





INSTALLATION & USER MANUAL



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1. ARTE ® FIREPLACE - A GREEK QUALITY PRODUCT

Thank you for buying an ARTE® fireplace - we believe that you will have as much pleasure from our product as we have, producing it.

Your ARTE® fireplace is made in such a way, to extract the maximum possible energy from the wood with the minimum possible emissions, using the most innovative technology and the most robust design – one product **made in Greece!**

These instructions contain interesting and informative facts and all you need to know about the subjects of heating, wood, and operating your ARTE® fireplace. Please read these instructions carefully before using your fireplace for the first time and keep them for future usage.



The manuals which are enclosed with the product must be kept throughout the product's entire service life. They are also available online in our website.

2. FACTS ABOUT THE WOOD AND THE ENVIRONMENT

2.1. Why should I use wood?

With proper forest management, burning wood does not deplete the earth's resources. Heating with wood usually does not contribute to global warming. The young trees that replace the trees that you burn in your fireplace absorb carbon dioxide (CO₂) from the air. Burning firewood releases only as much CO₂ as the tree has absorbed from the atmosphere during its growth. Similarly, wood rotting in the forest generates the same amount of CO₂ as the same wood burning.

Besides being environmentally friendly, the heat from a fireplace warms you like the warming rays of the sun during the sunny winter days. It is the radiated heat that is transmitted by electromagnetic waves in the infrared range. Even when the air is very cold you can feel the warm rays of the sun on your skin.

Another advantage of wood is that it is produced locally, which creates local employment, and more tax revenues stay in the province.

2.2. Buying firewood

Where can I get my firewood?

Regenerated ready-to-burn firewood can be purchased from dealers:

- ③ Fireplace ready, stored for at least two years
- ① Pre-dried, stored for one year
- Tresh from the forest

Whether you have cut your own wood or bought it, the important thing is that: the wood should be dried for **at least two years before it is burned**.



The ideal residual moisture is 12 - 15% and should be no higher!

2.3. Storing your wood

The full potential for heat will not be realized if you neglect the simple but necessary chore of piling and protecting your wood. Proper storage is essential to avoid moisture, bacteria, and insect problems in your home.

To avoid problems with insects and moisture, store the wood as far from your house as is practical. Do not store wood in your basement; one cord of wood (4 m³) can give off more than 500 liters of water. The basic rule is to protect



Pic. 2.3.1

Pic. 2.3.2

the wood from water, but not from the sun or wind (Pic. 2.3.1 & 2.3.2). Green wood will dry slowly or not at all if unprotected, while seasoned wood left unprotected may become unseasoned.



There are three basic rules to follow when storing wood:

- ① Allow air circulation by piling the wood alternately (one layer across one layer widthwise), if possible.
- Protect wood from rain and snow by covering it with a tarp or woodshed roof. Otherwise,
 place it under a shed with a wooden roof.
- ① Pile wood off the ground on scrap lumber or wooden pallets.

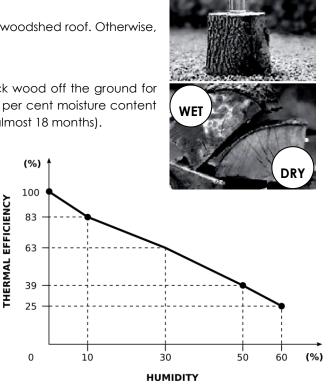
The time-honored way to cure wood is to buck, split, and stack wood off the ground for one full year. Although wood can generally be reduced to 20 per cent moisture content in two to three months, the ideal 10% to 15% may take longer (almost 18 months).

2.4. Wood types and calorific value

A wood's efficiency does not depend only on its type, but also on its humidity, as well as the temperature of the combustion chamber.

For more efficient and longer burning, without emission of hazardous substances, woods must be dry. Ideally, their humidity percentage must not exceed 10% to 15%.

If this percentage is over 20%, the wood is not burned properly, whereas if the piece of wood has been cut recently, the humidity is over 60% making it unsuitable for burning. The reason for that is that the fire will be weak and pale and will produce dense smoke, unburned tar and creosote, soiling the ceramic glass and the flue.



It is preferable to get your wood supplies during the summer months and store them, to ensure better combustion quality during the winter.

Useful tips

- Always choose dry firewood.
- ① Avoid wood that pops (chestnut, conifers such as cedar, spruce and pine), as they may damage your fireplace or the flue.
- ① Pay attention to the size of the logs. Good firewood must have been cut at least twice.
- ① You should prefer oak, beech, olive wood, which is hard wood with high density since they will burn for longer.

Briguettes

They ignite very easily, and burn slowly. They are economically advantageous because you will burn smaller quantities compared to common firewood and they are easily stored. Also, you have less quantity of ashes in comparison to wood.

Birch

It's a soft wood that ignites easily with great thermal energy production. It produces less smoke and ash compared to other wood and burns silently. The same characteristics apply for lime and chestnut.

Beech

Hard wood is ideal for firewood but requires a high temperature to ignite. It weights a lot; it is dense and burns with a calm and long fire for a longer time. Best when well seasoned. The same applies for oak, but seasoned for 2-3 years. Every type of wood has its own calorific value.

Wood type	Briquette	Birch	Walnut	Oak	Beech	Fir	Common Oak	Pine	Olive
Calorific value (Kcal/Kg)	5.000	4.800	4.731	4.619	4.578	4.588	4.548	4.457	4.100
$\frac{860\text{Kcal/h} = 1 \text{ kW/h}}{\text{Table 2.4.1}}$									

860Kcal/h = 1 kW/h

The values are based on 15% residual wood moisture.



An ARTE® fireplace can be fired with all of the above wood types.

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2.5. Determining the heat output

There is not a specific rule that enables the calculation of the required heat output. This depends on the amount of space that is required to be heated and mostly on its insulation. In average the required heat output for a properly insulated room and with external temperature of 0° C is 40 kCal/h per m³.

Taking into account that 1kW equals 860 kCal/h an equivalent of $50W/m^3$ can be used. For example, to heat a 150 m3 room (10 x 6 x 2.5m) in an insulated residence, the output required is $150m^3 \times 50W/m^3 = 7500W$ or 7.5 kW.

So, for the main heating, a 10kW appliance is enough.

		Indicative c value with effi		Required amount relative to 1kg dry wood
Fuel	Unit	kCal	kW	
Firewood (moisture 15%)	kg	3600	4.2	1.00
Firewood (moisture 50%)	Kg	1850	2.2	1.95
Wood briquettes	Kg	4000	5.0	0.84
Coal briquettes	Kg	4800	5.6	0.75
Coal	Kg	7700	8.9	0.47
Coke	Kg	6780	7.9	0.53
Gas	m ³	7800	9.1	0.46
Diesel	L	8500	9.9	0.42
Electricity	kW/h	860	1.0	4.19

Table 2.5.1

3. ENDORSEMENTS AND CERTIFICATIONS

3.1. Endorsement

The ARTE® fireplace you chose has been tested according to **EN13229**. The declaration of performance (DoP) of each MENTOR model can be found at the URL of the company for each model.

3.2. Features marking plate

ARTE® fireplace's feature marking plate is located on the right side of the appliance.

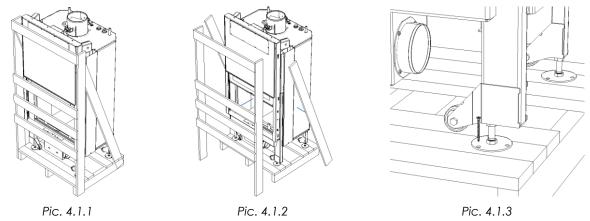
ARTE MENTOR STRAIGHT MNSTXX v1 EN 13229:2001/A2:2004						
		XXXXX Kcal/h – XX kW				
	Global efficiency:					
CO emissions at 13% O ₂ : XX % Smoke temperature: XXX °C						
Smoke temperature: XXX °C READ AND FOLLOW THE OPERATING INSTRUCTIONS						
US	E ONLY REC	COMMENDED FUELS				
MINIMUM SAFETY DISTANCE FROM FLAMABLE MATERIALS: 80 cm INTERMITTENT OPERATION DEVICE DO NOT USE IN SHARED FLUE						
SERIAL NUMBER: XX XX XX XXX XX XXXX						
		-30) 2310 684148 Fax: (+30) 2310 684149				

4. PACKAGING

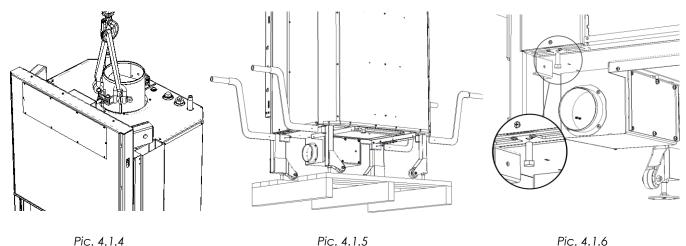
ARTE® is devoted in protecting the environment, so we use as much recyclable materials as possible and the least amount of packaging materials without compromising the secure transfer of our products.

4.1. Unpacking the fireplace

- 1. Your product will be delivered on a wooden palette which is lined with wooden side panels (Pic. 4.1.1).
- 2. Firstly remove the side panels. (Pic. 4.1.2)
- **3.** Because of sharp objects, carefully remove the plastic membrane and the waterproof plastic film and also all the polystyrene on the outside and inside of the product.
- 4. Unscrew the 4 screws located on the bottom side of the product, in order to release the fireplace from the palette. (Pic. 4.1.3)



- 5. Carefully lift up the product and place it on the installation point, making sure that the floor can withstand the weight of the device. Also, make sure you provide proper insulation in case the floor is built using flammable materials.
 - For the lifting, use 2 shackles and a belt (Pic 4.1.4). (Not included inside the package). Information about the weight of the device can be found at **Table 11.2**. The products that you will use for the lifting must be able to lift up the device with safety.
 - If you bought the lifting system with the handles (Pic 4.1.5), place them at the corresponding sockets and secure them with allen screws M6x10 (detail).
- 6. For safety reasons during transportation, the door is secured at the upper open position. To release the door, remove the bottom, right and left hexagon screws, which fix the counterweights (Pic 4.1.6).



The wheels which are fitted on the legs of the device, let you do small movements till the final installation place.



5. INSTALLATION AND FIRE SAFETY

During the installation of the fireplace, It is OBLIGATORY to respect the National and European rules and local regulations concerning building matter and fireproof rules.

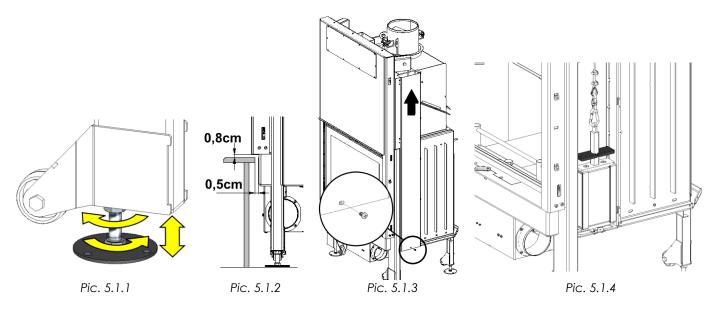
The installation MUST be inspected by a qualified auditor, prior to lighting the fireplace. Also, the appropriate local authorities must be informed.

