STAR-EGO-SUITE-CLUB-MUSA _ mod.HYDRO

UK

USE AND MAINTENANCE MANUAL*

*Some installation advice given in this manual could contravenes UK building regulations guidelines. A supplementary instruction manual in provided to give correct advice for installations within the UK"

active system

MCZ GROUP S.p.A. - Via La Croce 8, I - 33074 Vigonovo di Fontanafredda (PN) Italy.

CE 09

EN 14785 - 2006

Art. 15a B-VG / BImSchV / VKF AEAI

EGO HYDRO / STAR HYDRO

Potencia nominal (agua - aire): **Potência nominal (água - ar):** **Nominal heat output (water - air):** **Brændværdi (vand - luft):**	Max 11,6kW (10,0kW - 1,6kW) Min 3,6kW (2,5kW - 1,1kW)
Emisión CO (al 13% de O2): **Emissão CO (13% de O2):** **CO emission (at 13% O2)** **CO emission (ved 13% O2):**	P max 0,011% P min 0,034%
Eficiencia: **Eficiencia:** **Efficiency:** **Virkningsgrad:**	P max 91,5% P min 96,0%
Temperadura humos: **Tempretura dos fumos:** **Flue gas temperature:** **Røggastemperatur:**	140 °C
Partículas dispersadas **Partículas** **Dust** **Støv**	11 mg/Nm3 (13% O2) 7 mg/MJ
Presión máxima de agua: **Pressão máxima da água:** **Permissible max. water pressure:** **Max. vandtryk:**	2,5 bar
Asorbimiento electrico max: **Potência electrica absorbida:** **Max. electrical power supply:** **Max. elektrisk effekt:**	420 W (Med. 80 W)
Tensión de funcionamiento: **Tensão electrica funcionamento:** **Rated voltage:** **Netspænding:**	230 V - 50 Hz.
Distancias de seguridad (retro): **Distancia de segurança (trasiera):** **Safety clarence distance (back):** **Sikkerhedsafstand (bag):**	100 mm
Distancias de seguridad (laterales): **Distancia de segurança (lateral):** **Safety clarence distance (side):** **Sikkerhedsafstand (side):**	100 mm

Producto conforme a la instalación de tubos múltiples. Produto conforme para instalação em condutas multiplas. Appliance suitable for installation in a shared flue. Apparatet kan bruges i en røggassamleledning.

Utilizar sólo con combustibles adaptados. Utilizar somente combustivel adaquado. Use only recommended fuels. Anvend kun anbefalede brændsler.

Leer y seguir las instrucciones! Leia atentamente e siga as instruções! Leggere e seguire le istruzioni! Read and follow the operating instructions! Følg fabrikantens brugervejledning!

COD: 8900907600

MCZ GROUP S.p.A. - Via La Croce 8, I - 33074 Vigonovo di Fontanafredda (PN) Italy.

CE 10

EN 14785 - 2006

Art. 15a B-VG / BImSchV / VKF AEAI

Regensburger und Münchener BStV erfüllt.

SUITE HYDRO 15 / CLUB HYDRO 15 / MUSA HYDRO 15

Potencia nominal (agua - aire): **Potência nominal (água - ar):** **Nominal heat output (water - air):** **Brændværdi (vand - luft):**	Max 15,4kW (13,0kW - 2,4kW) Min 4,4kW (3,0kW - 1,4kW)	
Emisión CO (al 13% de O2): **Emissão CO (13% de O2):** **CO emission (at 13% O2)** **CO emission (ved 13% O2):**	P max P min	0,011% 0,040%
Eficiencia: **Eficiencia:** **Efficiency:** **Virkningsgrad:**	P max P min	92,1% 95,0%
Temperadura humos: **Tempretura dos fumos:** **Flue gas temperature:** **Røggastemperatur:**	145°C	
Partículas dispersadas **Partículas** **Dust** **Støv**	1,5 mg/Nm3 (13% O2) 1,0 mg/MJ	
Presión máxima de agua: **Pressão máxima da água:** **Permissible max. water pressure:** **Max. vandtryk:**	2,5 bar	
Asorbimiento electrico max: **Potência electrica absorbida:** **Max. electrical power supply:** **Max. elektrisk effekt:**	420 W (Med. 120 W)	
Tensión de funcionamiento: **Tensão electrica funcionamento:** **Rated voltage:** **Netspænding:**	230 V - 50 Hz.	
Distancias de seguridad (retro): **Distancia de segurança (trasiera):** **Safety clarence distance (back):** **Sikkerhedsafstand (bag):**	100 mm	
Distancias de seguridad (laterales): **Distancia de segurança (lateral):** **Safety clarence distance (side):** **Sikkerhedsafstand (side):**	100 mm	

Producto conforme a la instalación de tubos múltiples. Produto conforme para instalação em condutas multiplas. Appliance suitable for installation in a shared flue. Apparatet kan bruges i en røggassamleledning.

Utilizar sólo con combustibles adaptados. Utilizar somente combustivel adaquado. Use only recommended fuels. Anvend kun anbefalede brændsler.

Leer y seguir las instrucciones! Leia atentamente e siga as instruções! Leggere e seguire le istruzioni! Read and follow the operating instructions! Følg fabrikantens brugervejledning!

COD: 8900907800

MCZ GROUP S.p.A. - Via La Croce 8, I - 33074 Vigonovo di Fontanafredda (PN) Italy.

CE 10

EN 14785 - 2006

Art. 15a B-VG / BImSchV / VKF AEAI

Regensburger und Münchener BStV erfüllt.

SUITE HYDRO 22 / CLUB HYDRO 22 / MUSA HYDRO 22

Potencia nominal (agua - aire): **Potência nominal (água - ar):** **Nominal heat output (water - air):** **Brændværdi (vand - luft):**	Max 22,3kW (18,0kW - 4,3kW) Min 4,4kW (3,0kW - 1,4kW)	
Emisión CO (al 13% de O2): **Emissão CO (13% de O2):** **CO emission (at 13% O2)** **CO emission (ved 13% O2):**	P max P min	0,012% 0,040%
Eficiencia: **Eficiencia:** **Efficiency:** **Virkningsgrad:**	P max P min	92,5% 95,0%
Temperadura humos: **Tempretura dos fumos:** **Flue gas temperature:** **Røggastemperatur:**	160°C	
Partículas dispersadas **Partículas** **Dust** **Støv**	1,7 mg/Nm3 (13% O2) 1,2 mg/MJ	
Presión máxima de agua: **Pressão máxima da água:** **Permissible max. water pressure:** **Max. vandtryk:**	2,5 bar	
Asorbimiento electrico max: **Potência electrica absorbida:** **Max. electrical power supply:** **Max. elektrisk effekt:**	420 W (Med. 120 W)	
Tensión de funcionamiento: **Tensão electrica funcionamento:** **Rated voltage:** **Netspænding:**	230 V - 50 Hz.	
Distancias de seguridad (retro): **Distancia de segurança (trasiera):** **Safety clarence distance (back):** **Sikkerhedsafstand (bag):**	100 mm	
Distancias de seguridad (laterales): **Distancia de segurança (lateral):** **Safety clarence distance (side):** **Sikkerhedsafstand (side):**	100 mm	

Producto conforme a la instalación de tubos múltiples. Produto conforme para instalação em condutas multiplas. Appliance suitable for installation in a shared flue. Apparatet kan bruges i en røggassamleledning.

Utilizar sólo con combustibles adaptados. Utilizar somente combustivel adaquado. Use only recommended fuels. Anvend kun anbefalede brændsler.

Leer y seguir las instrucciones! Leia atentamente e siga as instruções! Leggere e seguire le istruzioni! Read and follow the operating instructions! Følg fabrikantens brugervejledning!

COD: 8901005301

INTRODUCTION

Dear Customer,

We wish to thank you for choosing an MCZ product, specifically a stove of the MCZ pellet line.

In order to get the best performance from your stove and to enjoy to the full the warmth and the sense of well-being which the flame will diffuse through the home, we recommend that you read this booklet carefully before lighting the s

tove for the first time.

While thanking you again, may we remind you that the stove **MUST NOT** be used by children, and that they must always be kept at a safe distance from it!

Revisions to the publication

In order to improve the product, to keep this publication up to date the manufacturer reserves the right to make modifications without any advance notice. Any reproduction, even in part, of this manual without the consent of the manufacturer is prohibited.

Care of the manual and how to consult it

- Take good care of this manual and keep it in a place which can easily and quickly be reached.
- If this manual should be lost or destroyed, or if it is in poor condition, ask for a copy from your retailer or directly from the manufacturer, providing product identification data.
- Information which is essential or that requires special attention is shown in **bold text.**
- *Italic text* is used to call your attention to other paragraphs in the manual or for any additional clarifications.

SYMBOLS USED IN THE MANUAL

	**ATTENTION** This warning sign indicates that the message to which it refers should be carefully read and understood, because failure to comply with what these notices say can cause serious damage to the stove and put the user's safety at risk.
	**INFORMATION** This symbol is used to highlight information which is important for proper stove operation. Failure to comply with these provisions will compromise use of the stove and its operation will not be satisfactory.
	**OPERATING SEQUENCES:** Indicates a sequence of buttons to be pushed to access menus or to make adjustments.
	**MANUAL** Indicates that you should carefully read this manual or the related instructions.

1. WARNINGS AND GUARANTEE CONDITIONS

1.1. SAFETY INSTRUCTIONS

- **Installation of the stove, making the electrical connections, checking its operation, and maintenance are all tasks which should be carried out by qualified and authorised personnel.**
- **Install the stove in accordance with the regulations in force in your local area, region and country.**
- **This apparatus cannot be used by people (including children with limited physical, sensorial or mental abilities or with little experience and know-how unless they have been viewed or instructed on the use of the apparatus by the person responsible for its safety.**
- For the correct use of the stove and of the electronic apparatus connected to it, and to prevent accidents, the instructions given in this booklet must always be followed.
- Use, adjustment and programming must be carried out by adults. Errors or incorrect settings may cause hazardous conditions and/or poor operation.
- Before beginning any operation, the user, or whoever is preparing to operate on the stove, must have read and understood the entire contents of this instruction booklet.
- The stove is to be used only for its intended purpose. Any other use is to be considered improper and therefore hazardous.
- Do not use the stove for standing on or as any kind of support.
- Do not put clothes to dry on the stove Any clothes hangers and suchlike must be kept a suitable distance from the stove. **Danger of fire.**
- All responsibility for improper use is taken entirely by the user and such use relieves MCZ of any civil or criminal responsibility.
- Any kind of tampering or unauthorised substitution of non-original spare parts can be hazardous for the safety of the operator and relieves MCZ of any civil or criminal responsibility.
- Most of the surfaces of the stove are extremely hot (the door, the handle, the glass, smoke discharge pipes etc.). Avoid coming into contact with these parts, therefore, without adequate protective clothing or suitable implements, such as gloves with thermal protection or implements which keep the hands cool.
- **Under no circumstances should the stove be run with the door open or the glass broken.**
- Do not touch the stove with wet hands, in view of the fact that it is an electrical appliance. Always disconnect the supply cable before doing anything to the unit.

- Before carrying out any cleaning or maintenance operation, make sure in advance that the stove is disconnected from the mains electricity supply, by turning off the main switch located on the back of the stove, or by unplugging the supply cable.
- The stove must be connected to an electrical system which is equipped with an earth conductor.
- The system must be of adequate rated capacity for the stated electrical power of the stove.
- Incorrect installation or faulty maintenance (not conforming to the requirements set out in this booklet) can cause harm to people, animals or property. In such cases MCZ is absolved from any civil or criminal responsibility.

1.2. OPERATING WARNINGS

- Shut the stove down in the event of a breakdown or bad running.
- Pellets must not be fed manually into the burner.
- Accumulated unburnt pellets in the burner after repeated failed ignitions must be removed before lighting.
- Do not wash the inside of the stove with water.
- Do not wash the stove with water. The water could get inside the unit and damage the electrical insulation and cause electric shocks.
- Do not expose your own body to hot air for extended periods. Do not overheat the room you are in and where the stove is installed. This could cause injuries and health problems.
- Do not expose plants or animals directly to a current of hot air. Both plants and animals could be harmed by it.
- Do not put any fuels in the hopper but wood pellets.
- Install the stove in a location which is suitable for firefighting, and equipped with all services such as air and electricity supply and provision for discharging combustion gases.
- If there is a fire in the flue pipe, extinguish the stove, disconnect it from the power supply and never open the door. Then contact the competent authorities.
- If the stove and the ceramic cladding are in storage, it should be in a place that is free of damp, and they should not be exposed to extremes of temperature.
- It is inadvisable to base the stove directly on the floor, and if the floor is made of flammable material, it must be suitably insulated.
- Do not light the stove with flammable materials if the ignition system breaks down.

INFORMATION

- In case of any problems, get in touch with your dealer, or a qualified engineer authorised by MCZ, and if a repair is necessary, insist on the use of original spare parts.
- Use only the fuel recommended by MCZ (for Italy pellets with a diameter of 6 mm and for other European countries with a diameter of 6-8 mm) and provided only with an automatic supply system.
- Periodically check and clean the smoke outlet ducts (connection to the flue pipe).
- Accumulated unburnt pellets in the burner after repeated failed ignitions must be removed before lighting.
- The pellet stove is not a cooking appliance.
- Always keep the cover of the fuel hopper closed.
- Keep this instruction manual carefully because it must stay with the stove throughout its working life. If the stove is sold or transferred to another user, always make sure that the booklet goes with the product.
- If it gets lost, ask MCZ or your authorised dealer for another copy.

1.3. GUARANTEE CONDITIONS

MCZ guarantees the stove, **excluding the components which are subject to normal**, for a period of two years from the date of purchase, as proved by a supporting document which gives the name of the vendor and the date on which the sale took place. The guarantee is conditional on the guarantee certificate being filled in and returned within 8 days, and requires that the product be installed and tested by a specialised installer, according to the detailed instructions given in the instruction booklet supplied with the product.

The term 'guarantee' is to be understood to denote the free-of-charge replacement or repair of **parts recognised to have been defective at the start by reason of manufacturing defects.**

1.3.1. Limitations

The above guarantee does not cover components relating to electrical and electronic parts, or fans, on which the guarantee period is 1 year from the purchase of the product, documented as specified above. The guarantee does not cover parts subject to normal wear such as gaskets, glass, and any parts with can be removed from the firebox.

The replacement parts will be guaranteed for the remainder of the guarantee period starting from the date of purchase of the product.

1.3.2. Exclusions

Variations in colour in the painted or ceramic parts, and crackling of the glaze on the ceramics, do not constitute grounds for a claim under the guarantee, as they are natural characteristics of the material and of the use of the product.

The guarantee does not cover any parts which may be found to be faulty as a result of negligence or carelessness in use, or of incorrect maintenance, or of installation not complying with MCZ's specification (see the relevant chapters in this user manual).

MCZ refuses to accept any responsibility for any damage which may be caused, directly or indirectly, by persons, animals or things in consequence of the failure to observe all the prescriptions laid down in the instruction booklet, especially those concerning warnings on the subject of installation, use and maintenance of the appliance.

If the product does not perform correctly, contact your local retailer and/or importer.

Damage caused by transport and/or handling is excluded from the guarantee.

For installation and use of the product, reference must be made exclusively to the booklet supplied.

The guarantee will be invalidated in the event of damage caused by tampering with the appliance, atmospheric agents, natural disasters, electrical discharges, fire, defects in the electrical system, and caused by lack of, or incorrect, maintenance in terms of the manufacturer's instructions.

CLAIMS UNDER THE GUARANTEE

the request for action under the guarantee must be addressed to the retailer, who will forward the claim to MCZ's technical assistance service.

MCZ refuses to accept any responsibility in the event that the stove or any other accessory have been improperly used or modified without authorisation.

For all replacement of parts, only original MCZ spare parts must be used.

2. Theoretical notions for installation

2.1. 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 comes from the lignin which is contained in the wood itself, and allows the production of pellets without the use of glues or binders.

Fuel pellets

The market offers different types of pellet with characteristics which vary depending on what mixture of woods is used. The diameter varies between 6 mm and 8 mm, with a standard length in the range 5 mm to 30 mm. Good quality pellets have a density which varies between 600 kg/m3 and 750 kg/m3, with a moisture content which varies from 5% to 8% by weight.

Besides being an ecological fuel (exploiting timber residues to the maximum and achieving cleaner combustion than is possible with fossil fuels), pellets also have technical advantages. While good-quality timber has a calorific power of 4.4 kW/kg (with 15% moisture, therefore after about 18 months' seasoning), the equivalent figure for pellets is 4,9 kW/kg.

To ensure good combustion, the pellets must be stored in an area that is free of humidity and protected from dirt. The pellets are usually supplied in 15 kg. sacks, so storing them is very convenient.

Good quality pellets ensure good combustion, thus lowering the emission of harmful agents into the atmosphere.

15 Kg sack of fuel

The poorer the quality of the fuel, the more frequently will intervention be necessary for cleaning the internal parts, such as the grate and the combustion chamber.

The main certifications of quality for pellets in the European market are **DINplus** and **Ö-Norm M7135**; these ensure respect of:

- ✓ Calorific power: 4.9 kW/kg
- ✓ Water content: max 10% of weight
- ✓ Percentage of ashes: max 0,5% of weight
- ✓ Diameter: 5 – 6mm
- ✓ Length: max 30mm
- ✓ Contents: 100% untreated wood, with no added bonding substances (bark percentage 5% max)
- ✓ Packaging: in sacks made from ecologically compatible or biologically decomposing material

MCZ strongly recommends using certified fuel in its stoves (DINplus e **Ö-Norm M7135).**

The use of fuel of inferior quality or not conforming to the specification given above compromises the running of your stove and can therefore lead to the termination of the guarantee and of the manufacturer's responsibility for the product.
MCZ pellet stoves run exclusively on pellets with a diameter of 6 mm (only for Italy) and 6-8 mm (European countries) with lengths that go from 5 mm to 30 mm.

2.2. PRECAUTIONS FOR INSTALLATION

IMPORTANT!

Installation and assembly of the stove must be carried out by qualified personnel.

The stove must be installed in a suitable position to allow the normal operations of opening and ordinary maintenance.
The site must be:

- capable of providing the environmental conditions for operation
- equipped with power supply 230V 50 Hz
- capable of taking an adequate system for smoke discharge
- provided with external ventilation
- provided with an earth connection complying with CEI

The stove must be connected to a flue pipe or an internal or external vertical duct conforming to current standards UNI 7129 - 7131 9615.

The stove must be positioned in such a way that the electrical plug is accessible.

IMPORTANT!

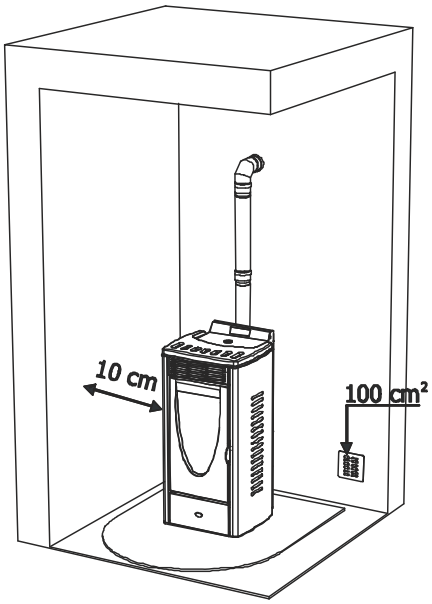
The stove must be connected to a flue pipe or a vertical duct which can discharge the fumes at the highest point of the building.

The fumes are however derived from the combustion of wood products, and if they come into contact with or close to walls, they can make dirty marks.

Also take care because the fumes are very hot but almost invisible, and can cause burns on contact.

The holes for the passage of the smoke pipe and for the intake of air from outside should be made before positioning the stove unit.

2.3. OPERATING AREA



Example of pellet stove installation

For proper functioning and a good temperature distribution, the stove should be positioned in a location where it is able to take in the air necessary for combustion of the pellets (about 40 m^3/h must be available), as laid down in the standard governing the installation and in accordance with local national standards.

The volume of the room must not be less than 30 m^3.

The air must come in through permanent openings made in walls (in proximity to the stove) which give onto the outside, with a minimum cross-section area of 100 cm^2.

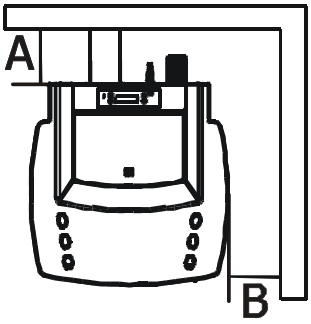
These openings must be made in such a way that it is not possible for them to be obstructed in any way.

Alternatively, the air can be taken from rooms adjacent to the one which needs ventilating, as long as they are provided with an air intake from the outside, and are not used as bedrooms or bathrooms, and provided there is no fire risk such as there is for example in garages, woodsheds, and storerooms, with particular reference to what is laid down in current standards.

It is not permissible to install the stove in bedrooms, bathrooms, or in a room where another heating appliance is installed (fireplace, stove etc.) which does not have its own independent air intake.

Locating the stove in a room with an explosive atmosphere is prohibited.

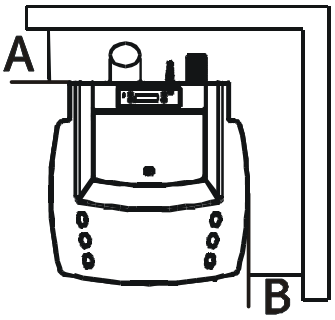
The floor of the room where the stove is to be installed must be strong enough to take its weight.



If walls are flammable, maintain a minimum distance of 10cm at the rear (A), 10cm at the side (B) and 150 cm at the front.

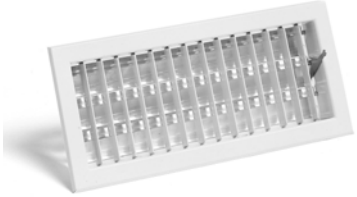
If the room contains objects which are believed to be particularly delicate, such as drapes, sofas and other furniture, their distance from the stove should be considerably increased.

If the flooring is made of wood, provide a floor protection surface in compliance with current national standards.



Example of pellet stove installation

2.4. CONNECTION TO THE EXTERNAL AIR INTAKE



It is essential that at least as much air must be able to flow into the room where the stove is installed as is required for proper combustion in the appliance and for the ventilation of the room. This can be effected by means of permanent openings in the walls of the room to be ventilated, which give onto the outside, or by single or collective ventilation ducts.

For this purpose, on the external wall near the stove, a hole must be made with a minimum free cross-section of 100 cm^2. (equivalent to a round hole of 12 cm diameter or a square hole 10x10 cm), protected by a grille on the inside and the outside.

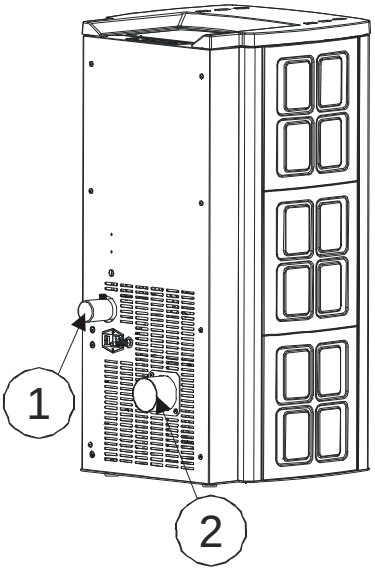
The air intake must also:

- communicate directly with the room where the stove is installed
- be protected by a grille, metal mesh or suitable guard, as long as this does not reduce the area below the minimum.

- be positioned in such a way as to be impossible to obstruct

It is not compulsory to connect the air intake directly with the stove (so that it draws air directly from outside), but it is essential at all events to ensure an airflow of 50 cubic metres per hour by the use of a hole of the dimensions given.

See standard UNI 10683.



Rear view of a pellet stove
1) Combustion air intake
2) Smoke outlet

2.5. CONNECTION OF SMOKE DISCHARGE PIPE

When making the hole for the passage of the smoke discharge pipe, it is necessary to take into account the possible presence of flammable materials. If the hole will be going through a wall made of wood or any other material which is sensitive to heat, the **INSTALLER MUST** first of all use the special wall union (diam.13cm 13cm minimum) and properly insulate the pipe of the stove that passes through it, using adequate insulation materials (thickness 1.35cm with minimum thermal conductivity of 0.07 W/m°K).
The same is true if the stove pipe must run through vertical or horizontal stretches passing in proximity (min.20cm) to the heat-sensitive wall
As an alternative we recommend the use of insulated pipe, which can also be used on the outside to avoid condensation.
The combustion chamber works in low pressure. The smoke duct for the discharge of fumes will also be under low pressure when connected to an efficient flue pipe as directed.

Pipes and unions with suitable gaskets must always be used, to guarantee a hermetic seal.

All sections of the smoke duct must be inspectable and removable to enable periodic internal cleaning. Tee connectors with inspection caps should be used.

Position the stove bearing in mind all the instructions and considerations above.

