

The door must be closed properly for the boiler to work correctly.

*The firebox door and the lower door for cleaning the ash **must only be opened with the boiler cold and off.***

If the doors are opened while the boiler is running, a system will trigger the alarm and the boiler will go off.

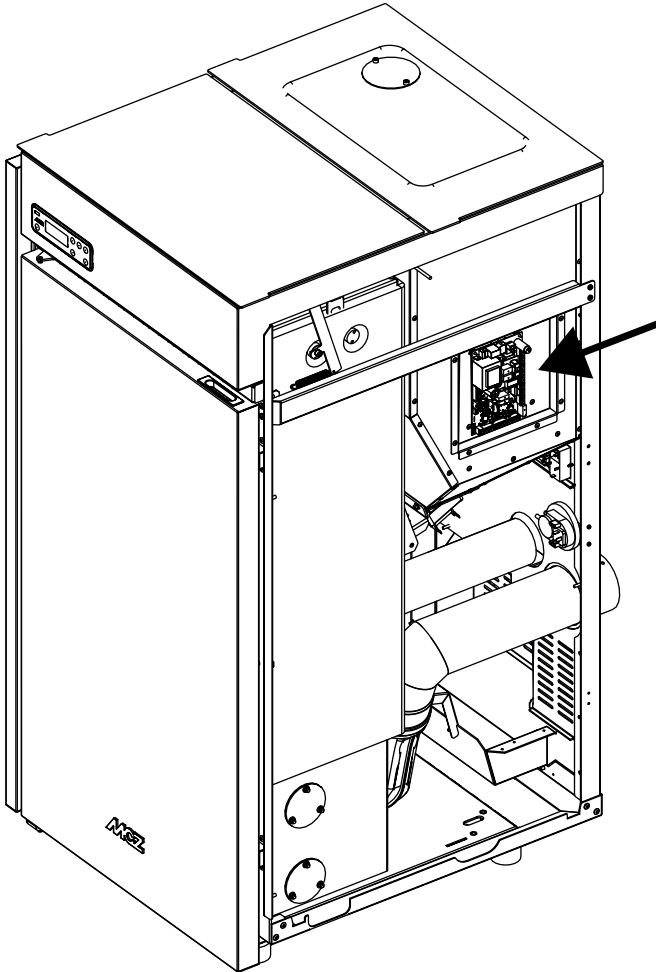
Open the outer door "F" by grasping the handle at the top right "g" and pull towards you. Open the internal door "E" by lifting and pulling the handle "h" towards yourself. In the event one needs to open the door with the boiler in operation, one must use suitable thermal protection clothing (for example leather gloves).



6 - INSTALLATION AND DISASSEMBLY

ACCESS TO THE ELECTRONIC BOARD

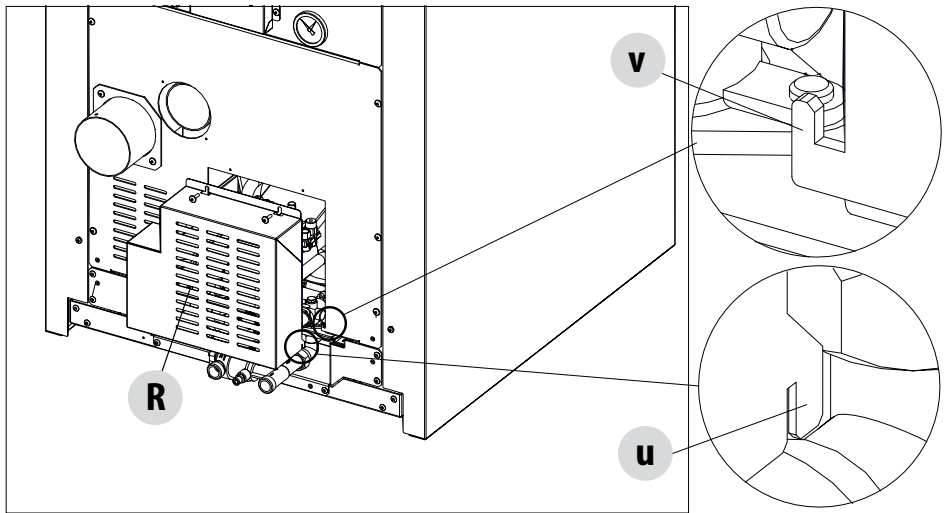
To have access to the electronic board, you must remove the right decoration panel (door opening side) according to the indications in this manual.



6 - INSTALLATION AND DISASSEMBLY

REAR COVER FOR THE HYDRAULIC KIT

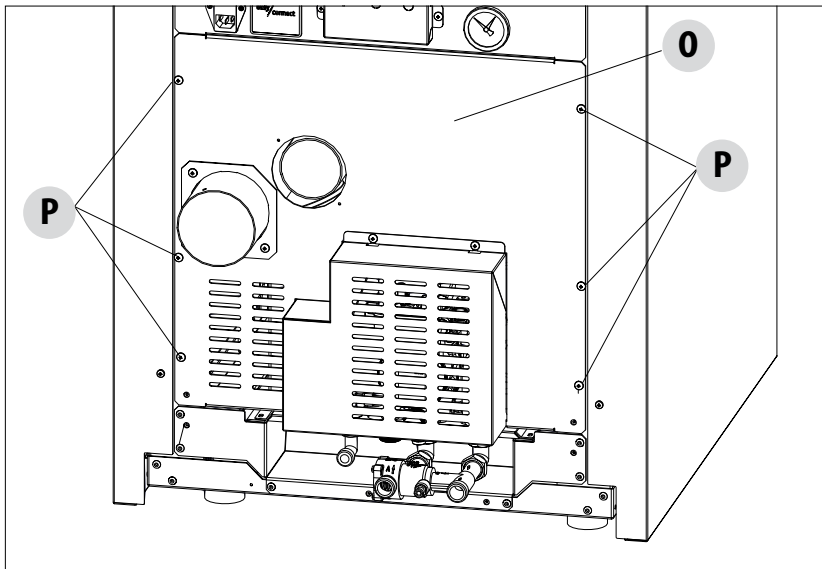
The back of the boiler has a removable cover to insert the selected hydraulic kit. Remove cover "R" by loosening the two upper screws and lifting the cover so as to release the joint "u" of the cover from the "v" joint of the boiler.



REAR PANEL REMOVAL

For interventions on the boiler components one may need to remove the rear panel "O".

To do this one must remove the 4 screws "P" and remove the panel "O".

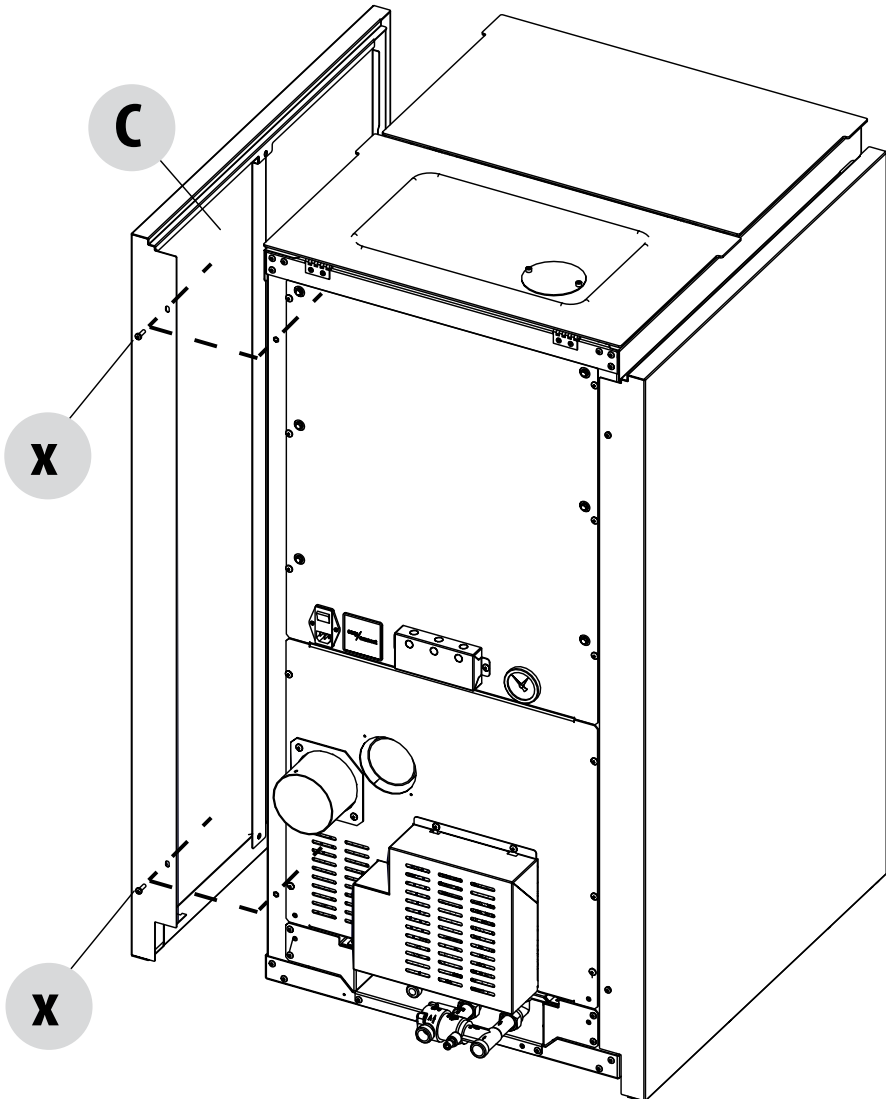


6 - INSTALLATION AND DISASSEMBLY

SIDE PANEL REMOVAL

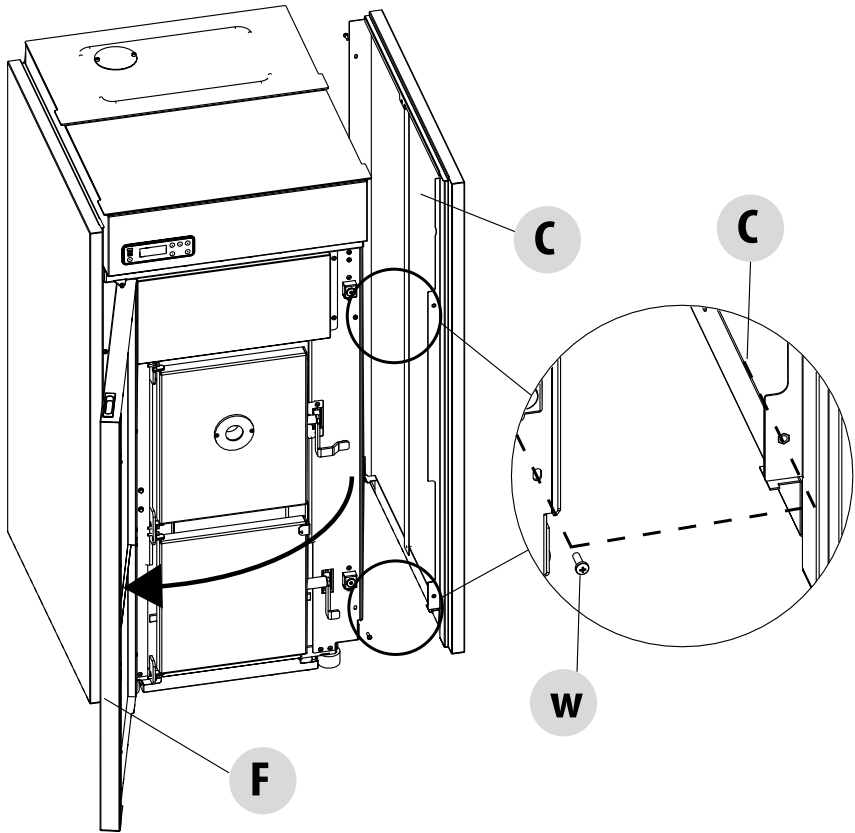
To remove the side panels proceed as follows:

- At the rear, remove the two screws "x"



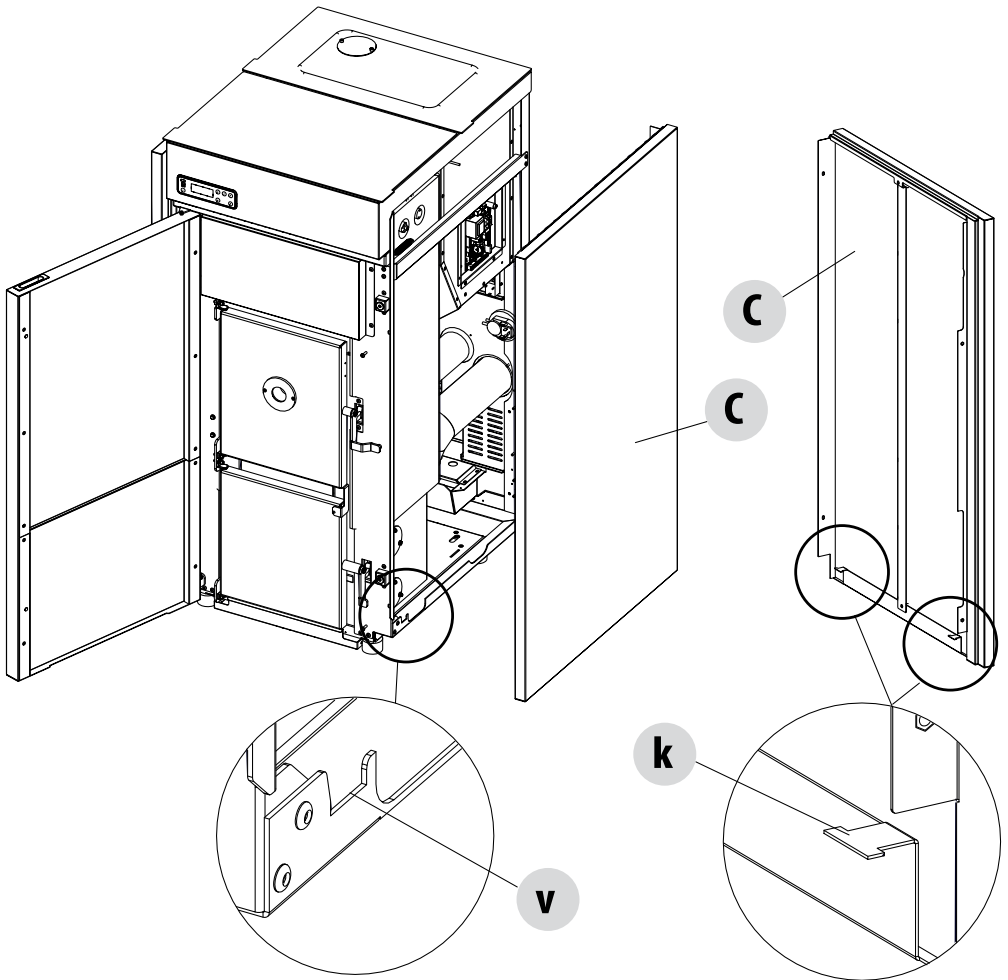
6 - INSTALLATION AND DISASSEMBLY

- on the front, open the decorative door "F"
- remove the two screws "w"



6 - INSTALLATION AND DISASSEMBLY

- lift panel "C" so that hook "k" comes out from slot "v" on the boiler's structure.



7-HYDRAULIC CONNECTION

HYDRAULIC CONNECTION



IMPORTANT:

The connections depend on the type of System Configuration.

IMPORTANT!

If installing the boiler involves another pre-existing system complete with heating equipment (gas boiler, methane boiler, fuel oil boiler, etc.), it is strongly recommended that you contact a qualified operator who subsequently will be responsible for the compliance of the system with the applicable laws in force.

The Company will not be held responsible for damage to persons or things in the event of failed or incorrect operation if the aforementioned warnings are not complied with.



IMPORTANT!!!