5.1. Height adjustment, leveling of the fireplace & door's counterweights adjustment

Adjust the legs of the fireplace at the desired height, taking into account that the device must be leveled. Leveling is important for the right function of the sliding door.

For the height adjustment, loosen the nuts which are located at the device's legs, and rotate the adjustment screws (Pic. 5.1.1). When you reach the desired height, tighten again the nuts. The distances that are shown in (Pic 5.1.2) must be kept.

For the adjustment of the door's counterweights, remove the right and left galvanized side covers. To remove them, unscrew the down screws and pull the cover upwards (Pic. 5.1.3). By adding or removing plates evenly at the both counterweights (right and left), you can affect the function of the door (Pic. 5.1.4). For safety reasons and well function of the fireplace, the door (during its assembly at the factory) is set to close at low speed.



In general, due to the expansion of the fireplace, the whole casing must have a gap, at least 0,5 cm, around the fireplace.

5.2. Safety distances

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The combustion chamber opening must be AT LEAST 80cm away from any flammable materials that are inside the heat radiation zone **(Pic. 5.2.1)**.

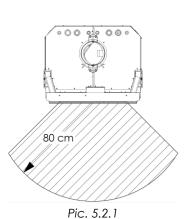
5.3. Wooden beams protection

Given its properties, heat is also transmitted through radiation. In case there are any wooden beams inside the radiation zone or in the way of the hot air, they MUST be properly insulated because the continuous exposure in high temperatures can make them deteriorate faster or even cause self ignition. Use proper insulation materials that are in accordance with European rules or, in case of high thermal stress you can also use metal linings.

5.4. General safety instructions

① Never leave children alone or without supervision near the fireplace when it is lit.

- $\ensuremath{\textcircled{}}$ Teach children how to operate the fireplace correctly and safely.
- ① Never touch the external surfaces of the fireplace or the glass when it is lit. There is a high risk of burns!



- ① Due to the self closing door, you have to be extra careful when you are filling the fireplace.
- ① It is forbidden to use the fireplace as a waste incinerator.
- ① Don't use burned or used wood as fuel.
- ① Remove the ash only after it has completely cooled off.
- ① Ash should be placed outdoors or be disposed in a place where there is no risk of ignition.
- ① Immediately inform your specialized local supplier if you find any malfunction.
- ① Don't use chemicals or liquids as fire starters.
- ① Do not use ANY fuel other than the recommended.



Follow the operating instructions supplied with the product to help prevent fire and protect the environment.

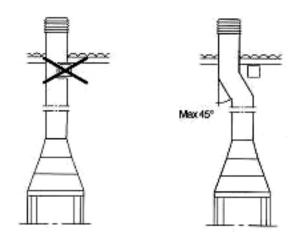
5.5. Flue safety instructions

Prior to installing the fireplace ARTE® the chimney sweep or a qualified technician should check the condition and operation of your chimney in accordance with the standards **EN13384-1** & **EN13384-2**.

By this way, you ensure the best conditions for heating without issues.

- Basic requirements for proper flue operation

The internal section of the flue must preferably be circular. In a case of square or rectangular flue, the internal corners should have a radius of at least 20mm. In case of rectangular flue, the ratio of the sides should be at maximum 1: 1.5.



Pic. 5.5.1

- The flue must be properly insulated and waterproof and constructed of materials with thermal resistance and resistance to combustion products and any deposits.
- The flue must have no constrictions, it must have a vertical path and it should not change in direction that exceeds 45° C (Pic. 5.5.1).
- ① In case of an existing flue the construction material should be checked. Materials such as cement with lime, galvanized steel and rough or porous materials are contraindicated as they create issues in the correct operation of the fireplace. Also, a proper study for the flue size must be conducted because often old flues have quite large diameters. This means that the amount of air draft is not proportional to the heat generated by the fireplace and by extension means that you consume more wood than necessary and will spend more time on maintenance. The solution proposed in these cases is the connection of an inner tube inside the flue. This tube should extend over the whole length of the flue and at no point should exceed in diameter the outlet flue of the fireplace. If the existing flue has the desired diameter a proper cleaning by qualified personnel should be done.
- ① In case of placement of the flue, along outer wall, a careful research must be done in order the thermal loses to be prevented. However, this solution is not appropriate as the placement of the flue inside the house, heats up more spaces, as the whole heat of the flue.
- ① The usage of gravitational damper is recommended, for flue $\geq 6m$, in order steady and efficient burning to be insured.

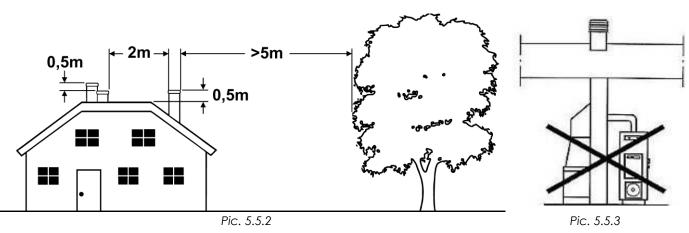
- Chimney placement

The placement of the chimney on the roof is a particularly decisive factor in the convection of the fireplace.

An incorrectly fitted chimney may generate reimbursement of exhaust into the heating space due to down flow of the air.

Follow the instructions below to ensure proper dissipation of smoke (Pic. 5.5.2).





- \oplus The ending of the chimney must be at least 50cm above the top of the roof.
- \odot If there is more than one chimney on the roof, they must be positioned at least 2m apart.
- \odot If there are two adjacent chimneys, their ends must be at least 50cm apart.
- ① If there is a tall building or tree next to the house, then you should place the chimney at a distance greater than 5m from the obstacle.
- ① It is prohibited to connect several devices to the same chimney. Each chimney should be autonomous (Pic. 5.5.3).
- ① In case of an inclined roof, the height of the chimney is defined depending on the inclination and the distance of the chimney from the ridge according to the following Table and picture (Table 5.5.1 & Pic. 5.5.4).

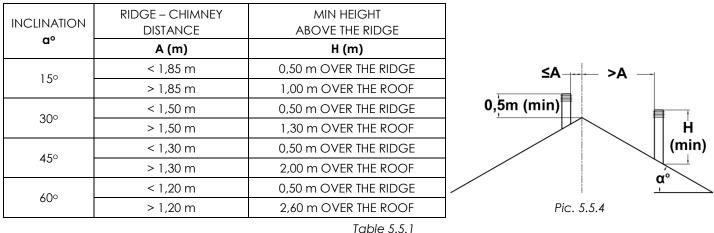


Table 5.

- Chimney cap

The chimney draft depends broadly on the adequacy of the cap.

So, in case the chimney is built, its exhaust diameter should be at least twice the inside diameter of the chimney. Knowing that it is necessary to protrude from the ridge of the roof, the cap must ensure the proper smoke dissipation in case of strong wind.

- A chimney cap must meet the following requirements:
- $\ensuremath{\textcircled{}}$ Internal diameter must be equal to the diameter of the chimney.
- $\ensuremath{\textcircled{}}$ Exhaust diameter be at least twice the inside diameter of the chimney.
- ① It should be constructed in such a way as to avoid the entrance of rain, snow and any foreign body in the chimney.
- It can be checked, maintained and cleaned easily.



Industrial style cap with protective net

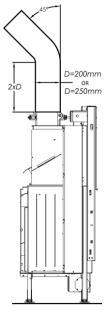


Cap with fan. It provides very good smoke dissipation even in case of weak winds



Cap with deflector. It leans according to the wind and it provides very good smoke dissipation

5.6. Connecting the fireplace with the flue



Pic. 5.6.1

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It is necessary that the flue gas tube is connected to a certified conduit with the same diameter as the fireplace, by following the dimensions of the adjacent image (Pic. 5.6.1). For fireplace MENTOR the diameter of the flue is 200mm for fireplaces with width 80cm and 90cm, and 250mm for fireplaces with width 100cm. The flue must be properly insulated with stone wool with thickness of 4cm with external aluminum foil. Do not use fiberglass or paper based insulation. Also, do not use flexible thin walled metallic tubes or asbestos tubes. This tube should be perfectly sealed and well insulated throughout its length.

To install the flue, you must place it on the fireplace outlet and then seal it using the appropriate sealant.

5.7. Air intake connection

MENTOR fireplaces, gives you the ability to intake air for the burning from different sources:

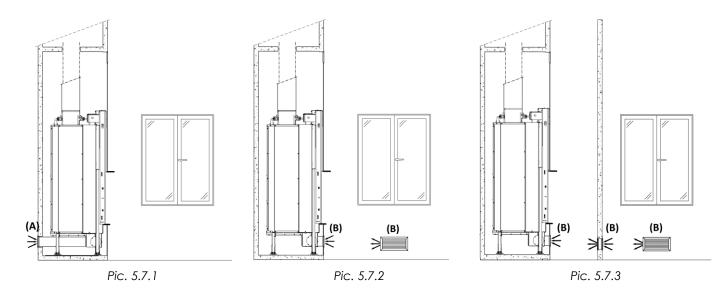
A) The best solution is the air to be intake from the outer environment, opening a wicket directly on the wall, at the back side of the fireplace, adjusting a flexible aluminum tube on the Φ 100 collar, which is located at the right edge of the fireplace and close to the bottom (**Pic.5.7.1**). For the wicket, use a nozzle, protected by a grille and a wire net. The nozzle must intersect with the combustion chamber through the flexible tub, which must be properly placed in order not to be covered. Its minimum surface cannot be less than 110 cm² (A).

When the air comes from an external source, there must be always used the appropriate clamps and Φ 100mm collar.

B) When the direct import of external air is impossible, you can input internal air from your house, by opening a wicket either at the area where the fireplace is located (Pic. 5.7.2) or from another adjacent room, by installing wickets at the intermediate walls (Pic. 5.7.3).

These wickets must be free and not able to be covered. Also, their minimum surface must be 300cm² (B), for example, a grille which size is 30x10cm.

In each case, you can select from which side of the fireplace you will import air, by changing the collar's position with the galvanized end cap that is located at the left side.





The import of the air which comes from garages, kitchen, bathroom or boiler room, must be avoided.

5.8. Hot air abduction

The space extending around and over the device up to the deflector must be ventilated continuously. For this reason you must allow cool air from a lower spot, for example, the bottom and the outlet of the hot air from above (Pic. 5.8.1).

With that way, it can be achieved:

- ① Higher safety
- ① Increase of the temperature inside the heating room, because of the air flow around the device (heat conduction).

The hot air extract grille must be placed on top of the trunk approximately 20cm from the ceiling. The grille must always be installed, as its purpose is to allow, the heat that builds up inside the trunk to be released in the room and also to relieve the pressure created.

Finally, at the paneling of the fireplace, a visiting slot should be constructed in order for the installer or the user to have access to the internal parts of the door and be able to perform maintenance. For the determination of the L and H dimensions, you should consult the drawing at **Chapter 11**. Dimensions & technical specifications.

5.9. Connection with the heating system

The fireplace ARTE® MENTOR can be installed to work individually or in collaboration with any another water heating device to be used for central or floor heating.