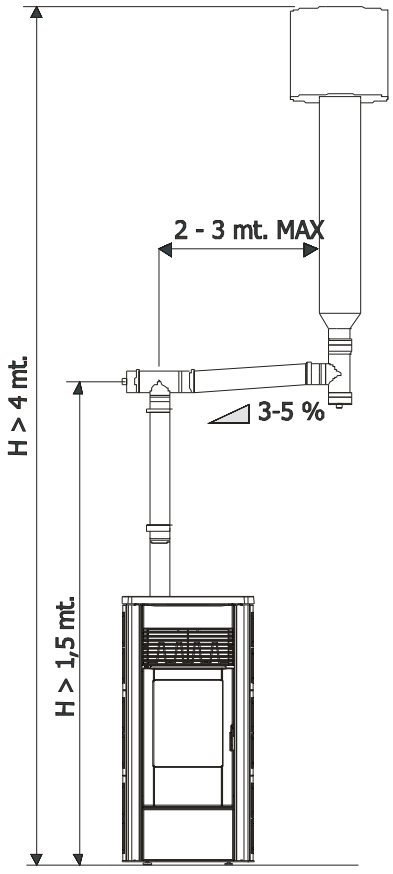
IMPORTANT!

All 90 degree changes of direction in the flue pipe must be fitted with suitable tee connectors to allow the possibility of inspection. (see accessories for pellet stove)

It is absolutely prohibited to fit a grille on the end of the discharge pipe, because it could lead to poor running of the stove.

FOR CONNECTION TO THE FLUE PIPE, NOT MORE THAN 2-3 METRES OF HORIZONTAL PIPE MUST BE USED AND NOT MORE THAN THREE 90° CURVES MUST BE USED

IT IS ALSO ADVISABLE NOT TO EXCEED 6 METRES IN LENGTH WITH THE PIPE Ø 80 mm



Example of pellet stove installation

2.6. CONNECTION TO THE FLUE PIPE

The flue pipe must have internal dimensions not larger than 20 x 20 cm, or diameter 20 cm. In the event of larger dimensions, or of the flue pipe being in poor condition (for example cracks, poor insulation, etc.), it is advisable to fit a stainless steel pipe of suitable diameter inside the flue pipe throughout its length, right up to the top.

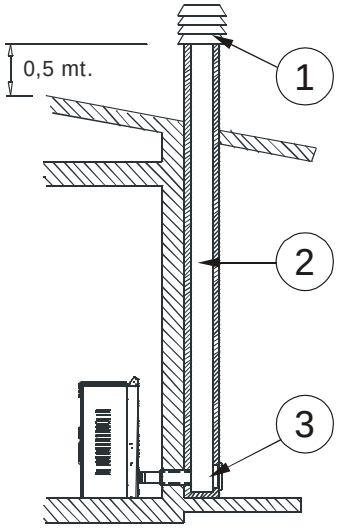
Check with suitable instruments that there is a minimum draught of 10 Pa.

At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually.**

Make a gas-tight connection to the flue pipe, using pipes and connectors as recommended by us.

You must ensure that a windproof cowl should be fitted which complies with the standards in force.

This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.



1) Windproof cowl
2) Flue pipe
3) Inspection

2.7. CONNECTION TO AN EXTERNAL FLUE WITH INSULATED OR DOUBLE-WALL PIPE

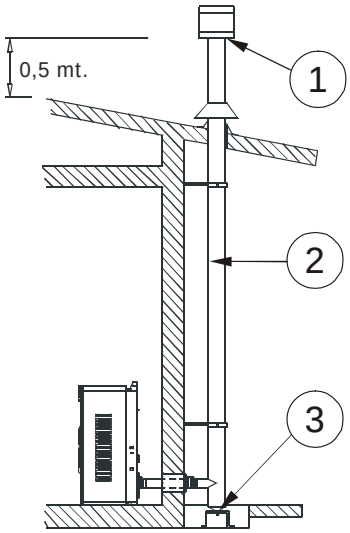
The external fluepipe must have internal dimensions of minimum 10x10 cm or 10 cm diameter, and maximum 20x20 cm or 20 cm diameter.

Check with suitable instruments that there is a minimum draught of 10 Pa.

The only type of pipe which is permissible is insulated (double-walled) stainless steel, smooth on the inside, fixed to the wall. Flexible stainless steel pipe must not be used. At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually.** Make a gas-tight connection to the flue pipe, using pipes and connectors as recommended by us.

You must ensure that a windproof cowl should be fitted which complies with the standards in force.

This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.



1) Windproof cowl
2) Flue pipe
3) Inspection

2.8. CONNECTION TO THE FLUE PIPE

For proper functioning, the connecting pipe between the stove and the chimney or flue duct must have a slope of not less than 3% in the horizontal stretches, the length of which **must not exceed 2/3 metres**, and the vertical distance between one tee connector and another (change of direction) must not be less than 1.5m.

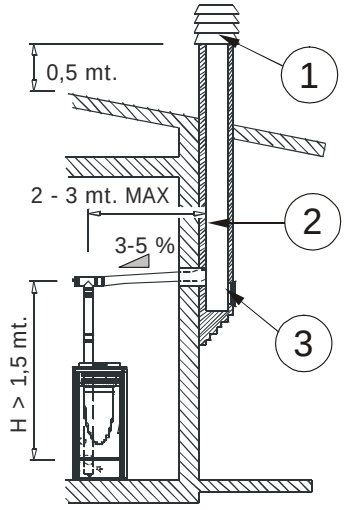
Check with suitable instruments that there is a minimum draught of 10 Pa.

At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually.**

Make a gas-tight connection to the flue pipe, using pipes and connectors as recommended by us.

You must ensure that a windproof cowl should be fitted which complies with the standards in force.

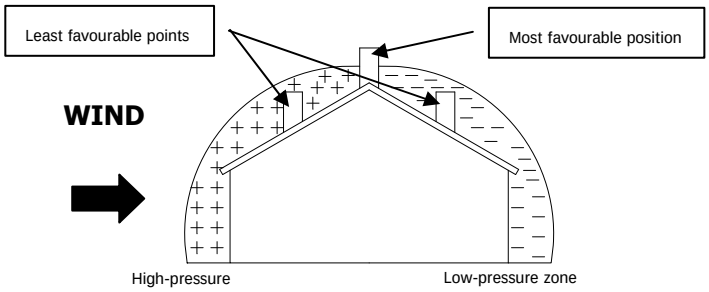
This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.

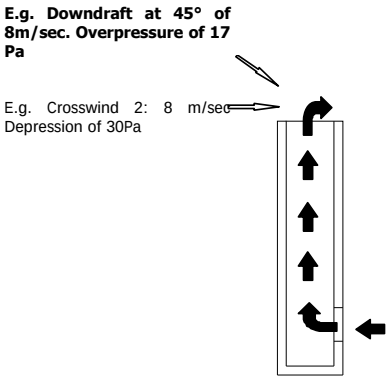


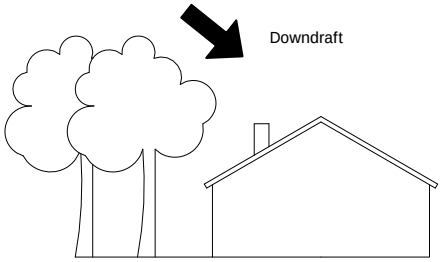
1) Windproof cowl
2) Flue pipe
3) Inspection

2.9. OPERATING PROBLEMS CAUSED BY DRAUGHT DEFECTS IN THE FLUE

Of all the weather and geographical conditions which affect the operation of a flue pipe (rain, fog, snow, altitude a.s.l., exposure to sunlight, direction of facing), the **wind** is unquestionably the most decisive. In fact, along with thermal depression caused by the difference in temperature inside and outside of the chimney, there is another type of depression or over-pressure: dynamic pressure caused by the wind. An updraft always increases depression and hence draught. A crosswind increases depression provided the cowl has been installed properly. A downdraft always decreases depression, at times inverting it.

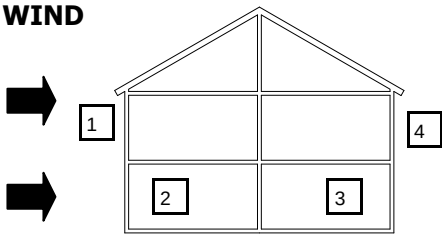






Besides the direction and force of the wind, the position of the flue and the cowl with respect to the roof of the building and the surrounding landscape is important.

The wind also influences the operation of the chimney indirectly by creating high-pressure and low-pressure zones, not only outside the building but inside as well. In rooms directly exposed to the wind **(2)**, an indoor high-pressure area can be created which can augment the draught in stoves and fireplaces, but it can be counteracted by the external high pressure if the cowl is situated on the side exposed to the wind **(1)**. On the other hand, in the rooms on the opposite side from the direction of the wind **(3)**, a dynamic depression can be created which competes with the natural thermal depression developed by the chimney, but this can be compensated for (sometimes) by locating the flue on the opposite side from the direction of the wind **(4).**



1-2 = High-pressure zones

3-4 = Low-pressure zones

IMPORTANT!

The operation of the pellet stove is noticeably sensitive to the conformation and position of the flue which is adopted.

Hazardous conditions can only be overcome by suitable setting-up of the stove carried out by qualified MCZ personnel.

2.10. PLUMBING CONNECTION

IMPORTANT!

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

If installation of the stove will involve interaction with another, pre-existing system complete with heating equipment (gas boiler, methane boiler, fuel oil boiler, etc.), it is even more advisable to call in qualified personnel, who subsequently will be responsible for conformity of the system with current applicable law.

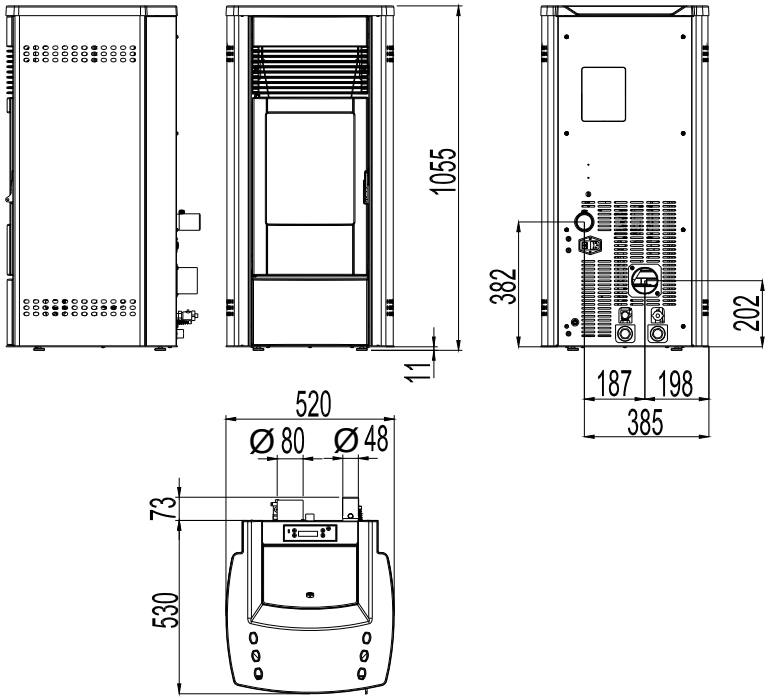
MCZ will not be held responsible for damage to persons or things in the event of failed or incorrect operation if the aforementioned warnings are not complied with.

For connection of the plumbing system to the stove, the user should refer to chapter 3, INSTALLATION AND ASSEMBLY; specifically, paragraph 3.4, CONNECTION TO PLUMBING SYSTEM

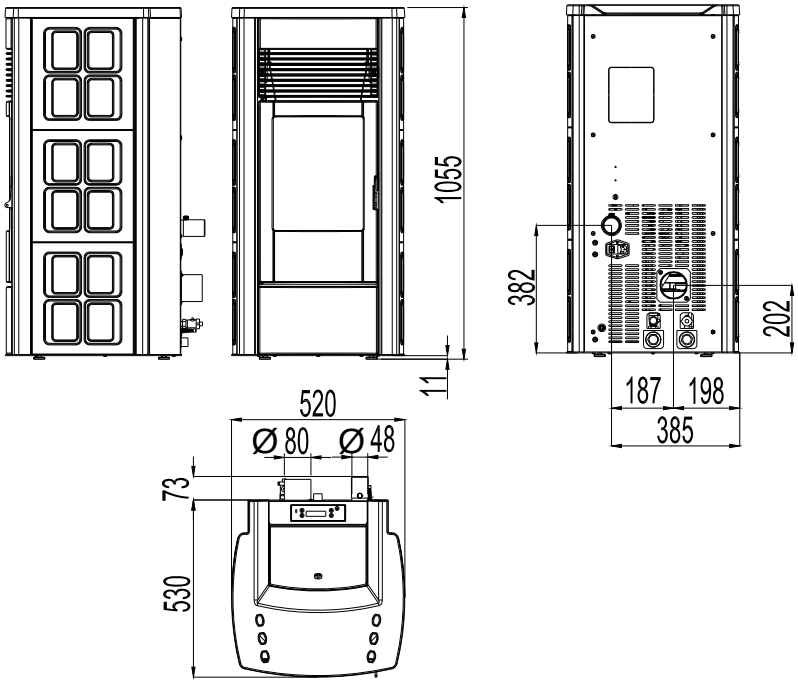
3. INSTALLATION AND ASSEMBLY

3.1. DRAWINGS AND TECHNICAL CHARACTERISTICS

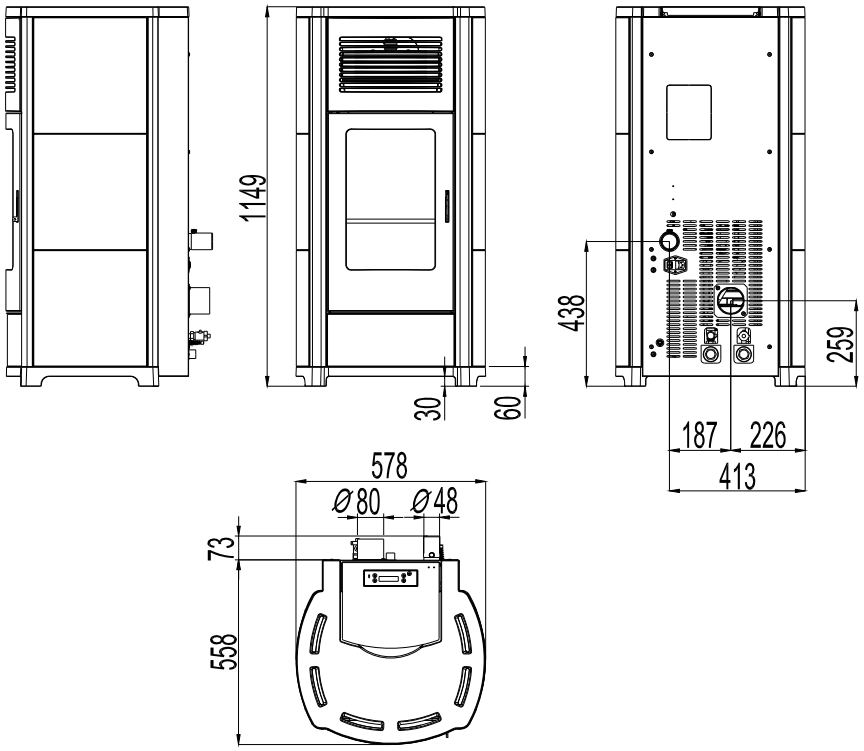
3.1.1. EGO HYDRO Dimensions



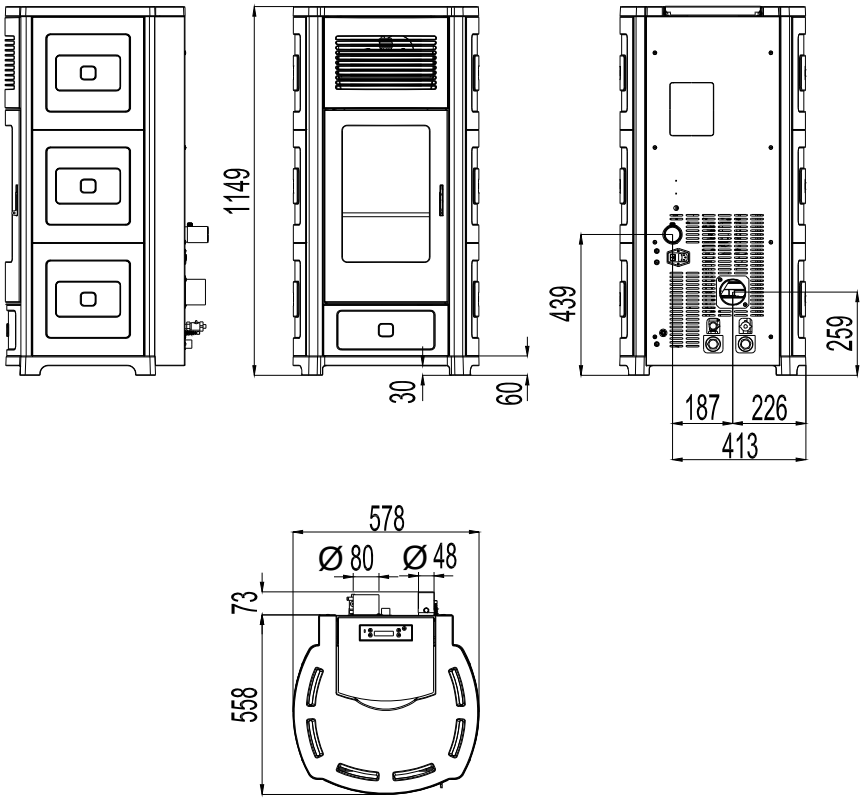
3.1.2. STAR HYDRO Dimensions



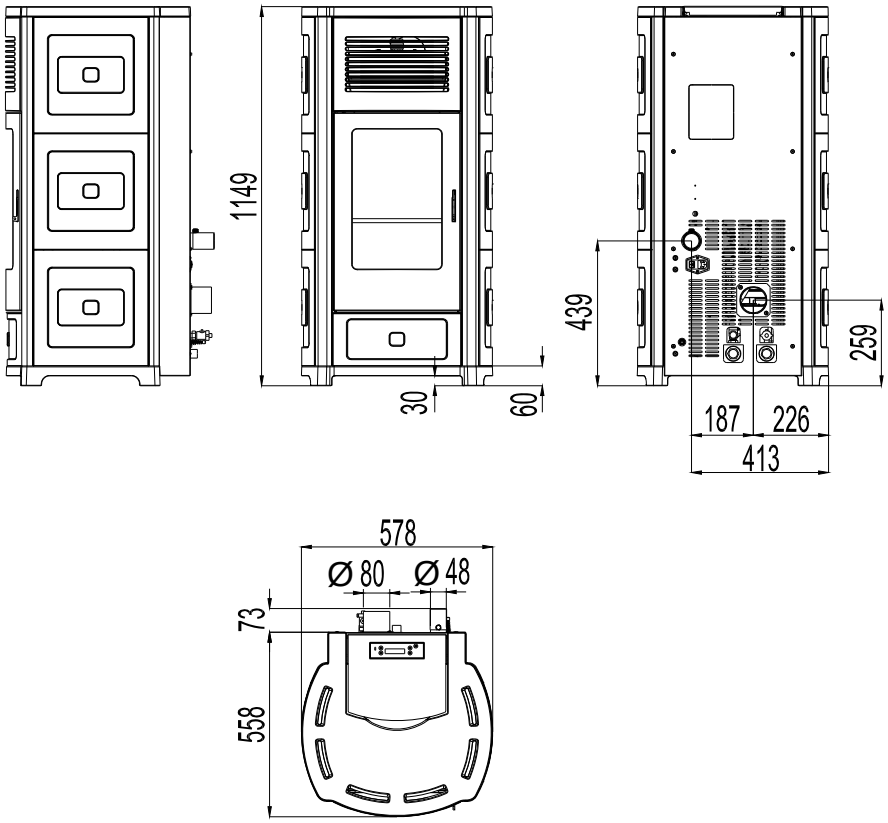
3.1.3. Dimensions of the HYDRO 15-22 version CLUB without domestic hot water production kit



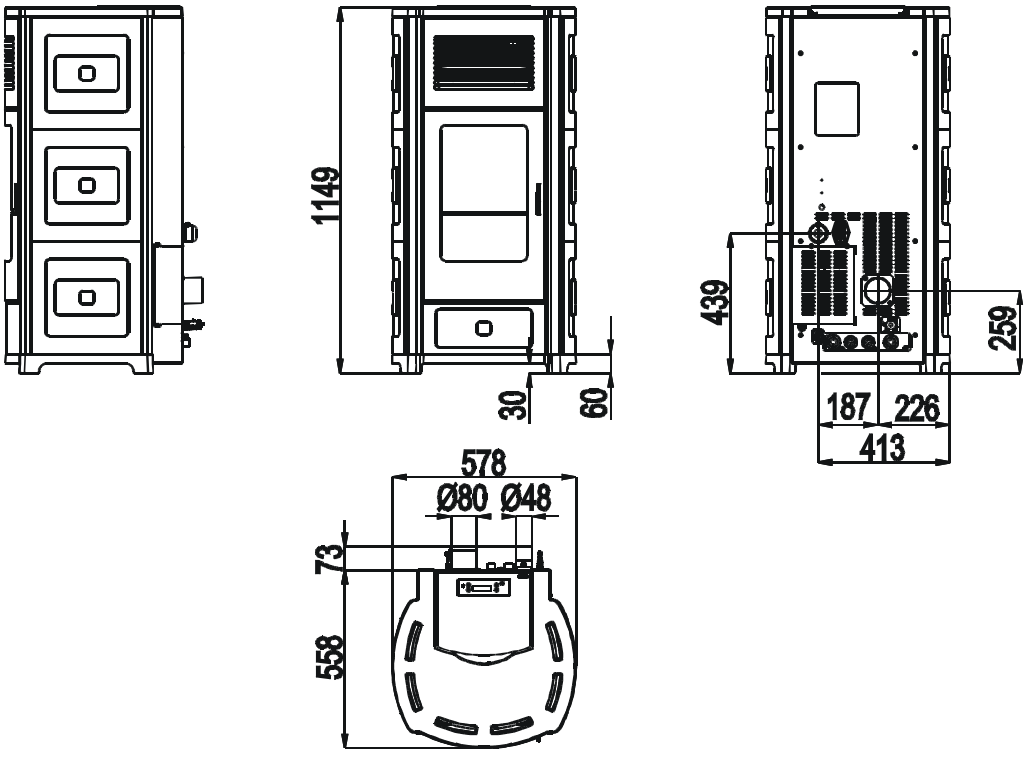
3.1.4. Dimensions of the HYDRO 22 version CLUB equipped with kit for domestic hot water production.



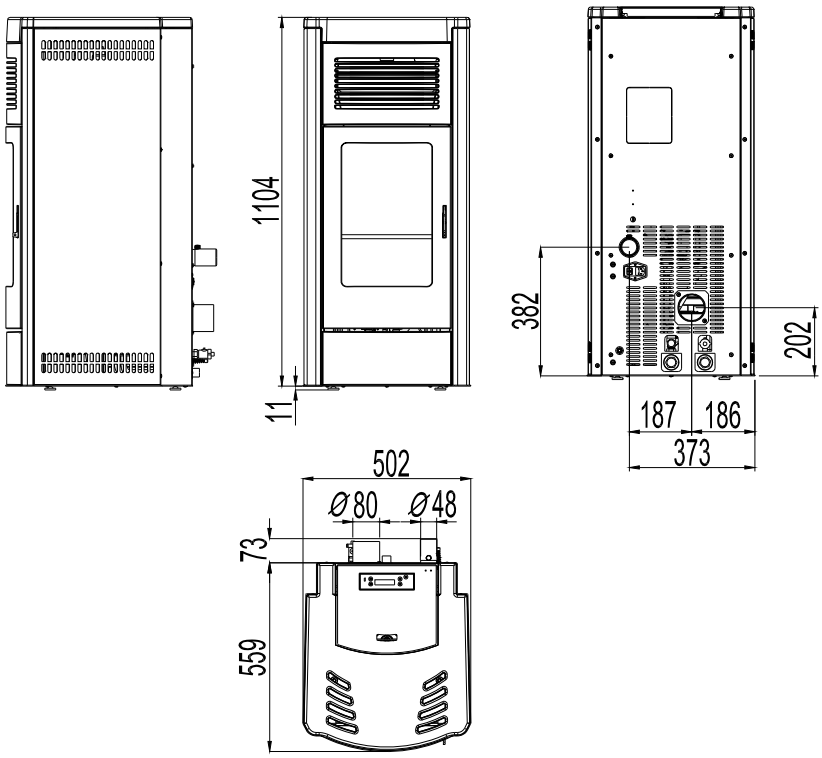
3.1.5. Dimensions of the HYDRO 15-22 version SUITE without domestic hot water production kit



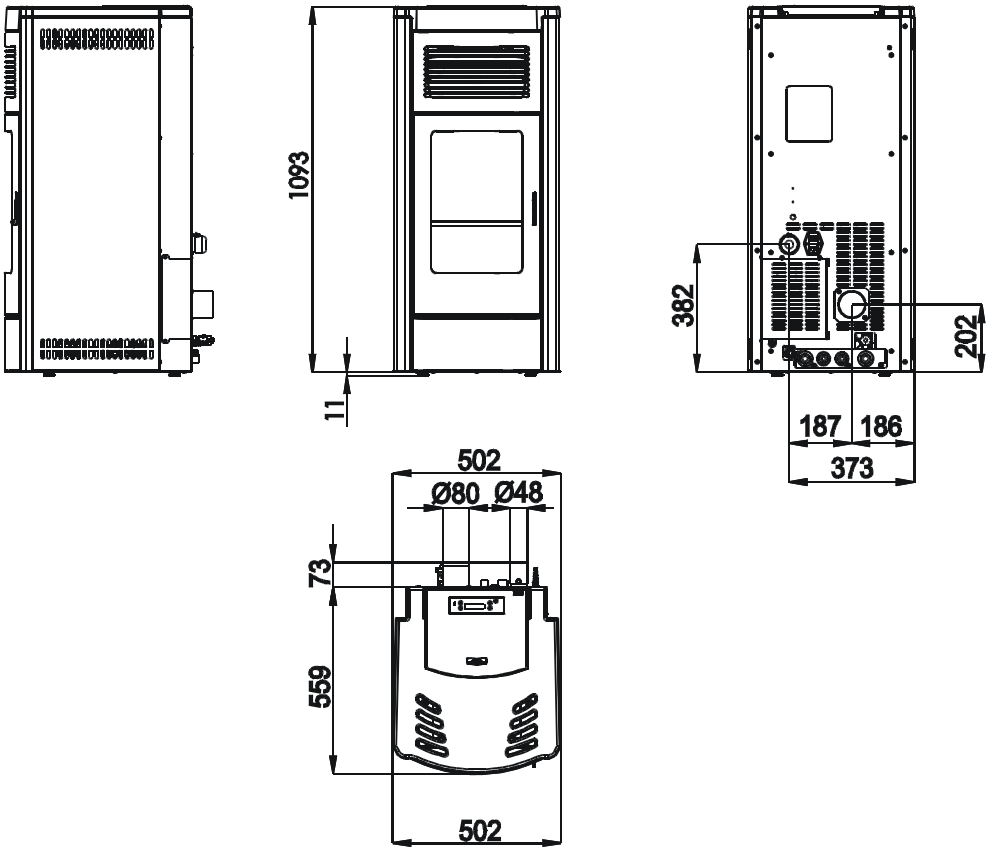
3.1.6. Dimensions of the HYDRO 22 version SUITE equipped with kit for domestic hot water production.