CLEAN THE ENTIRE SYSTEM BEFORE CONNECTING THE BOILER, IN ORDER TO REMOVE ALL RESIDUE AND DEPOSITS.

Upstream from the boiler, always install shutters so as to disconnect it from the plumbing system should it be necessary to move it, or when it requires routine and/or special maintenance.

Connect the boiler using hoses so that the boiler is not too strictly connected to the system, and to allow slight movements.



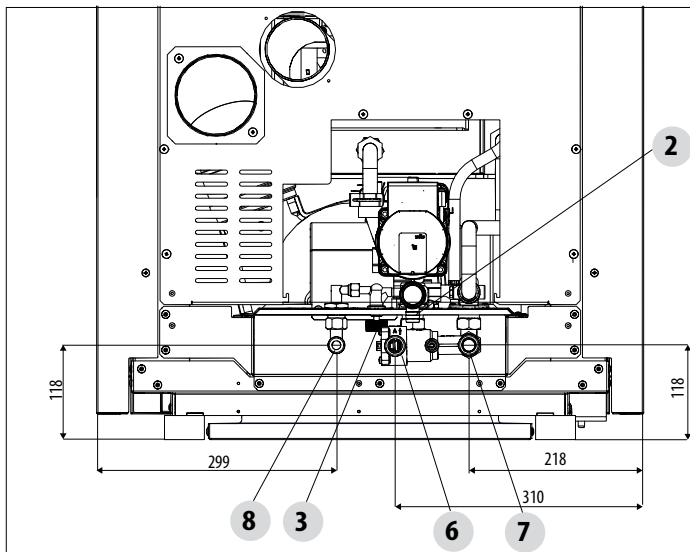
IMPORTANT!

*The connection of the stove to the plumbing system must be carried out **ONLY** by specialised personnel who are capable of carrying out installation properly in compliance with current standards in the country of installation.*

The manufacturer will not be held responsible for damage to persons or property in the event of failed operation if the aforementioned warning is not complied with.

CONNECTION WITH HYDRAULIC KIT FOR HEATING DIAGRAM (SEE ACCESSORY CODE 40A18013)

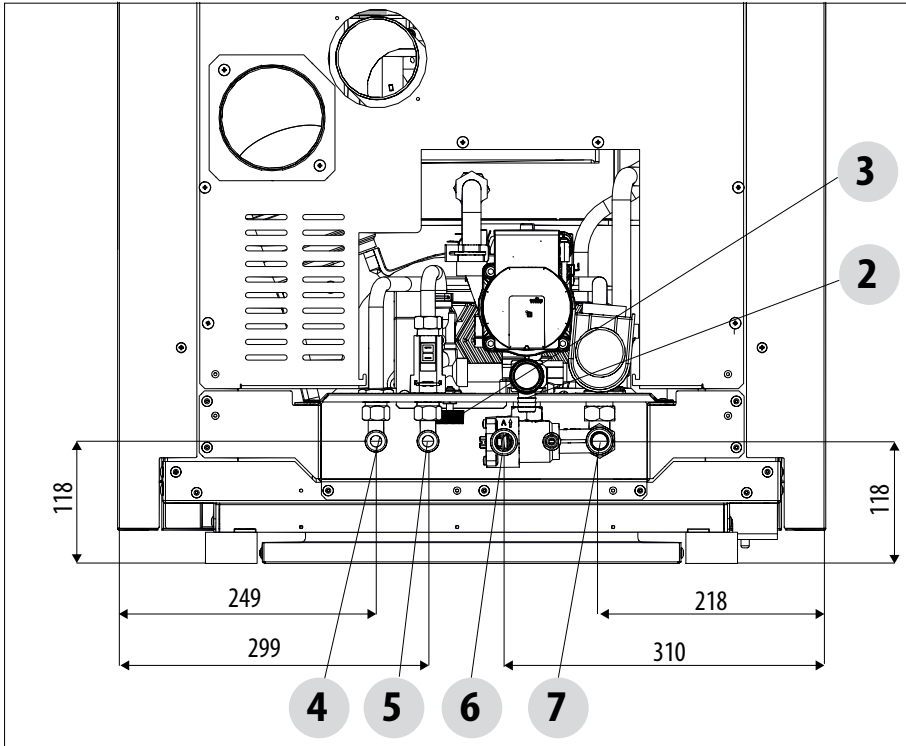
2 - SAFETY VALVE	6 - HEATING RETURN	8 - SYSTEM FILLING WATER INLET
3 - FILLING TAP	7 - HEATING DELIVERY	



7-HYDRAULIC CONNECTION

CONNECTION WITH HYDRAULIC KIT FOR DOMESTIC HOT WATER PRODUCTION DIAGRAM (SEE ACCESSORY CODE 40A18014)

2 - SAFETY VALVE	5 - DOMESTIC HOT WATER INLET
3 - FILLING TAP	6 - HEATING RETURN
4 - DOMESTIC HOT WATER OUTLET	7 - HEATING DELIVERY



7-HYDRAULIC CONNECTION

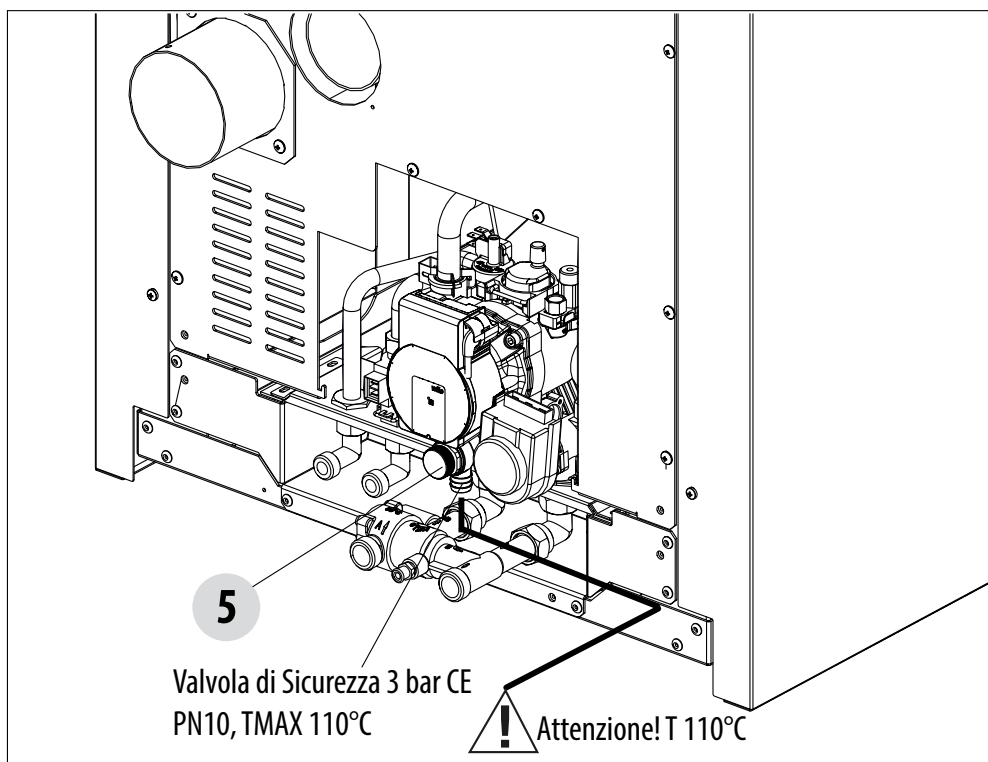
SAFETY VALVE 3 bar (300Pa)

The boiler is protected against overpressure by a safety valve "2" fitted on the selected hydraulic kit. The safety valve drain must be connected to a rubber pipe that can withstand a temperature of 110°C (not supplied) and that reaches the outside via an anti-odour syphon. This drain is provided in order to prevent overpressures if the safety valve is opened.

The product is defined as quick release since it has passed the tests stipulated in EN 303-5 Chap. 5.14.



Attention! The manufacturer of the appliance is not liable for any flooding caused by the safety valve being triggered if it has not been joined properly to the outside of the product and to a proper collection and evacuation system.



7-HYDRAULIC CONNECTION

CLEANING THE SYSTEM

Install suitable shutters to cut off the tubes from the heating system.

In order to protect the heating system from damage caused by corrosion, incrustation or deposit build-up, it is important to clean the appliance before installation, using suitable products, in compliance with Standard UNI 8065 (water treatment of thermal plants for civil use).

The use of FERNOX PROTECTOR F1 product (available at our authorised centres) is recommended, this provides long-term protection of heating systems against corrosion and calcium build-up. It prevents the corrosion of the metal parts of the appliance, i.e. the ferrous metals, copper and copper and aluminium alloys. It also reduces the noise produced by the boiler. Refer to the instructions on the product. Cleaning should be performed by a qualified technician.

We also recommend the use of FERNOX CLEANER F3 and LEAK SEALER F4, available from our authorised distribution centres.

FERNOX F3 is a neutral product for rapid and efficient cleaning of heating appliances. It has been designed to eliminate residues, oily deposits and incrustations from existing appliances of all ages. It can help restore the heating efficiency of the boiler and reduce the noise it generates.

FERNOX F4 is intended to be used with all heating appliances to seal micro fractures that cause small and inaccessible leaks.



Attention: Failure to clean the thermal system or to use an adequate inhibitor will invalidate the warranty of the appliance and of the other accessories like the pump and valves.

FILLING THE SYSTEM

Fill the system slowly to allow air bubbles to pass through the vent holes of the heating system. For closed circuit heating systems, the filling pressure of the system while cold and the pre-inflation pressure of the expansion tank must be the same.

- In **open** vessel heating systems, direct contact between circulating liquid and air is allowed. During the heating season, the user must check the circulating water level in the expansion tank regularly. The water level in the circulation system must be kept constant. Practical experience shows that a regular check of the water level must be made every 14 days to maintain a relatively constant level. When necessary, the water level must be topped up when the boiler has cooled to room temperature. This is to avoid any damage being caused to the steel body of the boiler due to thermal stress.
- In systems with an open vessel, the water pressure in the boiler must not be less than 0.3 bar (30 Pa) when the system is cool.
- The water used for filling the heating system must be decontaminated and not contain air.



Caution!

Do not mix heating water with incorrect concentrations of anti-freeze or anti-corrosion substances! This could damage the gaskets and cause noise during operation.

The manufacturer denies any liability for harm to persons, animals or objects caused by failure to observe these precautions.

After making all the hydraulic connections, pressure-test the seals by filling the boiler.

This must be done with care by doing the following:

- open the air vent valves of the radiators, boiler and system;
- gradually open the filling tap of the system, making sure that any automatic air vent valves in the system work correctly;
- close the vent valves of the radiators as soon as water comes out;
- use the pressure gauge inserted in the system to check that the pressure reaches a value of approximately 1 bar (100 Pa); for open vessel systems, the water is topped up automatically through the vessel.
- close the filling tap of the system and then open the vent valves of the radiators again to purge any air;
- check the seal of all the connections;

7-HYDRAULIC CONNECTION

- after starting up the boiler for the first time and bringing the system up to temperature, stop the pumps and repeat the air purging procedure;
- leave the system to cool, and if necessary, restore the water pressure to 1 bar (100 Pa).



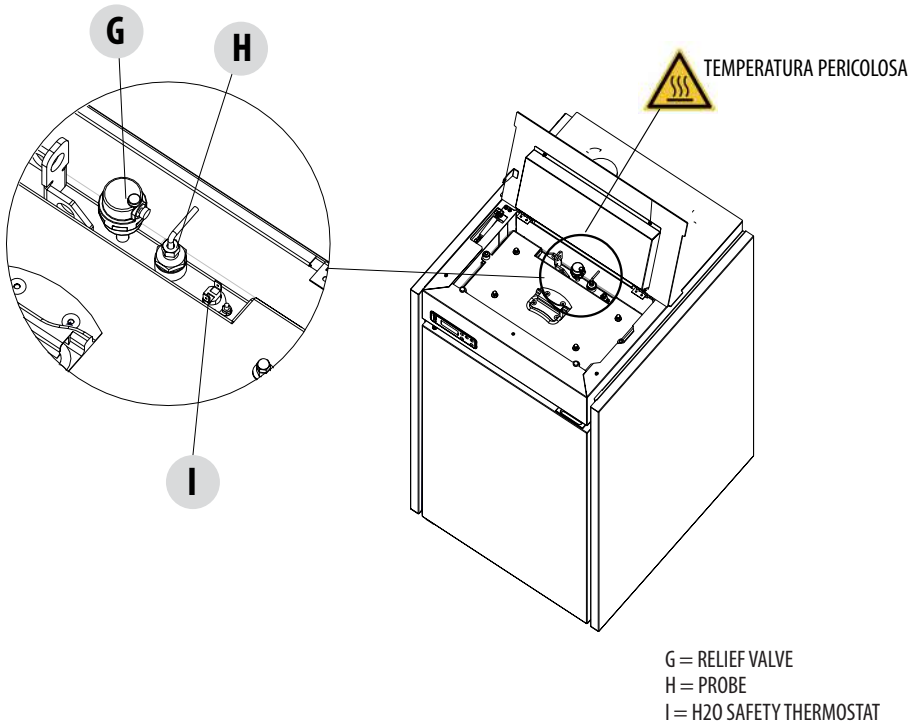
NOTE

In systems with a closed vessel, where possible, the water pressure in the heating system must not be lower than 1 bar (100 Pa) when the system is at room temperature; if this is not the case, use the tap to fill the system. This operation must be performed when the system is cool. The pressure gauge on the system enables you to read the pressure in the circuit.

During this operation, any air in the system is released from the automatic vent "G" at the top of the body of the boiler. The valve is underneath the front panel, just lift the cover.

To allow the valve to vent, loosen the side cap (see figure)
The filling pressure of the system **WHEN COLD** must be 1 bar (100 Pa).
Upon completion of this operation, **always** close the tap.

To access the vent valve, lift the central cover and loosen the side cap.



7-HYDRAULIC CONNECTION

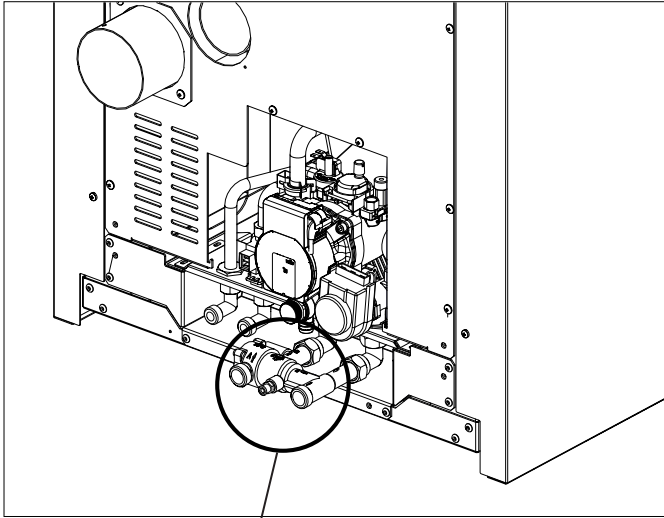
ANTI-CONDENSATION VALVE (INCLUDED IN THE HYDRAULIC KIT CODE 40A18013 - 40A18014)

The anti-condensation valve is used in solid fuel boilers to prevent the return of cold water into the boiler or stove, resulting in the formation of condensation.

The prolonged formation of condensation causes permanent damage to the heat exchanger.

A higher return temperature reduces the formation of condensation of the fumes and extends the life of the boiler.

Valves available on the market offer various calibrations. MCZ recommends using the model (see accessories list) at 55°C. The thermostatic sensor immersed directly in the fluid "feels" the temperature and diverts the route according to the required value (55°C).