The installation is made by using 1" hoses.

To ensure the safety of the device you must install an overheating safety (Pic. 5.9.1), in order to protect the system against possible overheating. Also in case of floor heating, it is necessary to use a buffer tank (Pic. 5.9.2) and a thermal mixing valve (Pic. 5.9.3) to ensure constant temperature of the water in the floor pipes. These parts are not included in the device.



Pic. 5.9.1



Pic. 5.9.2



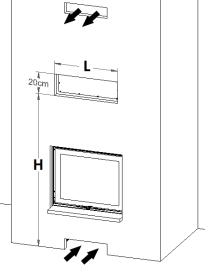
Pic. 5.9.3

In any case the installation must be made by a qualified technician and in accordance **local law and the regulations** of each country, including all regulations referring to national and European standards.

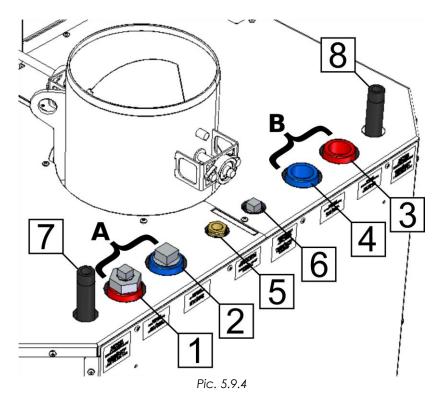
The installation can be set into operation only after it has been tested by a qualified inspector. Prior to installing the new fireplace please contact the appropriate local authorities.



NEVER use the device if it is not connected to a water heating circuit, which is full of water!



Pic. 5.8.1



- 1. Output A (hot water supply) 1" female
- 2. Input A (return of cold water) 1" female
- Output B (hot water supply) 1" female
- Input B (return of cold water) 1" female
- 5. Thermowell for temperature sensor 1/2" female
- 6. Position for thermal protection valve sensor 1/2" female
- 7&8. Input from the safety valve / output from the sewage 1/2" male

- Connection of supply - return

The ARTE® MENTOR fireplace, allows you to use 2 different pairs for input and output (pair A and pair B). These pairs can be seen in **Pic. 5.9.4** with the numeration 1,2 (pair A) and 3,4 (pair B). Your device is delivered with the pair A closed. Select which pair you want to use and seal the other one.

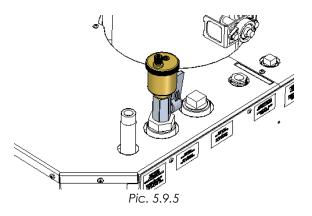


NEVER use the input of one pair and the output of the other!

In order to connect the fireplace with the water circuit you must use 1" pipe joints. In order to correctly connect the pipes to the circuit or seal (if applicable) the remaining joints you must use hemp or/and thread glue.

An automatic vent valve must be placed for the bleed of the fireplace's tank. This can be done in the following ways:

- Installation of the automatic vent valve at the output hot water supply, at the highest point. (like Pic. 5.9.10, 5.9.11 & 5.9.12).
- Or at the point 1 (Pic. 5.9.4) where is closed with a bushing fitting and a 1/2" pipe plug, in order for you to be able to install the 1/2" automatic vent valve easily (Pic. 5.9.5).



The valve prior to the automatic vent valve is installed in order the replacement of it to be easier. When the fireplace operates, this valve **must be open.** The automatic air vent and the valve are not included.

- Connection of control panel sensor

At the thermowell at **point 5** of **Pic. 5.9.4**, install the temperature sensor of the control panel.



Place the panel of the thermostat in a cold room, in order to avoid overheating of the electric parts.

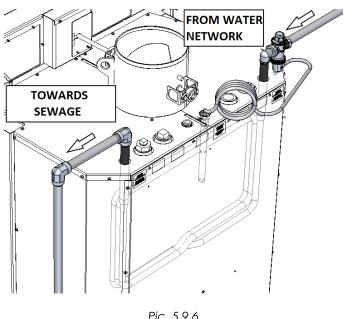


Overheating protection

In order to ensure the integrity of the heating network and the device, ARTE® provides you with an option to place a safety configuration to protect the heating circuit and the water jacket from overheating (Pic. 5.9.6).

On the back of the water jacket of ARTE® MENTOR fireplace there are cold water supply joints that are used by the overheating protection system (points 7 & 8, Pic. 5.9.4). Choose which one of them will be the input and which will be the output. You must install a thermal protection valve on the input joint (Pic. 5.9.1) and the drainage on the output point. Install the thermowell with the thermal protection valve sensor at point 6 (Pic. 5.9.4).

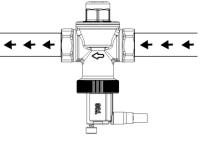
In case the water temperature in the jacket exceeds 95°C, the overheating safety valve will be activated and it will insert cold water in the independent overheating protection system located inside the water jacket, thus rapidly dropping the water temperature and preventing the possibility of destroying the device, without mixing the cold water with the water of the jacket.



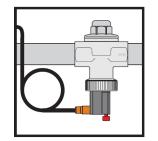
Pic. 5.9.6

For the installation of the protection valve, follow the following instructions:

- The arrow indication on the valve must point the flow's direction of the circuit. (Pic. 5.9.7).
- \triangleright Install it at the horizontal pipe, not at the vertical one (Pic. 5.9.8).
- The obturator axis of the valve can be installed downward or sideward, but never upward (Pic. 5.9.9).

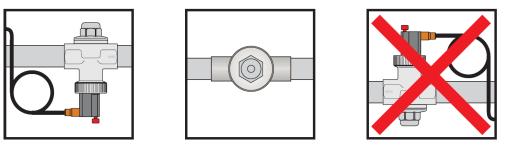


Pic. 5.9.7





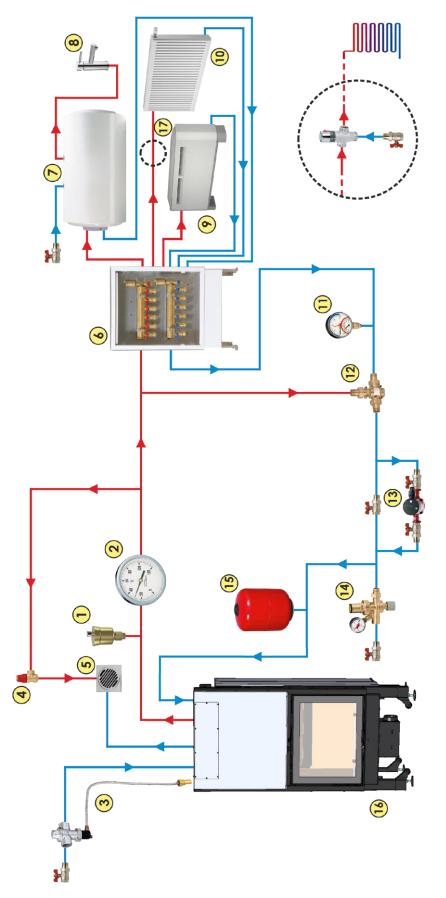
Pic. 5.9.8



Pic. 5.9.9

The following graphs, present different connection ways for the fireplace, with the appropriate safety devices.

- System with closed expansion tank when the fireplace is at the same level with the heaters

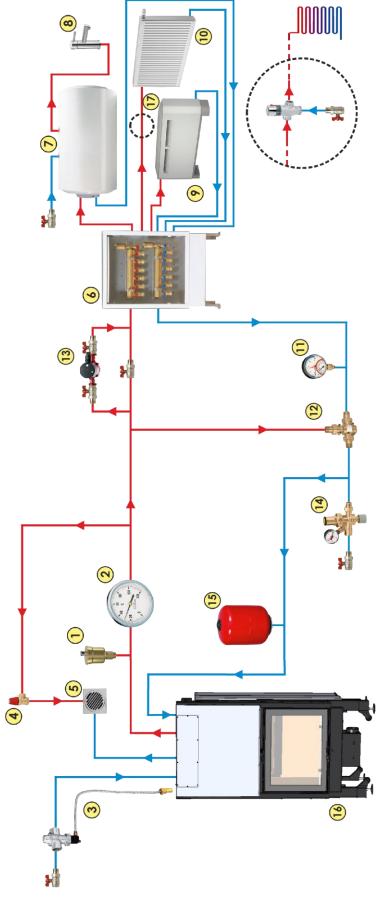


l. Automatic vent valve	5. Drainage	9. Fan coil heater	13. Water pump	 Water mixing valve (Used only in floor heating installations It is
2. Thermometer	6. Water distribution box	10. Radiator or heater mat	14. Automatic filling valve	recommended to be used simultaneously with a
3. Overheating safety valve	7. Boiler	11. Temperature/pressure gauge	15. Closed expansion tank	boiler tan, tor more satety of the circuit.)
4. Safety relief valve	8. Hot domestic water	12. Three way valve for by- pass	16. ARTE® MENTOR fireplace	

& ARTE

Pic. 5.9.10

- System with closed expantion tank when the fireplace is below the heaters



 Water mixing valve (Used only in floor heating installations. It is 	recommended to be used simultaneously with a boiler tan, for more safety of the	circuit.)	
13. Water pump	14. Automatic filling valve	15. Closed expansion tank	16. ARTE® MENTOR fireplace
9. Fan coil heater	9. Fan coil heater 10. Radiator or heater mat		12. Three way valve for by- pass
5. Drainage	6. Water distribution box	7. Boiler	8. Hot domestic water
1. Automatic vent valve	2. Thermometer	3. Overheating safety valve	4. Safety relief valve

4 ARTE

Pic. 5.9.11

- System with open expansion tank

	13. Water pump	 Water mixing valve (Used only in floor heating installations. It is recommended to be used simultaneously with 	a boiler tan, for more safety of the circuit.)	15. Open expansion tank
	9. Fan coil heater	10. Radiator or heater mat	11. Temperature/pressure gauge	12. Three way valve for by- pass
	5. Drainage	6. Water distribution box	7. Boiler	8. Hot domestic water
Image: second secon	1. Automatic vent valve	2. Thermometer	3. Overheating safety valve	4. ARTE® MENTOR fireplace

Pic. 5.9.12

ARTE® MENTOR fireplace is delivered with a stainless steel cooling coil already installed in which you must install a cold water supply (Pic. 5.9.6) so in case the water inside the water jacket exceeds 95° C the overheating safety valve will open and rapidly cool the water jacket.

l

6. OPERATING INSTRUCTIONS

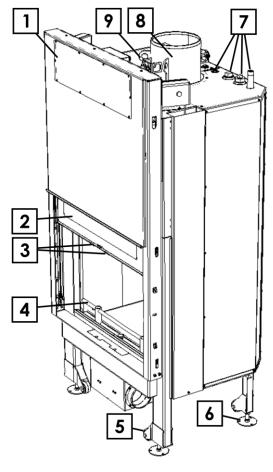
6.1. Before the first use of the ARTE® MENTOR fireplace

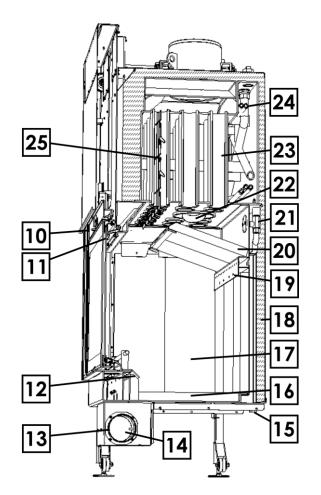
One of our qualified representatives has already provided you with instructions on how to operate the ARTE® MENTOR fireplace that you just acquired.