3.1.7. Dimensions of the HYDRO 15-22 version MUSA without domestic hot water production kit



3.1.8. Dimensions of the HYDRO 22 version MUSA equipped with kit for domestic hot water production.



FOR THE HYDRAULIC PIPE OUTPUT DRAWINGS, SEE PAGES 31-32

3.1.9. Technical characteristics

Technical characteristics	Ego Hydro / Star Hydro
Overall thermal power (total/water) Max	11,6 kw (9976 kcal) / 10,0 kw (8600 kcal)
Overall thermal power (total/water) Min	3,6 kw (3096 kcal) / 2,5 Kw (2150 kcal)
Yield at maximum	91,5%
Yield at minimum	96,0%
Temperature of exhaust smoke at maximum	140°C
Temperature of exhaust smoke at minimum	70°C
Dust	11 mg/Nm3 (13% O2) – 7 mg/MJ
CO at 13%O_2 at minimum and maximum	0.034 — 0.011%
CO_2 at minimum and maximum	6.7% – 8.7%
Mass of smoke at minimum and maximum	3,6 – 9,4 g/sec
Suggested draught at max power	0.10 mbar – 10 Pa
Suggested draught at min power	0.05 mbar – 5 Pa
Hopper capacity	37 litres
Fuel pellet type	Pellet diameter 6-8 mm. Length range 5-30 mm
Pellet consumption per hour	Min ~ 0,8 kg/h * Max. ~ 2,5 kg/h *
Operating time between re-fuelling	Al min ~ 36 h * Al max. ~ 10 h *
Heatable volume m^3	249/40 – 285/35 – 333/30 **
Combustion air inlet	External diameter 50 mm.
Smoke outlet	External diameter 80 mm.
Maximum absorbed electrical power	Max. 420 W – Med. 120 W
Power supply frequency and voltage	230 Volts / 50 Hz
Net weight	175 kg
Weight with packaging	185 Kg

* Data that may vary depending on the type of pellets used.
**Heatable volume based on demand of cal/m^3 40-35-30 (respectively 40-35-30 Kcal/h for m^3)
Appliance suitable for installation in a shared flue.

Technical characteristics	Suite 15 Hydro / Club 15 Hydro / Musa 15 Hydro
Overall thermal power (total/water) Max	15,4 kw (13244 kcal) / 13,0 kw (11180 kcal)
Overall thermal power (total/water) Min	4,4 kw (3784 kcal) / 3,0 Kw (2580 kcal)
Yield at maximum	92,1%
Yield at minimum	95,0%
Temperature of exhaust smoke at maximum	145°C
Temperature of exhaust smoke at minimum	71°C
Dust	1,5 mg/Nm3 (13% O2) 1,0 mg/MJ
CO at 13%O_2 at minimum and maximum	0.040 — 0.011%
CO_2 at minimum and maximum	7,03% – 11%
Mass of smoke at minimum and maximum	4,5 – 10,4 g/sec
Suggested draught at max power	0.10 mbar – 10 Pa
Suggested draught at min power	0.05 mbar – 5 Pa
Hopper capacity	44 litres
Fuel pellet type	Pellet diameter 6-8 mm. Length range 5-30 mm
Pellet consumption per hour	Min ~ 0,9 kg/h * Max. ~ 3,4 kg/h *
Operating time between re-fuelling	Al min ~ 28 h * Al max. ~ 8 h *
Heatable volume m^3	332/40 – 379/35 – 443/30 **
Combustion air inlet	External diameter 50 mm.
Smoke outlet	External diameter 80 mm.
Maximum absorbed electrical power	Max. 420 W – Med. 120 W
Power supply frequency and voltage	230 Volts / 50 Hz
Net weight	190 kg
Weight with packaging	200 Kg

* Data that may vary depending on the type of pellets used.
**Heatable volume based on demand of cal/m^3 40-35-30 (respectively 40-35-30 Kcal/h for m^3)
Appliance suitable for installation in a shared flue.

Technical characteristics	Suite 22 Hydro / Club 22 Hydro / Musa 22 Hydro
Overall thermal power (total/water) Max	22,3 kw (19178 kcal) / 18,0 kw (15480 kcal)
Overall thermal power (total/water) Min	4,4 kw (3784 kcal) / 3,0 Kw (2580 kcal)
Yield at maximum	92,5%
Yield at minimum	95,0%
Temperature of exhaust smoke at maximum	160°C
Temperature of exhaust smoke at minimum	71°C
Dust	1,7 mg/Nm3 (13% O2) 1,2 mg/MJ
CO at 13%O_2 at minimum and maximum	0.040 — 0.012%
CO_2 at minimum and maximum	7,03% – 12,49%
Mass of smoke at minimum and maximum	4,5 – 12,6 g/sec
Suggested draught at max power	0.10 mbar – 10 Pa
Suggested draught at min power	0.05 mbar – 5 Pa
Hopper capacity	44 litres
Fuel pellet type	Pellet diameter 6-8 mm. Length range 5-30 mm
Pellet consumption per hour	Min ~ 0,9 kg/h * Max. ~ 4,9 kg/h *
Operating time between re-fuelling	Al min ~ 28 h * Al max. ~ 5 h *
Heatable volume m^3	481/40 – 550/35 – 642/30 **
Combustion air inlet	External diameter 50 mm.
Smoke outlet	External diameter 80 mm.
Maximum absorbed electrical power	Max. 420 W – Med. 120 W
Power supply frequency and voltage	230 Volts / 50 Hz
Net weight	190 kg
Weight with packaging	200 Kg

* Data that may vary depending on the type of pellets used.
**Heatable volume based on demand of cal/m^3 40-35-30 (respectively 40-35-30 Kcal/h for m^3)
Appliance suitable for installation in a shared flue.

3.2. PREPARATION AND UNPACK ING

STAR and EGO stoves are delivered with two different packagings:

- ✓ The **EGO and MUSA** stove has one packaging
  - o It contains the stove and the steel sides with the profiles (Fig.1)
- ✓ The **STAR** stove has two packagings
  - o One contains the stove and the profile for the ceramic or the soapstone
  - o One contains the ceramic (fig.2). In this case there will be a single packaging for the structure (the cardboard with the ceramics will be placed above the packaging with the structure)
  - o or Soapstone (fig.3) (in this case there are two packagings structure + soapstone pallet)
- ✓ **SUITE and CLUB** stoves are delivered in two packages placed on top of each other:
  - o the first contains the stove
  - o The second contains the ceramic cladding. (Fig. 2)

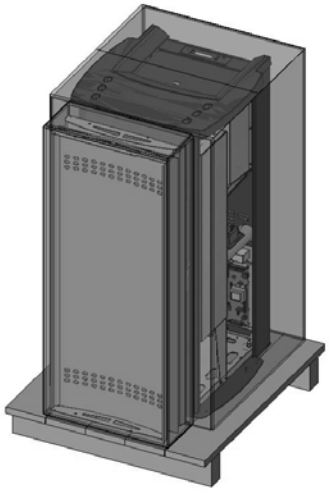


Figure 1 – Example of packaging stove + steel sides (Ego stove)

EGO/STAR and MUSA stoves

Open the packaging, remove the four screws that secure the base of the stove to the pallet, two to the right and two to the left (see figure 4), and position the stove in the selected place, ensuring that it is complies with the above instructions.

Figure 2 - Example of packing for ceramics

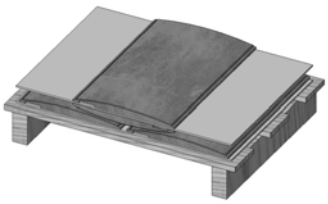


Figure 3 - Example of soapstone packaging

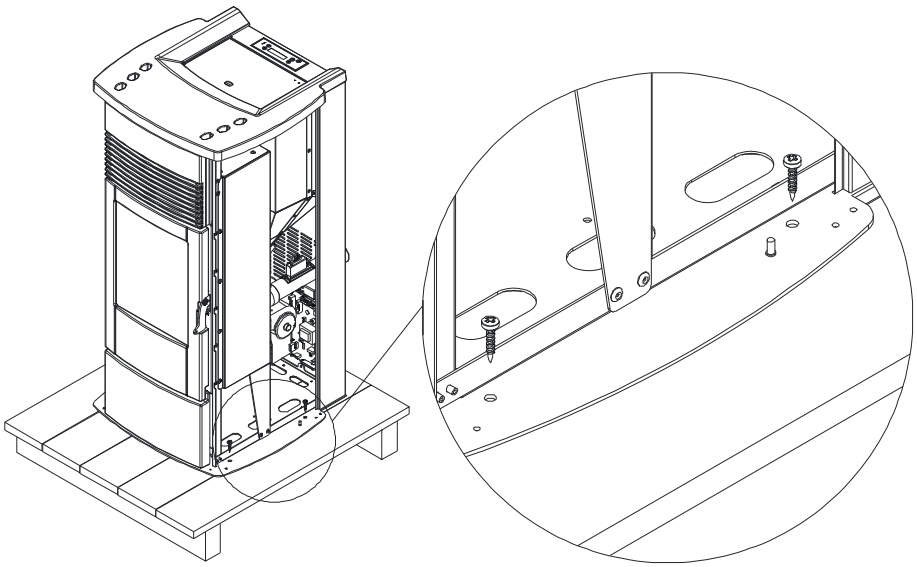


Figure 4 - Removing packaging screws (in figure Ego stove)

SUITE and CLUB stoves

Open the packaging, remove the two brackets that lock the stove to the pallet (one on the right and one on the left side-fig.5)

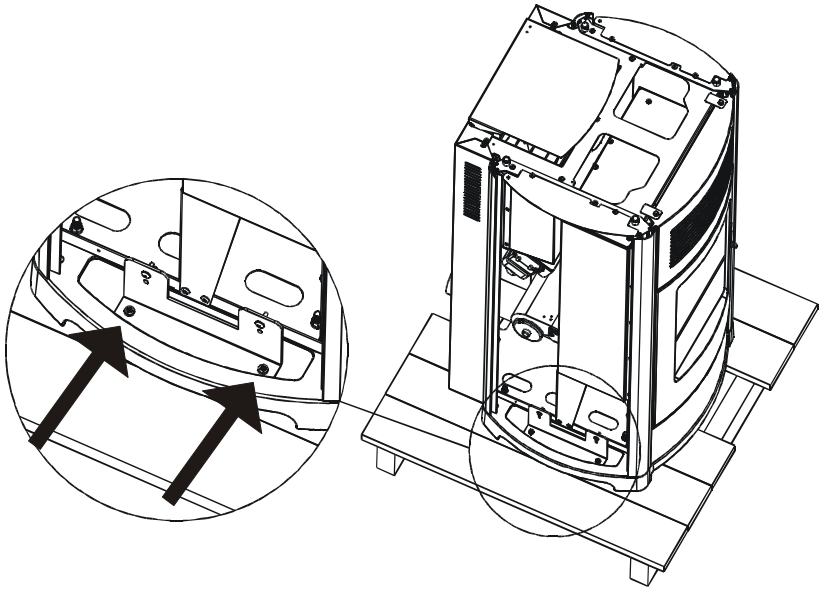


Figure 5 - Removing the packaging screws (in figure Suite stove)

The stove body or unit must always be kept in a vertical position when moved, and moved only using carts. Special care must be used to protect the door and the glass from impacts that would damage them.

Moving the product must always be done with care. If possible, unpack the stove in the area where it is going to be installed.

The materials which make up the packaging are not toxic or harmful, so no special procedures for disposal by required.

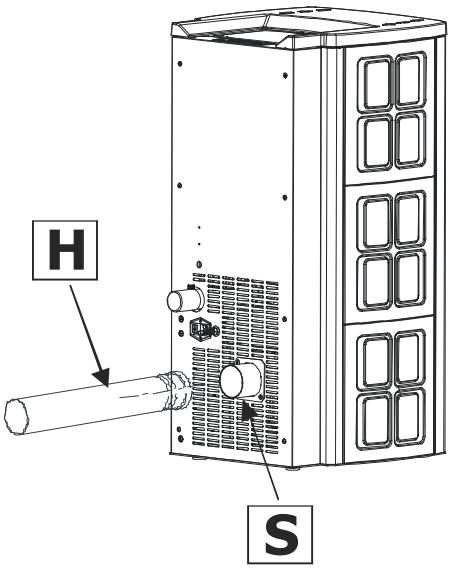
Their storage, disposal or possible recycling are therefore the responsibility of the final user, in compliance with current legislation on the subject.

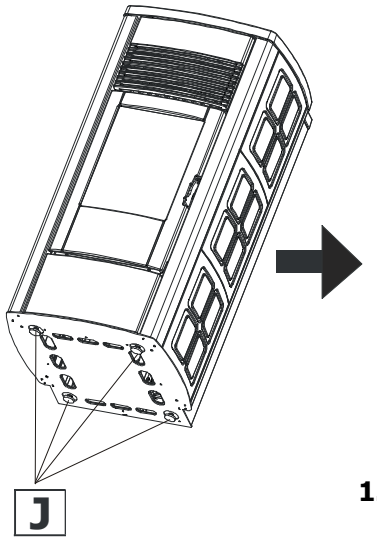
Do not store the stove unit or its cladding without their packaging.

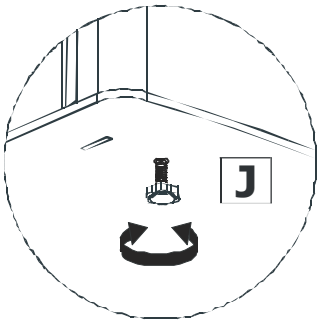
Position the stove without its cladding and connect it to the flue pipe. Use the four adjustable feet **(J)** to get the stove correctly levelled so that the smoke outlet **(S)** is lined up with the connecting pipe **(H)** . Once the operations for connection are complete, assemble the cladding (ceramics or steel sides).

If the stove needs to be connected to a discharge pipe which goes through the rear wall (to connect up with the flue), take the greatest care to make sure that the joint is not stressed.

If the smoke outlet of the stove is forced or used improperly to lift it or position it, the operation of the stove can be damaged irreparably.



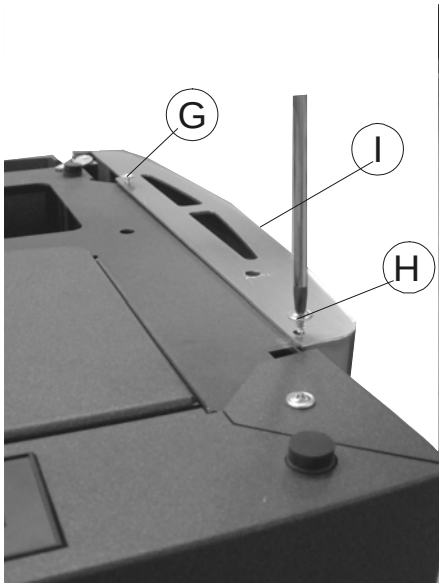




1. Turn the feet clockwise to lower the stove
2. Turn the feet counter-clockwise to lower the stove

3.3. LATERAL CLADDING ASSEMBLY

THE 6 CERAMICS AND THE 4 SIDES MADE OF SOAPSTONE THAT ARE LATERAL TO THE STAR STOVE ARE ALL THE SAME.



3.3.1. Assembly of profiles for inserting the steel sides-EGO

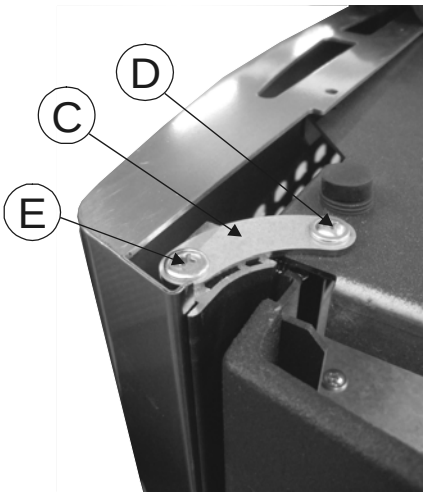
Remove, on the upper part, the cast iron top (**A**).

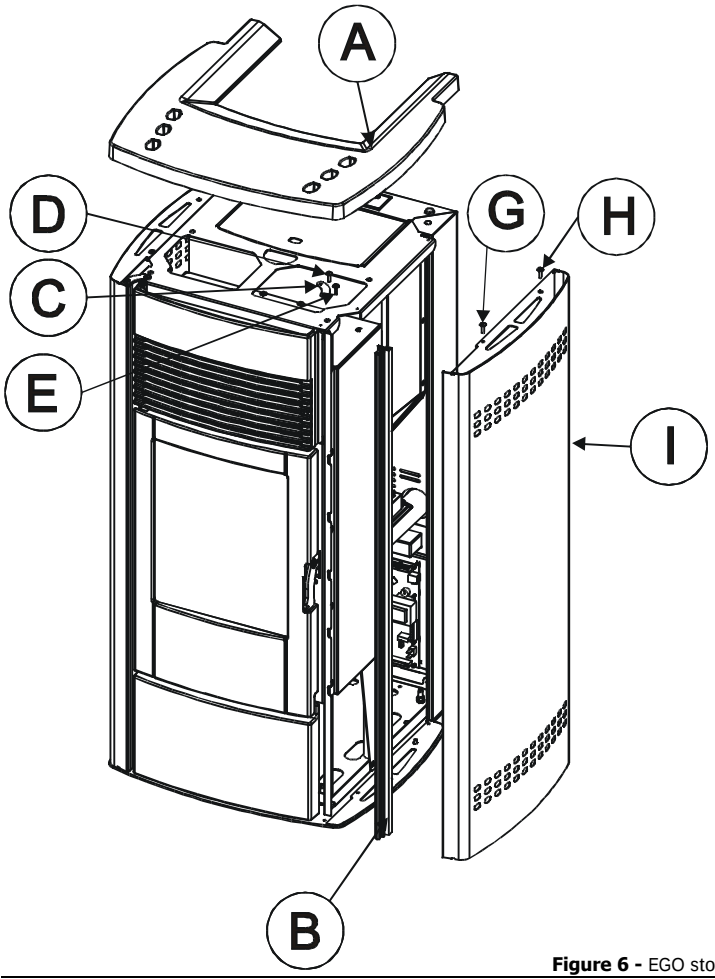
Take the two profiles (**B**) to be assembled on the front part of the stove (one to the right and one to the left). Make sure that the profile (**B**) at the bottom enters the hole predisposed on the base for securing purposes, and along the side enters the blade (**B1**) predisposed in the stove along its entire height. Once this operation is performed, take the piece (**C**) with the two screws (**D** and **E**) and secure the profile on the top part of the stove. The screw (**D**) must be secured on the upper sheet metal of the stove, while the screw (**E**) must be secured on the area predisposed on the profile (**B2**).

Take the side (**I**) and secure it to the upper sheet metal of the stove with the two screws (**G** and **H**) provided.

In the front part it must be inserted in the housing (**B3**) of the profile (**B**).

Repeat the same operation for both sides. Reposition the cast iron top. (fig.6)





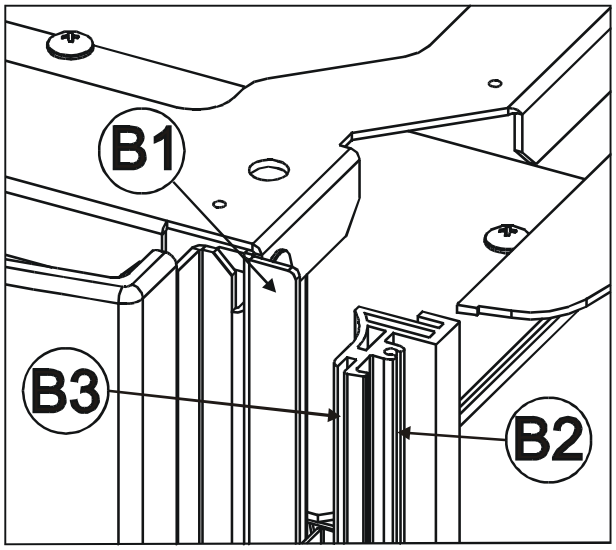


Figure 6 - EGO stove steel sides

3.3.2. Assembly of profiles for inserting the ceramic and soapstone sides-STAR

Remove, on the upper part, the cast iron top (**A**).

Take the four profiles (**B**) to be assembled on the front and rear part of the stove (two to the right and two to the left). Make sure that the profile (**B**) at the bottom enters the in correspondence to the two holes predisposed on the base for securing purposes, and along the side enters the blade (**B1**) predisposed in the stove along its entire height. Once both profiles are assembled on one side, take the piece (**C**) with the four screws (**D-E-F-G**) and secure it on the upper part of the stove (**F-D**) and in correspondence to the element predisposed on the profile (**B2**) for screws **G-E**.

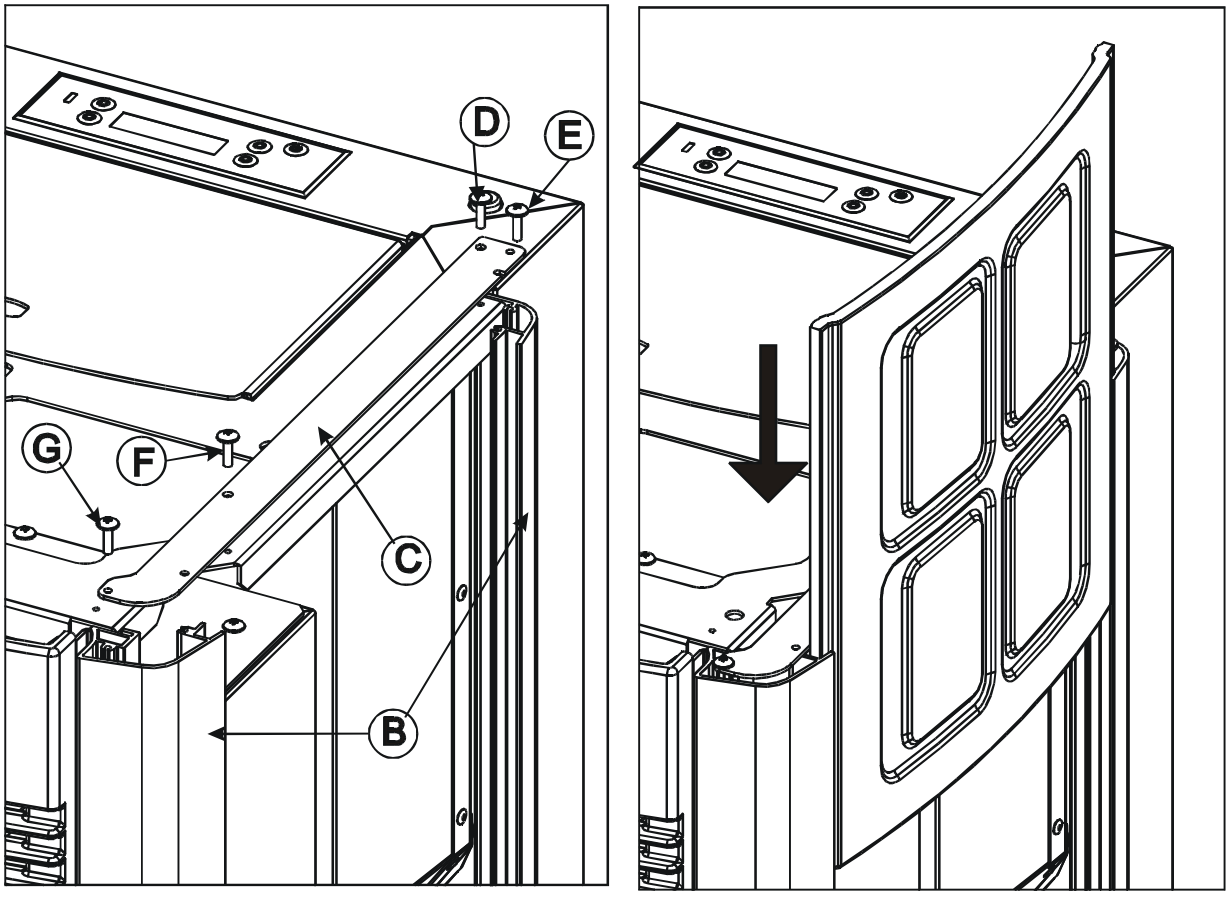
At this point take the ceramics (3 per side) or the soapstone (2 per side) and insert them on the profile (**B**) in correspondence to the element (**B3**) from above downwards. (fig.7)

You are advised to use small felt pads (two on the right and two on the left) to be applied at the tips of the ceramics (inwards) in correspondence to the part of the tile that comes into contact with the sheet metal profile (B3).