A N T I - CONDENSATION VALVE INSTALLED ON THE
HYDRAULIC KIT

7-HYDRAULIC CONNECTION

PRESSURE GAUGE

The pressure gauge of the boiler "m" is one of the key tools, which is used to check that the appliance is operating smoothly. The pressure gauge of the boiler is used to measure the pressure, i.e. the difference between the internal pressure and the atmospheric pressure. Generally, the ideal pressure for a boiler is between 1.5 and 2 bar (150-200 Pa), above or below which malfunctions occur in the heating system or in the supply of domestic hot water. The pressure adjustments are made through the vent valve "G" at the top of the boiler (see instructions on the previous page).

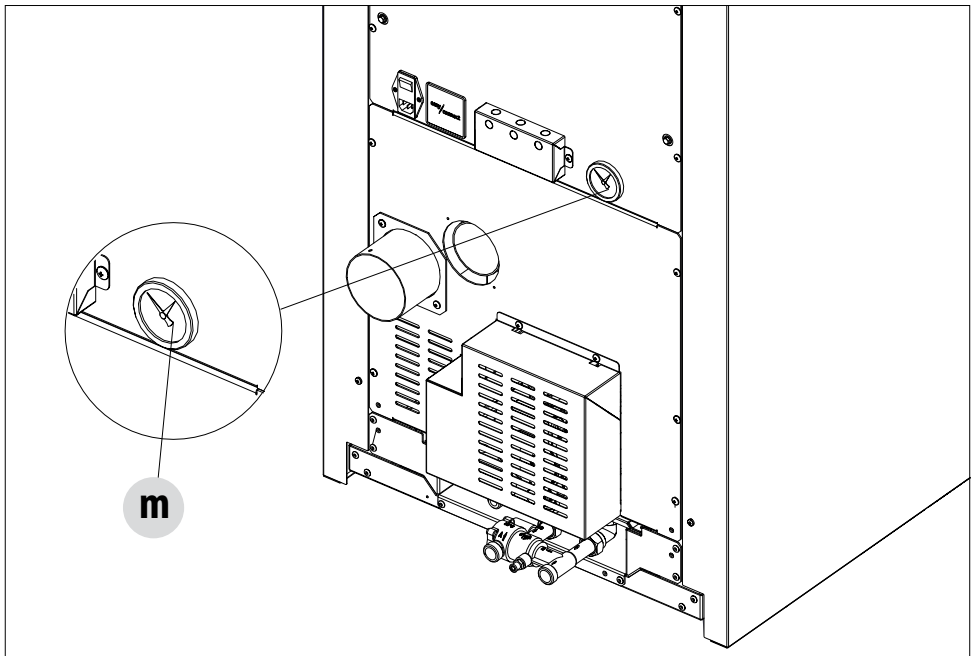
Low boiler pressure

When the pressure of the boiler is too low, and therefore it is indicated on the pressure gauge as below 1.5 bar (150 Pa), the heating does not work well, hot water does not arrive or the boiler is blocked. The main reasons that lower the pressure are:

- Temperature too low, which causes the condensation to form
- Air in the pipes
- A fault in the 3-way valve

High boiler pressure

If the pressure is high, that is the boiler pressure gauge marks more than 2 bar (200 Pa), the energy efficiency of the boiler decreases, which means that the consumption increases.



8 - ELECTRICAL CONNECTION

GENERAL PRECAUTIONS

The electrical safety of the system is guaranteed only when this is connected correctly to an efficient earthing system installed in accordance with the safety standards in force: the pipes of the gas, water and heating systems do not constitute a suitable earth system. It is necessary to ensure this essential safety requirement; if in doubt, have a qualified technician test the electrical system with care because the manufacturer of the boiler does not assume responsibility for damage caused by the absence of an earthing system.

A qualified technician should check that the electrical system is compatible with the max consumption of the system, checking in particular that the cross-section of the cables of the system is compatible with the power consumption of the loads.

The use of any component that requires electrical energy requires compliance with certain essential rules like:

- do not touch the appliance with wet and/or damp parts of the body and/or when barefoot;
- do not pull on the electrical cables;
- do not expose the appliance to the elements (rain, sun, etc.);
- do not allow children or inexperienced persons to use the appliance.

Electrical connection

The installation of additional electrical components of the boiler requires electrical connection to a **230V - 50Hz** power supply: This connection must be made in compliance with the standards in force.



Danger!

Electrical installation must be entrusted to a single qualified technician.

Before making the connections or carrying out any work on the electrical parts, always turn off the power supply and make sure it cannot be turned on again accidentally.

Remember that it is necessary to install a bipolar switch in the boiler's electrical power circuit with a distance of 3mm between the main contacts. The switches must be easily accessible to allow quick and safe maintenance.

The power cable must be replaced only by an authorised technician. Failure to observe the above could compromise the safety of the unit.

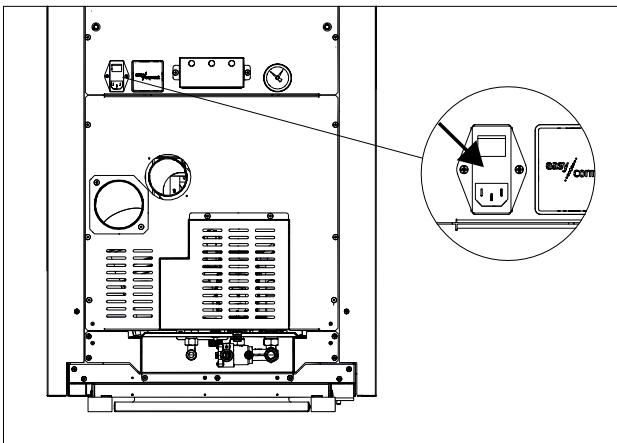
ELECTRICAL CONNECTION

First connect the power cable to the back of the boiler and then to a wall socket

The main switch at the back must only be operated for turning the boiler on and off.



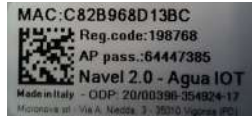
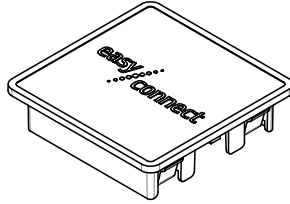
It is recommended to disconnect the power cable when the boiler is not used.



9-WI-FI APPLICATION

WIFI PANEL (EASY CONNECT)

The Easy Connect WiFi panel is already installed at the back of the stove and connected to the board.
In order to use the WiFi system, the customer must download the app and follow the set-up instructions.



EXAMPLE OF EASYCONNECT MODULE SILVER LABEL

APPLICATION INSTALLATION AND CONFIGURATION

Download the application and follow the instructions below.
If your home router has a WPS key, follow the procedure below, otherwise refer to the following points.

REGISTRATION PROCEDURE VIA CONTROL PANEL

WPS makes it possible to associate Wireless devices for Internet connection by pressing a button on the home Router (or other device). We recommend to refer to the instructions of your home Router (or other device) to activate the WPS.

Follow the procedure below:

- Press the “menu” key,
- scroll with the arrows until “WiFi/BLE is displayed
- confirm with “Menù”
- scroll with the arrows and find “WiFi WPS”
- Press “Menu”,
- the connection countdown starts (WPS ENROLEE)
- during the countdown, press the “WPS” button on the router and wait the end of the count for the connection.

Note: Refer to the instructions of your home Router to activate WPS

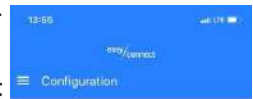
Wait until “connected cloud” is displayed

- Press “ESC” twice to exit the control.
- A “cloud” will be displayed at the top left next to the time to indicate that the device is connected.

Now continue setting up from the APP.

This type of configuration replaces that indicated in point “4) Wi-Fi/Router kit configuration”.

When the configuration screen appears (see image), press the “SKIP STEP” button and continue with point 5 “Using the App”.



How do you want to configure the module connection to the router?

9-WI-FI APPLICATION

The product set up procedure consists of 5 basic steps:

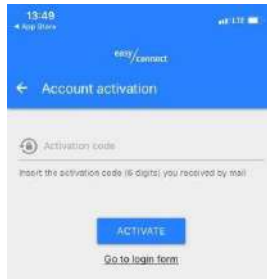
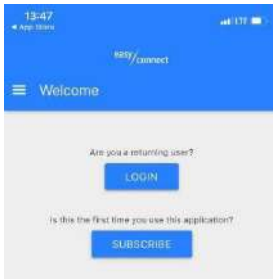
1 - APP INSTALLATION

You can download the app with one of the following methods:

- Scan the QR Code on the label of the Wi-Fi module
- Search for the app's name given on the label on the store for your smartphone

2 - USER REGISTRATION

- At first login confirm all the authorisations required by the app.
- Register a new user profile by pressing the "REGISTER" key, entering your e-mail address and creating a password.
- If required, enter the confirmation code received by e-mail agua@micronovasrl.com (don't forget to check the spam folder, if necessary) and press the "ACTIVATE" key.



3 - WI-FI/APP KIT SET UP

- Make sure that the Wi-Fi module is wired properly and the stove and accessory are powered.
- On the "My stoves" screen, press the "+" button on the bottom right to add a stove.
- Select your type of Wi-Fi module (BUILT-IN or EXTERNAL) and enter all of the identification data for the module and stove either manually or with the QR Code (read the INFO in the APP):



9-WI-FI APPLICATION

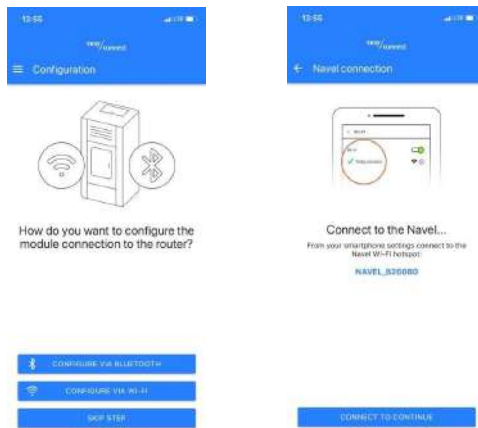
Stove serial number	On the stove's warranty card and inside the pellet hopper.
MAC address	Found on the label on the "ET" page inside the document envelope inside the store.
Registration Code (Reg.Code)	Found on the label on the "ET" page inside the document envelope inside the store.
Item model	Autocomplete field. If it does not autocomplete after scanning the stove serial number, capture the QR Code on the bottom of the page and check the relative FAQ.
Item code	(autofill field)
Stove description	For example: "Living room stove"
Stove location	(optional data)
Authorisation to anonymously sharing the operation data	(optional authorisation)

4. Press the "SAVE STOVE" button (the stove will be added to the "My stoves" list).
5. The set up screen for the Wi-Fi module to the router will appear.

4 - ROUTER/WI-FI KIT SET UP

1. Press "CONFIGURE VIA WI-FI" on the configuration screen. "Navel Connection" will appear
2. Close the app, find the Wi-Fi settings on your smartphone and connect to the "NAVEL_XXXXXX" network. Pay attention to any messages that may disconnect your smartphone from the newly connected Wi-Fi network.
3. Once connected, reopen the app and press "CONNECT AND CONTINUE"
4. Press "CONTINUE WITHOUT INTERNET" and confirm with "OK"
5. A screen will appear with the list of available Wi-Fi networks.
6. Select the home Wi-Fi network and connect by pressing "CONNECT" (this only happens when you connect for the first time - your smartphone should then automatically connect to your home network)
7. Close the APP and in your smartphone's Wi-Fi settings, disconnect from the "NAVEL_XXXXXX" Wi-Fi network
8. Open the APP and confirm ("DONE for IOS or "X" at top right for Android)
9. Wait for the "Set up completed" message
10. Press "GO TO THE LIST" and select the stove

Note. If you want to pair the Wi-Fi module with the router later, simply press the 3 dots next to the stove you want to connect to the home router and select "Set up Wi-Fi"

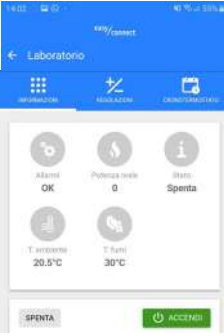





9-WI-FI APPLICATION

5 - USING THE APP

1. When the “plug” appears next to the added stove, it means that the stove is connected. You can now use the app.
2. To open the stove controls, tap on the stove name in the “My stoves” list.
3. Make sure that the WIFI/BLUETOOTH selector is on WIFI (see figure alongside).

Once connected to the stove, you can choose what to display by pressing the menu key:

INFORMATION	ADJUSTMENTS	PROGRAMMABLE THERMOSTAT
		
The items that can be displayed are:	The items that can be set are:	You can set up to 6 stove operating programs. The variables that can be set are the days of the week and the product switch-on/off times.
Alarms	ECO STOP	
Actual power	ECO STOP T.	
Status	Storage tank setting	
T Room	Storage tank H2O setting	
T Fumes	Ventilation	
T.water	Puffer setting	
T.puffer		
T.ext		
T.storage tank		
For more information, the latest updates of the guide, alarms and information on how to use the APP, please refer to:		



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PELLET BOILER

SELECTA 35 HQ S1

PART 2 - OPERATION AND CLEANING

Instructions in English



890211800

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10- FIRST START-UP

BEFORE START-UP

GENERAL PRECAUTIONS

Remove all parts that may burn from the brazier and the product's tank (manual, various adhesive labels or any polystyrene).



The first start-up may not be successful as the feed screw is empty and does not always manage to load the brazier with the required amount of pellets in time to light the flame.



CANCEL THE FAILED IGNITION ALARM. REMOVE THE PELLETS LEFT IN THE BRAZIER AND REPEAT THE START-UP.

If after repeated attempts, the flame fails to ignite, despite a regular flow of pellets in the brazier, verify that the brazier is assembled correctly and must be **clean without any ash incrustations**. If no anomaly is found during this inspection, there may be a problem with the product components or installation may not be correct.



REMOVE THE PELLETS FROM THE BRAZIER AND CONTACT AN AUTHORISED TECHNICIAN.



Do not touch the boiler during the first lighting, as it is during this phase that the paint sets; if you touch the paint, you may expose the steel surface.

If necessary, touch up the paint with the aerosol spray in the original colour (see "Accessories for pellet boilers").



It is good practice to guarantee effective ventilation in the room during the initial start-up, as the boiler will emit some smoke and smell of paint.



ATTENTION!

Please ensure the brazier is clear of ALL pellets and ash build up following any failed ignitions. Failure to clear out the brazier prior to resetting may result in further failed ignitions or in certain conditions an explosive ignition.

Do not stand close to the boiler and ventilate the room as described. The smoke and smell of paint will disappear after about an hour of operation, however, they are not harmful in any case.

The boiler will be subject to expansion and contraction during the stages of lighting and cooling down, and may therefore make slight creaking noises.

This is absolutely normal as the structure is made of laminated steel and must not be considered a defect.

It is extremely important to make sure the boiler does not reach high temperatures straight away, but to increase the temperature gradually using low power at first.



DO NOT EXPECT HEATING EFFICIENCY IMMEDIATELY!!!

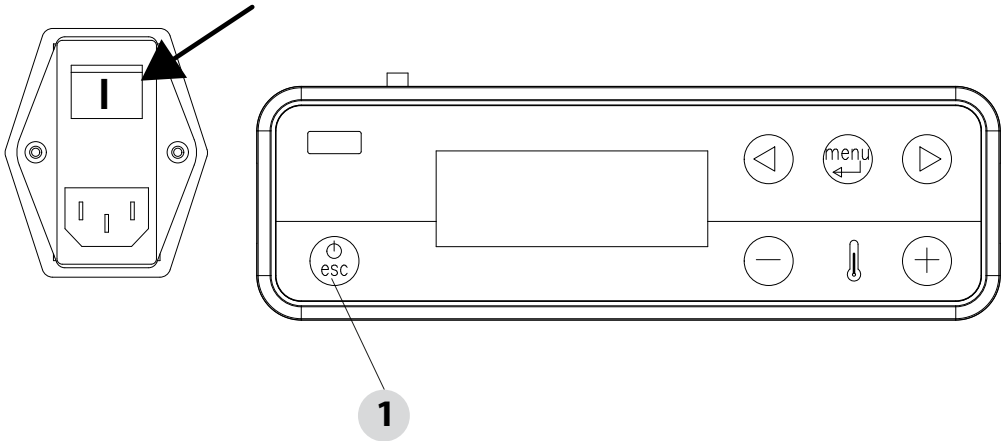
ATTENTION!