The operating instructions below describe in detail the steps to follow so you do not encounter any difficulties during the operation of the fireplace.

The qualified dealer in your area will be at your disposal to answer any questions. MENTOR fireplace is equipped with the following control systems:

6.2. About ARTE® MENTOR fireplace





1	Check-maintenance port	14	Automatic combustion air damper
2	Main door with double ceramic crystal	15	Water tank's drainage plug
3	Attach point for cold handle (left & right)	16	Bottom vermiculite, 1200kg/m ³ (or cast iron)
4	Log rolling guard	17	Vermiculite panels, 750kg/m ³ (or cast iron)
5	Positioning wheels (during installation)	18	Ceramic blanket insulation 5-10cm with galvanized cover
6	Leveling and height adjustment feet	19	Secondary combustion air holes
7	Hydraulic connections	20	Baffle (vermiculite 750kg/m ³)
8	Flue	21	Drain valve
9	Automatic fume damper (ADF)	22	Diaphragm of the central water tank pipe (check port of flue and damper)
10	Adjustment regulator of automatic fume damper (ADF)	23	Water heating tubes
11	Upper air curtain	24	Inox overheating protection heat exchanger
12	Primary air outlet	25	Flue gas decelerator
13	Intake of combustion air		

Table 6.2.1

6.3. General information

- When the fireplace paint dries

ARTE ® products are painted in spray booth with as more environmentally friendly and ecological colors as possible. There is although a possibility that the first few times the fireplace is lighted, the paint emits an odor. Let the fire burn with intense convection until all traces of gas disappear and there is no longer a smell. The gas is not toxic, but the room should be well ventilated.

- Incineration preparation

Prepare sufficient amount of chopped firewood, kindling and torches or branches. Before using the wood it is recommended to store them in a warm place for a few days.

- Combustion air intake

Although the fireplace uses external air for combustion, make sure that the room is ventilated adequately when the fireplace operates with fresh air. When you open the door of the combustion chamber for adding firewood there should be no pressure difference between outdoor and indoor air in the room, so it is good to keep the door open for about 1.5cm for 5-6 seconds and then fully open it.



The air intake must be positioned so as not to allow being covered.

- Power failure

In case of power failure, the water pump/s does not operate so there is overheating danger of the water in the tank. For this reason, the control panel stops the combustion air supply, in order the fire to go out gradually and the temperature of the water in the tank to drop, avoiding overheating, although there is overheating protection **(Chapter. 5, Pic. 5.9.6).** Therefore, it is suggested the connection of the water pumps and the control panel with an uninterruptible power supply unit (UPS), in order the flow of the water to be prolonged till the fire in the chamber drops out. It is suggested a pure sine wave UPS with minimum power of 1000VA to be used, which will ensure uninterruptible operation of your fireplace for approximately 1 hour.

IN CASE OF POWER FAILURE. DO NOT OPERATE THE DEVICE WITH THE MAIN DOOR OPEN. OTHERWISE, THE OVERHEATING VALVE WILL DISPOSE OF THE OVERHEATED WATER AT THE DRAINAGE.

- Heating during seasonal change or in adverse weather conditions

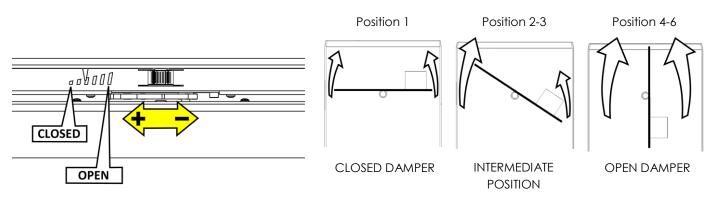
When there is high humidity or fog, with temperatures ≥ 15 °C, but also during the transitional period between seasons, it is recommended to light a test fire before normally lighting the fireplace. This will displace the cold, heavy air that is inside the flue and create the right conditions for optimum smoke dissipation

- ADF function

The automatic (and adjustable) fume damper [ADF] **(Table 6.2.1, Line 10)** enables you to adjust the damper to remain open in any position desired, even with the main door closed, in order to ensure adequate convection, depending on the season.

e.g. Winter \rightarrow Towards closed Spring – Autumn \rightarrow Towards open

To adjust the damper, turn the regulator right to close the damper and left to open it, checking the indicator in order to calculate its inclination (Pic. 6.3.1).



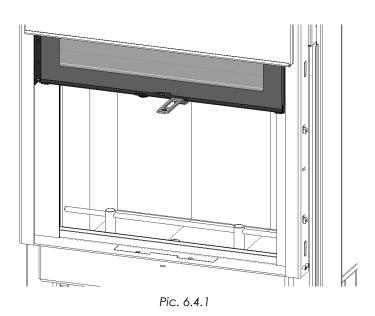




6.4. Usage of the detachable handle ("Cold handle")

The cold handle is a tool that you can use in order to open the door of the fireplace, even if the surfaces of the fireplace are extremely hot (Pic. 6.4.1).

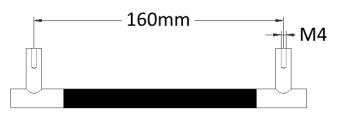
The cold handle is provided in the standard edition combined with a magnetic base in order to place it on the wall (Pic. 6.4.2).



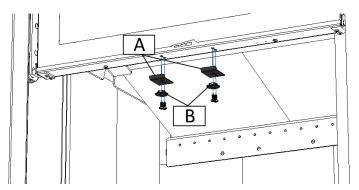


Pic. 6.4.2

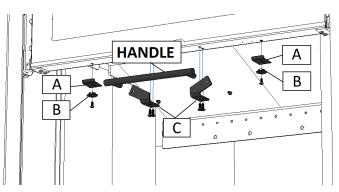
If you prefer the usage of a handle of your own choice or the ARTE's one, you can order special tools from ARTE in order to adjust them. The handle that you will choose from the market must be able to withstand high temperatures and agrees with the dimensions of **Pic. 6.4.3**.







Pic. 6.4.4: In order to install the handle of your own choice, unscrew the 4 screws at the bottom and remove the A & B parts.



Pic. 6.4.5: Screw the handle with the C brackets with 2 flat head screws and screw everything at the bottom of the door, by screwing the screws that were removed before. Additionally place the parts A and B at the collateral positions (for the usage of the cold handle).

6.5. Adjustment of combustion air

ARTE® MENTOR fireplace gives you the opportunity to adjust the primary combustion air intake by the LCD control panel. The control device controls an electric motor where the changes that are done on the control panel are transferred to the combustion air intake damper. To prevent overheating, they are equipped with a sensor which is placed in the thermowell of the water jacket where in the case of overheating the device closes the supply of combustion air.

- Automatic regulator of the heating circuit for water heating fireplace with air intake control (RT-08G)



The regulator controls the intensity of the combustion in the fireplace by adjusting the combustion air damper, so as to maintain the water temperature in the fireplace to a desired, predetermined level.

This results in enabling the regulator, in a second phase, when the water reaches a predetermined temperature to activate the pump of the heating circuit (HC) as well as the domestic hot water circulating pump (DHW).

It regulates not only the start and end of the circulators but it also has the option, when the user wishes it, to give a periodic priority to the DHW pump in correlation to the HC pump. Recurrent priority means that it alternately activates the HC pump for 45 seconds and then suspends it for the next 4 minutes thus resulting in heating the DHW faster.

It also has the option to shut down another heat source (e.g. gas boiler) when operating the fireplace or to command an additional pump or motorized valve (solenoid) with a maximum power of 500W.

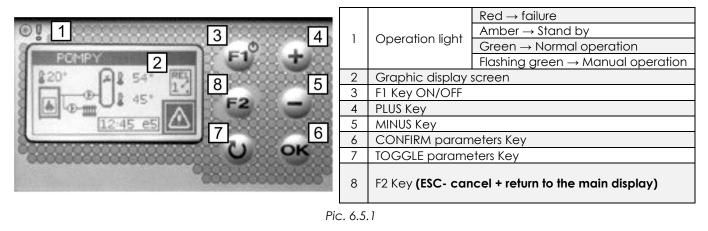
- ! The regulator has an **ANTI-FREEZE** system which protects the heating circuit from potential freezing when the measured temperature is below 4°C, by automatically activating the HC pump.
- ! The regulator has an **ANTI-CLOG** system which operates the heating circuit pumps for one minute per week during the period that the device is not used.

The regulator is equipped with its own emergency power source so a power supply interruption up to 8 seconds would not impair its smooth operation. In case of an outage longer than that, an uninterruptible power supply device can be used (UPS). For safety reasons, if the regulator is not receiving power, the damper closes completely and is automatically placed in the rest position (fully closed).



- Using the regulator

All of the regulator functions can be controlled via the control panel (Pic. 6.5.1). When the regulator is not operating, the light \bigcirc ! (1) illuminates amber to notify that it is in standby mode and the screen displays the water temperature in the water jacket, the time and the time zone (if it is enabled). To activate the control panel press the F1 (i) (3) key once. To disable it hold the same key pressed for about 1 second.



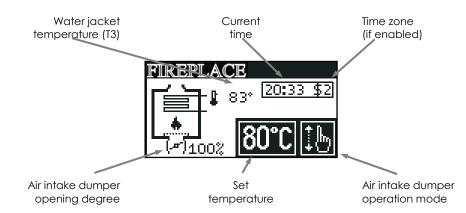
The device status is indicated in the graphic display screen (2) in the form of text and images. It also includes information on the operation of individual system components, temperature sensors and it allows changing parameters.

Switching between the different displays is done by the TOGGLE \bigcirc (7) key. When you are in a display that allows any parameter change you must press the CONFIRM \circledast (6) key. The parameter field will start flashing and you can now change the value by pressing the \oplus (4) or \bigcirc (5) keys. If any display has more than one parameter fields, move between them with the TOGGLE \bigcirc (7) key and by pressing the CONFIRM \circledast (6) key register that change.

! If you do not register the altered parameter within 10 seconds, it will be ignored by the regulator. The field will stop flashing and the parameter will revert to its previous value.

- OPERATION screen

It displays the current temperature of the water in the water jacket of the fireplace and the degree of the air damper in percentage. This screen is fixed and to change it you must press the TOGGLE \bigcirc (7) key.

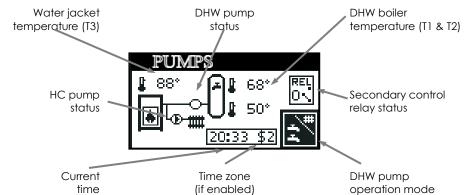


In this screen you can change the temperature in the water jacket of the fireplace. By pressing the CONFIRM O (6) key the set temperature parameter field will start flashing. Press O (4) or O (5) to change the value and then press the CONFIRM O (6) key in order to register the change.