This prevents the ceramic from coming into contact with the metallic parts of the structure and compensates any differences in thickness of the tile.

Repeat the same operation for both sides. Reposition the cast iron top.

Figure 7 - STAR stove sides

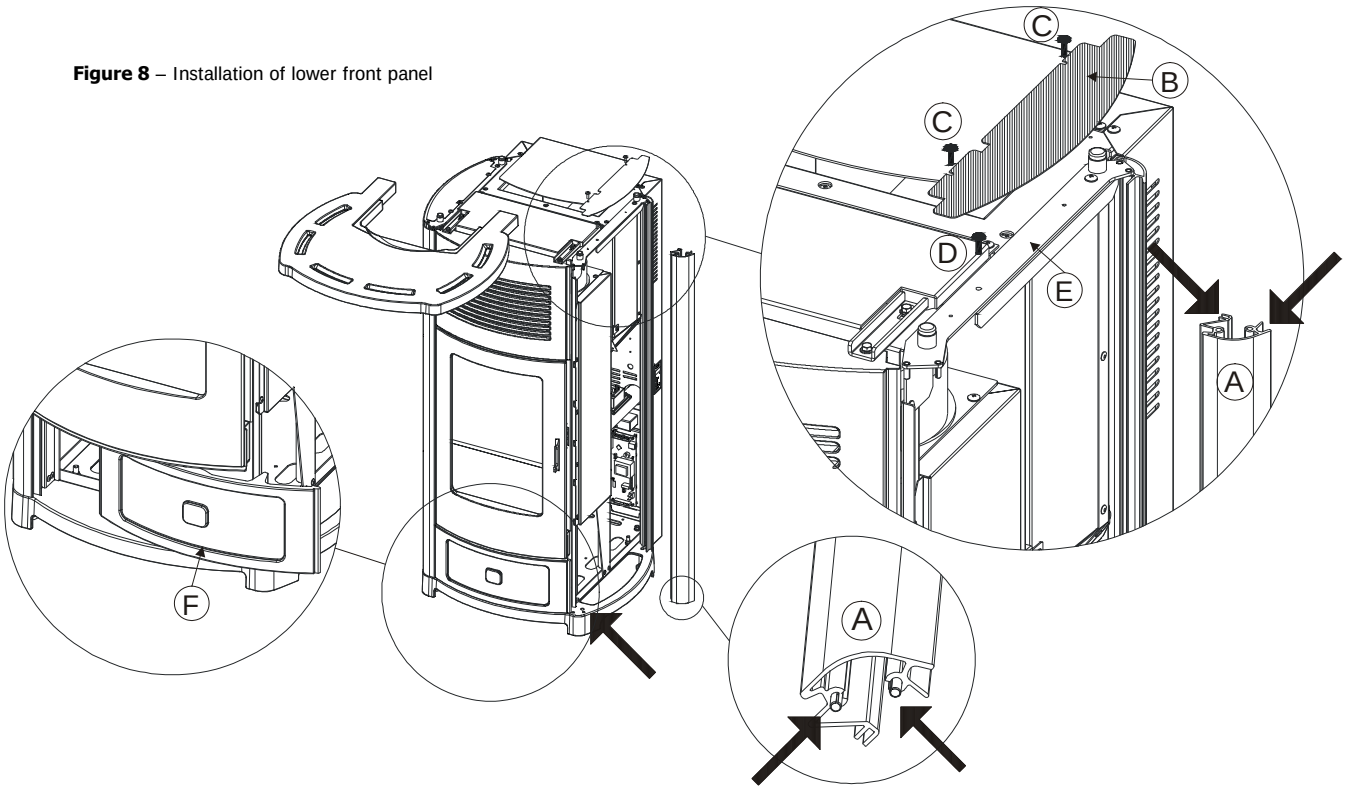


3.3.3. Assembly of the lower panel – Suite and Club Stoves

The stove is delivered with all the ceramics packed. Therefore, before assembling the side tiles and the top, it is necessary to insert the lower panel.
Proceed in the following way:

- Remove the micro-perforated sheet metal grill **B** on the right side (handle side) on the upper part by removing the two screws **C**.
- Remove the screw **D** on the sheet metal **E** in a way that the profile **A** is no longer locked.
- At this point slightly lift the sheet metal **E** and remove the profile **A**.
- To remove the profile **A** lift it (sliding it from the base) and tilt it slightly in a way that the plugs inserted on the base come out.
- Take the lower panel **F** and insert it from the right (handle side) towards the left in a way that it enters exactly in the housings
- Reinsert the profile **A** making the plugs enter the case, and lift the sheet metal **E** in a way to realign the profile "**A**". Work in a way that the upper plugs of the profile "**A**" are inserted in the housings of the sheet metal "**E**"**.**
- With the screw **D** close the sheet metal **E** that keeps profile **A** **locked** (fig.8)
- Before refitting the grill **B** with the two screws **C,** also insert the side tiles (See par.3.3.4)

Figure 8 – Installation of lower front panel



3.3.4. Installation of side tiles - Suite and Club Stoves

Remove the micro-perforated grill **B** and insert the three side tiles, making them slide from the top towards the bottom on the runners of the profiles **A**. On the upper and lower part of the tile it is advisable to place small felt pads. Level the bubbles of the tiles. At this point it is possible the retighten the micro-perforated grill **B** to the structure and position the ceramic top. (fig.9)

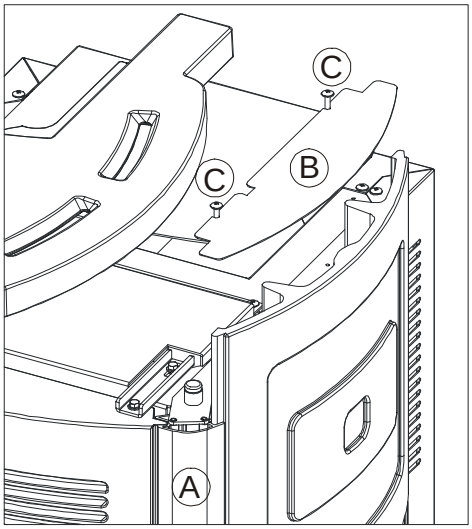


Figura 9 – Installation of side tiles

3.3.5. Installation of ceramic top - Suite and Club Stoves

Install the top by setting it on the four upper protuberances of the stove. The part underneath is provided with four small cavities at the rubber supports indicated in the figure*. (fig.10)*

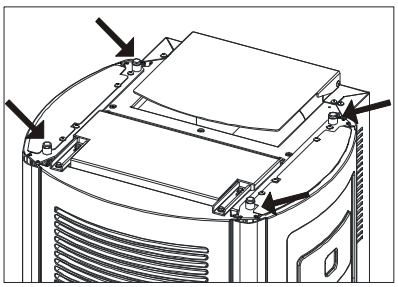


Fig.10 - Supports for installation of ceramic top

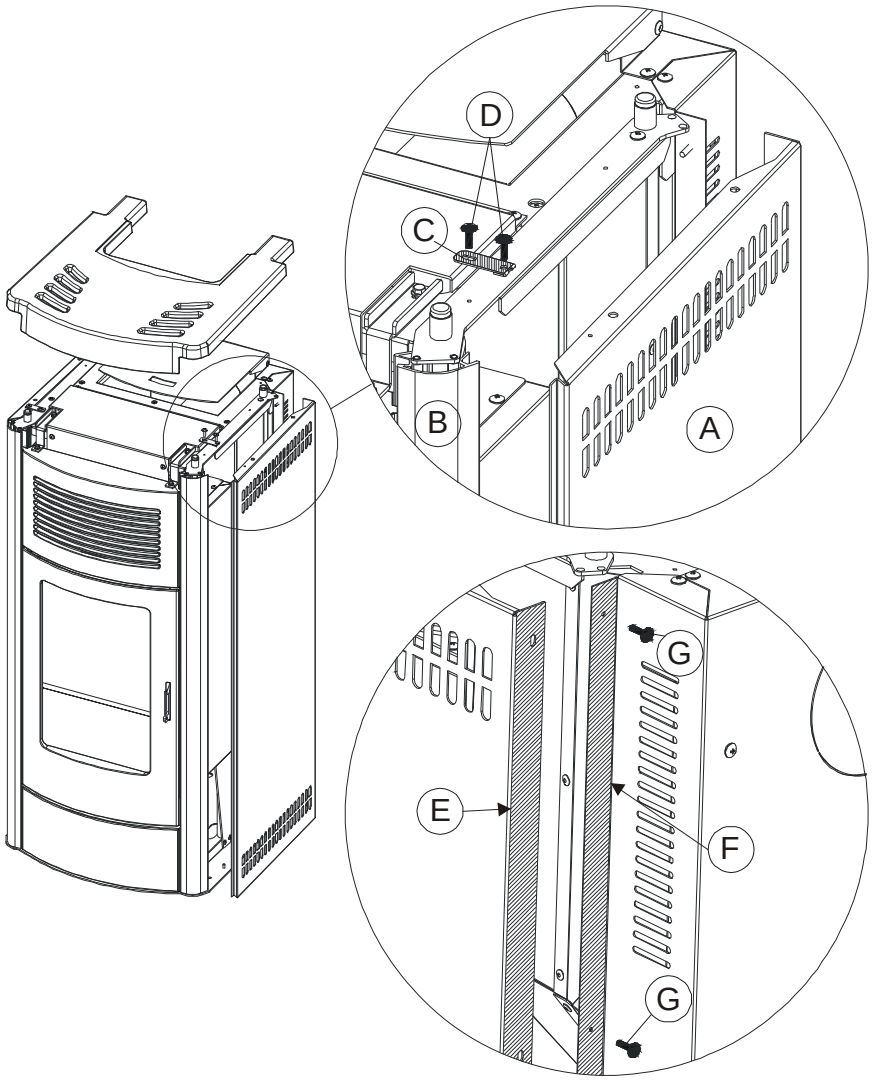
3.3.6. Assembly of sides on the MUSA stove

Remove the cast iron top, take the sides **A** (one for the right side and one for the left) and insert them on the runners of the profile **B** paying attention that the rear part of the side **E** (the one with a 90° bend) overlaps with the sheet metal bend of the structure **F** and that the lower part of the side enters in the plugs on the base.

Take the plate **C** provided and fix it with the two screws **D**, on the upper part in correspondence to the structure and the side.

The rear side must be fixed to the stove's structure using the four screws **G** provided.

When both steel sides **A** are assembled, replace the cast iron top.



REAR VIEW

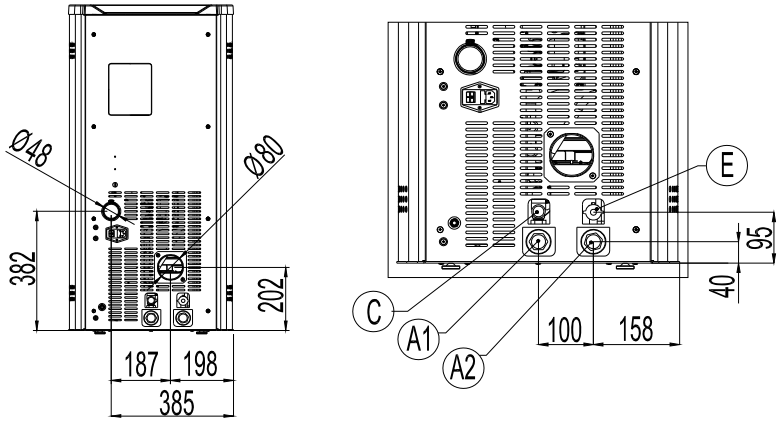
3.4. PLUMBING SYSTEM CONNECTION

IMPORTANT!

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

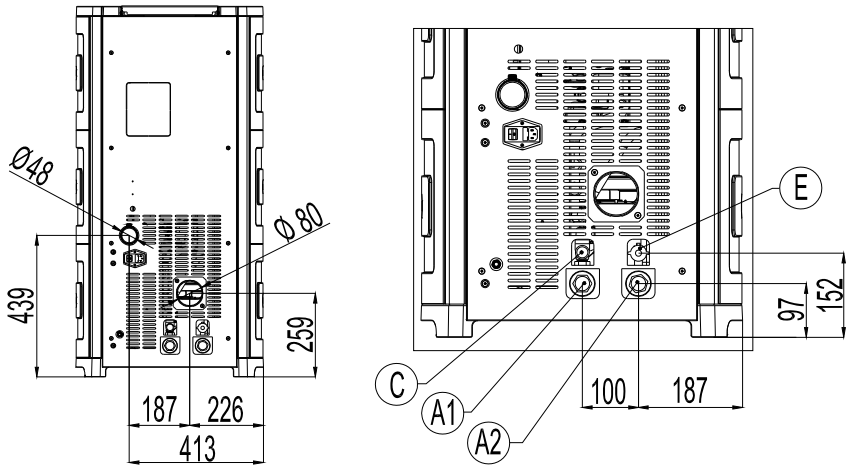
MCZ will not be held responsible for damage to persons or things in the event of failed operation if the aforementioned warning is not complied with.

CONNECTION DIAGRAM FOR EGO-STAR HYDRO STOVE



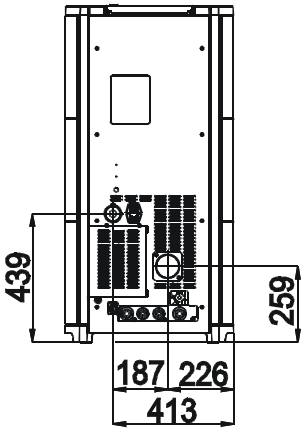
A1=Heating water delivery 3/4"M
A2=Heating water return 3/4"M
C=Safety valve 3 bar – 1/2"F
E=System emptying 1/2"F

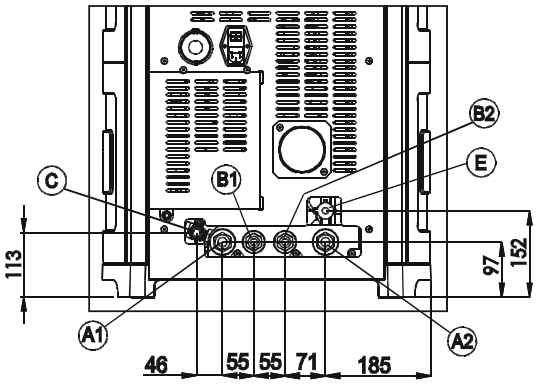
CONNECTION DIAGRAM FOR SUITE-CLUB HYDRO STOVE



A1=Heating water delivery 3/4"M
A2=Heating water return 3/4"M
C=Safety valve 3 bar – 1/2"F
E=System emptying 1/2"F

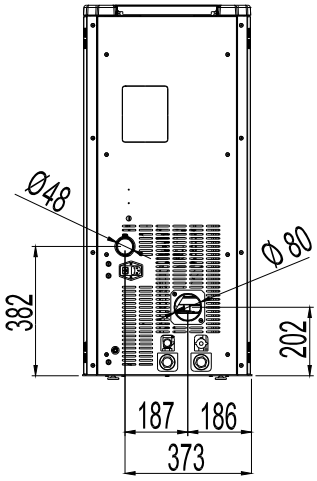
CONNECTION DIAGRAM FOR THE SUITE-CLUB HYDRO STOVE EQUIPPED WITH KIT FOR DOMESTIC HOT WATER PRODUCTION

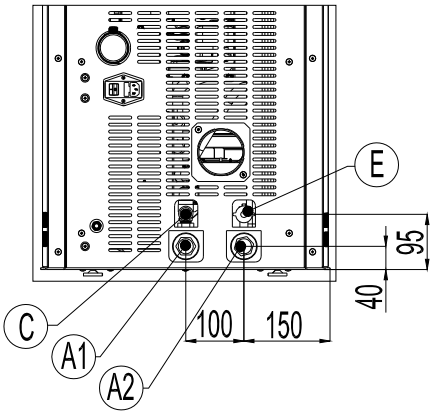




A1= Heating water flow pipe 3/4"M
A2= Heating water return pipe 3/4"M
C= 3 bar safety shut off valve– 1/2"F
E= System emptying device 1/2"F
B1= Domestic water flow pipe
B2= Domestic water return pipe

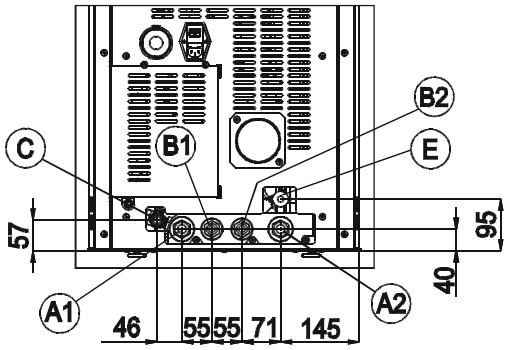
CONNECTION DIAGRAM FOR MUSA HYDRO STOVE





A1=Heating water delivery 3/4"M
A2=Heating water return 3/4"M
C=Safety valve 3 bar – 1/2"F
E=System emptying 1/2"F

CONNECTION DIAGRAM FOR THE MUSA HYDRO STOVE EQUIPPED WITH KIT FOR DOMESTIC HOT WATER PRODUCTION



A1= Heating water flow pipe 3/4"M
A2= Heating water return pipe 3/4"M
C= 3 bar safety shut off valve– 1/2"F
E= System emptying device 1/2"F
B1= Domestic water flow pipe
B2= Domestic water return pipe

3.4.1. Connections to the system

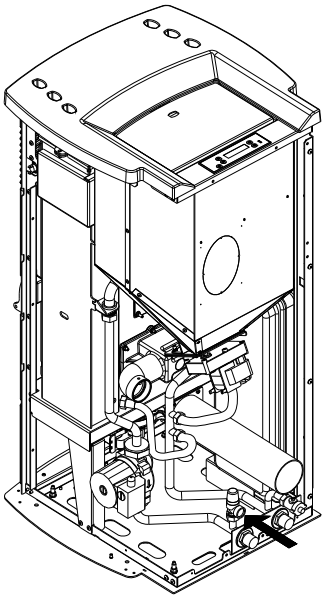
Make the connections to the corresponding fittings shown in the diagram on the previous page. Make sure the pipes are not placed under tension or undersized.

IMPORTANT

IT IS STRONGLY RECOMMENDED TO WASH THE ENTIRE SYSTEM BEFORE CONNECTING IT IN ORDER TO GET RID OF RESIDUES AND DEPOSITS.

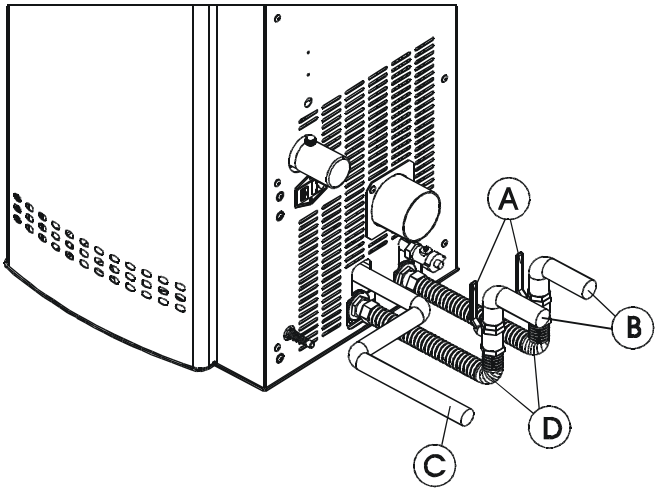
Upstream from the stove, always install shutters so as to disconnect it from the plumbing system should it be necessary to move it, or when it requires routine and/or special maintenance.

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



Pressure discharge valve (3 bar)

The pressure discharge valve (C) is always connected to a water drain pipe. The pipe must be adequate to support the water's high temperature and pressure.



A = TAP
B = DOMESTIC SYSTEM
C = PRESSURE DISCHARGE
D = FLEXIBLE PIPES

3.4.2. System filling

To fill the system, the stove can be equipped with an end piece *(optional)* with a non-return valve **(D)**, for manual filling of the heating system (if the *optional* is not installed, the filling tap on the main boiler will be used). During this operation, any air in the system is released from the automatic vent valve located under the top.

To ensure the valve vents correctly, it is advisable to loosen the grey cap one turn and to keep the red cap blocked *(see figure)*

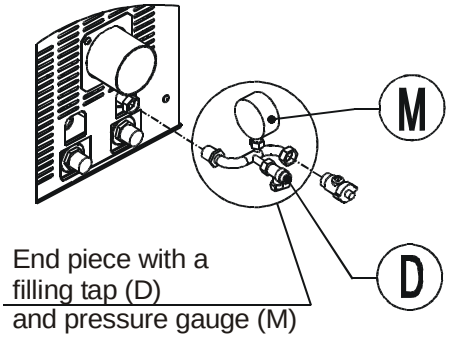
The filling pressure of the system **WHEN COLD** must be **1 bar.**

During operation, if the system pressure drops (due to evaporation of dissolved gases in the water) to values lower than the minimum indicated above, the user must use the filling tap to bring the pressure back up to its normal pressure.

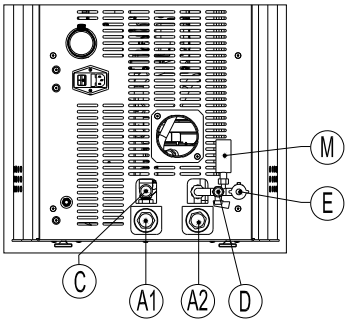
For proper operation of the stove **WHEN HOT,** the pressure in the boiler must be**1.5 bar**.

To monitor system pressure, the end piece *(optional)* **is equipped with a pressure gauge (M).**

Upon completion of this operation, **always** close the tap.



End piece with a filling tap (D) and pressure gauge (M) (accessory)



Filling tap (D)
Pressure gauge (M)

3.4.3. Water characteristics

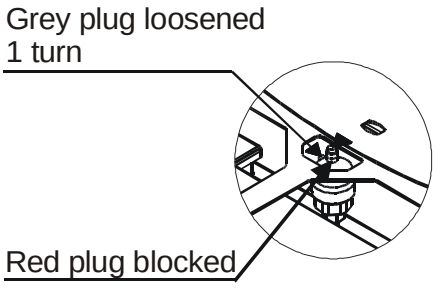
The characteristics of the water used to fill the system are very important to prevent the build-up of mineral salts and the formation of incrustations along the pipes, in the boiler and in the heat exchangers.

Therefore, please GET YOUR PLUMBER'S ADVICE CONCERNING:

- Hardness of water circulating in the system, to prevent problems of incrustation and limescale, especially in the domestic water heat exchanger. (> 25° French)
- Installation of a water softener (if water hardness exceeds 25° French)
- Filling the system with treated water (demineralised).
- Possibly providing an anti-condensation circuit.
- Installation of plumbing bumpers to prevent banging along the fittings and pipes.

If you have very extensive systems, with a large amount of water, or which require frequent refilling, the installation of water softening systems.

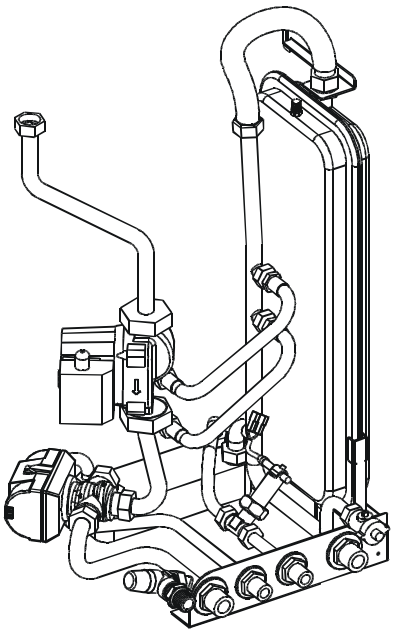
It should be remembered that incrustations drastically reduce performance due to low thermal conductivity.



Vent valve under the top

3.5. KIT FOR DOMESTIC HOT WATER PRODUCTION (Optional) Only for Suite/Club/Musa stoves

SUITE – CLUB and MUSA stoves can also be equipped with a full kit for the production of domestic hot water. This kit comprises:



- A plate heat exchanger
- A three-way diverter valve
- Water flow switch
- Pipes and unions for connection

The kit is designed to heat domestic water directly from the home water supply system. MCZ supplies the kit ready-assembled.
When the tap is turned on and hot water is needed, the internal water flow switch will send a signal to the diverter valve to channel the hot water from the boiler (where it is stored) to the plate heat exchanger. The temperature of the domestic water depends a great deal on the temperature of the water inside the heating system. This can be calculated to a good degree of accuracy by taking 10°-15°C away from the value shown on the control panel of the stove (which is the temperature of the water in the boiler).