If during operation or initial ignition you encounter combustion smoke leakage into the room from the appliance or the flue, then please switch off the appliance, ventilate the room and contact the installation / service technician immediately.

10 - FIRST START-UP

SETTINGS TO BE CARRIED OUT BEFORE THE INITIAL START-UP

After connecting the power cable to the electrical socket, turn the power switch to the (I) position. To turn the boiler on or off, press button 1 on the control panel for a few seconds.



Switch-on is signalled on the display by the text ON and the flame icon flashing.

The stove goes to power-on, flame standby and start-up status.

When the time required for the power on stages has elapsed, the stove goes to work mode.

When the stove reaches the work mode, the user can set the various SETTINGS available.

10 - FIRST START-UP

LOADING THE PELLETS

The pellets can be loaded either manually or automatically. The empty tank can contain up to 100 litres or 65 kg of pellets.

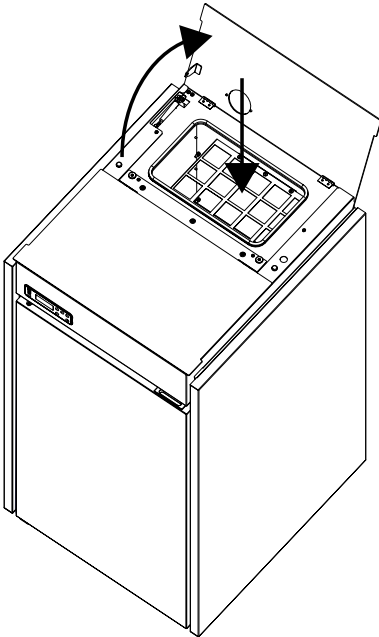
Manual Loading:

- Open the top door "C" of the boiler directly and pour in the pellets.

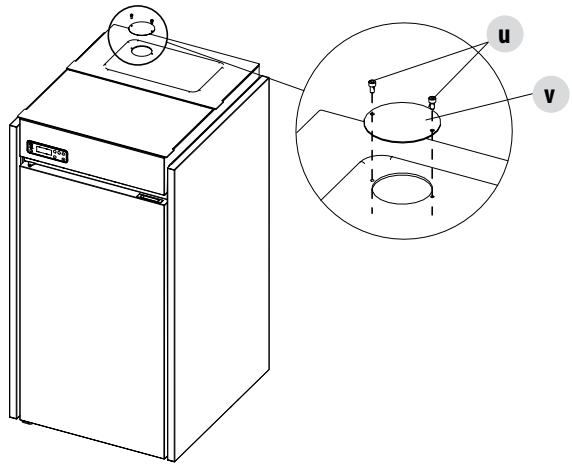
Automatic loading (with remote tank of 200/400 or 300 kg - optional - see accessories):

Remove the "V" cap and insert the pellet supply pipe coming from the remote tank.

If the remote tank is topped up using a cistern, the boiler must be switched off at least one hour before being topped up.



MANUAL LOADING



AUTOMATIC LOADING



Never remove the protective grate from inside the tank. When loading pellets, keep the bag from coming into contact with hot surfaces.



We point out the installation of the pneumatic extractor/external feed screw (optional) to move the pellets make the combustible tank lose its airtight features in environments where this is required. Installation of these accessories could change performance of the boiler respect to that declared by the manufacturer.

10 - FIRST START-UP

SAFETY

WHAT TO DO IF SMOKE LEAKS INTO THE ROOM OR IN CASE OF EXPLOSION DAMAGING THE DEVICE: SWITCH IT OFF, VENTILATE THE ROOM AND IMMEDIATELY CONTACT THE INSTALLER/TECHNICIAN IN CHARGE OF ASSISTANCE.

User Training

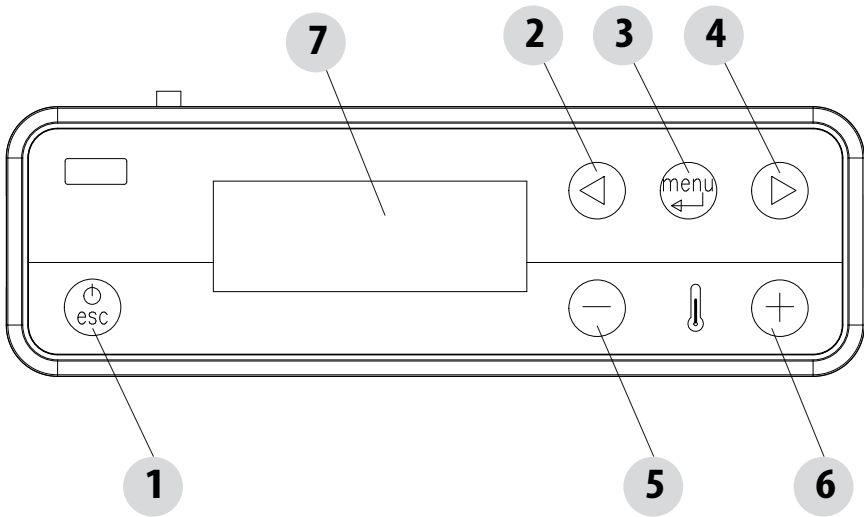
In ALL cases, the technician in charge of installation and first-start-up MUST carry out a thorough handover of the appliance to the owner / end user. The following elements should be covered to the satisfaction of the end user. Failure to do this may result in unsafe use of the appliance:

-
- Explanation of the appliance and how it works
- Necessity to maintain ventilation to the appliance and the issues that may arise otherwise
- Fuel usage and supply
- How to light the appliance safely
- What to do in the event of failed ignitions
- What to do in the event of alarms (in particular those triggered when the appliance runs out of fuel)
- How to maintain the appliance correctly and the importance of carrying out these tasks each month
- It is good practise to agree a date for the first annual servicing
- Discuss the use of secondary heating systems if applicable
- Explain how the remote control or room stats operate and their optimal positioning

11 - MENU ITEMS AND FUNCTION

CONTROL PANEL DISPLAY

Menu options



KEY

- | | |
|--|--|
| 1. Switching boiler on/off | 5. Decrease set temperature / programming functions. |
| 2. Scrolling down through the programming menu | 6. Increase set temperature / programming functions. |
| 3. Menu | 7. Display. |
| 4. Scrolling up the programming menu | |

MAIN MENU

Press key 3 (menu) to access. The options accessed are:

- Date and Time
- Timer
- Sleep (only when boiler is on)
- Settings
- Info
- Wi-Fi/Ble

Date and time configuration

Configure the time and date as follows:

- Press the "menu" key.
- Select "Date and Time".
- Press "menu" to confirm.
- Scroll through with the arrow keys and select the variables to be edited one at a time: Day, Hour, Min, Num. day, Month, Year.
- Press "menu" to confirm
- Use the + and - keys to edit.
- Finally, press "menu" to confirm and "esc" to exit.

11 - MENU ITEMS AND FUNCTION

PROGRAMMED MODE (TIMER) - Main menu

The current time and date must be configured to ensure correct operation of the timer.

There are six configurable TIMERS; for each one, the user can select a start and stop time and the days of the week when it is in use. When one or more programs are active, the status of the boiler and the TIMER "n" alternate on the display. "n" is the number of timer programs in use, separated by dashes.

Example:

TIMER 1 Timer 1 program active.

TIMER 1-4 Timer 1 and 4 programs active.

TIMER 1-2-3-4-5-6 All timer programs active.

EXAMPLE OF PROGRAMMING

With the boiler on or off:

- access the MENU,
- scroll to the TIMER item using the <> arrows,
- press the "Menu" key
- the system shows "P1" (Press the <> keys to move through the timers P2, P3, P4, P5, P6)
- Press the "Menu" key to activate "P1".
- press + - and select "ON"
- press the "Menu" key to confirm

At this point the start time is 00:00. Press the + - key to set the start time and press the "menu" key to confirm.

Next, the proposed stop time is 10 minutes later than the configured start time: press the + key and edit the stop time, and press the "menu" key to confirm.

Next, you are asked to set the days of the week when the configured timer is to be enabled or disabled. Press the - or + keys to select the day you want to activate the time. It will light up white, then confirm with the "menu" key. If no day is selected for enabling the timer, the timer program is no longer enabled on the status window.

Next, program the other days or press "ESC" to exit. Repeat this procedure to program the other timers.

EXAMPLES OF PROGRAMMING

P1			P2		
on	off	day	on	off	day
08:00	12:00	mon	11:00	14:00	mon
Boiler on between 08:00 and 14:00					

P1			P2		
on	off	day	on	off	day
08:00	11:00	mon	11:00	14:00	mon
Boiler on between 08:00 and 14:00					

P1			P2		
on	off	day	on	off	day
17:00	24:00	mon	00:00	06:00	tue
Boiler on between 17:00 on Monday to 06:00 on Tuesday					

11 - MENU ITEMS AND FUNCTION

NOTES ON USE OF THE TIMER

- The timer always starts the boiler with the last temperature and ventilation settings (or with the default settings at 20°C and V3 if they have never been altered).
- The start time can be between 00:00 and 23:50
- If the stop time has not yet been saved, the program proposes a start time at +10 minutes.
- If a timer program turns off the boiler at 24:00 on one day and another program starts it up at 00:00 on the next day: the boiler remains on.
- A program has a start-up and/or shut-down time that overlap the times of another program: if the boiler is already on, the start has no effect while OFF turns off the boiler.
- When the boiler is on and the timer is active, pressing the OFF key turns off the boiler; the boiler then restarts automatically at the next time set on the timer.
- When the boiler is off and the timer is active, pressing the ON key turns on the boiler; the boiler then stops automatically at the next time set on the timer.

SLEEP FUNCTION (main menu)

Sleep may be activated only when the boiler is on and allows you to quickly set a time for the product to turn off.

To set the Sleep function, proceed as follows:

- Enter the MENU
- Scroll to the SLEEP item with the <> arrows
- Press Menu
- Set the turn-off time you want using the + and - keys.

The panel shows a default time of 10 minutes after the current time, which can be adjusted with key 4 up to the following day (i.e. the turn-off can be delayed for a maximum of 23 hours and 50 minutes).

If the SLEEP function is active with the TIMER active, the former has priority, therefore the boiler will not turn off at the time set in the timer program but at the time set by the sleep function, even if it comes after the time set by the timer.

ADJUSTMENTS MENU

To access the menu, proceed as follows:

- Press the - + keys
- Scroll with the <> arrows and select "Set Amb. T" or "Set Water T" or "Exchanger Speed"
- Press "menu" to enter the option selected.
- Change with the + - keys.
- Press "menu" to confirm and "esc" to exit.

11 - MENU ITEMS AND FUNCTION

SETTINGS MENU

The SETTINGS menu is for configuring use of the boiler:

- a. Language.
- b. Cleaning (shown only when boiler is off).
- c. Load feed screw (shown only when boiler is off).
- d. Tones.
- e. External thermostat (activation).
- f. Auto Eco (activation).
- g. Eco Turn-off T (default 10 minutes)
- h. Pump on T (default 50°C).
- i. Auxiliary boiler (default deactivated).
- j. Pellet recipe.
- k. Fumes rpm % ventilation.
- l. Maximum power (1-5 - default 5).
- m. Component test (shown only when boiler is off).
- n. "Chimney sweeper" function (can be enabled only when boiler is on, for checking emissions in field).
- o. System configuration (factory settings: system 02).
- p. Season
- q. Technical menu.

NOTE: Some of the options listed above cannot be enabled in certain "system configurations".

a - Language

Select the language as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Use the arrow keys to scroll through and select "language".
- Press "menu" to confirm.
- Use the + - keys to select the required language (IT/EN/DE/FR/ES/NL/PL/DA)
- Press "menu" to confirm and "esc" to exit.

Adaptive mode

NB. Function for installers only, requiring Password (ONLY FOR TECHNICAL)

The adaptive mode changes the stove's parameters of reference. If adaptive mode is enabled during operation of the product, an A will be displayed at the top of the panel.

b - Cleaning

Allows you to enable/disable the smoke extractor.

Select "Cleaning" (only with boiler off-OFF) as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Use the arrow keys to scroll through and select "Cleaning"
- Press "menu" to confirm.
- Use the + - keys to select "On".
- Press "menu" to confirm and "esc" to exit.

11 - MENU ITEMS AND FUNCTION

c - Load feed screw

This is for filling the pellet loading system. This can be enabled only when the boiler is off. A 180" countdown appears. The feed screw stops automatically at the end of the countdown and the menu closes.

To select "Load feed screw" (only with boiler off-OFF) proceed as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "Load feed screw".
- Press "menu" to confirm.
- With the + - keys, select "Enable".
- Press "menu" to confirm and "esc" to exit.

d - Tones

Allows you to enable or disable the buzzer when pressing the buttons.

This function is disabled by default. To enable it proceed as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Use the arrow keys to scroll through and select "Tones"
- Press "menu" to confirm.
- Use the + - keys to select "On".

e - External thermostat

EXTERNAL THERMOSTAT (not included with the boiler, it must be provided by the user)

The temperature of the boiler can also be controlled by an external thermostat in the room. It should be positioned centrally in the room where the boiler is installed. It provides a closer match between the heating temperature requested of the boiler and the actual room temperature it provides.

Connect the wires of the external thermostat to points 1-2 of the terminal block on the boiler. The external thermostat disables the room probe.

Once the thermostat has been connected it needs to be enabled.

To do this, proceed as follows:

- Press the "menu" key.
- Scroll with the arrows to "Settings".
- Press "menu" to select.
- Now use the arrows to scroll to "External thermostat".
- Press "menu" to select.
- Press the - + keys.
- Select "On" to activate the external thermostat.
- Press the "menu" key to confirm.
- Press the "esc" key to exit.

f - Auto-Eco activation

To select the Auto-Eco function, proceed as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "Auto-Eco".
- Press "menu" to confirm.

11 - MENU ITEMS AND FUNCTION

- Use the + - keys to select "On".
- Press "menu" to confirm and "esc" to exit.

g - Eco Switch-off T

To select the Eco Stop T function, proceed as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "T Eco off".
- Press "menu" to confirm.
- Enter the minutes with the + - keys.
- Press "menu" to confirm and "esc" to exit.

AUTO ECO MODE

For activation of the "Auto Eco" mode and time settings, see paragraphs f and g respectively.

The "ECO stop T" can be adjusted to ensure correct operation in the various environments in which the boiler can be installed and to avoid constant stopping and starting when the room temperature is subject to sudden change (draughts, poorly insulated rooms, etc.).

The ECO stop procedure is activated automatically when all the power recall devices included in the "system configuration" are satisfied: room temperature probe/external thermostat (configurations 1-2-3), flow switch (configuration 2), thermostat/ntc (10 kΩ B3435) puffer (configuration 4-5) or thermostat/ntc (10 kΩ B3435) storage cylinder (configuration 2-3). If all the devices present are satisfied, the "ECO stop T" time begins to decrease (10 minutes default, can be changed in the "Settings" menu). During this phase, the panel alternates between displaying ON with a small flame and Crono (if active) - Eco active. The minutes counting down to the Eco Stop are shown at the top of the display. The flame moves to P1 and remains there until the set "ECO stop T" time reaches zero, and if the conditions are still met, turns off the boiler. The ECO stop count is cancelled if one of the devices recalls power.

When the boiler begins to turn off, the panel shows: Off - Eco Active - flashing small flame.