Also in this screen, when the MANUAL mode is selected and the operation light \bigcirc ! (1) flashes green, you can manually adjust the position of the air intake damper position in 10% increments. By pressing the $\textcircled{\bullet}$ (4) key it opens and by pressing the $\textcircled{\bullet}$ (5) key it closes.



- SYSTEM OPERATION screem



This screen is fixed and to change it you must press the TOGGLE () (7) key.

MODE MODE \$ MAN

- MODE screen

It allows changing the way the fireplace operates and manages the DHW and HC pumps.

The **Table** below presents the different modes of operation of the fireplace.

ICON	MODE	DESCRIPTION
Q	ON	The air intake damper is automatically adjusted in order to stabilize the temperature in the water jacket of the fireplace. If this mode is selected the operation light $\bigcirc !$ (1) illuminates green.
‡ ⊪	MANUAL	Block automatic control and thus the air intake damper setting and consequently the temperature in the water jacket of the fireplace is made manually. If this mode is selected the operation light \bigcirc ! (1) flashes green.
8	OFF	The air intake damper remains in the neutral position, i.e. completely closed. If this mode is selected the operation light \bigcirc ! (1) is off.
ſ 1	AUTO	Activate the automatic cycle mode Ignition - Operation - Shutdown. If this mode is selected the operation light \bigcirc ! (1) illuminates green during the operation of the fireplace and it turns of when it detects shutdown.
Ĵ	AUTO (start/finish)	This icon appears before the beginning and after the end of AUTO mode.

Press the F1 (i) (3) key to activate AUTO mode. The air intake damper opens and light \bigcirc ! (1) turns on. Within the next 2 hours, the fireplace should be lit and the water temperature should have reached the specified desired value. From that moment on, a drop in the water temperature above 10°C which is maintained for 30 minutes is treated as a shutdown of the fireplace. If this occurs, the regulator terminates the cycle by setting the air intake damper to the neutral position (closed). If you press the F1 (i) (3) key again, a new automatic cycle will begin.

The table below presents the different modes of management of the DHW and HC pumps.

ICON	MODE	PUMP	STATUS
OFF OFF	DHW	Closed	
	Off	HC	Open
Ţ.	SUMMER	DHW	Open
1-	SOMIMER	HC	Closed
*		DHW	Open
N ON	ÖR	HC	Open
	PRIORITY*	DHW	Open alternately
1		HC	DHW: 4' HC: 45''

*When DHW \geq 60°C, return to ON mode



- TIMES ZONES mode

The regulator allows you to operate your fireplace with automatic switching between modes based on certain time zones, using the CLOCK and SPECIAL modes.

₩	
⊙ f	O¶
CLOCK	Special

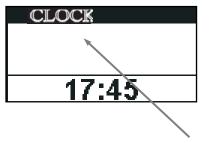
! The regulator time zones are not enabled. Activation and potential adjustment to the parameters must be made in agreement with the installer and if you understand the way they operate. Any careless changes can cause unstable and inefficient system operation.

- Secondary control relay function

REL O N	Relay deactivated(NO)
REL 1	Relay activated (NC)

The regulator is equipped with a secondary control relay system whose contacts can be used, for example, to stop the operation of another heat source (e.g. gas boiler) or to command an additional pump or solenoid when the water temperature reaches a predetermined value.

- TIME ADJUSTMENT SCREEN



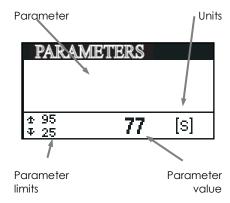
The screen displays the current time and the current time zone (when their feature is enabled). To adjust the hour press the CONFIRM \circledast (6) key, so the minutes field start flashing. Press the (•) (1) $\dot{\eta} = (5)$ keys to change the value and then press the TOGGLE (7) key to switch to the time field. After you finish adjusting the hours field press the CONFIRM (6) button to register the change (the time field will stop blinking).

Time zone (if enabled))

PARAMETERS SETTING screen

PARAMETERS							
Parameters	Level						
★ 4 0	0						

In the first view of the parameters display there is the definition of "Parameters Level" with the default value "0" which means that the parameters are not available.



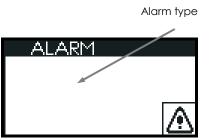
In the first view of the parameters display there is the definition of "Parameters Level" with the default value "0" which means that the parameters are not available.

After changing the level to "1", "2", "3" or "4", the following views on the display show the parameter values in the image on the right. The last screen displays "****" which ends the definition of the operation parameters, followed by a return to the first screen.

- ! The parameters adjust the regulator according to the properties of the fireplace and of the central heating installation. The new settings must be in agreement with the installer and the manufacturer of the fireplace. Any careless changes can cause unstable and inefficient system operation.
- If you make a change for which you are not sure and you have not registered, press the F2 😢 (3) key to return to the main display.

- ALARM screen

This screen is displayed when there is one of the following situations:



- Failure of the sensor on the top of the boiler (T1). The screen displays **WAW temp. sensor (T1) damaged**. If the sensor is not installed, the alarm is not activated.
- Failure of the sensor on the bottom of the boiler (T2). The screen displays **WAW temp. sensor (T2) damaged**. If the sensor is not installed, the alarm is not activated.
- Failure of the sensor on the water jacket of the fireplace (T3). The screen displays **Fplace temp. sensor (T3) damaged**.
- Exceed on the limit of the temperature in the water jacket of the fireplace. The screen displays **Too high temp. of the fireplace**

The alarm is accompanied by an intermittent acoustic signal, which can be canceled by pressing the CONFIRM M (6). key. Also when there is a temperature exceeding alarm, the HC pump automatically starts in order to cool the fireplace down.

- Electrical installation

The instructions for connecting are included inside the packaging of the automatic regulator (Page. 15).



The electrical installation must be done NECESSARILY by specialized staff.

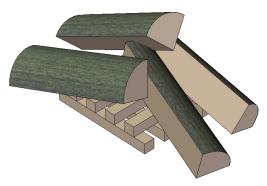
7. LIGHTING THE FIREPLACE

The automatic combustion air damper, regulates the combustion depending on the water temperature inside the tank. This thing allows you to deal only with the lighting and the supplying of the fire with wood.

To form an adequate layer of ash at the base of the fireplace, use 1-2 kg of dry kindling the first time you light it. If it is possible, constantly maintain a layer of ash with thickness of 2-3 cm at the base of the combustion chamber for added insulation.

7.1. Traditional method of lighting

- **1.** Place 2-4 kindling tablets or 7-10 wrapped newspaper sheets beneath 1-2 kg dry kindling. and light them up.
- **2.** After 15-20 minutes a thick layer of cinder will be formed in the combustion chamber and the temperature will rise, which is essential for the continuation of combustion.
- **3.** Once the requirement described in **point 2** is met, place more logs, keeping a distance of 1 cm approximately from one another. The new wood will begin to burn within 2-3 minutes.
- **4.** As soon as the fire leaves a thick layer of cinder, you can add more firewood by repeating steps 3.



Pic. 7.1.1:Traditional method of lighting



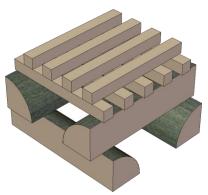
To avoid covering the glass with soot, it is important not to let logs lean against it.



7.2. Lighting without CO emissions (FROM TOP TO BOTTOM)

- 1. Place logs, whose weight depends on the size of the fireplace, alternately (once lengthwise once widthwise).
- 2. Add some torch (1-2 kg) above in length-widthwise arrangement together with 2-3 kindling tablets or 3-4 wrapped newspaper sheets and light them
- 3. As soon as the fire leaves a thick layer of cinder, you can add more firewood.

Feed the fireplace often but with small amounts of firewood, always depending on the size of the fireplace. If the fireplace is overly full, the generated heat may cause excessive strain on the flue. The supply of firewood should be done in moderation.



Pic. 7.2.1: Lighting without CO emissions

The openings of the air supply should not be covered by firewood. The fire should be vigorous and the smoke exiting from the flue must be almost unnoticeable. The fire should not be smoldering because it is causing more pollution.

It is recommended installing a smoke detector in the room where the fireplace is located.

DO NOT OVERHEAT THE FIREPLACE AND DO NOT LEAVE THE DOOR OPEN! There is risk of fire or permanent damage. If any part of the fireplace starts glowing, then the device is overheating.

Wood combustion rules

- If you want less heat, put a smaller quantity of wood in the fireplace and reduce the amount of air. It is however important to maintain an adequate layer of cinder.
- ① Less heat = Less wood = Less air.
- ① More heat = More wood = More air.
- When the fireplace operates at excessively low power or if the wood is not sufficiently dry, soot might deposit on the glass.

7.3. Safe handlings in case of wrong functioning

In rare cases, even a test fire can cause not effective draft in the flue. In this case, call your chimney sweep.

In no case, you must not try to light a bigger fire. If smoke escapes from the fireplace, ventilate the room immediately and call your chimney sweep. DON'T LIGHT THE FIREPLACE!

7.4. Smoke escape in the room,

Check the following:

- If for any reason you have left the door open during operation.
- If the flue is absolutely airtight.
- If the internal of the chimney is absolutely airtight from the top to the bottom (Even a small crack or gap can spoil the insulation)
- If the throttle of the A.D.F. system is blocked or if cinders have stuck inside the pipe on the throttle.
- If the chimney is suitable and clean (In each case, they must be fixed or cleaned by a chimney sweep)
- That there is nothing flammable that is in touch with or close to the flue or the device.



Smoke contains CO (carbon monoxide), so any smoke escape must not be tolerated



8. TERTIARY COMBUSTION

The three combustion points

The combustion of wood requires a process of primary, secondary, and tertiary combustion to be efficient.

1. Primary combustion

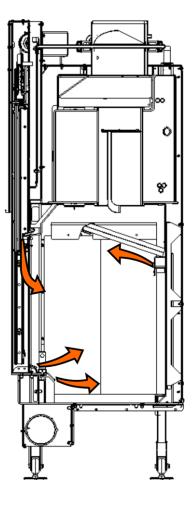
Primary combustion is the initial wood burning at relatively low temperatures. During the primary combustion, large amounts of soot, creosote and gas are produced due to the existence of water in the wood. Creosote, in primary combustion, contains 60% of the potential energy of wood, but it is deposited in the form of soot inside the fireplace and the flue without imparting any heating.

2. Secondary combustion

The combustion chamber is insulated so as to increase the temperature of the core and by providing just the right amount of oxygen necessary to 600°C, the creosote ignites spontaneously. This creates a chain reaction that increases the temperature inside the fireplace from 600°C to about 870°C without having to add any more fuel. This is the secondary combustion.

Thereby, the more proper secondary combustion is achieved the higher temperatures are produced and the less residue is left (gas and particles). The vast majority of secondary combustion is only done in the upper part of the chamber near the outlet of the flue. Thus a large part of the heat that is achieved, is discharged directly through the draft of the flue to the exterior and not in the heating area.