If hot domestic water is needed while the stove is 'Off' or in 'off ECO-STOP' mode, the stove will automatically and immediately begin the start-up process to heat the water inside the boiler, followed by the domestic hot water.
Le stufe SUITE – CLUB e MUSA possono essere munite anche di un kit

To ensure that the plate heat exchanger continues to operate correctly over time, it is important that you know the water hardness of your system to prevent deposits from forming.

If the water in your home is very hard, you are advised to install a softening system upstream (see chapter 3.4.3)

You are advised to maintain the plate heat exchanger annually to eliminate calcium sediments and mineral salts or to replace heating plates with new ones. MCZ supplies these replacement parts.

3.6. EXAMPLE INSTALLATION DIAGRAMS

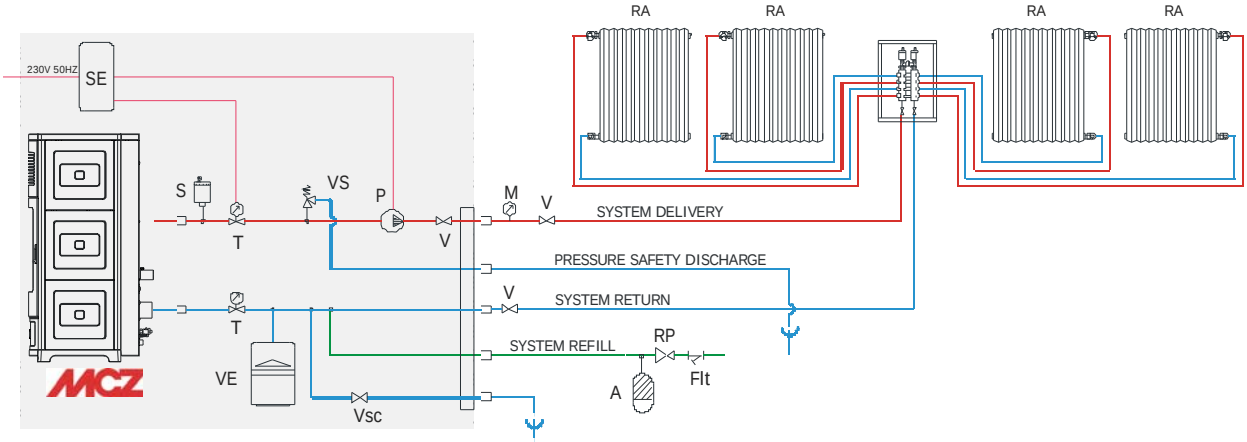
The following diagrams are to be used only as a guideline. For proper connection, always follow the notes for the plumbing and heating installer. The plumbing system must meet local, regional or national requirements. Installation and verification of operation is to be performed only by specialized, authorized personnel.

MCZ will not be held liable for non-compliance with the provisions listed above.

3.6.1. Installation diagram for heating system without domestic hot water kit (EGO/STAR/SUITE/CLUB/MUSA)

PERFORMANCE:

HEATING WITH STOVE



CONFIGURATION: STAR/EGO/SUITE/CLUB/MUSA WITH DOMESTIC HOT WATER KIT

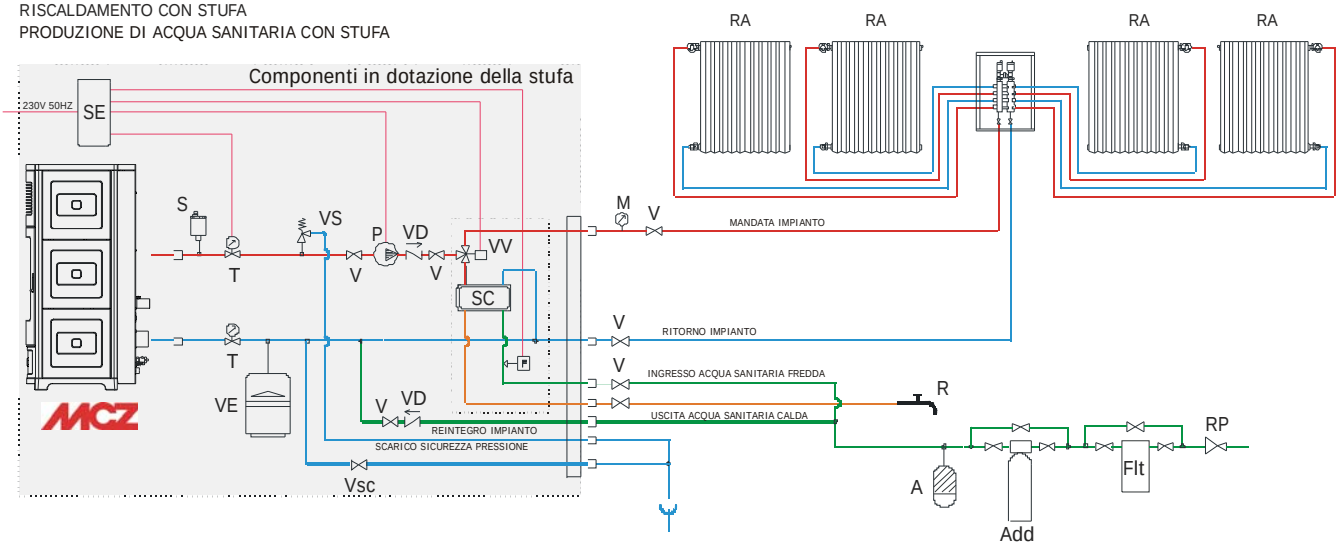
SYSTEM OF SYSTEM WITH CLOSED TANK ONLY FOR HEATING BY MEANS OF RADIATORS

SIGNATURFORKLARING:

SE Electronic card	VD One-way valve	C Methane gas boiler	A Pounding absorber
S Automatic vent	T Measurement of boiler temperature	B Boiler	RP Pressure reduction valve
M Pressure gauge	VE Expansion tank, 1.5 bar of 6 l	BA Storage boiler	Vsc Boiler/system discharge valve
VS Vent valve, 3 bar	W 3-way motorized valve	RA Radiators	Flt System filter
V Valve	SC Plate heat exchanger	PR Radiant panels	Add Softener
P Pump	F Flow switch	PS Solar panels	

3.6.2. Installation diagram for heating system with domestic hot water kit (SUITE/CLUB/MUSA)

PRESTAZIONI:
RISCALDAMENTO CON STUFA
PRODUZIONE DI ACQUA SANITARIA CON STUFA



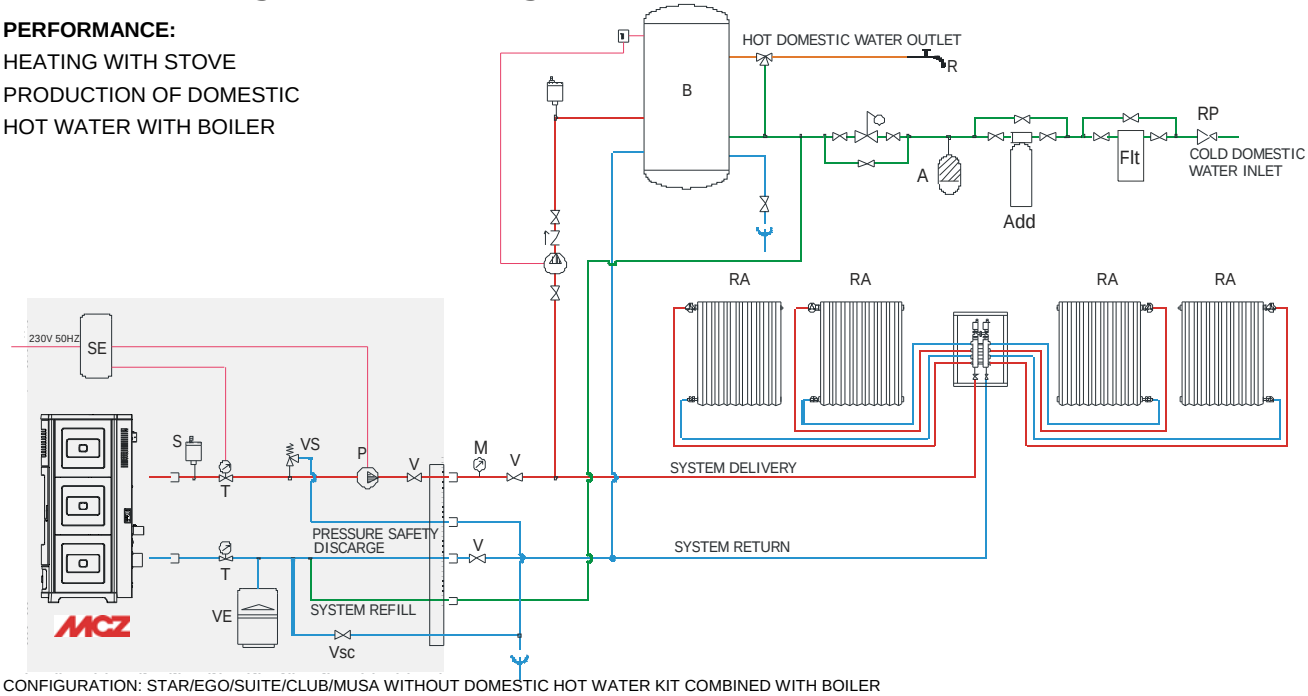
CONFIGURAZIONE: SUITE/CLUB/MUSA CON KIT SANITARIO
SCHEMA IMPIANTO A VASO CHIUSO PER RISCALDAMENTO MEDIANTE RADIATORI O PRODUZIONE DI ACQUA CALDA SANITARIA

LEGENDA:

SE	Scheda elettronica	VD	Valvola unidirezionale	C	Caldaia a gas metano	A	Ammortizzatore colpi d'ariete
S	Sfiato automatico	T	Misurazione temperatura caldaia	B	Bollitore	RP	Valvola riduttrice di pressione
M	Manometro	VE	Vaso di espansione 1,5 bar da 6 lt	BA	Bollitore ad accumulo	Vsc	Valvola scarico impianto/caldaia
VS	Valvola di sfiato 3 bar	VV	Valvola a 3 vie motorizzata	RA	Radiatori	Flt	Filtro impianto
V	Valvola	SC	Scambiatore a piastre	PR	Pannelli radianti	Add	Addolcitore
P	Pompa	F	Flussostato	PS	Pannelli solari		

3.6.3. Heating installation diagram in combination with a boiler

PERFORMANCE:
HEATING WITH STOVE
PRODUCTION OF DOMESTIC
HOT WATER WITH BOILER



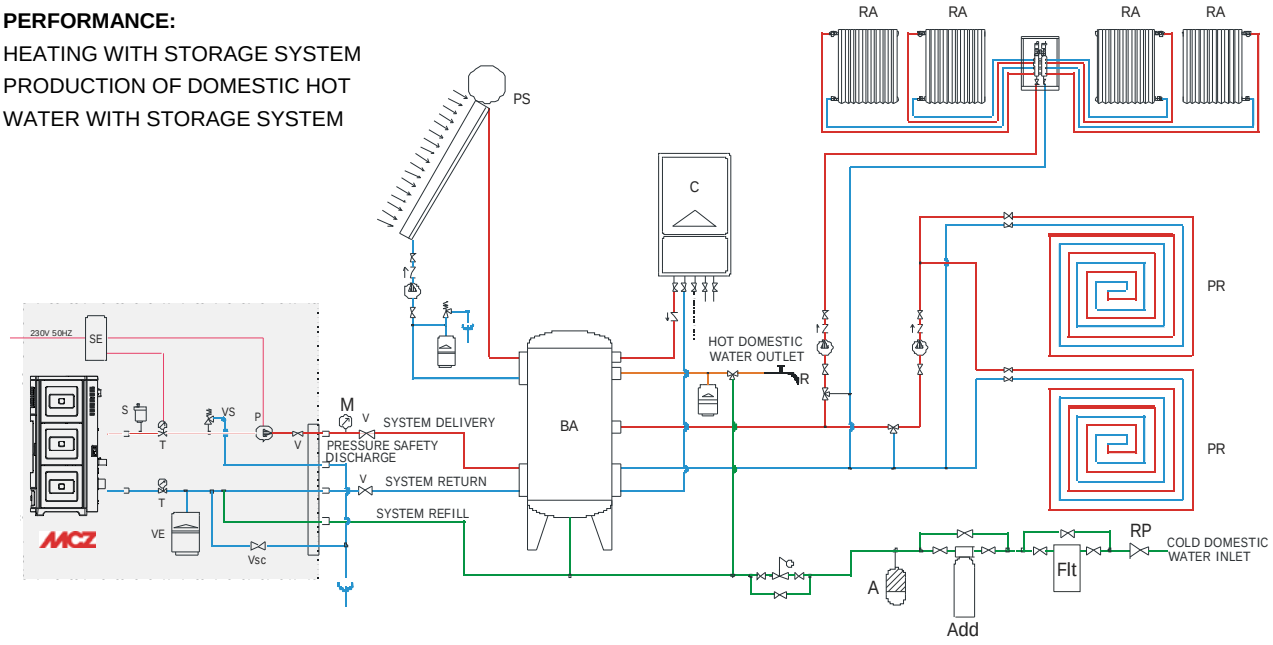
CONFIGURATION: STAR/EGO/SUITE/CLUB/MUSA WITHOUT DOMESTIC HOT WATER KIT COMBINED WITH BOILER
HEATING WITH STORAGE SYSTEM PRODUCTION OF DOMESTIC HOT WATER WITH STORAGE SYSTEM

SIGNATURFORKLARING:

SE	Electronic card	VD	One-way valve	C	Methane gas boiler	A	Pounding absorber
S	Automatic vent	T	Measurement of boiler temperature	B	Boiler	RP	Pressure reduction valve
M	Pressure gauge	VE	Expansion tank, 1.5 bar of 6 l	BA	Storage boiler	Vsc	Boiler/system discharge valve
VS	Vent valve, 3 bar	W	3-way motorized valve	RA	Radiators	Flt	System filter
V	Valve	SC	Plate heat exchanger	PR	Radiant panels	Add	Softener
P	Pump	F	Flow switch	PS	Solar panels		

3.6.4. Heating installation in combination with a storage tank

PERFORMANCE:
HEATING WITH STORAGE SYSTEM
PRODUCTION OF DOMESTIC HOT
WATER WITH STORAGE SYSTEM



CONFIGURATION: STAR/EGO/SUITE/CLUB/MUSA WITHOUT DOMESTIC HOT WATER KIT COMBINED WITH STORAGE SYSTEM WITH BOILER AND SOLAR PANELS
SYSTEM DIAGRAM WITH CLOSED TANK FOR HEATING WITH RADIATORS OR RADIANT PANELS AND FOR THE PRODUCTION OF DOMESTIC HOT WATER

SIGNATURFORKLARING:

SE	Electronic card	VD	One-way valve	C	Methane gas boiler	A	Pounding absorber
S	Automatic vent	T	Measurement of boiler temperature	B	Boiler	RP	Pressure reduction valve
M	Pressure gauge	VE	Expansion tank, 1.5 bar of 6 l	BA	Storage boiler	Vsc	Boiler/system discharge valve
VS	Vent valve, 3 bar	W	3-way motorized valve	RA	Radiators	Flt	System filter
V	Valve	SC	Plate heat exchanger	PR	Radiant panels	Add	Softener
P	Pump	F	Flow switch	PS	Solar panels		

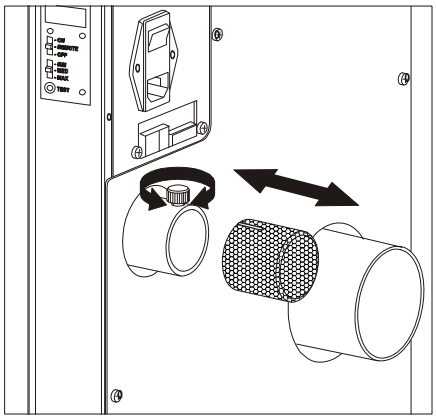
3.7. INSTALLATION OF AIR FILTER

Before placing the stove near the wall for connection to the flue pipe and to the electrical mains, install the air filter provided with the stove.

The cylindrical filter is composed of a metallic net and is already installed on the stove

The filter must be inserted on the air inlet pipe Ø 5 cm.

To remove it, slightly loosen the screw with the knob on the air inlet, insert the filter matching it with the filter groove with the screw of the knob and then secure it by tightening the knob.



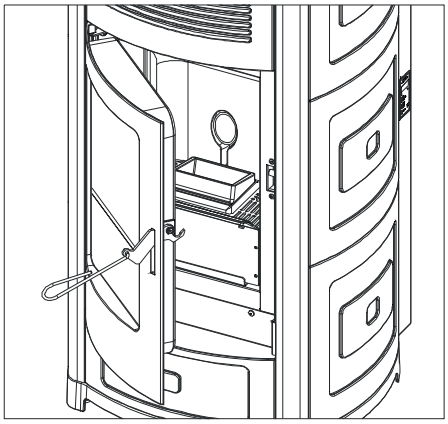
Installation/removal of air filter

ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

3.8. OPENING/CLOSING THE DOOR

The door is opened with the hook on the door, which must be lifted using the cool hand provided.



Opening/closing the door

WARNING!

In order for the stove to operate correctly, it is essential that the door be closed completely.

3.9. MAKING THE ELECTRICAL CONNECTIONS

Connect the supply cable first at the rear of the stove and then to an electrical outlet on the wall.

The main switch located on the rear of the stove should be switched on only when you want to light the stove.

Electrical connection of the stove

If you do not intend to use the stove, it is advisable to keep it switched off.

4. OPERATION

4.1. PRE-LIGHTING WARNINGS

Do not touch the stove 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 the section "Accessories for pellet stoves").

It is good practice to provide plenty of ventilation in the room during the initial lighting, as the stove will give off a small amount of smoke and smell of paint.

Do not stay near the stove, and as previously mentioned, ventilate the room. The smoke and the smell of paint will vanish after about one hour of operation. There are no health risks involved.

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

This phenomenon is absolutely normal, the structure being made of sheet steel, and must not be considered a fault.

It is extremely important to be sure not to take the stove to full heat straight away, but to bring it gradually up to temperature.

If in manual mode, use low heating powers (for example 1^a-2^a-3^a). During subsequent use, you will be able to make use of all available heating power (e.g. 4^a-5^a), but remember not to keep the stove running on full power for more than 60-90 minutes.

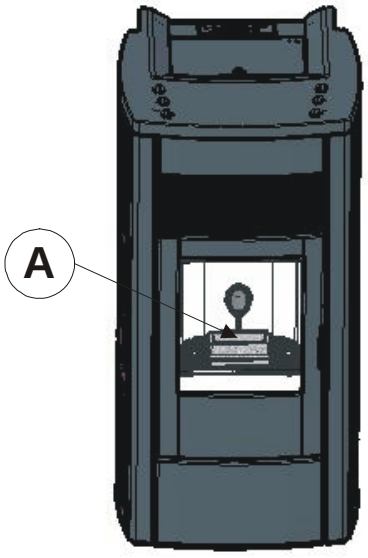
In this way you will avoid damage to the ceramic panels, the welds and the steel structure.

At first lighting the stove is already in manual mode. At first, it is advisable to use the only low and medium heating levels (from first to third power level).

Do not demand full heating performance straight away!

Try to get familiar with the commands given from the control panel.

4.2. PRE-LIGHTING CHECK



Check that all the safety conditions described above have been met.

Make sure you have read and completely understood the contents of this instruction booklet.

Remove any components which might burn from the firebox and from the glass (various instructions and adhesive labels).

Check that the grate **A** is properly positioned and rests correctly on the base.

After long periods of disuse, remove from the hopper (**using a vacuum cleaner with an extension**) any remains of pellets which have lain there for some time, since they may have absorbed moisture, which changes their original characteristics and makes them unsuitable for burning.

4.3. LOADING THE PELLETS

Fuel is loaded from the upper part of the stove by opening a door. Pour the pellets in the hopper. When empty, it will hold slightly more than a 15 kg sack.

This is easier if performed in two steps:

- Pour half of the contents into the hopper and wait for the fuel to settle on the bottom.
- Then pour in the rest

Never remove the protection grille in the hopper. When filling, do not let the sack of pellets touch any hot surfaces.

Do not place any type of fuel in the hopper other than pellets that are compliant with the specifications provided previously.

4.4. SUPPLEMENTARY HOPPER CONDUIT (accessory)

On the rear part of the stove, in correspondence of the pellet hopper, a pre-cut knockout panel has been provided for connecting a conduit for a supplementary hopper (accessory) externally of the stove. To open the pre-cut knockout panel, strike it with a rubber mallet.

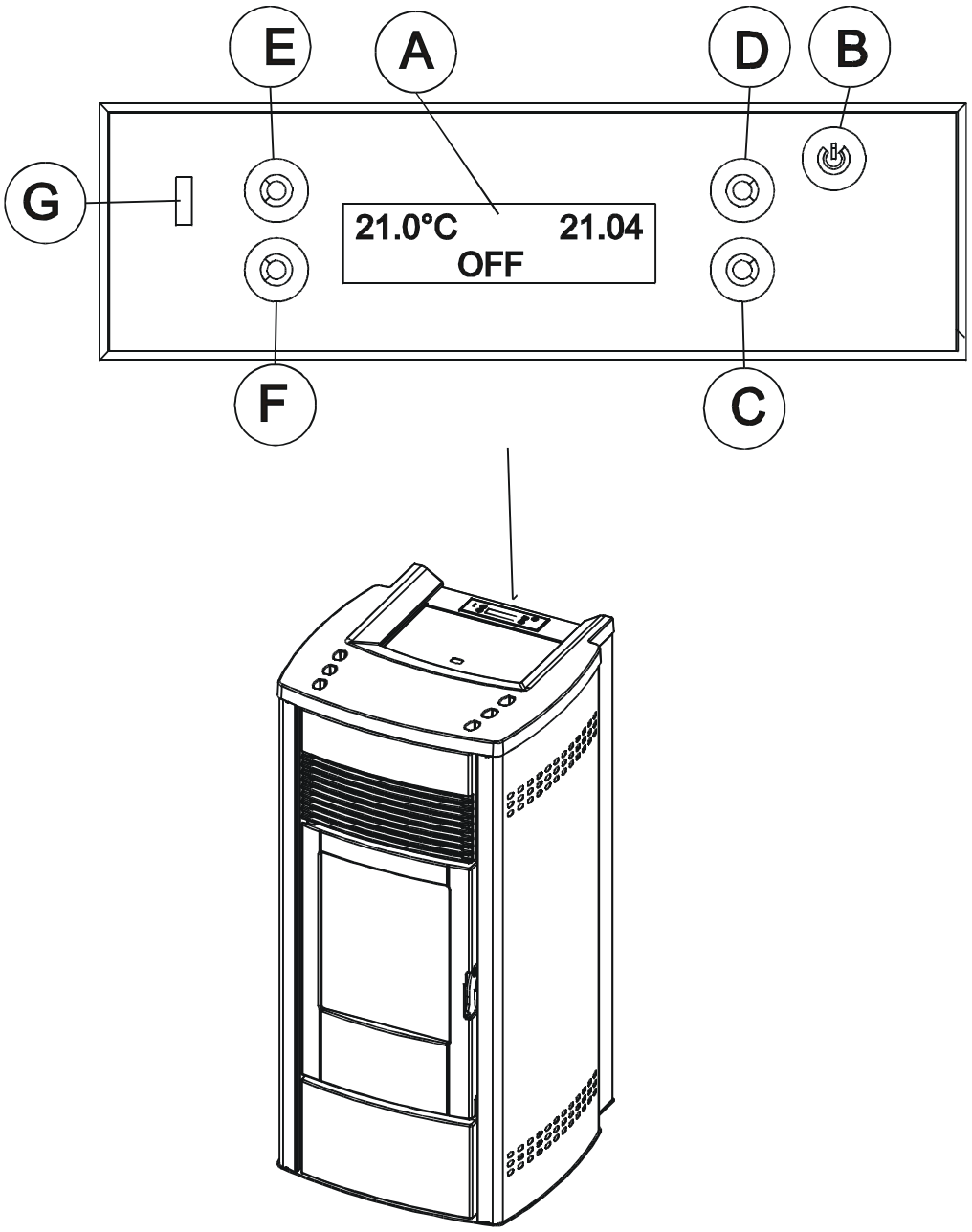
Place the conduit plate on the stove body so that the conduit itself faces upward. Fasten the conduit to the stove body using the 4 screws provided with the accessory.

4.5. DISPLAY PANEL AND COMMANDS

4.5.1. Control panel logic

Reported below are some useful information to understand the navigation logic and use the control panel:

- The luminosity of the control panel is switched off after about 30" seconds of the keyboard being inactive. To switch on the back lighting again just press any of the buttons on the panel.
- The first screen that appears displays the operating status of the stove (ON, OFF, LIGHTING, SHUTDOWN..) that alternates with any other settings activated (TIMER, SLEEP, AUTO ECO..)
- By pressing any of the 4 keys around the display (C D E F) you access the stove's operation settings screen (level of the flame, fan, set temperature, manual or automatic mode..). From this level the 4 keys around the display assume "dedicated" functions, i.e. they directly refer to the corresponding words that appear in the 4 corners of the display (e.g.: the word in the top right hand corner refers to the D key).
- When a setting is modified in any menu level without confirming the modification using the "OK" key and leaving the keypad inactive for some seconds, the initial screen reappears and the modifications are not saved.
- If from any menu level the on/off (B) key is briefly pressed, the display is automatically taken back to the initial screen (stove operating status) without saving any modifications not confirmed with the "OK" key.