When the boiler turns off, OFF-ECO appears on the display with the flame symbol off.

The following conditions have to be met simultaneously for the ECO to restart:

- Power recall
- 5 minutes have passed since shut-down.
- $T_{H_2O} < TSet_{H_2O}$.
- If the power is recalled by the domestic hot water (DHW), the 5' are ignored and the boiler starts up as required.

NOTE: In configuration 4 - 5 the Auto Eco mode is enabled automatically. Also when in configuration 2 - 3, with the 'summer' function set, it is enabled automatically. Where it is prescribed that it should be enabled, the mode cannot be disabled.

h - Pump on T

This option enables adjustment of the pump activation temperature.

Select the Pump On T function as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "Pump on T".
- Press "menu" to confirm.
- Use the + - keys to change the °C.
- Press "menu" to confirm and "esc" to exit.

11 - MENU ITEMS AND FUNCTION

i - Auxiliary boiler

An additional module (optional) must be installed to allow the start-up of an auxiliary boiler when the main boiler is off or has been stopped due to an alarm. The default settings have this function disabled. To enable the function, go to the settings menu.

l - Pellet Recipe

This function is for adapting the boiler to the type of pellet in use. As there are many types of pellet available on the market, the operation of the boiler can vary considerably according to the quality of the fuel. When the pellets clog up the brazier due to excess loading of fuel or when the flames are high even at low power, or when the flames are low, it is possible to decrease/increase the amount of pellets in the brazier:

Available values:

-3 = A decrease of 30% on the factory setting.

-2 = A decrease of 20% on the factory setting.

-1 = A decrease of 10% on the factory setting.

0 = No changes.

1 = An increase of 5% on the factory setting.

2 = An increase of 10% on the factory setting.

3 = An increase of 15% on the factory setting.

Edit the recipe as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "Pellet recipe"
- Press "menu" to confirm.
- Alter the % with the + - keys.
- Press "menu" to confirm and "esc" to exit.

k - Fumes rpm % ventilation

In the event the installation presents problems in extracting smoke (lack of draught or even pressure in the duct), it is possible to increase the smoke and ash extraction speed. This change resolves all the potential problems related to pellets clogging in the brazier and deposits forming at the bottom of the brazier itself caused by poor quality fuel or fuel that produces a lot of ash. The extraction speed may be altered between -30% and +50%, with increments of 10 percent at a time. Negative variation can be necessary if the flame is too low.

To alter this parameter, proceed as follows:

- Press the "menu" key.
- Use the arrow keys to scroll through and select "Settings"
- Press "menu" to confirm.
- Scroll with the arrows and select "Fumes rpm Var."
- Press "menu" to confirm.
- Alter the % with the + - keys.
- Press "menu" to confirm and "esc" to exit.

11 - MENU ITEMS AND FUNCTION

l - Maximum power

Allows you to set the maximum power limit of the flames which the boiler can use to reach the set target temperature.

Modify the power as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Scroll with the arrows and select “Maximum power”.
- Press “menu” to confirm.
- Change the power from 01 to 05 using the + - keys.
- Press “menu” to confirm and “esc” to exit.

m - Components test

This can be done only when the boiler is off and allows you to select the components to be tested:

- **Glw plug:** it is turned on for a fixed test period of 1 minute during which the panel displays the countdown in seconds.
- **Feed screw:** it is powered for a fixed period of 1 minute during which the panel displays the countdown in seconds.
- **Extractor:** it is activated at 2500 rpm for a fixed period of 1 minute during which the panel displays the countdown in seconds.
- **Heat exchanger:** enables you to conduct the test in V5 for a fixed period of 1 minute during which the panel displays the countdown in seconds.
- **Pump:** it is activated for a fixed period of 10 seconds during which the panel displays the countdown.
- **3-way valve:** the 3-way valve is activated for a fixed test period of 1 minute during which the panel displays the countdown in seconds.

Enable the “Component test” function (only with boiler off) as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Use the arrow keys to scroll through and select “Component test”
- Press “menu” to confirm.
- Use the + - keys to select the test to be carried out.
- Press “menu” to confirm and “esc” to exit.

n - Chimney sweep Function

This function can only be activated when the boiler is on and power is supplied, and it forces operation of the boiler at the parameters P5, with the ventilator (if present) in V5. Any corrections to the loading/smoke ventilation percentage must be read. This state lasts 20 minutes, the countdown is displayed on the panel. During this interval, the system ignores any thermostat/puffer/room set point/ H₂O set point values, only the safety shut-down at 85°C remains active. The technician can stop this phase at any moment by quickly pressing the on/off key. Enable the “Chimney sweeper” function as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Use the arrow keys to scroll through and select “Chimney sweeper function”
- Press “menu” to confirm.
- Use the + - keys to select “On” (Off by default)
- Press “menu” to confirm and “esc” to exit.

11 - MENU ITEMS AND FUNCTION

o - System configuration

This function allows you to set the type of hydraulic system that the product must manage.

To change the configuration of the system, proceed as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Use the arrow keys to scroll through and select “System configuration”
- Press “menu” to confirm.
- Use the + - keys to modify the configuration between 01 and 05.
- Press “menu” to confirm and “esc” to exit.

p - Season

In configurations 2 and 3, enabling the “summer” function disables deviation of the 3-way valve towards the heating system to prevent the radiators from heating up, and so the flow is always towards the domestic hot water (DHW).

Selecting the “summer” option automatically enables the auto-eco function (cannot be deactivated). The room temperature probe/ external thermostat are ignored.

Modify the function as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Use the arrow keys to scroll through and select “Season”
- Press “menu” to confirm.
- Use the + - keys to select “Summer” or “Winter”.
- Press “menu” to confirm and “esc” to exit.

q - Technical menu

To access the technical menu you must contact the service centre as it requires a password.

Access the “technical menu” as follows:

- Press the “menu” key.
- Use the arrow keys to scroll through and select “Settings”
- Press “menu” to confirm.
- Use the arrow keys to scroll through and select “Technical menu”
- Press “menu” to confirm.
- With the + - keys, select “Product Type”, “Service Hours”, “Parameters”, “DHW Parameters”, “Counter memories”, “Enable fan”, “Puffer menu”, “Adaptive Parameters” and “Max P1 Time”.
- Press “menu” to confirm and “esc” to exit.

11 - MENU ITEMS AND FUNCTION

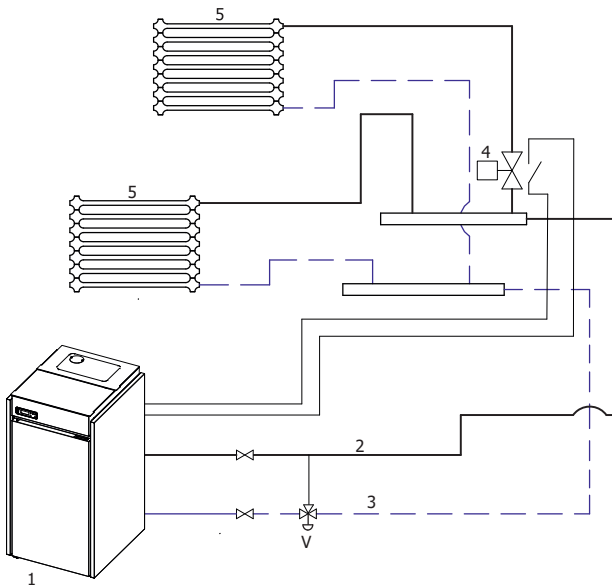
SYSTEM CONFIGURATIONS

At the time of installation, the product must be configured according to the type of system by selecting the relative parameter in the "SETTINGS" menu.

There are 5 possible configurations, described below:

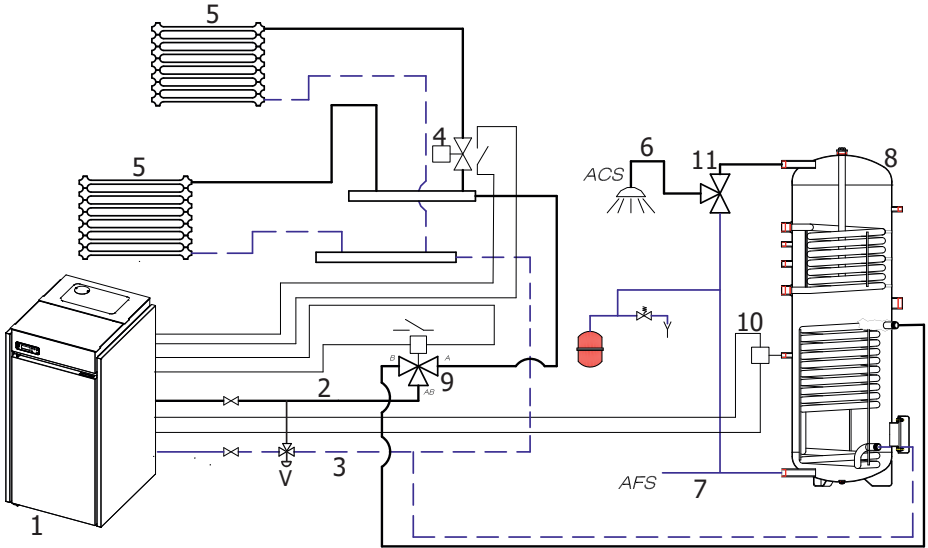
Configuration	Description
1	Room temperature control via boiler's on-board probe or by enabling external thermostat FACTORY SETTING
2	Room temperature control via boiler's on-board probe or enabling external thermostat; DHW production for storage cylinder or storage with thermostat (optional).
3	Room temperature control via boiler's on-board probe or enabling external thermostat; storage cylinder DHW production with NTC probe (10 kΩ B3435).
4	External Puffer controlled by thermostat.
5	External Puffer controlled by NTC probe (10 kΩ B3435).

CONFIGURATION 1 (FACTORY SETTING)

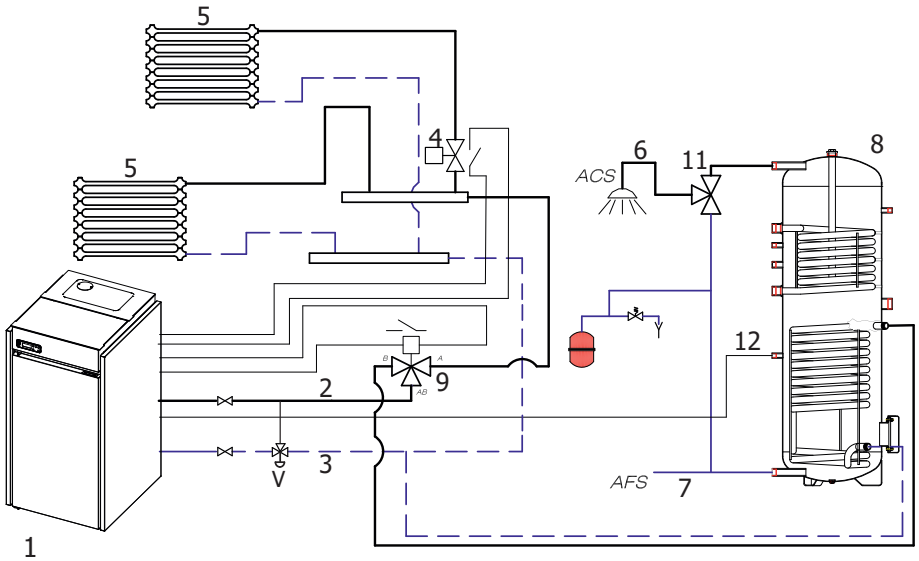


11 - MENU ITEMS AND FUNCTION

CONFIGURATION 2

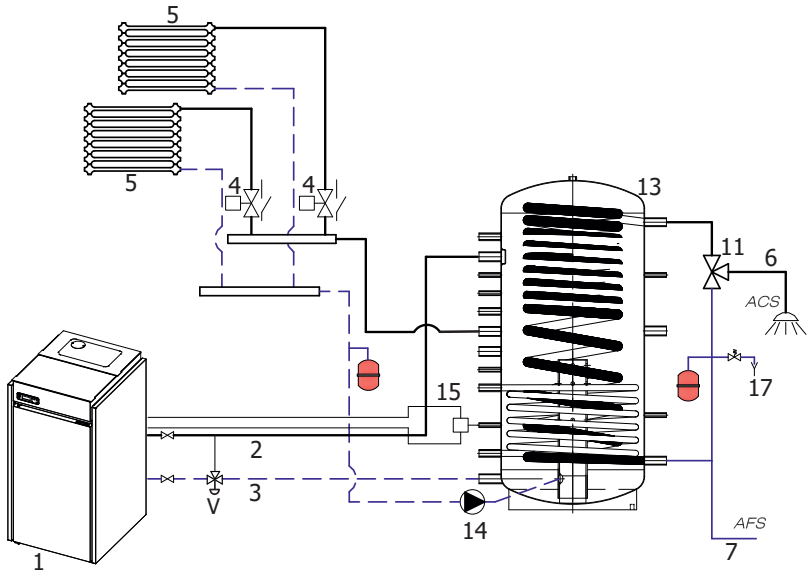


CONFIGURATION 3



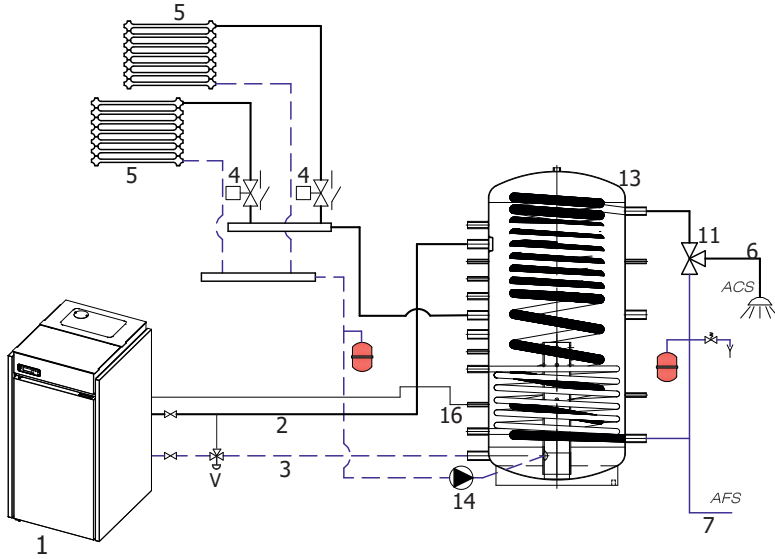
11 - MENU ITEMS AND FUNCTION

CONFIGURATION 4



11 - MENU ITEMS AND FUNCTION

CONFIGURATION 5



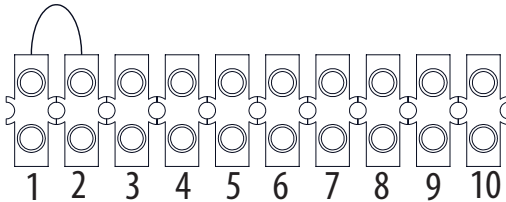
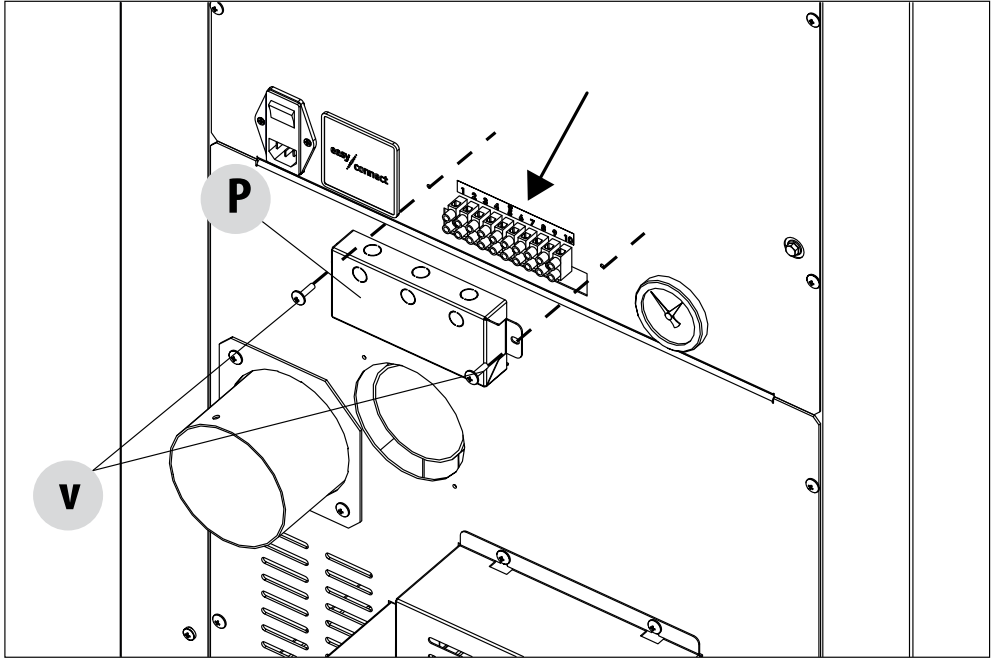
1	SELECTA 35Q S1
2	HEATING DELIVERY
3	HEATING RETURN
4	ZONE VALVE
5	HEATING BODIES
6	DOMESTIC HOT WATER
7	DOMESTIC COLD WATER
8	DOMESTIC HOT WATER STORAGE CYLINDER
9	DIVERTER VALVE
10	STORAGE CYLINDER THERMOSTAT
11	THERMOSTATIC MIXER VALVE
12	NTC PROBE 10 kΩ β3434 DOMESTIC HOT WATER
13	HEATING PUFFER
14	HEATING SYSTEM CIRCULATOR
15	PUFFER THERMOSTAT
16	NTC PROBE 10 kΩ β3434 PUFFER
17	SAFETY VALVE
V	THERMOSTATIC DIVERTER VALVE

11 - MENU ITEMS AND FUNCTION

OPERATING MODE

The operating mode for boilers is always AUTOMATIC (there is no manual operating mode available). Flame regulation is controlled according to the “System configuration” by the room temperature probe, by the external thermostat, by the temperature of the water in the boiler or by the NTC probes.

