

# Centrometal

HEATING TECHNIQUE

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## TECHNICAL INSTRUCTIONS

for installation, use and maintenance  
of pellet stove



*CentroPelet Z6,Z8,Z12,ZR12*

Carefully read the precautions and follow the procedures correctly.

## WARNING !!!



**Before installing the stove call a authorised service by Centrometal to analyze needs of the first start-up.**

- In case of breakage or poor operation please contact authorised service ; The stove contains parts whose maintenance must be done by the authorised service.
- The stove is a heating device; its parts can reach extreme temperatures and contact without adequate protection can provoke burns of various degrees. Pay particular attention to children.
- If a transfer is carried out, contact the authorised service to agree on appropriate action.
- Do not insert fingers or other objects in the air flow exit slits. Inside the device there is a high speed fan that could cause serious personal injury. Pay particular attention to children..
- Do not stay directly exposed to the flow of hot air for long periods. Direct and prolonged exposure to warm air could be hazardous to health. Pay particular attention in rooms where there are children, elderly or sick people.
- If the stove is not operating well, shut down the device immediately, unhook the appropriate automatic switch and contact the authorised service. Continued use of the device in these conditions can cause fires or flaring.

## WARNING !!!

- During the stove installation operation, keep children out of the work area to avoid unforeseen accidents.
- Do not block or cover the body of the stove or obstruct the slots located on the upper side in any way. Obstructing these slits can cause fires.
- Do not use the stove in areas containing precision devices or works of art. The quality of preserved objects may deteriorate..
- Do not expose animals or plants directly to the air flow from the unit. Prolonged direct exposure to the flow of air from the stove can have negative effects on plants and animals.
- Occasionally ventilate the room during the use of the device. Insufficient ventilation can lead to insufficient oxygen in the room.
- Do not expose the stove to contact with water. The electrical insulation could be damaged, with the consequent possibilities of electrocution and breakage due to extreme temperatures.
- Check the installation conditions to locate any possible damage that it may have. After the stove has completed 900 hours of operation (the lower screen will read "SERV"), contact the authorised service
- Do not use inflammable gas near the stove.
- Disconnect the automatic switch if the device will not be used for long periods of time.
- We check the start-up of all our stoves.

## Legislation:

- Our company declares that the stove conforms to the following standards for the European Directive on CE marking.
- 89/336/EEC i 2004/108 EC (EMC directive) and successive amendments.
- 2006/95/EEC (low voltage directive) and successive amendments.
- 2006/42/EEC (machinery directive).
- 89/106/EEC (construction products).
- The installation of appliance has to be in accordance with local and national laws and with European standards.
- EN 60335-1 - EN 50165 - EN 50366 - EN 55014-1 - EN 61000-3-2 - EN 61000-3-3 - EN 14785.

## Responsibility:

- The manufacturer does not accept any direct or indirect, civil or criminal responsibility due to:
- Poor maintenance.
  - Failure to observe the instructions contained in the manuals.
  - Use in non-conformity with the safety directives.
  - Installation in non-conformity with the standards in force in the country.
  - Installation by unqualified or untrained personnel.
  - Modifications and repairs not authorised by the manufacturer.
  - Use of non-original replacement parts.
  - Exceptional events.
  - Use of pellets not approved by the manufacturer.