The triple baffle system which delays the smoke together with ARTE's® combustion chamber manage to give us the maximum performance of secondary combustion. The primary's intake air system from the bottom side of the combuston chamber, in cooperation with the secondary's intake air system from the back of the combustion chamber supply uniformly the suitable quantity of preheated air, which together with air curtain of the ceramic glass result in every place of the combustion chamber to receive the properamount of preheated oxygen (Pic. 8.1). This way the whole area of the chamber is converted in a secondary combustion chamber, and thus its performance dramatically increases and inversely gas residue reduces.





3. Tertiary combustion

The tertiary combustion occurs when the coal that remains on the bottom burns in a proper and coordinated way. Coal contains a large amount thermal energy that when used provides a large amount of heat. Proper air flow directly on the coals within such a hot room, results in almost complete consumption and minimizing the amount of ash that is is collected on the bottom.

9. CLEANING AND MAINTAINING THE FIREPLACE



When performing maintenance on the fireplace, always protect yourself, using safety goggles and gloves.

9.1. External maintenance

The fireplace surface is painted with heat-resistant paint. It is best kept clean by vacuuming with a soft brush attachment or by wiping with a lint-free cloth. Over a period of time, the painted surface may become slightly grey. A canister of touch-up ARTE (B) spray paint should be available from your fireplace supplier. This can be applied - in accordance with the instructions - in just a few minutes. When first firing, after touching up, the fireplace will give off a slight smell as the paint cures. Make sure to ventilate the room well during this phase.



9.2. Internal maintenance



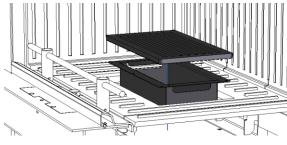
Due to the self-closing door you should be very careful for any accidents during the maintenance of the fireplace.

- Ash disposal

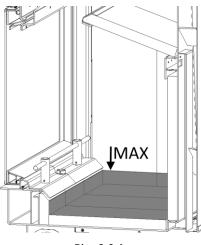
Empty the excess ash as often as necessary in order for the level to remain below the appropriate (Pic. 9.2.1). ARTE® fireplace is designed to produce the least amount of ash, almost 1Kg for every 100Kgs of firewood. It is recommended to constantly maintain a layer of ash with thickness of 1-2 cm at the base of the combustion chamber for added insulation.

Dispose the ash by following these steps:

- ① Open the main door and use a small shovel or a scoop to remove the excess ash
- ① Dispose the ash in a metallic container with a tight lid



Pic. 9.2.2





If you have a cast iron bottom and ashtray, lift up the cast iron grill from the middle and remove the ashtray (**Pic. 9.2.2**). Dispose the ash inside a metal bow with tight lid.

The closed container with the ash should be placed on a nonflammable floor or on the ground, away from flammable materials until the final disposal of the ash. The ash must be stored in a closed container until cooled down, or buried on the ground or dispersed somewhere.



Never empty a fireplace while in use.

Never use your household or shop vacuum cleaner to remove ash from the fireplace. There are special ash vacuum cleaners.

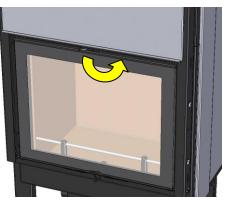
Always remove and dispose of the ash properly.

- Glass

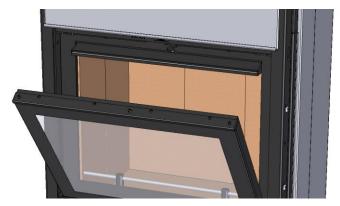
ARTE® MENTOR fireplace has a **double ceramic glass** in the window of the combustion chamber in order pyrolysis to come faster and more heat to be kept inside the chamber, supplying it at the water tank. If the fireplace is generally operated at the correct temperature, there should be little or no soot on the glass.

The cleaning procedure must be done when the fireplace is cold as follows:

- With one hand, turn the handle, which is located above the door, to the right and keep the weight of the door with the other hand (Pic. 9.2.3).
- Pull the door outside till the point where the movement stops (Pic. 9.2.4).
- From the resulting opening, the glass can be cleaned internally.
- Follow the same procedure vice versa, in order to secure again the door.



Pic. 9.2.3





For normal cleaning, moisten a paper towel with water and add some ash from the combustion chamber. Rub it over the glass and then clean the glass with clean water and dry it well. For heavier deposits that cannot be cleaned, use glass cleaner, applied when the glass is cold, in accordance with the instructions.

Never use abrasive cleaners on the glass surface.

Reasons for the presence of dirt on the glass:

- ③ Firewood is too wet
- ① Logs are too large or not split
- ① Combustion temperatures are too low



To reduce the risk of breaking the glass, avoid striking the glass or slamming the door. Replace broken glass IMMEDIATELY.

Do not operate the fireplace if the glass in the door is damaged.

If there is a need to replace the glass, it should be replaced with the high temperature ceramic glass supplied by ARTE®. For more information, please contact your local ARTE® dealer.

- Gasket

The gasket around the perimeter of the door may harden over a period of time. It should be replaced if it becomes difficult to close the door or if air starts to leak in around the perimeter of the doors, causing the fire to become a little less controllable. An ARTE ® rope gasket kit is available on your local ARTE ® dealer.

- Internal parts that need maintenance

The components that are in the flame route - consisting of the lining vermiculites, the ceramic glass, the vermiculite baffles and the steel baffle - are subject to extreme stress because of the heat produced by the fire. Occasionally, some of these parts may have to be replaced as part of routine maintenance.



Components in the flame route, the gasket and the paint finish are not covered by the warranty.

All of these service parts can be bought from your ARTE ® dealer, and we recommend that damaged parts are replaced as soon as possible to avoid consequential damage.

Should the baffle be distorted by overheating, the fireplace will still function, although its efficiency may be compromised. Please replace it as soon as possible.

Internal wear accelerating factors

- Regular overheating
- ① Accumulated soot and ashes

9.3. Cleaning the fireplace and the flue

When wood is burned slowly, it produces tar and other organic vapors, which combine with emitted moisture to form creosote. When the fire is low, the creosote vapors condense in the relatively cool chimney flue. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire, which can destroy the flue/chimney.

Initially, do a monthly check for the presence of soot above the deflector plate and around the outlet flue. If the fireplace suddenly start operating slowly check for intense presence of soot around the flue collar or in the flue/chimney.



The flue, the water heating tubes and the flue gas baffles must be inspected at least once every two months during the operating season to determine if a creosote buildup has occurred. In that case, clean the:

1) flue gas baffles

2) flue, ensuring the for fire avoidance

3) water heating tubes, ensuring right function and high performance

Clean the flue/chimney all the way from the fireplace to the flue end point above the house. A good practice is to clean the flue after each operating season and to inspect it prior to the start to ensure that bird's nests or other blockages have not occurred during the off season.

Chimney sweeping

Inspect the fireplace regularly during the operating season as part of a regular maintenance schedule.

To inspect the chimney, let the fireplace cool completely. Then, remove the baffles (Pic. 9.4.1 & 9.4.2) and the diaphragm of the central water tank pipe (Pic. 9.4.7), place a mirror in the upper area of the combustion chamber and turn it upwards, in order to inspect the chimney.

Clean the chimney using a brush with the same size and shape as the flue. Run the brush up and down the flue, causing any deposits to fall to the bottom of the fireplace where they can be removed the same way as the ash. **ATTENTION!!!** The central water tank pipe (Φ 150 mm) is smaller than the flue. The flue is Φ 200 mm for fireplaces with width 80cm and 90cm, and 250mm for fireplaces with width 100cm.

If you cannot inspect or clean the chimney by yourself, contact your local ARTE ® dealer or a professional chimney sweep.

If you experience a chimney fire, act promptly and:

- Close the air regulation (either setting to function OFF or power failure)
- ① Evacuate the house
- Call the fire department

- Cleaning of heating water tubes

Inspect regularly the heating water tubes, in order to remain clean and right flow of the gases to be ensured. In case that they need cleaning, remove the diaphragm of the central water tank pipe (Pic. 9.4.7) and the flue gas baffles which are located at front line of tank's tubes (Pic. 9.4.8 & 9.4.9).

Use a common wire brush for the main tube. For the rest ones, use a cylindrical wire brush, which must be suitable for cleaning 6cm diameter tubes. Also, you can clean through the main tube, the area that is above the tubes of the tank.

- Annual maintenance

Before the operating season starts, perform a thorough cleaning, inspection and repair:

- ① Thoroughly clean the chimney and flue connector
- Inspect the chimney for damage and deterioration. In case of prefabricated chimney, replace any weak sections.
 In case of a masonry chimney, have a mason make any needed repairs
- ① Check the ceramic glass for any cracks and replace if needed
- ① Check if the door is airtight and the handle tight. Fix any problems.

- How to clean the inside parts of ARTE® MENTOR

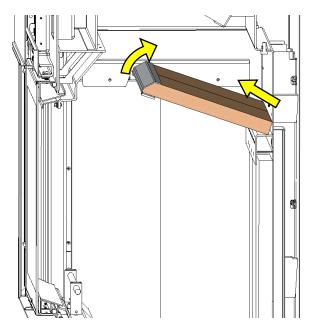
During the annual visit of your local chimney sweep and during the cleaning of internal parts of the fireplace, it is recommended to remove all internal parts of the combustion chamber to be also cleaned. (Chapter 9.4)



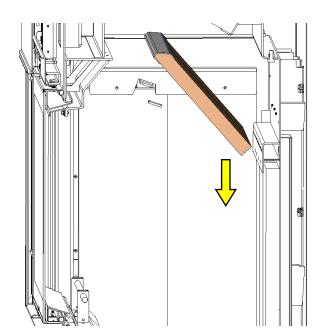
The cleaning of the fireplace must be done ONLY when the device is cold.

9.4. Internal parts

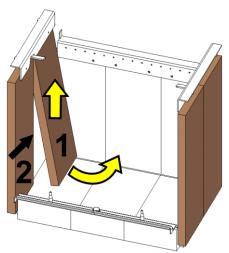
- Removal of baffle



Pic.9.4.1: Lift up the front side and pull outwards.



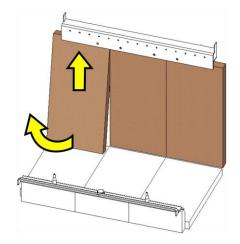
Pic.9.4.2: Remove the baffle by pulling it downwards.



- Removal of side vermiculites

*Pic.*9.4.3: Remove the 1st baffle (**Pic.** 9.4.1). Lift up the vermiculite N_0 1 and then pull it inwards. Slide the vermiculite N_0 2 backwards, in order to be able to repeat the same procedure as for Vermiculite N_0 1.

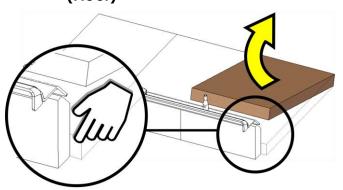
- Removal of back vermiculites



Pic.9.4.4: After the removal of the side vermiculites, lift up the back vermiculite and then pull it inwards.