ELECTRICAL CONNECTIONS



CABLES 1-10 MAX LENGTH 3 METRES

TERMINAL BLOCK CONTACTS	
POS.1-2 EXTERNAL THERMOSTAT/PUFFER THERMOSTAT	POS.8 THREE-WAY VALVE NEUTRAL
POS.3-4 PUFFER/BOILER PROBE	POS.9 THREE-WAY VALVE PHASE (DHW)
POS.5 EARTHING	POS.10 THREE-WAY VALVE PHASE (heating)
POS.6-7 AUXILIARY BOILER (USE ACCESSORY AUXILIARY BOILER MODULE)	


11 - MENU ITEMS AND FUNCTION

START-UP

Press key **1** (esc) to start up the appliance. The display will show ON with the flashing flame symbol. When the flame stops blinking, the boiler has reached the operating condition for the "power supply".

The default target room temperature is set at 20°C. To change this setting, follow the instructions in the adjustments menu; do the same to set the heating water temperature and the speed of the ventilation fan. To activate an external thermostat, if present, see the dedicated paragraph.

POWER SUPPLY

When start-up is complete, the panel will display ON with a constant flame at level 3 . The modulation of the flame for higher or lower power is then controlled autonomously on the basis of the temperatures set in the "System configuration."

12 - SAFETY DEVICES AND ALARMS

SAFETY DEVICES

The product is fitted with the following safety devices

PRESSURE SWITCH

Monitors pressure in the smoke duct. It is designed to shut down the pellet feed screw in the event of an obstructed flue or significant back-pressure (from the wind).

SMOKE TEMPERATURE PROBE

Detects the temperature of the smoke, thereby enabling start-up or stopping the product when the temperature drops below the preset value.

CONTACT THERMOSTAT IN THE FUEL TANK

If the temperature exceeds the preset safety level, it immediately shuts down the running of the boiler.

CONTACT THERMOSTAT IN THE BOILER

If the temperature exceeds the preset safety level, it immediately shuts down the running of the boiler.

WATER TEMPERATURE SENSOR

When the water reaches the stop temperature (85°C) the probe automatically instructs the boiler to turn off "OFF Stand-by".

ELECTRICAL SAFETY

The boiler is protected against violent changes in current by a general fuse located in the control panel at the back of the boiler. Other fuses that protect the circuit boards are located on the latter.

SMOKE FAN

If the fan stops, the electronic board shuts off the supply of pellets in good time, and an alarm message is displayed.

GEAR MOTOR

If the gear motor stops, the boiler will continue to run until the flame goes out due to lack of fuel and until a minimum level of cooling is reached.

TEMPORARY POWER CUT

When a power cut is less than 10" the boiler returns to its previous operating state; if it is more, it executes a cooling/re-ignition cycle.

FAILED IGNITION

If the fuel fails to ignite during the start-up phase, the boiler will go into alarm status.

ANTI-FREEZE FUNCTION

If the probe in the boiler detects a water temperature of less than 5°C, the circulation pump is automatically activated to keep the system from freezing.

PUMP ANTI-SEIZURE FUNCTION

If the pump is not used for prolonged periods, it is activated periodically for a few seconds to keep it from seizing up.

12 - SAFETY DEVICES AND ALARMS



TAMPERING WITH THE SAFETY DEVICES IS PROHIBITED

If the product is **NOT** used as described in this instruction manual, the manufacturer declines all liability for any damage caused to persons and property. In particular:

- All the necessary measures and/or precautions must be adopted when performing maintenance, cleaning and repairs.
- Do not tamper with the safety devices.
- Do not remove the safety devices.
- Connect the product to an efficient smoke expulsion system.
- First, check that the environment where it is to be installed is properly ventilated.

Only after eliminating the cause of the intervention of the safety system is it possible to start the product back up. This manual will help you understand which anomaly has occurred, and explain how to intervene according to the alarm message displayed on the appliance.

Boiler stop

The following conditions may cause the boiler to be stopped:

- Overheating of the structure and pellet tank
- Overheating of the water in the boiler
- High pressure of the outlet fumes (read on the pressure switch) and possible obstruction of the outlet.

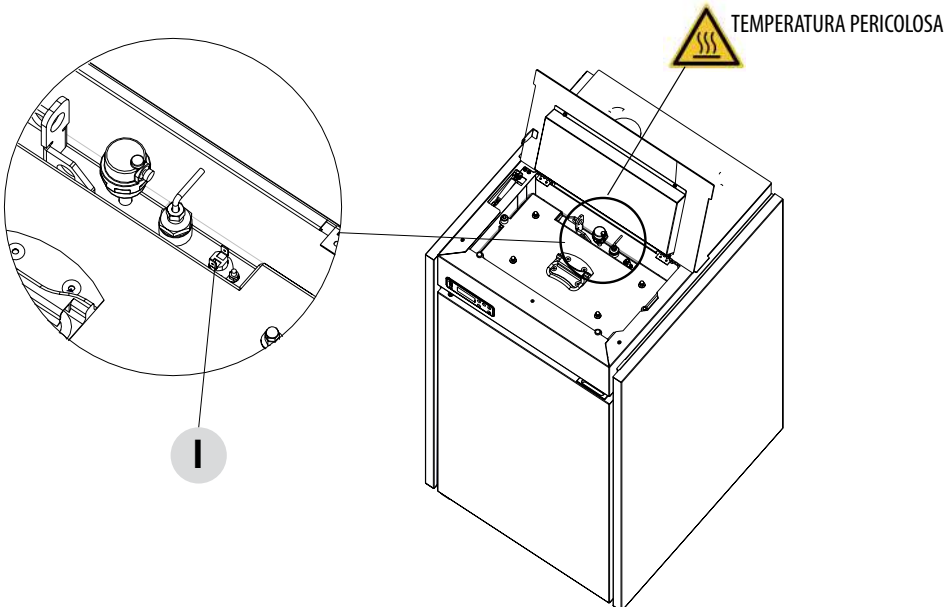
The control panel will indicate the cause of the alarm and sound an acoustic warning.

In this situation, the automatic shut-down sequence is activated.

When this sequence is initiated, any attempt to restart the system will be ineffective.

Safety thermostat with manual rearming at 85°C

The boiler enters a safety ALARM state called "A03" Thermostat alarms, caused by high water temperature. To reset the thermostat and cancel the alarm, lift the front lid and, with a non-metal tool and without removing the rubber cap covering the thermostat, press the button to reset it. You will hear a click from the thermostat, which means it has been reset.



12 - SAFETY DEVICES AND ALARMS

ALARM SIGNALLING

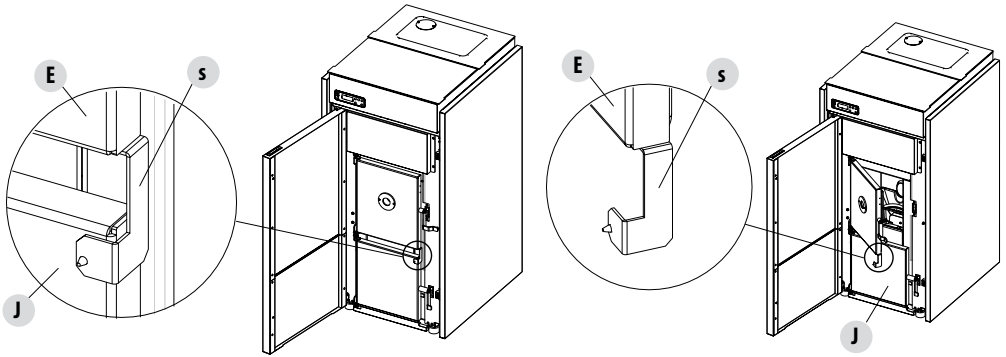
When a condition occurs other than the one expected for regular operation of the boiler, an alarm is triggered.

The reason for the alarm is given on the control panel. The sound signal is not enabled for alarms A01-A02 in order not to disturb the user when there is an absence of pellets in the tank during the night.

Panel signalling	Type of problem	Solution
A01	The fire does not ignite.	Check the level of pellets in the tank. Check that the brazier is correctly positioned in its seat and has no build-up or unburnt material. Make sure the glow plug warms up. Thoroughly empty and clean the brazier before restarting.
A02	The fire goes out abnormally.	Check the level of pellets in the tank.
A03 Thermostats alarm	The temperature of the pellet tank or the water temperature exceed the envisaged safety threshold.	Wait until the end of the cooling phase, stop the alarm and re-ignite the boiler setting the supply of fuel to minimum (SETTINGS menu - pellet recipe). If the alarm persists, contact the service centre.
A04	Smoke overtemperature.	The set smoke threshold has been exceeded. Reduce the load of pellets (SETTINGS menu - Pellet recipe).
A05 Pressure switch alarm	Fumes pressure switch intervention or water pressure insufficient.	Check for chimney obstructions / door open or the pressure of the hydraulic system.
A08	Anomalous operation of smoke fan.	If the alarm persists, contact the service centre.
A09	Fault with the smoke sensor.	If the alarm persists, contact the service centre.
A12	TRIAC feed screw failure	If the alarm persists, contact the service centre.
A18	Water overtemperature	Triggers when the water temperature exceeds 92°C, the product will shut down.
A19	Water probe fault.	Water sensor detached / interrupted / defective / not recognised.
A20	Puffer probe alarm.	Puffer probe detached / interrupted / defective / not recognised.
A21	Fault to electronic supply system of the feed screw motor	Cancel the alarm. If it repeats itself, contact an authorised service centre.
Service	Routine maintenance warning (does not seize)	When this blinking message appears upon start-up, it means it is time to carry out scheduled maintenance. Call the service centre.

12 - SAFETY DEVICES AND ALARMS

ALARM A05 TRIGGERED



A bracket "s" is fastened below the door of the firebox "E" preventing the lower door "J" from opening if the firebox door "E" is closed. The firebox door "E" has a control device that blocks operation of the boiler if the door remains open. The alarm A05 is activated.

12 - SAFETY DEVICES AND ALARMS

ALARM RESET



NEVER open the stove door whilst it is either in the initial ignition or on its shut down cycle, pellets will still be smouldering or therefore volatiles may be present.

ATTENTION!

If during operation or initial ignition you encounter combustion smoke leakage into the room from the appliance or the flue, then please switch off the appliance, ventilate the room and contact the installation / service technician immediately.

To reset the alarm, press and hold key 1 (ESC) for a few seconds. The boiler checks whether or not the cause of the alarm is ongoing.

In the first case, the alarm continues to be displayed, in the second case it turns OFF.

If the alarm persists, contact a service centre.

NORMAL SHUTDOWN (on the panel: OFF with flashing flame symbol)

When the shutdown key is pressed, or when there is an alarm signal, the boiler enters the thermal extinguishing phase which involves automatic execution of the following phases:

- Stop pellet loading
- The smoke extractor fan is activated at maximum speed and remains on for a fixed period of 10 minutes, at the end of which if the smoke T has dropped below the stop threshold, the fan stops, otherwise it will continue to operate at minimum speed until the temperature drops below the threshold.
- If the boiler has been shutdown regularly but, due to thermal inertia, the smoke temperature exceeds the threshold again, the shutdown phase will be repeated at minimum speed until the temperature falls.

BLACKOUT with boiler ON

In the event of a blackout, the boiler does the following:

- Power failure of less than 10'': continues the work in progress;
- After a loss of power of more than 10'' which occurred when the boiler was on, or during ignition, you can restore the boiler to its previous operating condition when power returns as follows:

1. Cool the boiler by activating the smoke extractor at minimum speed for 10' then proceed to the next step;
2. Restore the boiler to the operating condition prior to the blackout.

During phase 1, the panel shows ON BLACK OUT.

During phase 2, the panel shows Ignition.

If during phase 1 the boiler receives manual user commands from the control panel, it stops the blackout restoration sequence and begins the ignition or shutdown commanded by the user.

BLACKOUT OF MORE THAN 10'' DURING EXTINCTION OF BOILER

If there is a power loss EXCEEDING 10'' while the boiler is shutting down, when power is restored the boiler will automatically turn on in shutdown mode, even if the smoke temperature has fallen below 45°C in the meantime. This phase can be skipped by pressing key 1 (esc) (skips to ignition) and pressing it again (recognises that the boiler is off).

13-RECOMMENDATIONS FOR SAFE USE



ONLY CORRECT INSTALLATION AND APPROPRIATE MAINTENANCE AND CLEANING OF THE APPLIANCE CAN GUARANTEE CORRECT OPERATION AND SAFE USE OF THE PRODUCT

We would like to inform you that we are aware of cases of malfunctioning of domestic pellet-fuelled heating products, mainly due to incorrect installation and inappropriate maintenance.

We would like to assure you that all of our products are extremely safe and certified according to European standards of reference. The ignition system has been tested with the utmost attention to enhance ignition efficiency and to prevent any type of problem, even in the worst operating conditions. In any case, like for any other pellet-fuelled product, our appliances must be installed correctly and undergo regular periodical cleaning and maintenance to guarantee safe operation. Our studies show us that malfunctioning is mainly due to the combination of part or all of the following factors:

- Brazier holes obstructed or brazier deformed, due to lack of maintenance and conditions which can cause delayed ignitions, generating an anomalous production of unburnt gases.
- Insufficient combustion air due to a reduced or clogged air inlet duct.
- Use of smoke ducts nonconforming to regulatory installation requirements, failing to guarantee an adequate draught.
- Partially clogged chimney, due to lack of maintenance, reducing the draught and making ignition difficult.
- End chimneypot nonconforming to the indications of the instruction manual, and therefore not suitable to prevent potential inverse draught.
- This factor is crucial when the product is installed in especially windy areas, such as coastal regions.