KEY

A. Display; indicates a series of information about the stove, as well as the identification code for any operating anomaly.

B. ON/OFF key or ESC (exit the menu).

C. Programme selection key (next screen)

D. Programme selection key (next screen)

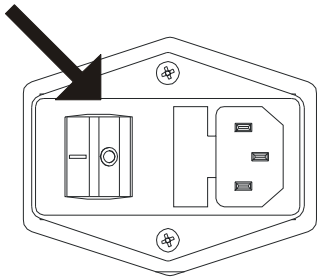
E. Programme selection key (next screen)

F. Programme selection key (next screen)

G. Receiver for the remote control

N.B. on the control panel it will be possible to set the language

4.6. SETTINGS TO CARRY OUT BEFORE FIRST LIGHTING



Once the power cord is connected to the rear part of the stove, place the switch, also on the rear, to position **(I).**

The lighted button of the switch will come on.

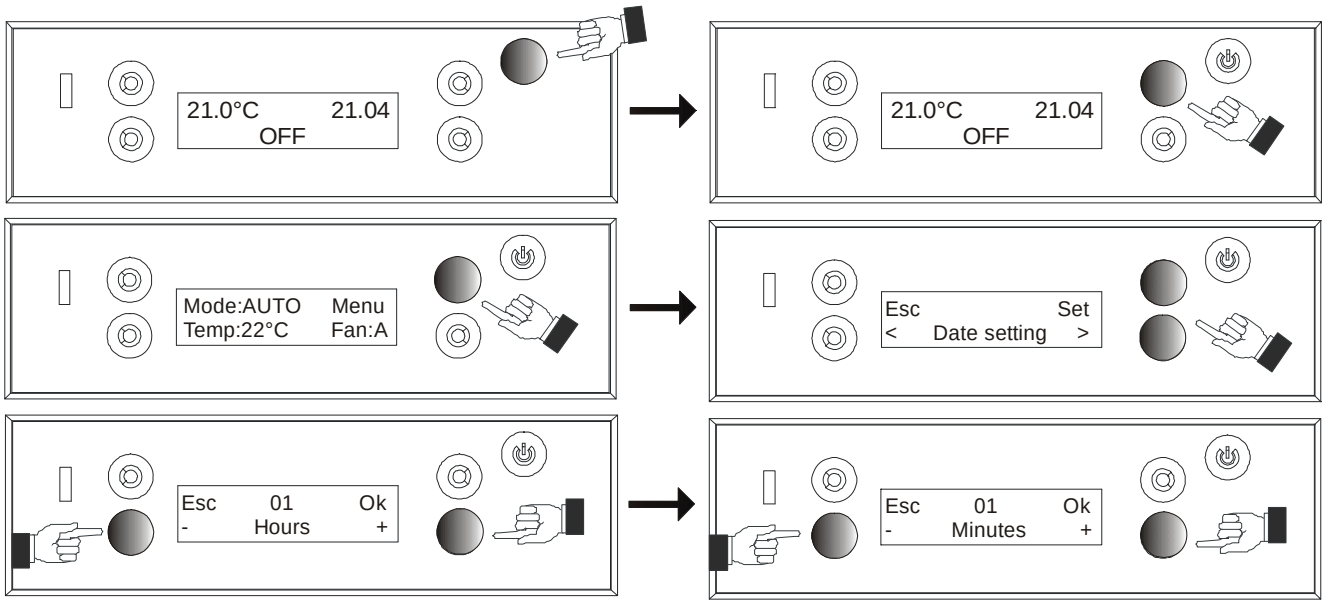
The switch located to the rear of the stove powers the system.
The stove is off and on the panel the first screen appears with the word **OFF;** by pressing any key the screen with the word **MENU** will appear.

4.6.1. Setting current day and time

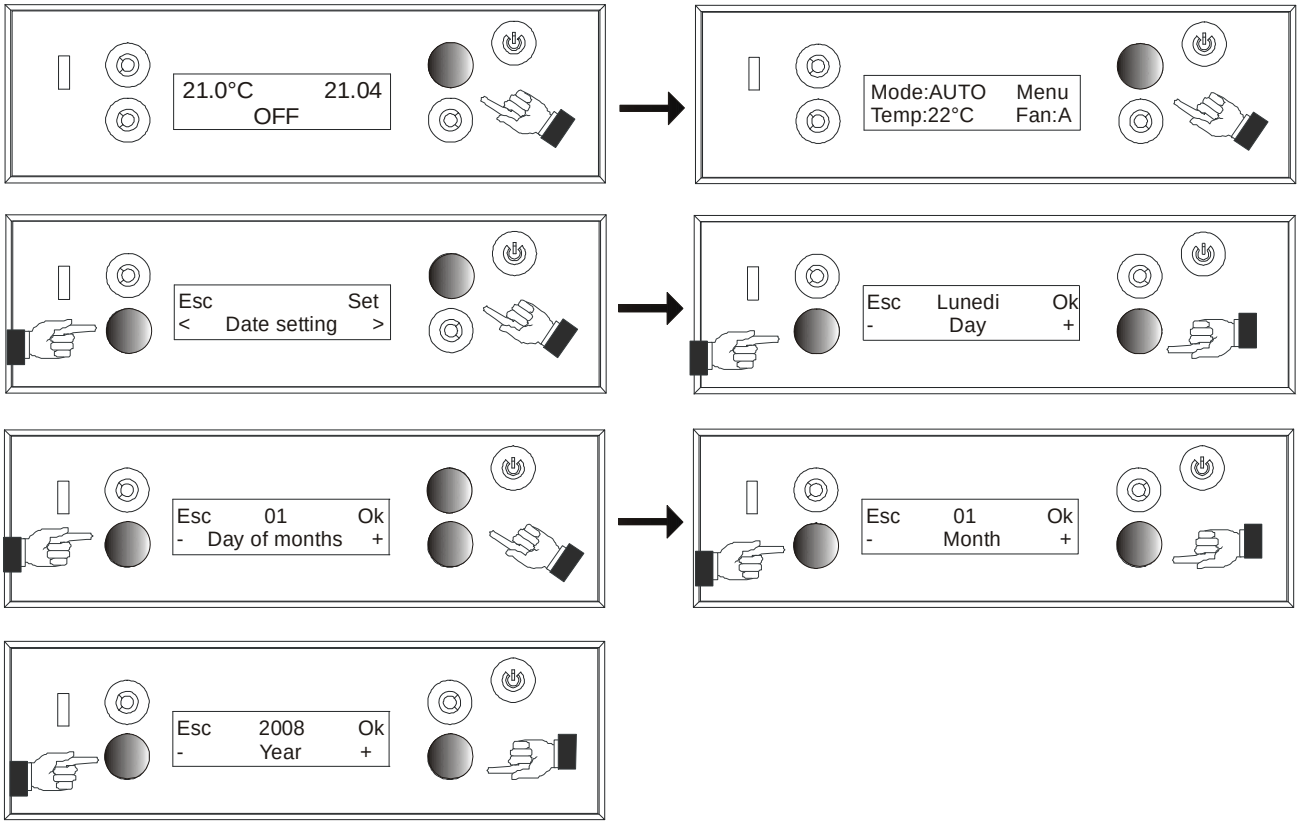
By pressing the key concerning **MENU** the word **SET** will appear. Type **SET** and the programme will appear to change:
hour
minutes
day
day of month
month
year
To modify the time, for example, when **TIME** appears on the display, press **SET**, the time will begin to flash in the centre of the display. With the lower left or right keys modify the hour and subsequently the minutes, day etc... etc... in the same way and according to need. All the modification made must be confirmed by pressing **OK, otherwise they will not be saved**. The **ESC key returns to the previous screen without saving the modifications**.

If for 10 seconds the keypad of the control panel is inactive, it returns to the start screen without saving the modifications.

TIME ADJUSTMENT



DAY/DAY NUMBER/MONTH/YEAR ADJUSTMENT

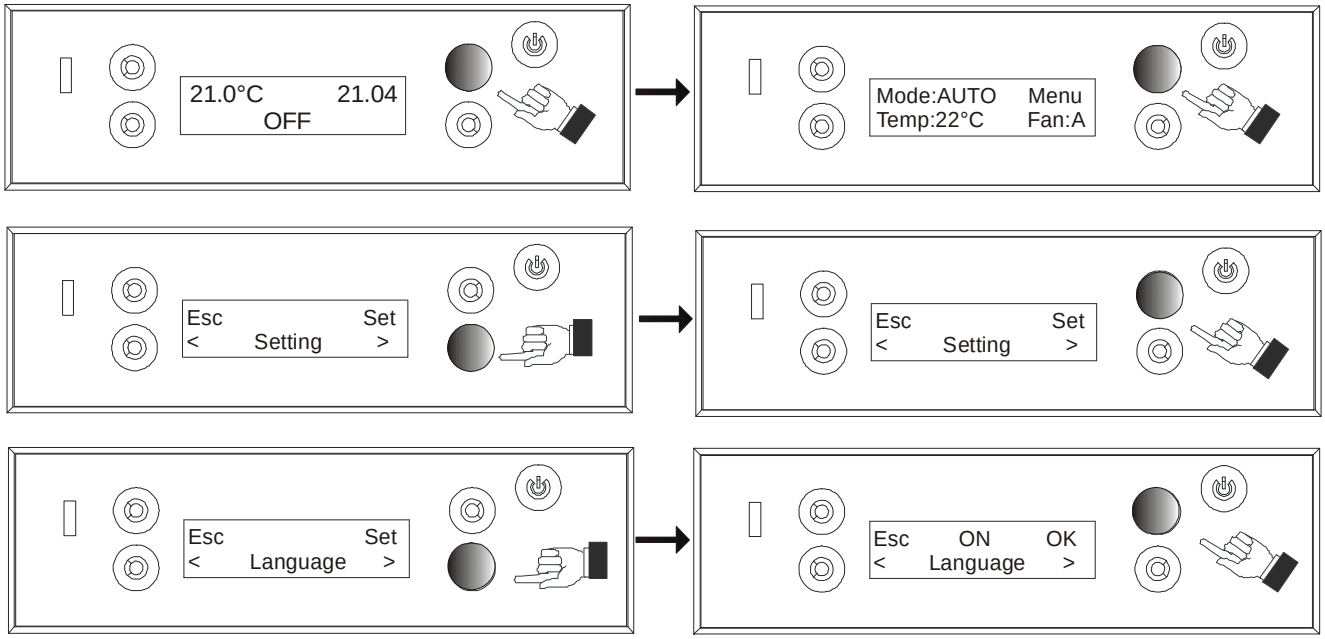


4.6.2. Setting the language

From the start screen, press any key and the screen with the word **MENU will appear**.
Press the key concerning **MENU** then scroll with the keys downwards to the right until the word **SETTING/IMPOSTAZIONI** appears, press **SET** and scroll with the keys downwards until the word **LANGUAGE/LINGUA** appears, press **SET** again and set the language chosen.

The following abbreviations are used for the days of the week deriving from the language set in the panel: In the case of English:

MO	➔	Monday
TU	➔	Tuesday
WE	➔	Wednesday
TH	➔	Thursday
FR	➔	Friday
SA	➔	Saturday
SU	➔	Sunday



4.6.3. Procedure for recipe selection

The message "Recipe" will appear on the control panel menu, under the settings menu. This function is used to increase or decrease pellet loading in the hopper and is represented as follows:

- To increase: +1 +2 +3 which corresponds to 5-10-15% more in comparison to the standard recipe set by the company.
- To decrease: -1 -2 -3 which corresponds to 10-20-30% less in comparison to the standard recipe set by the company

4.7. CONTROL OF WATER TEMPERATURE IN BOILER

The stove is already set with a series of standard parameters that allow it to operate properly (water temperature 65°C and room temperature 22°C). The water temperature is shown on the control panel display, which alternates with the room temperature.

If the user wants to change the parameters related to the temperature, it can be done as follows:

The following parameters can be set:

T Ambient From the first screen with the message OFF, press any key and the screen with the message MENU will appear.

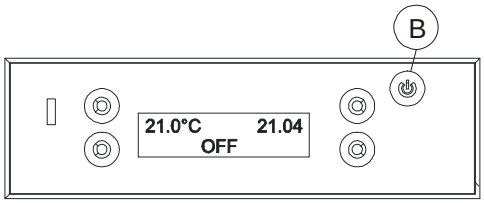
Using the bottom left button it is possible to adjust the temperature desired in the room.

T H_2O = Maximum temperature of water in boiler. Upon reaching this temperature, the stove will reduce its performance to prevent overheating. The default temperature is 65°C and it cannot be set below 50°C or over 80°C.

To adjust it: **press any button; press the "MENU" button; using the buttons for scrolling, display the "SET TEMP.H_2O" screen; press the "SET" button; set the desired temperature using the buttons for scrolling " < > "; confirm the temperature with the "OK" button.**

4.8. FIRST LIGHTING

4.8.1. Start-up/shutdown from the control panel



The stove is ignited and shutdown by **pressing key B on the control panel for 2 seconds.**

After a start-up phase that lasts about 15 minutes, the stove will come up to full operating power.

After the stove is shut down by pressing button B on the control panel, the cooling-off procedure begins. This includes the interruption of fuel loading, the cleaning of the grate and the continuation of ventilation until the stove is sufficiently cold. This phase may last from 20 to 40 minutes depending on how long the stove was lit and its position.

4.8.2. Note on first ignition

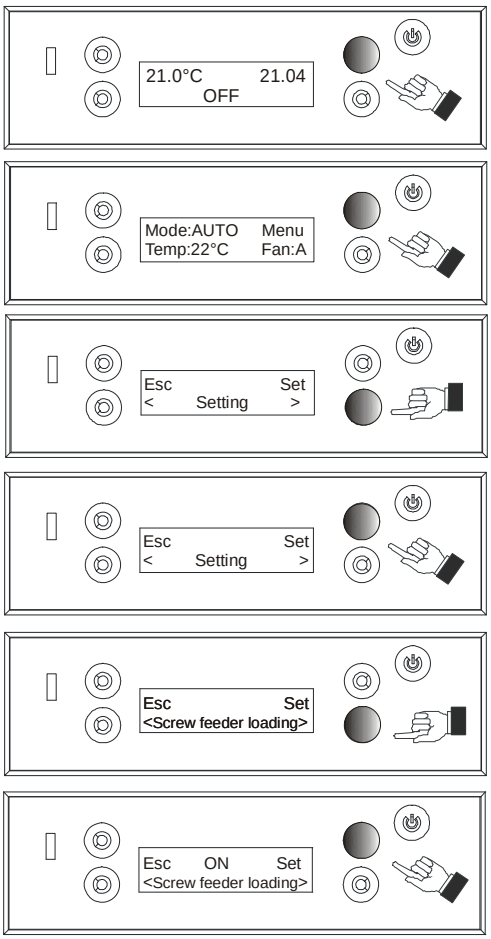
The first attempt at ignition may not be successful, since the feeder screw is empty and it is not always able to fill the grate with required amount of pellets in time to ensure normal ignition.

If the screw feeder is empty, use the control panel to activate manual screw feeder loading.

CANCEL THE ALARM CONDITION FROM THE CONTROL PANEL (see paragraph 4.14)., REMOVE PELLETS IN THE GRATE AND REPEAT LIGHTING

After repeated attempts at lighting, if there is no flame even though pellets are flowing normally, check that the grate is correctly positioned. It must be **placed where it adheres perfectly to its housing and free of any ash incrustations**. If after this check no abnormalities are found, it means that there may be a problem with the stove components or that installation may not have been carried out correctly.

REMOVE THE PELLETS FROM THE BURNER AND CONTACT AN AUTHORISED MCZ TECHNICIAN.



Screw feeder loading

4.9. OPERATING MODE

4.9.1. Operating concept

AUTOMATIC mode lets you set the desired temperature in the room of installation. The stove will control its power autonomously in order to reach and maintain the established temperature in the room. This mode is indicated by the message **AUTO** on the control panel.

It is also possible to use an advanced function called **AUTO-ECO** that will be explained below (*section 4.9.3.*)

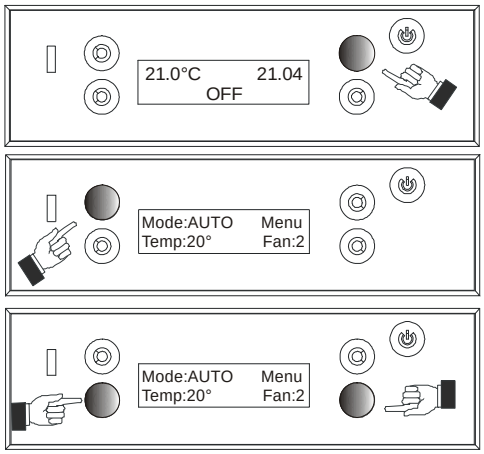
At each lighting, the stove automatically sets to the operating mode that it was in the last time it shut down.

4.9.2. Automatic mode

The **AUTOMATIC** mode lets you set a temperature to be reached in the room. In this operating mode the stove will automatically vary the thermal power provided so as to keep the temperature in the room constantly at the set value.

Upon reaching the desired temperature in the room, the stove will gradually go to minimum power. If instead the room temperature drops below the set limit, the stove will gradually come back up to maximum hearing performance.

The room temperature is highlighted by the control panel using the reading of the probe placed near the switch of the stove.



Automatic mode

4.9.2.1. *Room sensor*

The room probe (**B**) is located at the back of the stove; **should this be near the fumes exhaust tube**, we recommend to extract the room probe so that it sticks out by approximately 10 cm. In this way it will not be affected by the tube's heat and the measured temperature will be near to that of the room.

It is advisable to do this operation during installation, since before extracting the probe (**B**) it is necessary to take off the clamp (**C**) that keeps it connected; operation possible by working inside the stove thus without the sides. To extract the probe (**B**) it is necessary to unscrew the protection cap (**A**) and slowly pull the probe (**B**). After extracting the probe (**B**) sufficiently, close the protection cap (**A**) again. (fig.11)

ATTENTION! Once the clamp that binds the probe wire is taken off, avoid it coming into contact with the hot parts of the stove.

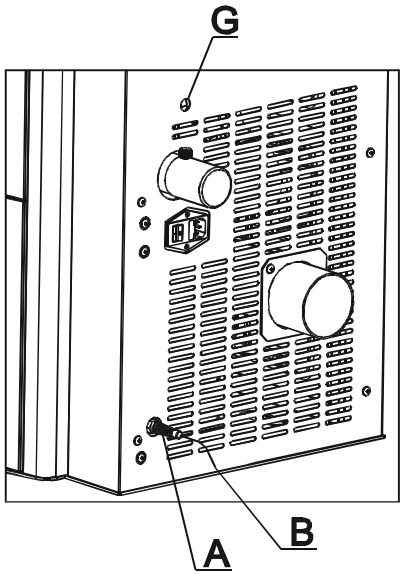


Fig.11 - Room temperature sensor

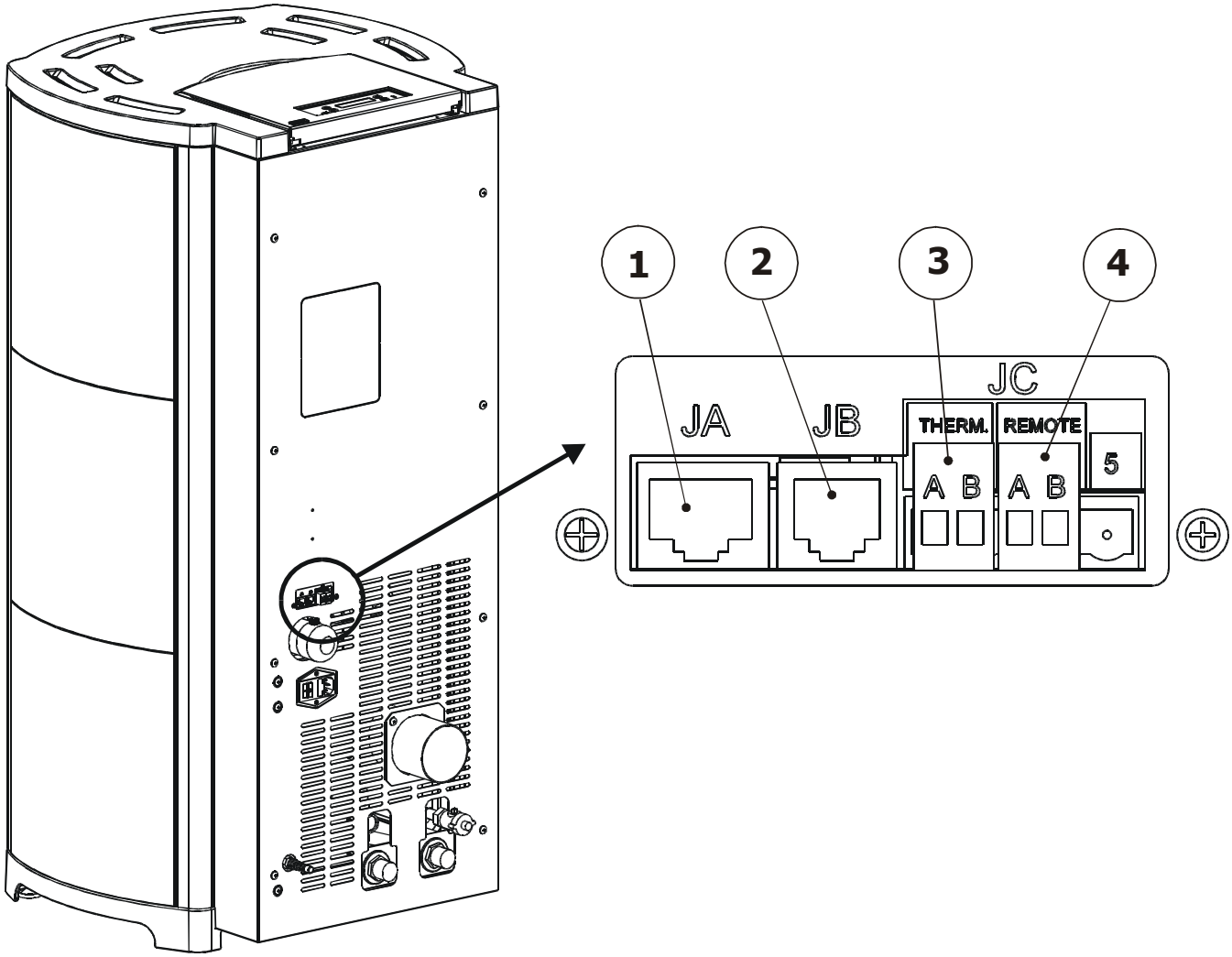
4.9.2.2. *Connecting an external room thermostat (3) or storage tank (3)*

The stove can be connected to an external thermostat “3” or to a domotic control unit “4”.

To make this conneciton, insert the wires in the board at the back of the stove in the positions specified in the table.

When managing an external thermostat and a storage tank, the connection needs to be made to terminal “3”, whereas in the event of a connection to a domotic control unit, then the connection needs to be made to terminal “4”. If you wish to connect the modem, then use terminal “2”

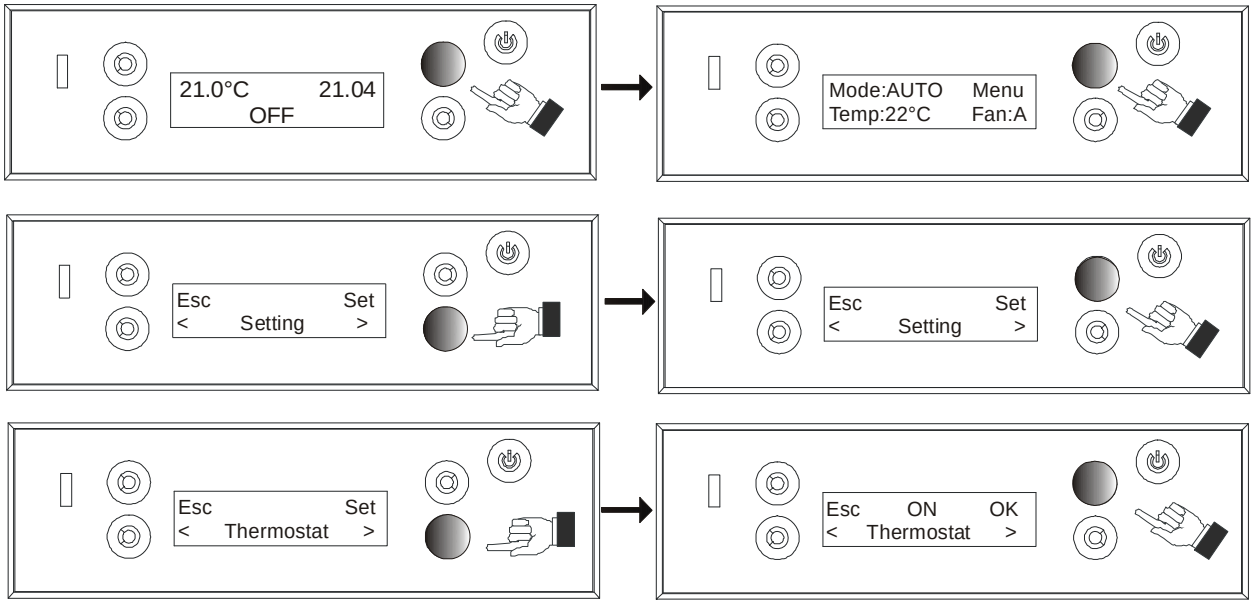
We recommend these connections be made by a specialised technician.