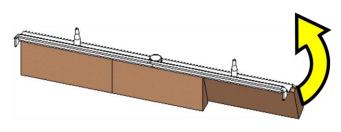


- Removal of bottom vermiculites (Floor)



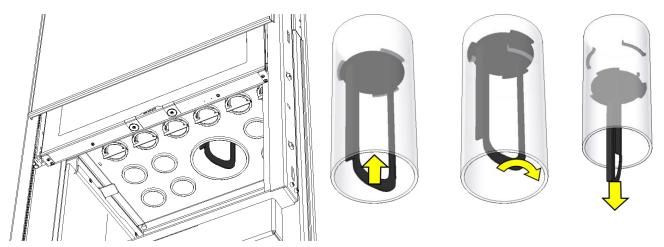
Pic.9.4.5: After the removal of the side vermiculites, lift up the vermiculite and then pull it inwards.

- Removal of bottom vermiculites (Front side)



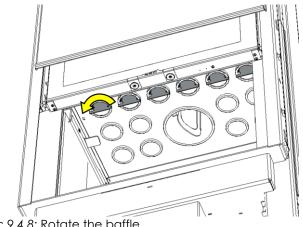
Pic.9.4.6: After the removal of the floor vermiculites, pull the vermiculite slightly right and then pull it inwards, lifting its bottom face upwards.

Removal of diaphragm of the central water tank pipe -

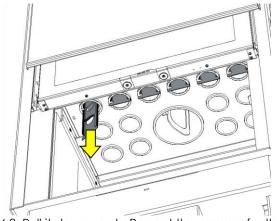


Pic.9.4.7: Lift up the diaphragm, rotate it (left or right) and remove it by pulling it downwards.

- Removal of flue gas baffles



Pic.9.4.8: Rotate the baffle

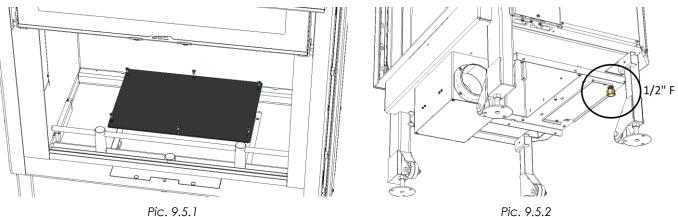


Pic.9.4.9: Pull it downwards. Repeat the process for the rest ones.

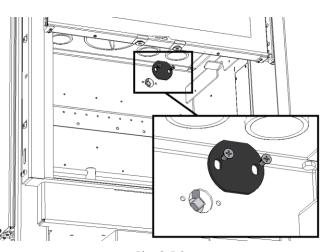
9.5. Drainage of water tank

For any reason that requires the drainage of the tank, ARTE has anticipated and equipped the MENTOR fireplace with a drainage layout. This layout includes a valve, which is located at the back of the combustion chamber (Table 6.2.1. Line 21), and a stainless steel spiral that ends to a drain plug at the bottom of the device's back side (Table 6.2.1, Line 15).

To empty the tank, you must remove the vermiculites (or the cast iron) that cover the combustion chamber (Table 6.2.1, Line 16&17) and the baffle (Table 6.2.1, Line 20). Then unscrew the 6 screws of the bottom plate that is located at the bottom of the combustion chamber and remove it (Pic. 9.5.1). The resulting opening gives you access to a 1/2" threaded adapter where a drain plug exists (Pic. 9.5.2). Connect one hose to the plug, which ends up to the sewage.



Pic. 9.5.1



Pic. 9.5.3

Finally, remove the cap that is located at the back of the combustion chamber, unscrewing the 2 screws that hold it. Then with 12X12mm square key or a big flathead screwdriver, open the valve, on order the drainage of the tank to start (Pic. 9.5.3).

When the drainage is completed, close the valve, remove the hose that you connected towards the sewage, and place again the parts that you removed (bottom plate, back cap, baffle, vermiculites, etc.)

9.6. Inactive fireplace for prolonged periods

IMPORTANT NOTICE: If the fireplace is not used for some time, clean it thoroughly and let the air control layout slightly

open (i.e. 🔟 MANUAL 10%) in order to let the air circulate. Ensure that the rainwater cannot infiltrate from the flue. Place a chimney cap that does not completely block the flue.

These actions should ensure there is a slight movement of air through the fireplace, and that the body and combustion chamber remain dry, right into the corners.

Ash that remains in the fireplace, when not in use, can absorb moisture like blotting paper. If moisture settles inside the fireplace, it forms rust which expands the more it settles. This can cause excessive pressure on the fireplace joints, thus causing damage.

NOTE: It is recommended to thoroughly clean the fireplace at the end of the operating season Adding desiccant in the combustion chamber, such as cat litter, helps absorb moisture during the summer. Make sure to remove it before the beginning of the operating season.



10. TIPS AND TRICKS FOR RESOLVING ISSUES

The wood does not ignite by lighting the fireplace. The fire just smokes. The fire burns out

- (1) If you are at the \square OFF function, then turn on the regulator
- ① If you are at the MANUAL function, increase the air supply
- ① If you are at the \square AUTO function, press F1 (F) (3)
- ① You are not using proper kindle
- The wood is too wet
- The logs are too thick
- The ash is over the appropriate limit

Intense smoking in the combustion chamber, intense soot deposition on the glass

- ① If you are at the I MANUAL function, increase the air supply
- ① If you are at the AUTO function, press F1 (F) (3)
- Small quantity of wood
- ① The wood is too wet
- ① The logs are too thick

There is smoke coming out of the fireplace

- $\ensuremath{\mathbbm O}$ Check if there is adequate draft into the flue, light a test fire
- ① Make sure there is sufficient air supply



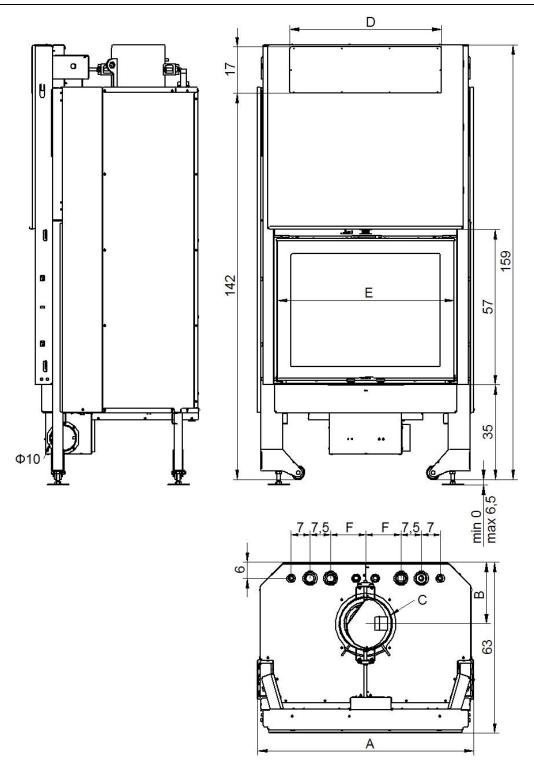
We hope you enjoy many years of carefree warmth with ARTE ® MENTOR fireplace. Some initial experimentation with loading and operating techniques will help you decide your normal routine. If you have any problems after this short learning period, please contact your local ARTE® dealer. In case, for any reason, they can't help, please contact us in writing at the address on the back of this manual.



The qualified dealer in your area is available to answer any of your further questions.



11. DIMENSIONS AND TECHNICAL SPECIFICATIONS



DIMENSION	MODEL						
	MENTOR ST80 Hydro	MENTOR ST90 Hydro	MENTOR ST100 Hydro				
A (cm)	80	90	100				
B (cm)	22	25,2					
C (cm)	Φ	Φ25					
D (cm)	56	66	76				
E (cm)	65	75	85				
F (cm)	9	19,5					

Table 11.1



	UNITS	MENTOR ST 80 Hydro		MENTOR ST 90 Hydro		MENTOR ST 100 Hydro	
TECHNICAL SPECIFICATIONS		STANDARD	PLUS	STANDARD	PLUS	STANDARD	SNTA
* Total heat output	Kcal/h	15500	20600	17200	22400	18100	24100
	kW	18	24	20	26	21	28
*Total heat output In water	Kcal/h	11600	14600	12500	15500	13300	17200
	kW	13.5	17	14.5	18	15.5	20
Water tank capacity	Lt	60 60		80			
Maximum operating pressure	bar	2.5 2.5		2.5			
Recommended hourly consumption of firewood	Kg/h	5	6	5.6	6.6	6.1	7.2
Heat output	%	84 83		82			
Exhausts temperature	°C	227 229			229		
CO emissions (by providing O ₂ at 13%)	%	0.09 0.09			0.09		
Yield range (minimum - maximum)	kW	9.9 – 18.6 11 – 23.5		9.9 – 19.6	11 – 24.8	24.8 10.3 - 19.9 11.5 - 25	
Fuel	-	** Wood / Briquette					
Device dimensions (W x D x H)	cm	80/63/160 90/63/160			100/6	100/63/160	
Combustion chamber dimensions (W x D x H)	cm	61/36/53 71/36/53 81/36/53			6/53		
Flue draft	Pa	12±2					
Heated area	m²	60-175	70-185	60-190	65-200	65-205	70-215
Weight	Kg	370 405			4	460	
*** External air inlet	cm	Ø 10					
**** Smoke outlet diameter	cm	Ø 20			Ø 25		
Minimum flue height	m	4					
Minimum heating area	m²	45 45		5	50		

* The fireplace operates with intermittent combustion technology. In this case intermittent combustion means the normal use of the fireplace, e.g. new firewood is added as soon as the previous are burned, forming a sufficient amount of cinder.

**Always use fewer briquettes than wood, cause of different calorific value (Table 2.5.1).

*** The section must be increased by 20% each meter above 1 meter.

****The internal section of the flue must be increased by 10% per 500m altitude above sea level.

Table 11.2

12. NOTES

& ARTE

ΕΓΓΥΗΣΗ

Το νέο σας προϊόν συνοδεύεται από διετή εγγύηση, η οποία αφορά και σε όλα τα ηλεκτρικά μέρη, εφόσον υφίστανται τέτοια και η οποία αρχίζει από την ημερομηνία αγοράς του προϊόντος, όπως αυτή θα αποδεικνύεται από το σχετικό φορολογικό παραστατικό.

Η εγγύηση αφορά στην επιδιόρθωση ή αντικατάσταση με νέο ανταλλακτικό μερών του προϊόντος, καλύπτοντας το κόστος των εργασιών επιδιόρθωσης ή αντικατάστασης και των ανταλλακτικών.

Η παρούσα εγγύηση ισχύει υπό την προϋπόθεση της καταβολής του τιμήματος του προϊόντος και την συμπλήρωση και παράδοση του πιστοποιητικού εγγύησης στην ARTE Γ. Καρνούτσος και ΣΙΑ ΟΕ, εντός τριάντα ημερών από την ημερομηνία αγοράς, η οποία θα αποδεικνύεται από την έκδοση του σχετικού παραστατικού.