The combination of one or more of these factors could generate important malfunctioning conditions.

To keep this from occurring, it is fundamental to guarantee that the product is installed in compliance with standards in force.

Furthermore it is of the utmost importance to respect the following simple rules:

- Every time the brazier is removed for cleaning, it must always be put back properly in the work position before using the product, completely removing any residual filth left on the support base.
- Pellets must never be loaded in the brazier manually, either before ignition or during operation.
- The accumulation of unburnt pellets ensuing a failed ignition must be removed before repeating ignition. Also check that they are fed correctly and that the combustion air inlet/smoke outlet are regular.
- If ignition fails repeatedly, immediately suspend use of the product and contact a qualified technician to check its operation.

Compliance with these indications is absolutely sufficient to guarantee proper operation and to avoid any type of problems with the product.

If the above-mentioned precautions are not taken, and during ignition the brazier is overloaded with pellets thus generating anomalous smoke in the combustion chamber, carefully follow the indications below:

- Do not disconnect electrical power to the product for any reason whatsoever: this would stop the smoke extractor, releasing smoke into the environment.
- Take the precaution of opening the windows to ventilate the installation room from any smoke in the environment (the chimney might not work properly).
- Do not open the fire door: this would compromise regular operation of the smoke extraction system to the chimney.
- Just switch the boiler off by acting on the on-off button on the control panel (not the rear power supply socket button!) and move away until smoke has completely evacuated.
- Before attempting re-ignition, clean the brazier and its air passage holes completely of all deposits and unburnt pellets. Put the brazier back in place, removing any residue from its support base. If ignition fails repeatedly, immediately suspend use of the product and contact a qualified technician to check its operation and the chimney.

14 - MAINTENANCE AND CLEANING



Disconnect the product from the 230V power supply before performing any maintenance operations.

DAILY OR WEEKLY CLEANING PERFORMED BY THE USER

If the pellets in the tank run out, unburnt pellets may accumulate in the brazier.

Check the status of your brazier every 15 days.

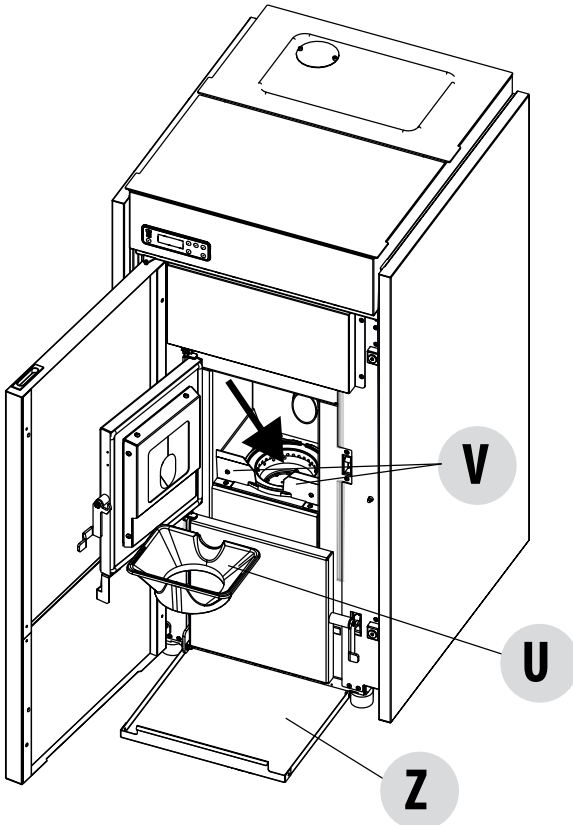
The automatic cleaning system means you don't have to empty the brazier. However, if there are pellets with a very high ash residue this system may not be enough.

We therefore recommend adjusting the checks to the kind of fuel you are using. MCZ recommends using A1 class pellets with an ash residue of less than 0.7%.



REMEMBER THAT ONLY A BRAZIER THAT IS CLEANED CORRECTLY CAN GUARANTEE SAFE IGNITION AND OPTIMAL OPERATION OF YOUR PELLET PRODUCT. IN CASE OF FAILED IGNITION AND AFTER ANY OTHER LOCKOUT STATUS OF THE PRODUCT, IT IS ESSENTIAL TO EMPTY THE BRAZIER BEFORE STARTING IT BACK UP AGAIN.

For the brazier to be cleaned properly, remove the ash from its housing and thoroughly clean all the holes and the grate on the bottom. If high quality pellets are used, you will normally only need to use a brush to restore the optimal operating conditions of the component. To properly vacuum the ash, you may remove the brazier "U" by taking it out of its housing, the deflector "V" can remain screwed onto the structure. To collect any ash which might drop from the brazier, it is recommended to open the lower ash pan "Z"



14 - MAINTENANCE AND CLEANING

CLEANING THE ASH PAN

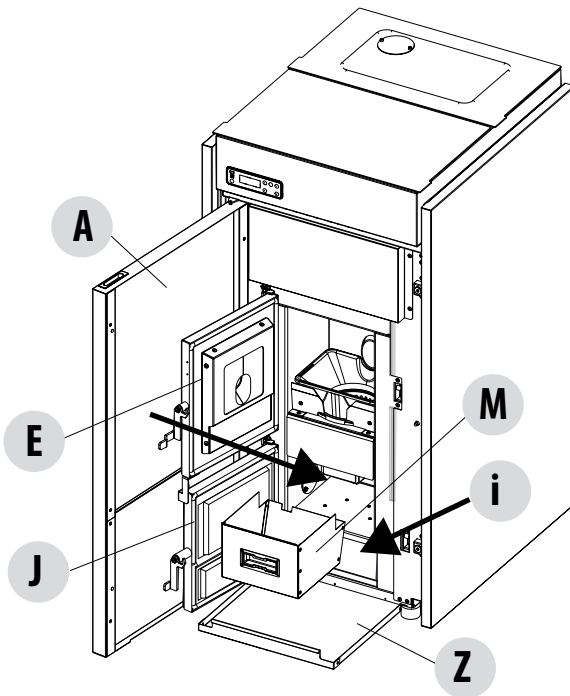
You must remove the ash pan "M" of the boiler and empty the ash at least every two weeks. To do so you must open the door of the boiler, open the lower door "J", remove the ash pan "M" and empty it. Wipe away any ash residue and reinsert the pan. Also vacuum the lower compartment. The quality of the pellets used and user experience will determine the required cleaning frequency.



Attention! To collect any ash which drops when the doors are opened or when removing the ash pan "M" or brazier, it is recommended to extract the lower ash pan "Z"



Attention! The lower door must only be opened after having opened the top firebox door. The upper door is equipped with a device that blocks operation of the boiler.



14 - MAINTENANCE AND CLEANING

CLEAN THE HEAT EXCHANGER AND THE COMPARTMENT BENEATH THE BRAZIER EVERY 2/3 DAYS

Cleaning the heat exchanger and the compartment beneath the brazier is a simple operation but very important if the boiler is to maintain optimal performance.

We therefore recommend cleaning the internal heat exchanger every 2-3 days, performing these simple operations in sequence:

- **Activate the "CLEANING" function** - with the boiler off press - menu, select "Settings", with the arrows <> select "Cleaning", confirm with the "Menu" key, activate the cleaning "ON" with the + - keys. This procedure starts the smoke extractor on the maximum setting to expel the soot that becomes dislodged when the heat exchanger is cleaned.
- **Clean the pipe unit** - Using handle "U"; shake the rods located under the front boiler cover vigorously 5-6 times. This should remove the soot that has deposited on the smoke ducts of the heat exchanger during normal use of the boiler (**fig.1**).
- **Deactivate the "CLEANING" function** - this function is deactivated automatically after two minutes. If you need to stop the function sooner, press the "Esc" key.
- **Clean the smoke conveyor compartment (fig.2)** - The boiler is equipped with a removable ash pan "M" which collects any accumulations of soot and ash.
- When done cleaning, close the cover and ash pan.



If cleaning is not done every 2-3 days, the boiler could go into alarm caused by ash clogging after a few hours of operation.

Figure 1

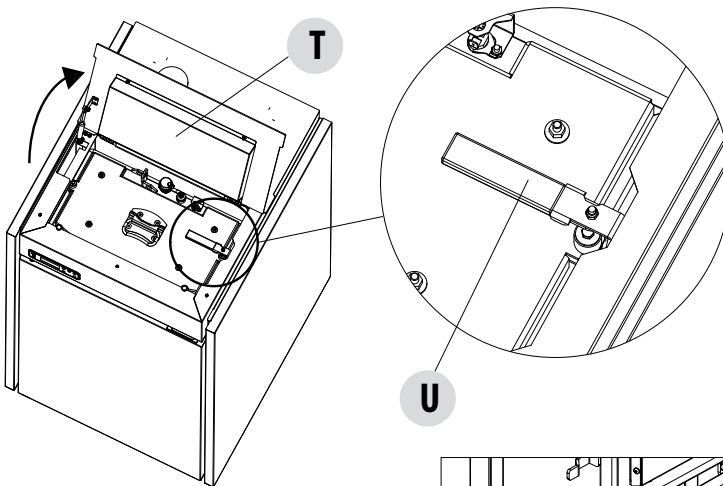
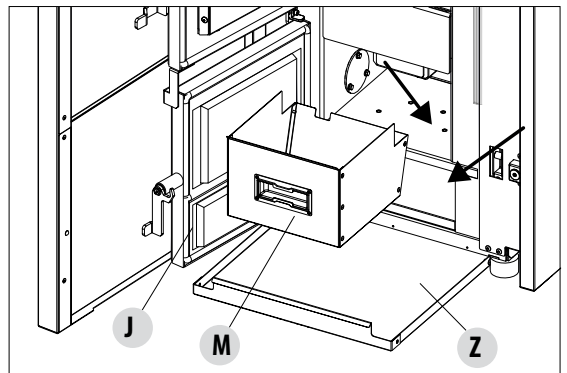


Figure 2



14 - MAINTENANCE AND CLEANING

PERIODIC CLEANING PERFORMED BY A QUALIFIED TECHNICIAN

CLEANING THE HEAT EXCHANGER AND PIPE UNIT

CLEANING THE UPPER COMPARTMENT

When the boiler has cooled down, lift the front cover "T"; undo the two screws "I" on the cover "H". Remove the two screws "L" and take off the cover "H" using the two side handles.

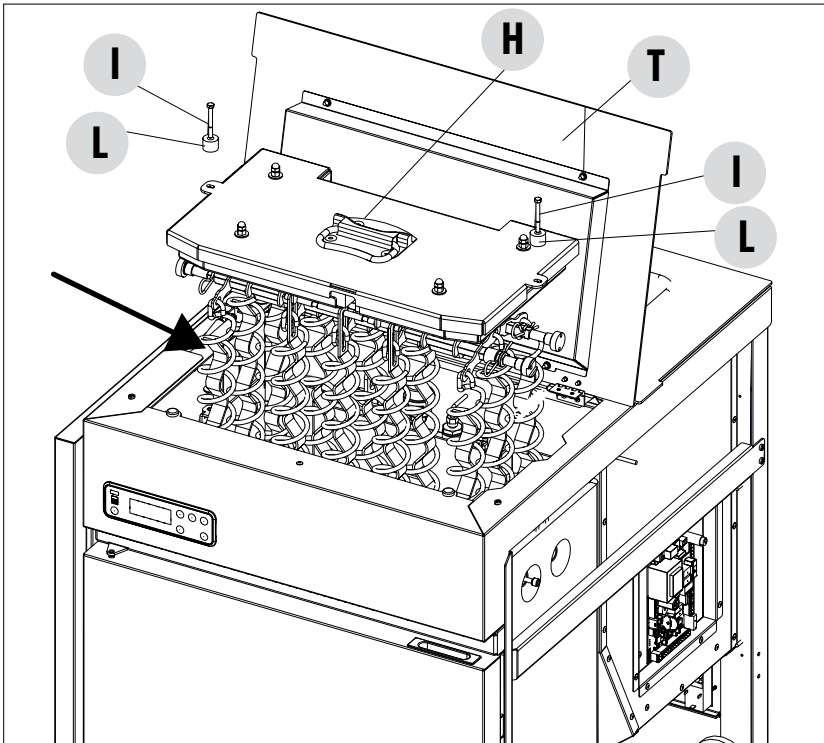
Remove the two turbulators and, using a stiff rod or a bottle brush, clean the internal pipe unit and the turbulators, removing all the accumulated ash.

Check the cover seal and replace it if necessary.

After having cleaned the heat exchanger clean the lower compartment.



ATTENTION: It is obligatory to have an authorised and skilled technician perform the periodic end-of-season cleaning in order to replace any worn gaskets.



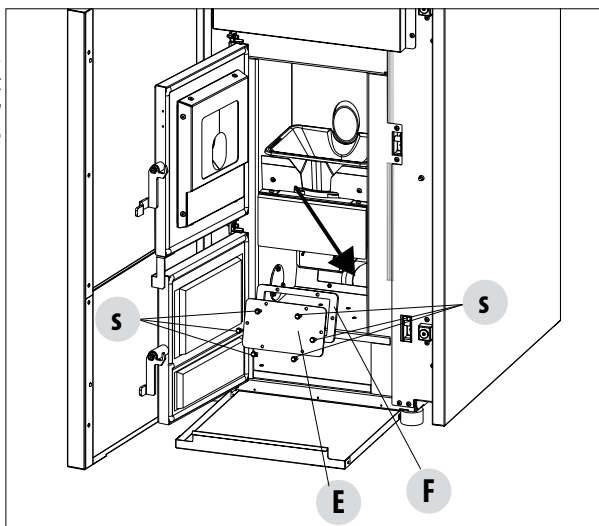
14 - MAINTENANCE AND CLEANING

CLEANING THE SMOKE EXTRACTOR COMPARTMENT

In the area behind the ash pan "M", there is the smoke cap "Q", which must be removed to clean the smoke extractor. Therefore:

- loosen the screws "s"
- remove the smoke cap "Q"

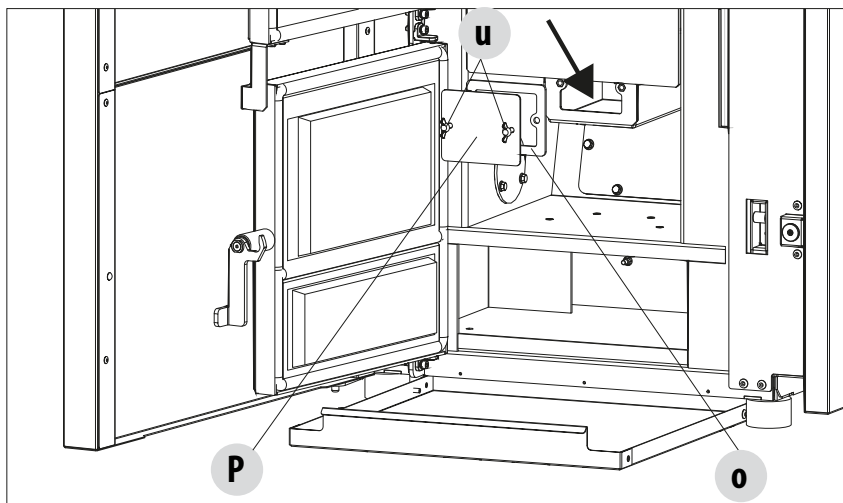
Now, using the nozzle of a vacuum cleaner, remove any ash and soot that may have built up in the lower heat exchanger indicated by the arrow. Before putting the cap "Q" back, we recommend changing the gasket "O".



CLEANING COMPARTMENT UNDERNEATH BRAZIER

- Remove the ash pan "M":
- loosen the screws "s"
- remove the cap "P"

Now, using the nozzle of a vacuum cleaner, remove any ash and soot that may have built up in the lower exchanger indicated by the arrow. Before putting the cap "P" back on, it is recommended to change the gasket "o".