1	COMPUTER CONNECTION (to be made by a specialised technician)
2	MODEM CONNECTION
3	CONNECTION TO AN EXTERNAL ROOM THERMOSTAT CONTROL UNIT
4	CONNECTION TO A DOMOTIC CONTROL UNIT

On the control panel of the stove, once the thermostat is connected, the temperature detected by the probe will continue to appear; however, in this case the temperature set on the thermostat will be valid.

The activation of the thermostat (on/off) on the control panel or of the accumulation tank is possible from the menu, settings, on/off option thermostat or accumulation as explained in the diagram below.



4.9.3. Automatic mode with AUTO-ECO

This mode changes stove operation in **automatic mode.** Upon reaching the temperature set by the user, the stove goes to power 1 for a short period of time. The stove comes back on automatically only when the room/water requires heat again, but not before a period of time has passed for the stove to cool off. This option is advisable only if the stove works in rooms where there is low heat dispersion over time.

4.9.3.1. *Activation /de-activation of AUTO-ECO mode*

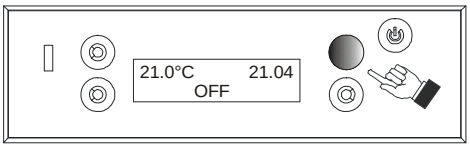
This mode makes it possible to optimize stove consumption in well-insulated rooms.

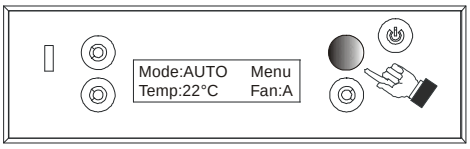
When this option is activated, on the display of the control panel the word **AUTO-ECO** will appear.

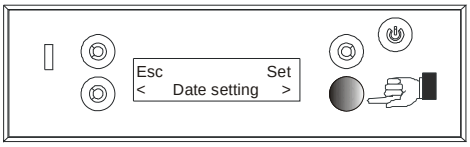
The display of the remote control will show the message **AUTO** along with the message **AUTO-ECO**.

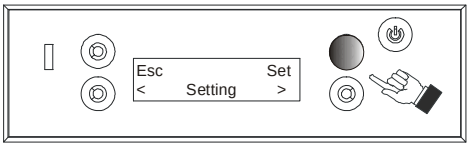
From the first screen with the word OFF, press any key and the screen with the word MENU will appear.
With the bottom right button scroll until the word SETTINGS, press the top left key SET, scroll with the bottom right key until the word AUTO-ECO appears. Select SET again in the top right and with the bottom right key set OFF or ON and press OK to save the setting. Now going back to the initial menu you notice that the setting on the Mode is ECO. Therefore, using the bottom left or bottom right keys it is possible to set the temperature and the fan speed respectively, for the expulsion of hot air.

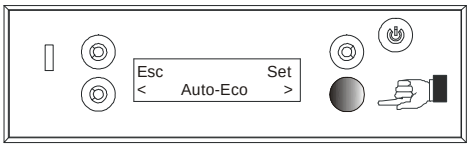
To disable the AUTO-ECO function follow the same procedure.

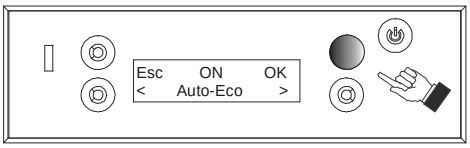












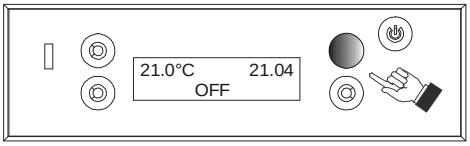
Example of operation in AUTO-ECO mode

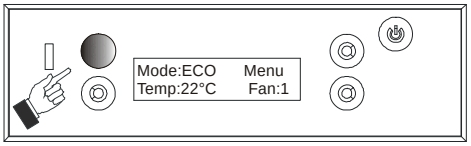
If the room temperature detected by the sensor and highlighted on the control panel is 15°C and the set temperature is 20°C, the stove will follow a pre-established ramp up to the 5th power. Once 20°C is reached, it will go into standby mode (STANDBY).

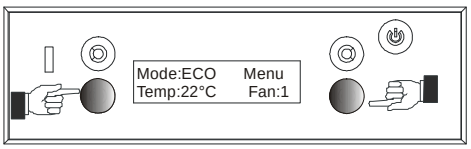
When the room temperature drops below the value set on the control panel (for example 18°C) and a sufficient shutdown time has elapsed, the stove will come back on automatically and continue running until again reaching 20°C. If the temperature read by the room sensor remains above the value set on the thermostat (for example 20-21°C) the stove will remain off.

In this mode, lighting can be carried out by the user by resetting the thermostat temperature to a value greater than that in the room, or by shutting down the stove by pressing button **B** for a few seconds and then pressing the same button to re-light the stove.

The "**AUTO-ECO**" mode does not need to be reset as it remains in memory from the last use.







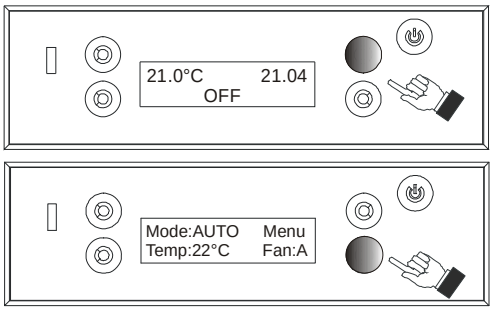
4.10. HOT AIR VENTILATION SUITE-CLUB-MUSA 22 KW

The **Suite-Club-Musa 22 kW** stoves are equipped with an internal fan for expulsion of heating air. It can be set to 5 different speeds at any time.

5 speeds can be selected as well as an automatic function.

To select the speed, after pressing the bottom right button, press it again to increase or decrease the fan power. In addition to the **5 speeds** there is an additional selection called **AUTO** function (shown on the panel after the 5 speeds with an **A**). This function autonomously selects the speed of the fan irrespective of the flame's power level.

This option can be simply selected by always pressing the bottom right key, scrolling through the various speeds 1-2-3-4-5. On the control panel the letter **A** will appear.



If the keypad on the control panel is inactive for 10 seconds, the remote control will automatically exit fan setting mode and will confirm the last inserted setting.

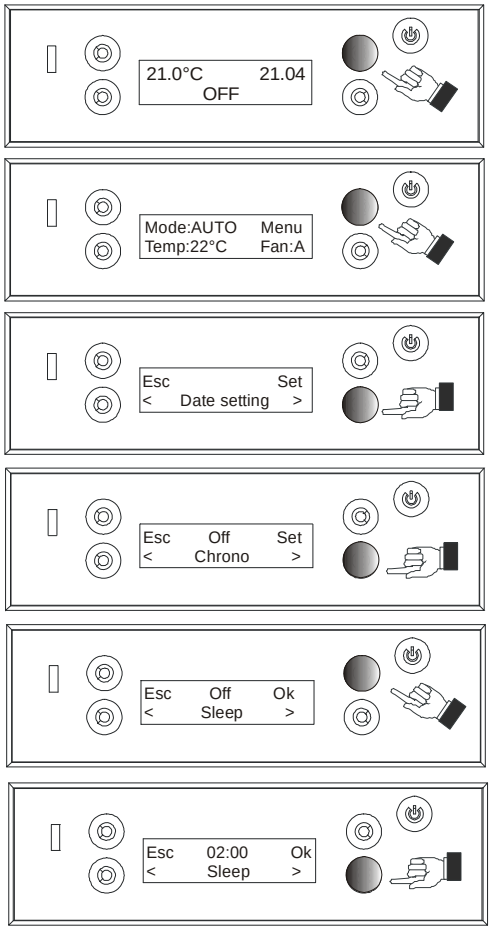
4.11. SLEEP FUNCTION

The purpose of this function is to make it faster to select a programmed shutdown, without the need to programme the stove's internal timer.

To explain the SLEEP function in simple terms, it might be said that it allows the stove to be turned off starting from a minimum of 10 minutes in comparison to the read hour (example, if it is now 8:50, the first shutdown can occur after 10 minutes, that is at 9:00) and a maximum during the day of 23.50 hours.
It is specified that the SLEEP function can be activated and appears on the display only when the stove is lit, i.e. when the button B is kept pressed and the word **LIGHTING** appears on the display.
To set the function press **Menu** with the top right key then in the screen the word **Date and Time** appears, therefore scroll with the bottom right key until the word **Sleep** appears, confirm with **Set**. With the bottom right key set the shutdown time.

The figures **00:00** appear in the centre of the display of the control panel; it is possible to choose the quantity of time by pressing the bottom right or left key according to whether you want to increase or decrease the time.

To confirm the choice press **OK** (top right) otherwise quit without saving any setting with **ESC** (top left)



Once the sleep is set, in the initial screen the status of the stove (on/off) alternates with the message sleep 14.50 (example).

4.12. TIMER

This operating mode allows the programming of the start-up and shutdown of the stove in automatic mode.

Normally, the stoves have the PROGRAMMED mode deactivated.

The basic settings in PROGRAMMED mode are:

- **Clock**
- **Current day**
- **Selection of weekly / daily programme**

4.12.1. Current date and clock

See *paragraph 4.6.1.* to learn how to set the current date and time.

Setting the current date and time is essential for proper timer operation.

4.12.2. TIMER activation and selection of a programme.

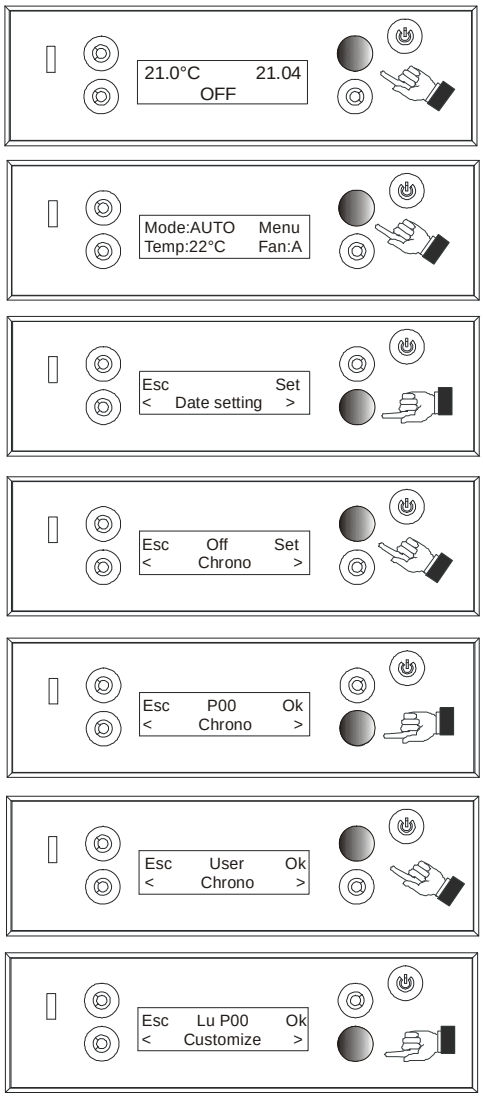
SETTING OF A WEEKLY PROGRAMME

An explanation will now be provided of how **to activate the TIMER function selecting a daily or weekly programme:**

press the Menu button to scroll through the date and time menu with the relative key until the word TIMER appears. Then press the SET key to insert a programme. In the centre of the display between Esc and Ok the letters P00 appear, by scrolling with the keys below it is possible to choose between 1 10 weekly preset programmes inside the control panel of the stove.

According to the tables reported in *paragraph 4.11.,* choose the programme that best meets the heating needs of the house and save the programme number on the display of the control panel. Confirm with OK.

If none of the 10 pre-set programmes meets your personal heating needs, you can put together a personalized weekly programme that suits you best (see next paragraph).



If the keypad of the control panel is inactive for 10 seconds the control panel automatically leaves the timer adjustment mode and does not confirm the last setting inserted.

To confirm the TIMER choice press OK.

ATTENTION!

The TIMER function can be activated/deactivated whether the stove is on or off.

If a timer programme has been activated, in the initial screen the stove operating status (on/off/start-up….) alternates with the word "TIMER P01 active" (example)

SETTING OF A PERSONALIZED PROGRAMME

If one of the pre-set weekly programmes does not suit the heating needs for your home, you can choose and combine various daily programmes included in the memory of the remote control to create a personalized weekly programme.

62 daily programmes can be selected , and you can select a different programme for each day of the week.

To activate this option, proceed as described above for setting a weekly programme, but instead of selecting one of the programmes contained in the table of the weekly programmes (**from P01 to P10**) select the programme **USER**.

Once the USER programme is selected, press SET and in the centre of the display the word Lu P00 appears (where P00 flashes) while in the part below, the word CUSTOMIZE appears, by pressing the related key (bottom right or left) it is possible to insert the daily programme.

By scrolling with the bottom right or left key of the control panel it is possible to choose the desired programme from 1 to 62, by consulting the table in par. 4.13.2

Once the desired programme is selected for the active day (e.g. 32 for the day MO = Monday), press the OK key in the top right and on the display the word Ma P00 will appear (where the word P00 flashes), proceed with the programming mode until the day SU=Sunday.

If for a given day of the week you do not want to set any programme, select programme 00 and continue with programming.

If a timer programme is active but the user decides to start/stop the stove in advance, the command given by the user overrides the timer and is carried out. The next command from the timer is obviously disregarded.

Example: if the timer calls for the stove to be started up at 10:00 but the user decides to start it at 9:00, by pressing button 5 the stove will come on. At 10:00, the timer, which was to order start-up, will be disregarded.

IMPORTANT NOTE

It takes 10 to 15 minutes for the stove to start up.

Take this into account when setting the start time. Likewise, stove shutdown requires about 30 minutes, during which the heat stored up by the stove is still released into the room.

Keep this in mind for substantial fuel savings.

4.12.3. TIMER de-activation.

To de-activate the timer, access the menu again by means of button **OFF**.

4.13. PRE-SET WEEKLY AND DAILY PROGRAMMES

4.13.1. Weekly programmes

The weekly programmes selected by MCZ and stored in the memory of the control panel were designed to meet the needs of most users who are out of the home during working hours (factory workers, shopkeepers, office workers, shift workers) as well as those who are usually at home (homemakers, senior citizens, etc.).

Also, programming has been provided for those who use the stove in a weekend home (e.g. a home in the mountains) and want to find the home warm when they get there.

If you have even more specific needs which are not met by any of these weekly programmes, you can customize weekly programme P99 using seven different programmes for each single day of the week *(see chapter 4.13.2*).

PROGRAMMES		HOURS																								
No.	DAYS	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
P01	Mon-Fri																									
	Sa-Su																									
P02	Mon-Fri																									
	Sa-Su																									
P03	Mon-Fri																									
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P06	Mon-Fri																									
	Sa-Su																									
P07	Mon-Sa																									
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P08	Mon-Sa																									
	Su																									
P09	Mon-Sa																									
	Su																									
P10	Fri																									
	Sa-Su																									

On
Off

4.13.2. Daily programmes

Progr.	Hours																							
N°	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
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Programmi giornalieri	Tabella orari

N°	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
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4.14. PRACTICAL EXAMPLE OF DAILY PROGRAMMING

4.14.1. Setting of a daily programme

Let's look at a user who does not have regular daily hours (a free-lance worker, for example), but who generally expects to be at home at the following times:

- MONDAY ➔ home until 10:00 and from 17:00 on
- TUESDAY ➔ home until 8:00 and from 14:00 on
- WEDNESDAY ➔ at home all day and does not wish to set any programme

- THURSDAY ➔ at home all day
- FRIDAY ➔ at home until 9:00, from 12:00 to 15:00 and from 18:00 on
- SATURDAY ➔ at home only after 18:00
- SUNDAY ➔ at home only after 14:00

Based on these times, from the table in paragraph 4.11.2 the daily programmes are selected which best suit this routine.

- MONDAY ➔ Programme **20**
- TUESDAY ➔ Programme **43**
- WEDNESDAY ➔ Programme **00**
- THURSDAY ➔ Programme **13**
- FRIDAY ➔ Programme **34**
- SATURDAY ➔ Programme **10**
- SUNDAY ➔ Programme **08**

To activate this type of customised setting follow the instruction in par. 4.11.2 page 48.

4.15. SAFETY DEVICES

The stove is fitted with the following safety devices:

- **SMOKE TEMPERATURE SENSOR.**

  Monitors the temperature of the smoke, and gives permission for start-up or shuts the stove down when the smoke temperature falls below the preset value.

- **PELLET HOPPER TEMPERATURE SENSOR.**

  If the temperature exceeds the preset safety level, it immediately shuts down the running of the stove, and has to be reset, after the stove has cooled, before the it will restart.

- **BOILER TEMPERATURE PROBE (ALARM A18)**

  If the temperature of the water approaches shutdown temperature (95°C) the stove will shut down.

- **WATER TEMPERATURE PROBE (ALARM A17)**

  When the water temperature reaches80°C the stove starts to gradually decrease the power to 85°C. If85 °C is exceeded, a safety shut down will occur and the stove will re-start when the stove body has properly cooled.

- **ELECTRICAL SAFETY**

  The stove is protected against violent surges of current by the main fuse, which is located on the control panel at the rear of the stove. Other fuses to protect the electronic boards are to be found on the boards themselves.

- **FAILURE OF THE SMOKE EXTRACTION FAN**

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

- **BREAKDOWN OF THE REDUCTION MOTOR**

  If the reduction motor stops, the stove continues to function until it has cooled down to the minimum level.

- **TEMPORARY POWER CUT**

  If there is a power outage during operation, when the power comes back on the stove will go into cooling mode and then it will come back on automatically.

- **FAILURE TO LIGHT**

  If during ignition no flame develops, the stove will go into alarm condition.

- **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 1 minute every 24 hours of inactivity to keep it from seizing up.

TAMPERING WITH THE SAFETY DEVICES IS PROHIBITED

It is only after eliminating the cause which gave rise to the intervention of the safety system, that it is possible to relight the stove and thus reset the automatic operation of the sensor. To understand which anomaly has occurred, consult this manual at paragraph 4.14 which explains what to do based on the alarm message the stove displays.

ATTENTION

If the stove is not used as described in this instruction booklet, the manufacturer refuses to accept any responsibility for damage to persons and property that may arise. The manufacturer furthermore refuses to accept responsibility for damage to persons and property arising from the failure to observe all the rules contained in the manual and in particular:

- **Failure when carrying out works of maintenance, cleaning and repair to adopt all necessary measures and precautions**
- **Tampering with the safety devices.**
- **Removing the safety devices.**
- **Failure to connect the stove to an efficient system for the discharge of smoke.**
- **Failure to check in advance that the room where the stove is to be installed is adequately ventilated.**

4.16. ALARM SIGNALLING

Should an operation problem occur, the stove enters a shutdown phase for alarm and informs the user of the type of fault that occurred using a 3 digit code that remains displayed on the control panel of the stove (and a short description of the alarm type)

The table below describes the possible alarms signalled by the stove, associated to the respective code that appears on the emergency panel, and useful suggestions to solve the problem.

MESSAGE ON DISPLAY	TYPE OF PROBLEM	SOLUTION
A01	Fire fails to ignite	Check the level of pellets in the hopper. Check that the grate is properly inserted in its housing and does not have any obvious unburnt incrustations; Check whether the ignition plug heats.
A02	Fire extinguishes abnormally	It derives from a shutdown due to lack of fuel (hopper empty).
A03	Pellet tank temperature exceeds foreseen safety limit. Overheating of the stove body	The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the air fans are faulty. When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.
A04	The temperature of the smoke discharge has exceeded pre-set safety limits	The stove will shut off automatically. Let the stove cool off for a few minutes, then re-light it. Control the exhaust of the smoke the type of pellet being used.
A05	Flue pipe obstruction - wind - door open.	Check fume conduit and door closure.
A06	The smoke extractor is not able to provide the primary air required for combustion.	Draught difficulties or clogging of grate. Check whether the grate is clogged by incrustation and clean as required. Control and if necessary clean the smoke duct and the air intake.
A08	Flue-gas exhaust fan broken	Check that the smoke fan compartment is clean and if it is dirt that is blocking it. If insufficient, the smoke fan is defective. Call an authorized service centre to make the replacement.
A09	The smoke probe is defective and does not properly measure the temperature of the discharge smoke	Contact an authorized service centre to replace the component.
A10	The plug is defective	Contact an authorized service centre to replace the component.
A11	Defective pellet feeder	Contact an authorized service centre to replace the component.
A14	Generic failure of sensor	This alarm is not blocked, only a warning screen appears. Contact an authorized service centre to replace the component.
A17	Water temperature too high due to: • Stove at maximum power, radiators closed • System oversized e.g. small room, large capacity stove	This alarm is not blocked, only a warning screen appears. Check that all radiators are open. If the alarm persists contact an authorised service centre.

MESSAGE ON DISPLAY	TYPE OF PROBLEM	SOLUTION
A18	Water tank temperature too high	This alarm intervenes when the water does not circulate in the system and therefore the temperature increases. Check the pump and release it if necessary. If necessary, contact an authorized service centre to replace the component.
SEr	Periodic maintenance warning	If this flashing messages appears when lighting the stove, it means that the hours of operation pre-set before the maintenance have elapsed and a new maintenance intervention is necessary. Contact a specialist MCZ technician.

4.17. Exiting alarm condition

In case of an alarm intervening, to restore the normal operation of the stove press the on/off key for a long time. After a short verification phase if the cause that caused the alarm does not persist, the stove leaves the alarm status and it may restart.

4.17.1. Shutdown of the stove

The following things can cause stove shutdown:

- Overheating of the stove body **("A03")**
- Overheating of the smoke **("A04")**
- During the function of the stove, an uncontrolled air intake occurred in the combustion chamber or an obstruction in the flue pipe. **("A05")**
- Boiler overheating **("A18")**

WHAT TO DO:

When the stove is cold: if the message "**A03**" appears: The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the air fans are faulty

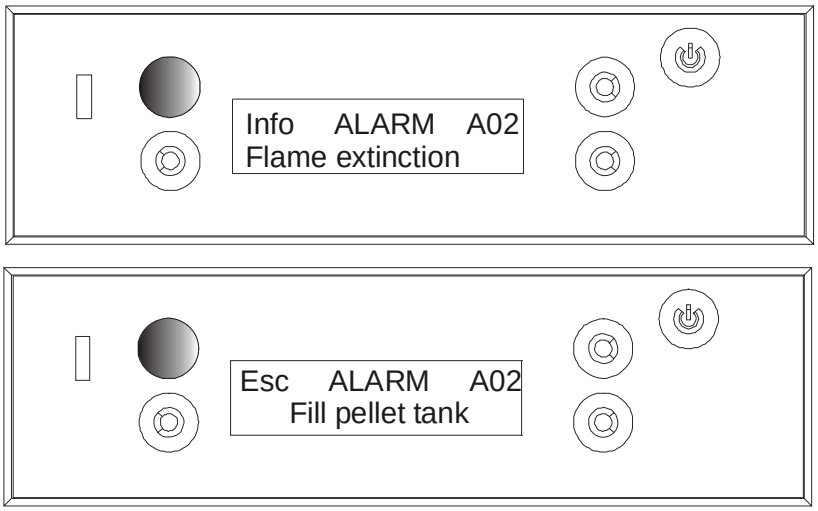
When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.

If the alarm **"A04"** appears the stove shutdown in automatic, leave it to cool down for a few minutes and then re-light. Cancel the alarm and re-light.

If the alarm **"A05"** appears: it is caused by prolonged opening of the fire door or by substantial air infiltration (e.g. smoke fan inspection plug missing). If not caused by these factors control and if necessary clean the smoke duct and the flue pipe.

If the alarm **"A18"** appears: the stove shuts down due to the boiler overheating. This can be caused by a lack of water circulating in the system (pump blocked or faulty). Check that the circulation pump is operating correctly and then cancel the alarm and restart the stove.

Only after the cause of the blockage has been permanently eliminated can a fresh attempt to relight the stove be made.



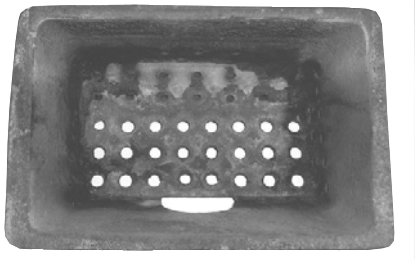
Example: Alarm on the display of the control panel

5. MAINTENANCE AND CLEANING

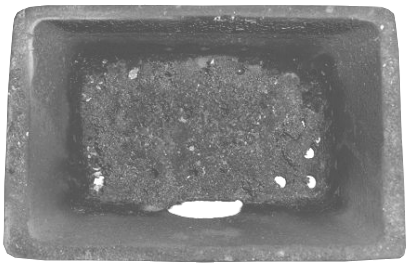
ATTENTION!

All cleaning of all parts must be carried out with the stove completely cold and unplugged.

The stove does not need much maintenance if used with certified quality pellets.



Example of clean grate



Example of dirty grate

5.1. DAILY AND WEEKLY CLEANING BY THE USER

5.1.1. Before each lighting

Using a suitable tool clean the grate **"F"** of ash and any incrustation which could obstruct the passage of air.