1.1 Όροι εγγύησης

- Ορθή εγκατάσταση από εξειδικευμένο προς τούτο επαγγελματία
- Χειρισμός του προϊόντος σύμφωνα με τις οδηγίες χρήσης και λειτουργίας του κατασκευαστή
- Διαλείπουσα καύση
- Προστασία από υπερθέρμανση
- Συστηματική συντήρηση (ετήσιος καθαρισμός), του προϊόντος αλλά και του συστήματος απαγωγής καυσαερίων (καπνοσωλήνας – καμινάδα)
- Μη τροποποίηση της δομής του προϊόντος, καθώς ενδέχεται να προκληθεί εσφαλμένη λειτουργία και μόνιμη φθορά.

1.2 Εξαιρέσεις από την εγγύηση

- Ζημίες οφειλόμενες σε γεγονότα ανωτέρας βίας
- Μέρη που υπόκεινται σε φθορά, όπως ενδεικτικά και όχι περιοριστικά, βερμικουλίτες, τσιμούχες και τζάμι
- Ζημίες από καπνό και αιθάλη
- Φυσικός αποχρωματισμός ή αλλοίωση χρωμάτων στην εξωτερική επένδυση
- Ενδεχόμενες ρωγμές στο θάλαμο καύσης, οι οποίες όμως δεν επηρεάζουν την ασφαλή λειτουργία του προϊόντος
- Ζημίες λόγω μη συμμόρφωσης προς τις παρούσες οδηγίες λειτουργίας
- Ζημίες κατά την εγκατάσταση και οφειλόμενες σε αυτήν
- Ζημίες που προκλήθηκαν από κακή μεταφορά, εγκατάσταση ή χρήση
- Ζημίες που οφείλονται σε φυσιολογική φθορά
- Ζημίες που οφείλονται σε χρήση μη γνήσιων ή μη κατάλληλων για το προϊόν ανταλλακτικών

Προκειμένου να ισχύει η εγγύηση θα πρέπει:

- Το προϊόν να λειτουργεί εντός των ευλόγων ορίων χρήσης του
- Οι εργασίες συντήρησης να διενεργούνται συστηματικά, τακτικά και επιμελώς
- Το προϊόν να χρησιμοποιείται μόνο από άτομα που διαθέτουν επαρκείς ικανότητες και κατάλληλη εκπαίδευση
- Ο χρήστης να συμμορφώνεται με τις οδηγίες που περιέχονται στο παρόν εγχειρίδιο

Επίσης, στα πλαίσια της εγγυήσεως δεν περιλαμβάνεται η αποκατάσταση ζημιών ή εξόδων για επενδύσεις ή φθορές που προκλήθηκαν σε πράγματα (κινητά ή ακίνητα) προκειμένου να αντικατασταθεί ελαττωματικό τμήμα του προϊόντος, ενώ τυχόν κόστος μεταφοράς του προϊόντος ή ανταλλακτικού από την εταιρία στον καταναλωτή και το αντίστροφο, ομοίως δεν περιλαμβάνεται στην εγγύηση και δεν βαρύνει την εταιρία.

Στα πλαίσια της εγγυήσεως αφαιρείται από τις υποχρεώσεις τις εταιρίας οτιδήποτε περιήλθε εξαιτίας της ζημίας στον καταναλωτή από οποιαδήποτε πηγή, όπως ενδεικτικά και όχι περιοριστικά, τυχόν αποζημίωση λόγω ασφάλισης ή άλλης συμφωνίας.

1.3 Eυθὑνη

Ρητά δηλώνεται δια του παρόντος ότι η ARTE δεν φέρει οποιαδήποτε ευθύνη, αστική, ποινική ή άλλου είδους, για ατυχήματα που ενδέχεται να προκληθούν λόγω της ολικής ή μερικής μη συμμόρφωσης προς τις προδιαγραφές και οδηγίες χρήσης του προϊόντος.

Ομοίως δεν φέρει ευθύνη οποιουδήποτε είδους απορρέουσα από τη μη προβλεπόμενη χρήση της συσκευής, από τον εσφαλμένο χειρισμό της από τον χρήστη, από μη εξουσιοδοτημένες τροποποιήσεις και/ή επισκευές ή από τη χρήση μη αυθεντικών ή ακατάλληλων ανταλλακτικών για το συγκεκριμένο προϊόν.

WARRANTY

Your new product is accompanied by a two-year warranty, which applies to all electrical parts, if there are any, starting from the date of purchase of the product, as evidenced by the relevant financial document.

This warranty covers the repair or replacement with new spare parts of the product, covering both the cost of mending or replacement and the spare parts.

This warranty is valid under the condition that the price of the product has been paid and the warranty certificate has been completed and delivered to ARTE G. KARNOUTSOS and CO General Partnership, within thirty days from the date of purchase, as evidenced by the issue of the relevant document.

1.1 Terms of Warranty

- Proper installation by a qualified professional
- Operating the product as indicated by the manufacturer's operating and usage instructions
- Intermittent combustion
- Overheat protection
- Regular maintenance (annual cleaning), of the product and the exhaust system (flue chimney)
- tNo modification of the structure of the product, as this may cause malfunction and permanent damage.

1.2 Exceptions to the warranty

- Damage due to force majeure events
- Parts subject to wear, such as, but not limited to, vermiculites, seals and glass
- Damage from smoke and soot
- Natural discoloration or color erosion of the exterior coating
- Possible cracks in the combustion chamber, which do not affect
 the safe operation of the product
- Damage due to non-compliance with the operating instructions
- Damage during and due to installation
- Damage caused by poor transportation, installation or use
- Damage due to normal wear
- Damage due to the use of non-genuine or or non-appropriate spare parts The warranty is valid when:
- The product operates within the limits of reasonable use
- Maintenance is carried out regularly and thoroughly
- The product is used only by individuals with sufficient skills and appropriate training
- The user must comply with the instructions contained in the present manual

Furthermore the warranty does not include damage restoration or investment expenses or damage to parts (movable or immovable) in order to replace a defective part of the product, and any costs caused by transportation of the product or replacement part from the company to the consumer and vise versa, is likewise not included in the warranty and does not burden the company.

As part of the warranty, anything that has been received by the consumer due to damage from any source, is deducted by the company's obligation, including but not limited to, any compensation due to insurance or other agreement.

1.3 Responsibility

It is hereby expressly stated that ARTE does not bear any accountability, civil, criminal or other, for accidents that may be caused by total or partial non-compliance with the product specification and instructions.

Likewise, ARTE does not bear any kind of responsibility arising from the improper use of the appliance, its incorrect operating by the user, unauthorized modifications and / or repairs, or the use of non-genuine or non-appropriate replacement parts for this particular product.

1.4 Responsibility on installation

The responsibility for the work required to install the product is not acountable to ARTE. This work burdens the professional who is responsible to examine the flue pipe and the air inflow and to decide whether the proposed installation solutions are feasible for the space in question. All standards, as well as national and European legislation, as they apply to each local jurisdiction, are required.



1.4 Ευθύνη σχετικά με την εγκατάσταση

Η ευθύνη για τις εργασίες που απαιτούνται για την εγκατάσταση του προϊόντος δεν βαρύνει την ARTE. Οι σχετικές εργασίες επιβαρύνουν τον εξειδικευμένο προς τούτο επαγγελματία, ο οποίος καλείται να ελέγξει τον καπνοσωλήνα και την εισροή αέρα και να αποφανθεί κατά πόσον οι προτεινόμενες λύσεις εγκατάστασης είναι εφικτές για τον εκάστοτε χώρο. Απαιτείται η τήρηση όλων των προτύπων, καθώς και της εθνικής και ευρωπαϊκής νομοθεσίας, όπως αυτές ισχύουν αναλόγως της κάθε φορά τοπικής αρμοδιότητας.

1.5 Τακτική και έκτακτη συντήρηση

Οι εργασίες τακτικής ή έκτακτης συντήρησης στο συγκεκριμένο προϊόν, διενεργούνται από εξειδικευμένο προς τούτο επαγγελματία, διαφορετικά η παρούσα εγγύηση δεν ισχύει.

1.6 Χρήση

Η χρήση της συσκευής πρέπει να γίνεται σύμφωνα με όλα τα πρότυπα ασφαλείας που έχουν θεσπισθεί βάσει των σχετικών νόμων που ισχύουν στον τόπο εγκατάστασης του προϊόντος, καθώς και σύμφωνα με τις οδηγίες που περιέχονται στο παρόν εγχειρίδιο, διαφορετικά η παρούσα εγγύηση δεν ισχύει.

1.7 Διαθεσιμότητα τεχνικών υπηρεσιών και ανταλλακτικών

Σε περίπτωση επιδιόρθωσης ανταλλακτικού ή του προϊόντος ή σε περίπτωση αντικατάστασης ανταλλακτικού, η εμπορική εγγύηση δεν ανανεώνεται εκ νέου και η διάρκειά της είναι αυτή που απομένει μέχρι τη συμπλήρωση της αρχικής διάρκειας της παρεχόμενης εγγυήσεως.

Η εταιρία μας εγγυάται ότι ακόμα και αν δεν καλύπτεται αυτό από την εγγύηση, αυτή θα διαθέτει κατάλληλο προσωπικό για παροχή τεχνικών υπηρεσιών ως και επαρκή ποσότητα ανταλλακτικών, με την αντίστοιχη κατά περίπτωση χρέωση, για δέκα έτη από την αγορά του προϊόντος.

1.8 Νόμιμη εγγύηση

Η παρούσα εγγύηση παρέχεται ανεξάρτητα από οποιαδήποτε μη εξαιρούμενη νομική εγγύηση ή σχετική εθνική νομοθεσία, που ισχύει, όπως ενδεικτικά και όχι περιοριστικά τα σχετικά άρθρα του ΑΚ, το ν. 2251/1994, την ΥΑ Ζ1/2013, τις οδηγίες 2011/83/ΕΕ, 1999/44/ΕΚ, όπως αυτές ισχύουν, ως και κάθε άλλο σχετικό νομοθετικό κείμενο, το οποίο κατά περίπτωση εφαρμόζεται και δε θα επηρεάσει με οποιονδήποτε τρόπο τα δικαιάματα του καταναλωτή που απορρέουν από τις σχετικές νομοθετικές διατάξεις.

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1.5 Regular and emergency maintenance

Regular or emergency maintenance work on this product is carried out by a qualified professional, otherwise this warranty does not apply.

1.6 Usage

INSTALATION & USAGE MANUAL

The appliance must be used in accordance with all safety standards established under the relevant laws in force at the place of installation and the instructions contained in this manual, otherwise this warranty does not apply.

1.7 Availability of technical services and replacement spare parts

In case of spare parts or product repair or spare parts replacement, the commercial warranty can not be renewed again and its duration is the one remaining until the completion of the initial term of the supply warranty.

ARTE guarantees that, even if this is not covered by the warranty, it will still provide qualified technicians to provide technical services as well as a sufficient quantity of spare parts, with the corresponding charge, for ten years after the purchase of the product.

1.8 Legal Warranty

This warranty is provided regardless of any non-exempt legal guarantee or relevant national legislation in force, including but not limited to the relevant articles of the Civil Code, n. 2251/1994, MD Z1 / 2013, Directives 2011/83 / EU , 1999/44 / EC, as applicable, as well as any other relevant legal text, which shall be applied on a case-by-case basis and will not affect in any way the consumer's rights deriving from the relevant legal provisions.



Εργοστάσιο - Έδρα

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