14 - MAINTENANCE AND CLEANING

CLEANING THE SMOKE EXPULSION SYSTEM AND GENERAL CHECKS

Clean the smoke outlet system, especially around the “Tee” fittings, elbows and any horizontal sections of the smoke duct. For information on periodically cleaning the flue, contact a skilled chimney sweep. If necessary, order new replacement gaskets from the retailer or contact an authorised service centre to carry out the operation.



ATTENTION:

The frequency with which the smoke outlet system must be cleaned depends on the use of the boiler and the type of installation.

We recommend relying on an authorised service centre for end-of-season cleaning and maintenance. They will carry out all of the previously mentioned work and make a general check of the stove's components.

SHUTDOWN (end of season)

At the end of each season, before switching the product off, it is recommended to remove all the pellets from the tank with a vacuum cleaner with a long pipe.

We recommend removing the unused pellets from the tank because it can retain moisture. Disconnect any combustion air ducting that can lead moisture inside the combustion chamber but, above all, ask the specialised technician to refresh the paint inside the combustion chamber with the special silicone spray paints (available at any store or Technical Assistance Centre) during the necessary annual end of season scheduled maintenance operations. This way the paint will protect the inner parts of the combustion chamber, blocking any type of oxidative process.

When not in use the appliance must be disconnected from the mains power supply. It is recommended to remove the power cable for additional safety, especially in the presence of children.

The service fuse may have to be replaced if the control panel display does not switch on when the product is switched on again by pressing the main switch on its side.

There is a fuse compartment on the back of the product, under the power socket. After having disconnected the plug from the socket, use a screwdriver to open the cover of the fuse compartment and, if necessary, replace them (3.15 A delayed).

14 - MAINTENANCE AND CLEANING

REPLACING THE OVERPRESSURE DISCHARGE FOR THE COMBUSTION CHAMBER

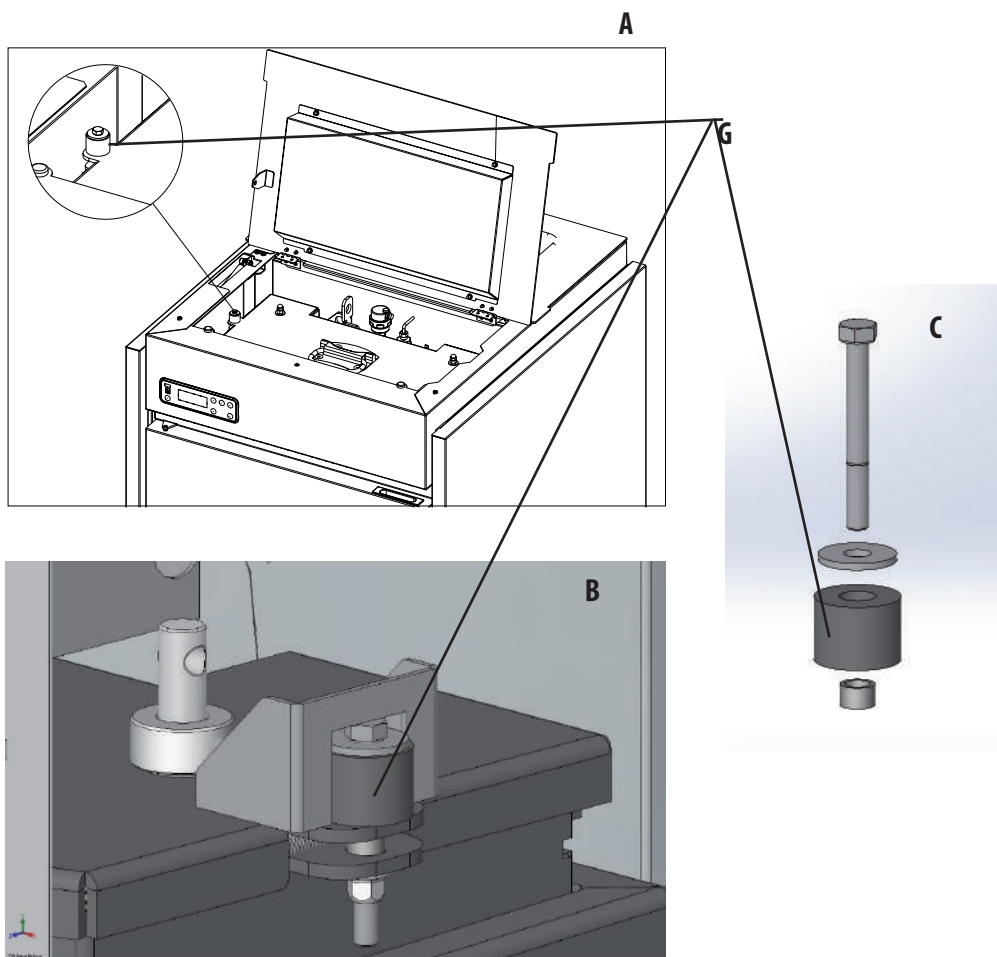
Overpressure rubber bushing "G" of the combustion chamber (fig. A) may get worn and/or damaged, it is therefore necessary to replace it once a year to ensure correct system operation.

To replace it, follow the instructions below

- Remove the top
- Remove the first ceramic panel of the side cladding or the steel panel (depending on the type of stove)
- Unscrew the screw-washer-rubber bushing-roller shown in figure A/C (on both sides of the cover). It is now possible to assemble the new kit:
- Prepare the screw-washer-rubber bushing-roller aligned as shown in fig. C and screw them into the structure.
- Tighten the screw all the way.

Now ensure that the compression of the rubber bushing is correct using the template supplied with the kit:

- Place the template on the cover (fig. B); the head of the screw must be touching the element above it. If necessary, tighten or loosen the screw so that it is touching the upper element.



14 - MAINTENANCE AND CLEANING

CHECKING THE INTERNAL COMPONENTS



ATTENTION!

The internal electromechanical components must only be checked by qualified personnel whose technical expertise includes combustion and electricity.

We recommend that an annual maintenance service is carried out (with a scheduled service contract). This service is essentially a visual and functional inspection of the internal components. The following is a summary of the checks and/or maintenance that are essential for the correct operation of the product.

Cleaning under the user's responsibility

PARTS/INTERVAL	15 DAYS	30 DAYS	90 DAYS
Brazier	•		
Ash pan	•		
Lower compartment		•	•
Fire door porthole	•		
Turbulators	•		

Cleaning performed by the qualified Technician

PARTS/INTERVAL	1 YEAR
Complete heat exchanger	•
Smoke duct	•
Door gasket	•
Internal parts	•
Flue	•
Circulation pump	•
Plate heat exchanger	•
Plumbing components	•
Electro-mechanical components	•
Overpressure silicon damper for combustion chamber	•

CLEANING THE CONTROL PANEL DISPLAY



ATTENTION!!

THE PANEL DISPLAY IS VERY DELICATE, IT IS SUPPLIED WITH A PROTECTIVE FILM.

RECOMMENDATIONS FOR CLEANING:

Clean using a soft cotton cloth, which should be dry or slightly moist. Do not use aggressive detergents or polyester materials. Do not use abrasive sponges or powder detergents nor solvents such as alcohol and petrol, since they may damage the surface of the device.

15 - TROUBLESHOOTING

CHECKING THE INTERNAL COMPONENTS



ATTENTION:
GUIDE FOR THE EXCLUSIVE USE OF THE SPECIALISED TECHNICIAN

ATTENTION:

All repairs must be carried out exclusively by a specialised technician, while the boiler is completely cold and the electric plug is disconnected. The operations in bold type must be carried out by specialised personnel. The manufacturer will not be liable and the guarantee is invalidated if this condition is not respected.

ANOMALY	POSSIBLE CAUSES	SOLUTIONS
The pellets are not fed into the combustion chamber.	The pellet tank is empty	Fill the tank with pellets
	Sawdust has blocked the feed screw	Empty the tank and remove the sawdust from the feed screw by hand
	Faulty gear motor	<i>Replace the gear motor</i>
	Faulty electronic board	<i>Replace the circuit board</i>
The fire goes out or the boiler stops automatically.	The pellet tank is empty	Fill the tank with pellets
	The pellets are not fed	See the previous anomaly
	The pellet temperature safety probe has been triggered	Let the boiler cool down, reset the thermostat until the problem is resolved and switch the boiler back on. If the problem persists contact Technical Assistance.
	The door is not closed properly or the gaskets are worn	<i>Close the door and replace the gaskets with original ones</i>
	Unsuitable pellets	Change the type of pellets with those recommended by the manufacturer
	Low pellet supply	<i>Check the flow of fuel following the instructions in the booklet.</i>
	The combustion chamber is dirty	Clean the combustion chamber, following the instructions in the booklet
	Clogged outlet	Clean the smoke duct
	Faulty smoke extraction motor	<i>Check the motor and replace it, if necessary</i>
Pressure switch broken or defective.	<i>Replace the pressure switch.</i>	

15 - TROUBLESHOOTING

ANOMALY	POSSIBLE CAUSES	SOLUTIONS
The boiler runs for a few minutes and then goes out.	Ignition phase is not completed	Repeat ignition
	Temporary power cut	Wait for the automatic restart
	Clogged smoke duct	Clean the smoke duct
	Faulty or malfunctioning temperature probes	<i>Check and replace the probes</i>
	Faulty glow plug	<i>Check the glow plug and replace it, if necessary</i>
Pellets accumulate in the brazier, the glass of the door gets dirty and the flame is weak	Insufficient combustion air	Clean the brazier and check that all the holes are clear. Perform a general cleaning of the combustion chamber and the smoke duct. Check that the air inlet is not obstructed.
	Damp or unsuitable pellets	Change the type of pellets
	Faulty smoke evacuation motor	<i>Check the motor and replace it, if necessary</i>
The smoke evacuation motor does not work	No electrical supply to the boiler.	Check the mains voltage and the protection fuse
	The motor is faulty	<i>Check the motor and capacitor and replace them, if necessary</i>
	Defective motherboard	<i>Replace the electronic board</i>
	Control panel broken	<i>Replace the control panel</i>
In the automatic position the boiler always runs at full power.	Thermostat is set to minimum	Reset the temperature of the thermostat.
	Room thermostat in position that always detects cold.	Reposition of the probe
	Malfunctioning temperature probe.	<i>Check the probe and replace it if necessary.</i>
	Faulty or malfunctioning control panel.	<i>Check the panel and replace if necessary.</i>

15 - TROUBLESHOOTING

The boiler does not run	No power supply	Check that the plug is inserted and the main switch is in the "I" position.
	Pellet probe stop	<i>Cancel stoppage by changing the setting of the rear thermostat. If the problem persists, request assistance.</i>
	Blown fuse	Replace the fuse.
	Pressure switch broken (lockout indicated).	Insufficient pressure of water in boiler
	Clogged smoke outlet or smoke duct.	Clean the smoke outlet and/or the smoke duct.
	Water temperature sensor triggered	Call for assistance

ANOMALIES RELATED TO THE HYDRAULIC CIRCUIT

No increase in temperature with boiler in operation	Incorrect combustion adjustment.	Check recipe and parameters.
	Boiler / system dirty.	Check and clean the boiler.
	Insufficient boiler power.	Check that the boiler is properly sized for the requirements of the system.
	Poor pellet quality	Use quality pellets.
Condensation in boiler	Incorrect temperature setting.	<i>Set the boiler to a higher temperature.</i>
	Insufficient fuel consumption.	<i>Check the recipe and/or technical parameters.</i>
Radiators cold in winter	Room thermostat (local or remote) set too low. If remote thermostat, check if it is defective.	<i>Set to higher temperature or replace (if remote).</i>
	Circulator does not run because blocked.	<i>Free up the circulator by removing the plug and turning the shaft with a screwdriver.</i>
	Circulator does not run.	<i>Check the electrical connections of the circulator; replace if necessary.</i>
	Radiators have air in them	<i>Vent the radiators</i>



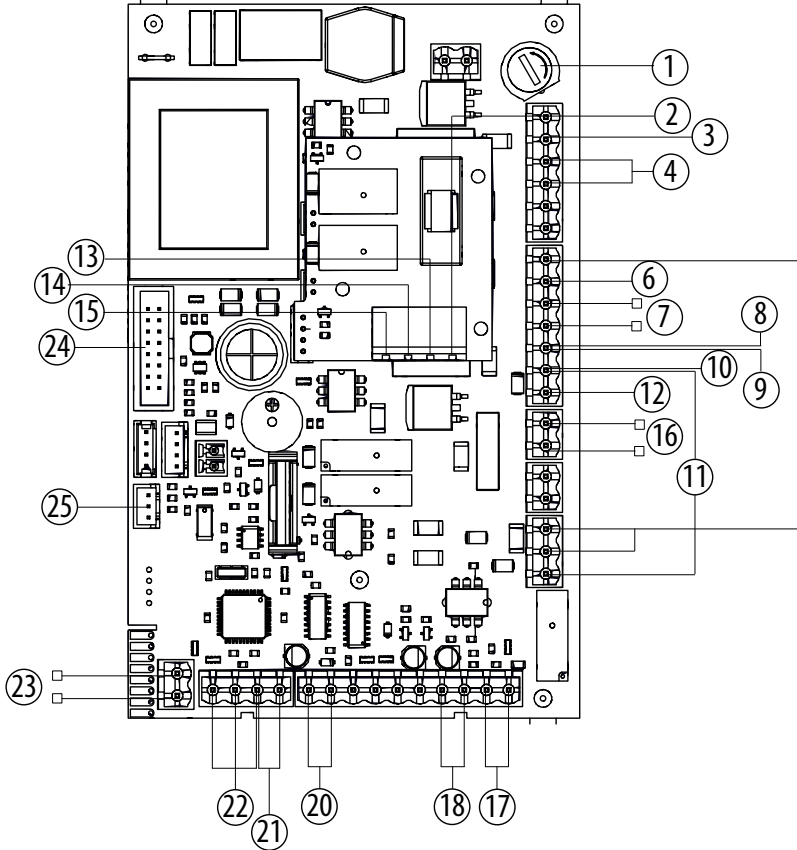
ATTENTION!

The operations in italics must be carried out by specialised personnel.

The manufacturer will not be liable and the guarantee is invalidated if this condition is not respected.

16 - WIRING DIAGRAM

MOTHERBOARD WIRING KEY



- | | |
|------------------------------|--|
| 1. FUSE | 14. 3-WAY VALVE PHASE (DHW) |
| 2. BOARD PHASE | 15. 3-WAY VALVE PHASE (HEATING) |
| 3. BOARD NEUTRAL | 16. AUXILIARY BOILER CONNECTION (TERMINAL BLOCK) |
| 4. SMOKE EXTRACTOR | 17. SMOKE PROBE |
| 5. ----- | 18. EXTERNAL THERMOSTAT CONNECTION (TERMINAL BLOCK) |
| 6. WATER SAFETY THERMOSTAT | 19. ----- |
| 7. GLOW PLUG | 20. PUFFER/BOILER PROBE CONNECTION (TERMINAL BLOCK) |
| 8. PELLET SAFETY THERMOSTAT | 21. BOILER WATER TEMPERATURE PROBE |
| 9. AIR PRESSURE SWITCH | 22. SMOKE EXTRACTOR FAN REV CONTROL |
| 10. WATER PRESSURE GAUGE | 23. STORAGE CYLINDER FLOW SWITCH OR THERMOSTAT TO CONNECT TO THE HYDRAULIC KIT (ACCESSORY) |
| 11. FEED SCREW | 24. CONTROL PANEL |
| 12. PUMP/3-WAY VALVE NEUTRAL | 25. EASYCONNECT |
| 13. PUMP PHASE | |

PLEASE NOTE The electrical wiring of individual components is fitted with pre-wired connectors of different sizes.



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