In the case of pellet depletion, unburnt pellet in the grate could accumulate in the hopper. Always empty the residuals from the grate prior to each lighting.

REMEMBER THAT ONLY A CORRECTLY POSITIONED AND CLEAN GRATE CAN GUARANTEE THE OPTIMAL LIGHTING AND OPERATION OF YOUR PELLET STOVE.

To clean the grate well, pull it completely out of its housing and thoroughly clean the grate and holes on the bottom, using the steel tool supplied with the stove.

5.1.2. Check every 2/3 days

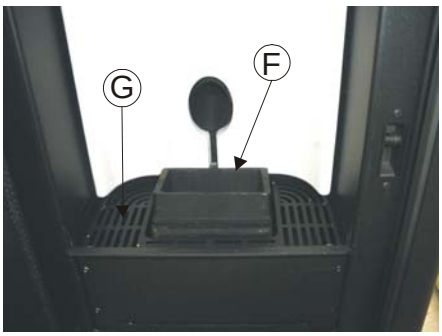
The frequency of cleaning depends on the type of installation/connection to the flue pipe (e.g. more frequent with horizontal connection, less frequent with vertical connection), on the number of working hours, level of power and type of fuel used.

Clean and empty the ash tray **"G"** being careful with hot ash.

The ash must be completely cold for a vacuum cleaner to be used to remove it. Only use models suited to sucking ashes.

We recommend emptying the ashpan at intervals of no more than 2 or 3 days.

Once the operation is finished, reinsert the ashpan below the grate making sure it is inserted properly.



Cleaning the ash collection compartment

5.1.3. Clean the exchanger and the undergrate space every 2/3 days.

Cleaning the exchanger and the undergrate space is a simple operation but very important for always maintaining performance as declared by MCZ.

Therefore we recommend cleaning the internal exchanger every 2-3 days, performing these simple operations in sequence:

- **Activate the "CLEANING" function** – when the stove is off, press the key in the control panel highlighted in figure 14 for 2 seconds. This procedure activates the smoke suction fan at maximum power in order to expel the soot which is moved around whilst cleaning the exchanger.
- Remove the top
- **Clean the pipe unit** – Using the cool hand hook supplied, energetically shake the rods located under top **A** in figure 15) 5-6 times.. This operation removes soot deposited in the exchanger's smoke ducts when the stove is working normally.
- **Clean the smoke conveyor well**

  EGO-STAR stoves (Figure 15)

  – Open the door and screw the cool hand to the scraper rod **B** (**B** in figure15), shake it energetically 5-6 times throughout its length. Unscrew the cool hand and reinsert rod **B** completely into its housing. By doing so the fan is assisted in expelling any accumulations of soot which fell when the pipe unit was cleaned previously (After shaking rods "**A**" it is always necessary to do so with scraper **B**").

  SUITE-CLUB-MUSA stoves (Figure 15A)

  – The Suite-Club-Musa stoves are equipped with a removable ash drawer to collect any build-ups of soot and ashes. To clean the smoke conveyor well with the "**CLEANING**" function activated, the ash drawer and the door must stay shut..

  After activating the **"CLEANING"** function on the control panel, remove the turbulators "**D"** and using a rigid rod, clean the pipe unit.
- **Deactivate the "CLEANING" function** by pressing the control panel key highlighted in figure 14 once again.
- Replace the top

If such cleaning is not done every 2-3 days the stove could go into alarm caused by ash clogging after several hours of operation.

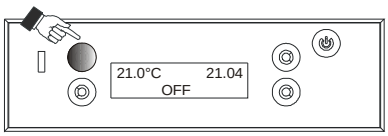


Figure 14 – "Cleaning" function

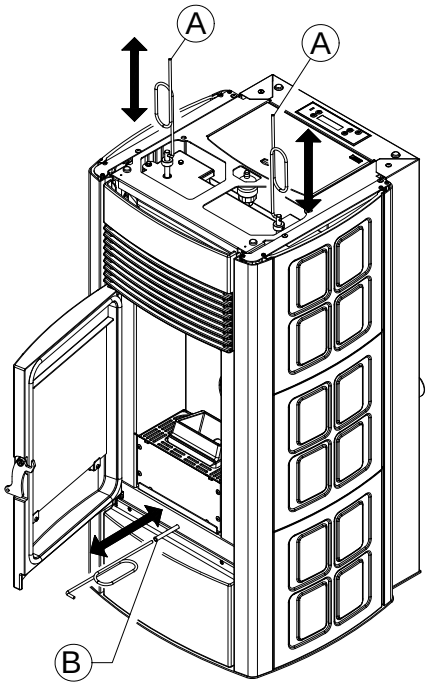


Figure 15 - Cleaning the internal pipe unit using scrapers (EGO-STAR)

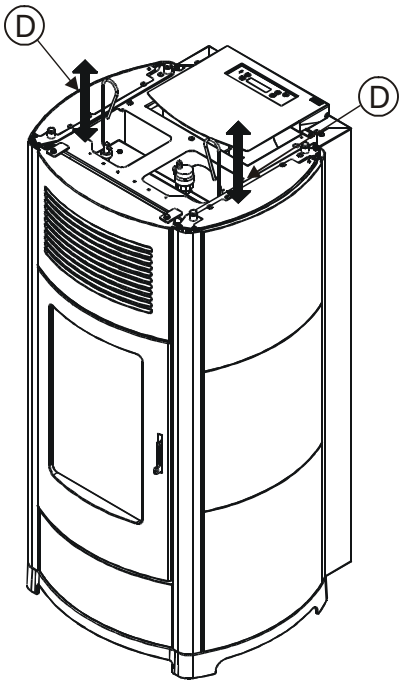


Figure 15 - Cleaning the internal pipe unit using scrapers (SUITE-CLUB-MUSA)

5.1.4. Cleaning the glass

For cleaning the ceramic glass, the use of a dry brush is recommended, or if it is very dirty, the special spray detergent, applying a small quantity then cleaning with a cloth.

ATTENTION!

Do not use abrasive products and do not spray the cleaning product on the glass of the painted parts or on the gaskets of the fire door (ceramic fibre cord)

Cleaning the glass

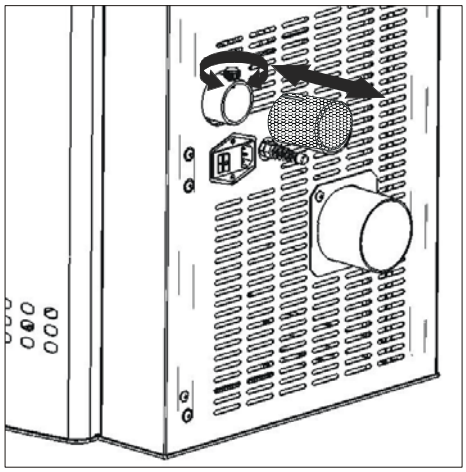
5.1.5. Cleaning of the air filter

At the back of the stove, at the combustion air intake tube Ø 5 cm, there is a metallic mesh air filter. Its purpose is to keep dirt out of the motor body and the internal sensor.

It is advisable to check every 15/20 days whether the filter is clean. Remove lint or any other material which may have been trapped by the filter.

Checking and cleaning will be required more frequently if there are pets in the home.

For cleaning, just turn the knob that holds the filter on the air intake pipe and remove the filter by turning in the direction indicated by the arrow. Clean it with a brush, damp cloth or compressed air.



Removing the air filter for cleaning

The filter is made of metallic mesh. It is soft and malleable to the touch. Therefore, when cleaning it, be careful not to crush it or damage it in any other way. If it is broken it must be replaced

ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

5.1.6. Cleaning of stainless steel and satin-finish surfaces

Normally these surfaces do not need to be treated, but if they do, avoid cleaning them with abrasive materials. For surfaces in stainless and satin brushed steel we recommend cleaning with a paper towel or a clean dry cloth moistened with a detergent based on non-ionic surfactants (< 5%). A spray glass cleaner may be used.

5.1.7. Cleaning of painted parts

Do not clean the painted parts with wet rags when the unit is in operation or hot to prevent thermal shock to the paint which may cause it to detach. Do not use abrasive or aggressive products or materials.

Clean with damp cotton or paper towels.

The silicon paints used on MCZ products possess technical characteristics that make them resistant to very high temperatures.

There is however a physical limit (380°-400°) beyond which the paint begins to fade or (over 450°) to vitrify; it may then flake and detach from the steel surface.

If this happens, it means that temperatures have been reached that are far above those at which the unit should operate properly.

5.2. CLEANING TO BE PERFORMED BY SPECIALIZED TECHNICIAN

5.2.1. Cleaning the heat exchanger and the pipe unit

Halfway through the winter, but **especially in the spring**, you will need to clean the compartment where discharge smoke passes.

This cleaning must be done in order to remove all combustion residues before time and humidity let them harden and make them difficult to remove.

5.2.1.1. *CLEANING THE EXCHANGER AND PIPE UNIT (EGO/STAR)*

CLEANING THE UPPER COMPARTMENT

When the stove is cold, remove the top, remove the ceramics/ sides as described in section.3.3., loosening the relative fastening screws before removing the drivers **"B"** and then remove the boiler cover **"C"**. At this point, remove the turbulators **"D"** and using a rigid rod or a bottle brush, clean the internal pipe unit and the turbulators, removing all of the accumulated ash.

Check the cover gasket and replace it if necessary.

ATTENTION: It is advisable to carry out the cleaning of the upper exchanger at the end of the season and possibly by an authorised MCZ technician in order to replace the gasket that is below plug "**C**". (fig.16).

CLEANING THE LOWER COMPARTMENT

Remove the ash drawer "**G**" , unscrew the screws and remove the plug "**E**" and with the nozzle of a vacuum cleaner to remove the soot and ash which has accumulated in the exchanger "**H**". Also remove the grate **"F"** and clean it every 2/3 days as explained in chap. 5.1

ATTENTION: It is advisable to carry out the cleaning of the lower compartment once a week and in any case according to the fuel consumption.

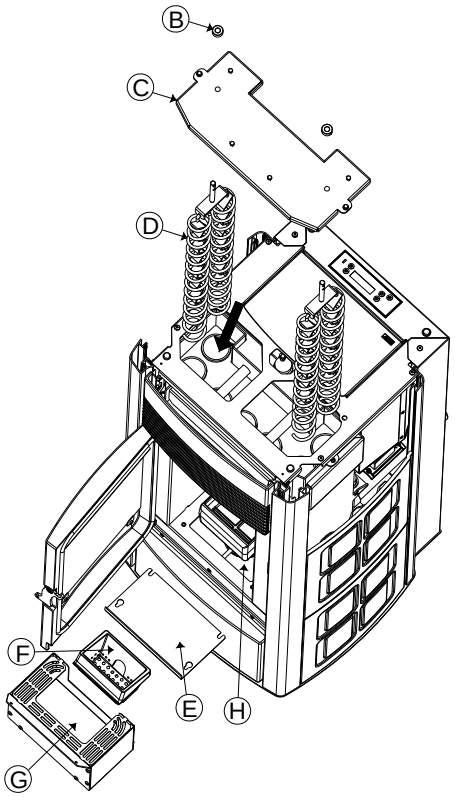


Figure 16 – Cleaning the pipe unit, turbolator and lower compartment (EGO/STAR)

5.2.1.2. *CLEANING THE EXCHANGER AND PIPE UNIT (SUITE/MUSA and CLUB):*

CLEANING THE UPPER COMPARTMENT

When the stove is cold, remove the top, remove the ceramics/ sides as described in section.3.3., loosening the relative fastening screws before removing the drivers **"B"** and then remove the boiler cover **"C"**. At this point, remove the turbulators **"D"** and using a rigid rod or a bottle brush, clean the internal pipe unit and the turbulators, removing all of the accumulated ash.

Check the cover gasket and replace it if necessary

ATTENTION: It is advisable to carry out the cleaning of the upper exchanger at the end of the season and possibly by an authorised MCZ technician in order to replace the gasket that is below plug "**C**". (fig.16a).

CLEANING THE LOWER COMPARTMENT

Remove the ash drawer "**G**", empty it and using the nozzle of a vacuum cleaner remove any ash and soot that may have built up under the drawer "**G**". Also remove the grate **"F"** and clean it every 2/3 days as explained in chap. 5.1.

Remove the drawer "**E**", empty it and using the nozzle of a vacuum cleaner remove any ash that may have built up in the housing of the drawer "**E**".

ATTENTION: It is advisable to carry out the cleaning of the **l**ower compartment "**E**" once a week and in any case according to the fuel consumption.

Check the seal of the ceramic fibre gaskets on the plug and replace it if necessary.

Check the seal of the door gasket and replace it if necessary.

At the end of the season it is necessary to clean the compartment under the grate and the heat exchanger inside it.

This general cleaning should be carried out at the end of the season in order to facilitate the general removal of all residues of combustion, without waiting too long, because with time and humidity these residues can become compacted.

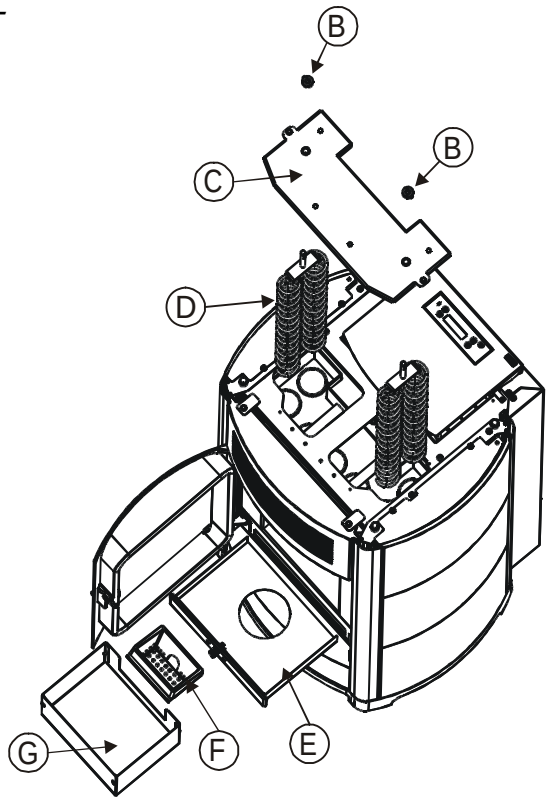


Figure 16 – Cleaning the pipe unit, turbolator and lower compartment (EGO/STAR)

4.1.1. Shutting the stove down (end of season)

In the period when the stove is out of use it must be disconnected from the electricity mains. For greater safety, especially if there are children around, we recommend removing the power cable from the rear of the stove. *(Figure 17)*

Before placing the stove in storage, you should remove all pellets from the hopper with a vacuum cleaner with a long extension. If the fuel is left in the hopper, it may get damp, stick together, and be difficult to light at the beginning of the next season

If the stove is removed form its place of installation **it MUST be placed in a location that is protected from atmospheric agents.**

Figure 17 – Disconnect the stove from the electrical mains

If pressing the main switch (located on the back of the stove) does not make the control panel display light up, it could mean that the service fuse needs replacing.

ATTENTION!
Disconnect the electrical cable.

On the rear of the stove there is a fuse holding compartment which is located underneath the supply socket. With a screwdriver open the cover of the fuse holding compartment, and replace the fuse if necessary (3.15 AT delayed type). *Figure 18*

Plug the unit back in and press the main switch.

If the problem persists or occurs again, contact your MCZ retailer.

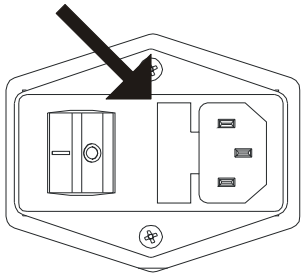


Figure 18 – Switch with fuse box

5.3. CHECK OF INTERNAL COMPONENTS

ATTENTION!
The check of the internal electromechanical components must be carried out only by qualified personnel with technical knowledge of electricity and combustion. If necessary, contact authorized MCZ retailers.

We recommend that an annual maintenance service is carried out, preferably under a programmed service contract. The essential part of this service is a visual and functional check on the following components:

- Reduction motor
- Smoke expulsion fan
- Smoke sensor
- Heat-exchanger fan
- Ignition sparkplug
- Resettable pellet thermostat
- Room temperature sensor
- Motherboard / service card
- Fuses protecting panel - motherboard - services card
- Wiring

The following is a summary of the checks and/or maintenance tasks which are indispensable for the correct operation of the stove.

Parts / interval	Every day	Every 2-3 days	Every 7 days	Every 30 days	Every 60-90 days	Every 1 year
Grate	●					
Ash drawer			●			
Glass		●				
Lower compartment			●			
Complete exchanger					●	
Smoke duct				●		
Ash drawer door gasket					●	
Internal parts						●
Flue pipe						●
Circulation pump						●
Plate heat exchanger						●
Plumbing components						●
Electro-mechanical components						●

6. PROBLEMS / CAUSES / SOLUTIONS

ATTENTION:

All repairs must be carried out exclusively by a specialised technician, with the stove completely cold and the electric plug pulled out.

PROBLEM	POSSIBLE CAUSES	REMEDY
Pellets not being fed into the combustion chamber.	1. Pellet hopper empty. 2. Feeder screw blocked by sawdust. 3. Reduction motor defective. 4. Defective electronic board.	1. Refill pellet hopper. 2. Empty the hopper and manually free the feeder screw of sawdust. **3. Replace reduction motor.** **4. Replace electronic board.**
The fire goes out or the stove stops automatically.	1. Pellet hopper empty. 2. Pellets not being fed in. 3. Intervention of pellet temperature sensor. 4. Door not closed properly or gaskets worn. 5. Unsuitable pellets. 6. Low pellet feed rate. 7. Combustion chamber dirty. 8. Smoke outlet obstructed. 9. Smoke extraction motor failed.	1. Refill pellet hopper. 2. See previous problem.. 3. Let the stove cool down completely, reset the thermostat till lockout ceases, relight stove; if problem persists, contact technical assistance. 4. Close the door **or replace the gaskets with original spare parts**. 5. Change to a type of pellet recommended by the manufacturer. 6. **Have the fuel feed rate checked by technical service.** 7. Clean the combustion chamber, following instructions in the manual. 8. Clean the smoke duct. **9. Check the motor and replace if necessary.**
The stove runs for a few minutes and then goes out.	1. Lighting cycle not completed. 2. Temporary failure of electricity supply. 3. Smoke duct obstructed. 4. Temperature sensors defective or broken. 5. Sparkplug failure.	1. Re-run lighting cycle. 2. See previous instruction. 3. Clean smoke duct. **4. Check and replace sensors as necessary.** **5. Check the plug and replace if necessary.**
Pellets build up in grate, door glass gets dirty and flame is weak.	1. Insufficient combustion air. 2. Pellets damp or unsuitable. 3. Smoke extractor motor broken.	1. Check that the room air intake is present and free. Check that the combustion air filter on the pipe Ø 5 cm for air inlet is not obstructed. Clean the grate and check that all the airways are clear. Carry out a general cleaning of the combustion chamber and the smoke duct. Check the state of the door gaskets. 2. Change the type of pellet. **3. Check the motor and replace if necessary.**

PROBLEM	POSSIBLE CAUSES	REMEDY
The smoke extraction motor does not work.	1. No electrical supply to the stove. 2. The motor is broken. 3. Defective electronic board. 4. Control panel broken.	1. Check the supply voltage and the protection fuse. **2. Check the motor and capacitor and replace if necessary.** **3. Replace electronic board.** **4. Replace the control panel.**
In the automatic position the stove always runs at full power.	1. Room thermostat set to maximum. 2. Temperature sensor defective. 3. Control panel defective or broken.	1. Reset the thermostat temperature. **2. Check the operation of the sensor and replace if necessary.** **3. Check the panel and replace if necessary.**
The stove does not run	1. Lack of electricity supply. 2. Pellet sensor in lockout. 3. Fuse blown.	1. Check that the electric socket is plugged in and that the main switch is in position "I". 2. Clear lockout by resetting the rear thermostat, **replace the thermostat if it happens again**. 3. Replace the fuse.

ANOMALIES RELATED TO THE PLUMBING CIRCUIT

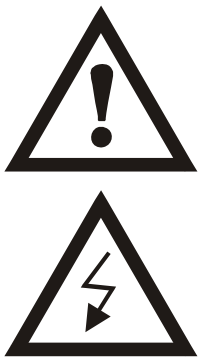
PROBLEM	POSSIBLE CAUSES	REMEDY
No increase in temperature with stove in operation	1. Incorrect combustion adjustment. 2. Boiler / system dirty. 3. Insufficient stove power. 4. Poor pellet quality	1. Check recipe and parameters. 2. Check and clean the boiler. 3. Check that the stove is properly sized for the requirements of the system. 4. Use MCZ pellets
Condensation in boiler	1. Incorrect temperature setting. 2. Insufficient fuel consumption.	*1. Set the stove to a higher temperature.* *2. Check the recipe and/or technical parameters.*
Radiators cold in winter	1. Room thermostat (local or remote) set too low. If remote thermostat, check if it is defective. 2. Circulator does not run because blocked. 3. Circulator does not run. 4. Radiators have air in them	1. *Set to higher temperature or replace. (if remote)* 2. *Free up the circulator by removing the plug and turning the shaft with a screwdriver.* 3. *Check the electrical connections of the circulator; replace if necessary.* 4. *Vent the radiators*
Hot water is not provided	1. Circulator (pump) blocked	*1. Free the circulator (pump)*

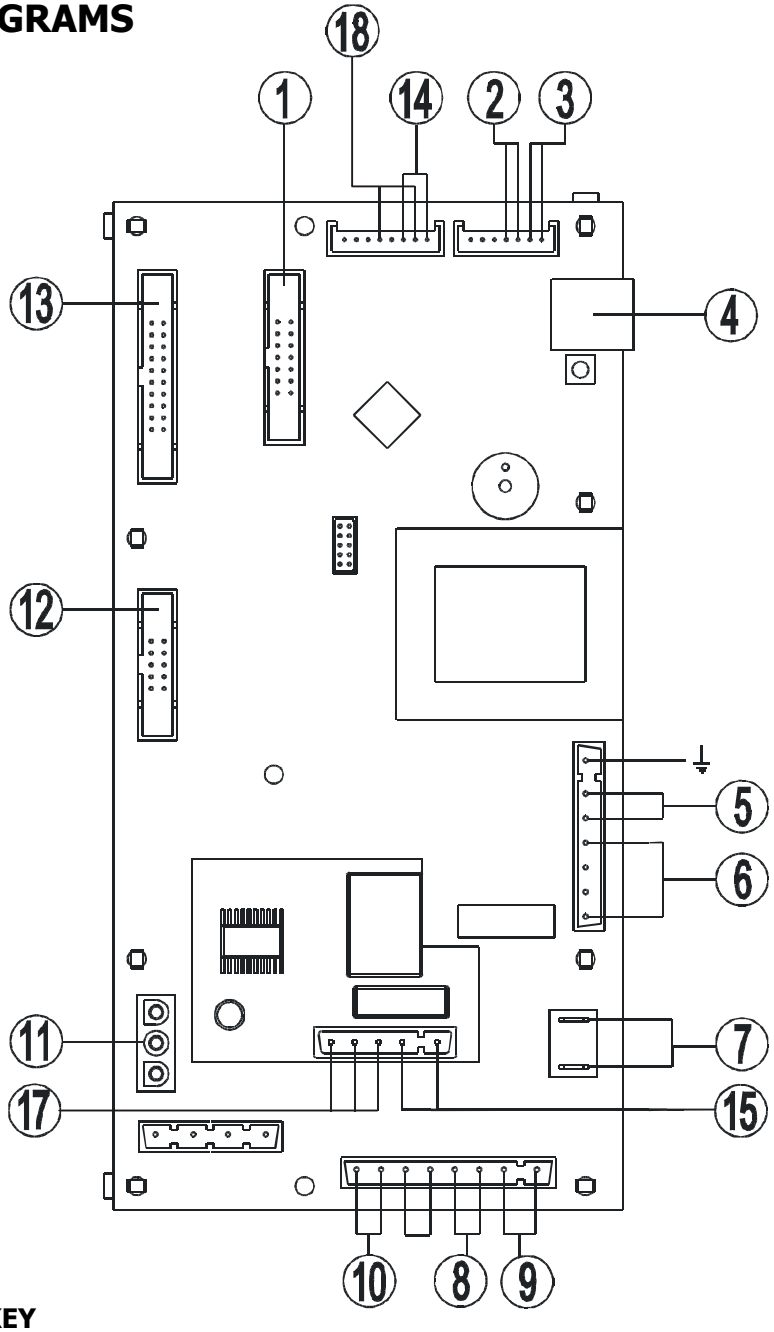
ATTENTION!

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

The manufacturer refuses to accept any responsibility and the guarantee lapses if this condition is not respected.

5. ELECTRICAL DIAGRAMS





MOTHERBOARD WIRING KEY

1. Control panel	10. Tank temperature thermal protector
2. Room probe	11. Flue-gas extractor fan revolutions control
3. Smoke sensor	12. Air flow sensor
4. Modem connection	13. Service board
5. Switch	14. Water temperature sensor
6. Ignition plug	15. Pump
7. Smoke ejector fan	17. Three-way diverter valve
8. Gear motor	18. Water flow switch
9. Water temperature thermal protector	

N.B. The electrical wiring of the single components includes pre-wired connectors which are of different sizes.

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