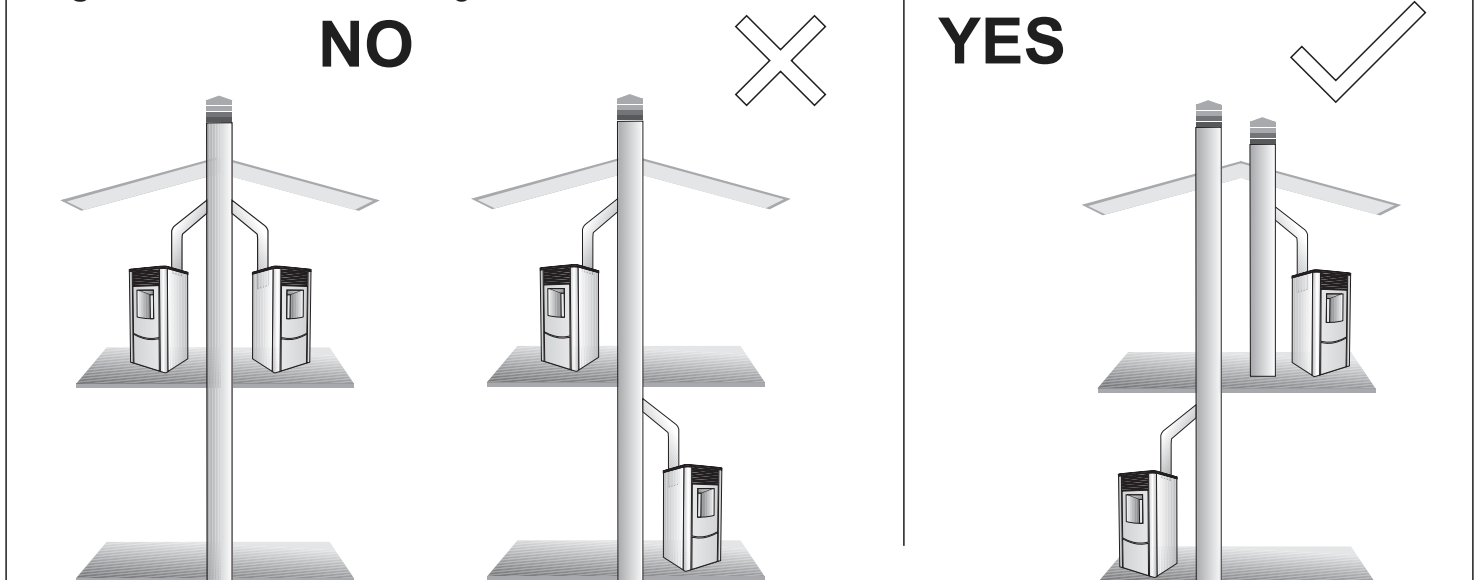
## Installation

### Flue:

The flue must meet the following requirements:

- No other type of chimney, stove, boiler or hood vent must be connected (fig.1).
- It must be placed at an adequate distance from combustible or inflammable material by means of an air cavity or appropriate
- The internal section must be uniform, preferably circular: the square or rectangular sections must have rounded corners with a radius of no less than 20 mm, a maximum relationship between the sides of 1.5; the walls must be as smooth as possible with no especially narrow sections, irregular curves or discontinuities, with deviations from the upper axes of not more than 45°.

Figure 1. Method for installing the flue



- Every device must have its own flue with a diameter equal to or larger than the stove's smoke clearing tube and a height not less than that declared.
- Never use two stoves, a chimney and a stove, a stove and a wooden kitchen, etc. in the same environment, since the draught of one could damage the draught of the other.
- Collective type ventilation ducts that can lower the atmospheric pressure in the installation environment are not permitted, even if installed in environments that are adjacent to and communicating with the locale of the installation.
- It is forbidden to make fixed or mobile openings in the flue to connect devices different from that for which it is originally intended.
- It is forbidden to pass other air feeding channels or tubes for the use of the electrical system through the flue, even if they are of a larger size.
- It is recommended for the flue to be furnished with a chamber which collects solid material and possible condensation situated below the vertical entrance to the flue so that it can be easily opened and inspected through the air-tight door.
- Whenever flues with parallel exits are used it is advisable to raise the upwind chamber by one element.
- The chimney tube must never pass across a combustible surface.

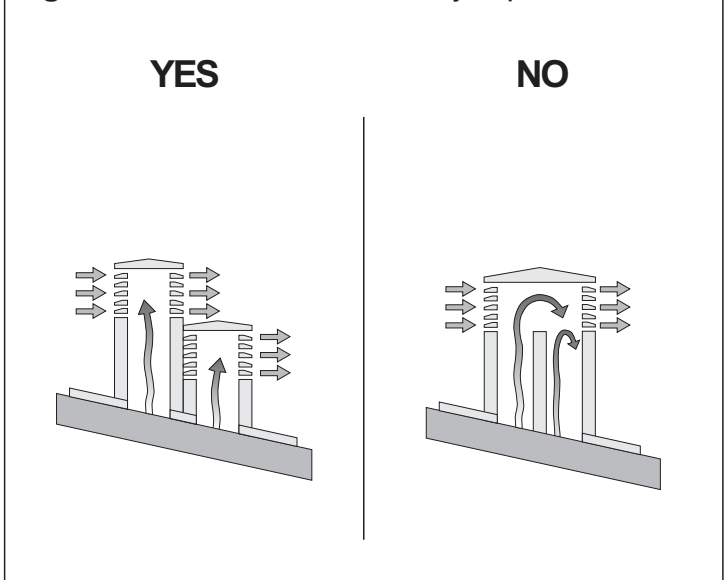
### The Chimney Cap:

The chimney cap must meet the following requirements:

- It must have the equivalent diameter and internal form of the flue.
- It must have a useful outlet diameter of not less than double that of the flue.
- The chimney cap on the roof or that remains in contact with the outside (for example, in the case of open lofts or attics), must be covered with elements in brick or tile and must, in all cases, be well insulated.
- It must be constructed to prevent rain, snow, and extraneous bodies from entering the flue and so that the discharge of the products of combustion is not inhibited by wind from any quarter or of whatever strength (wind-proof chimney cap).

- The chimney cap must be positioned in such a way as to guarantee the adequate dispersion and dilution of the products of combustion and, in all cases, must be out of the reflux zone. This zone has different dimensions and forms according to the angle of inclination of the roof so it is necessary to adopt minimum heights (Fig. 2).
- The chimney cap must be a wind-proof type and must be above the ridge.
- Eventual structures or other obstacles that are higher than the chimney cap must not be too close to the chimney cap itself.

Figure 2. Characteristic of chimney cap



## Dimensions

### Smoke discharge

The discharge system must be for the stove only (it is not permissible to discharge into flues in common with other devices).

The smoke discharge takes place through the 8 cm diameter tube placed at the back.

A "T-connector" with a condensation collection cap should be provided.

The smoke discharge of the stove must be connected with the outside using a steel or black tube (resistant up to 450°C) without obstructions.

The tube must be hermetically sealed.

To make the tubes airtight and for their eventual insulation, it is necessary to use material resistant up to at least 300°C (silicone or putty for high temperatures).

The horizontal sections can be up to 2 m long.

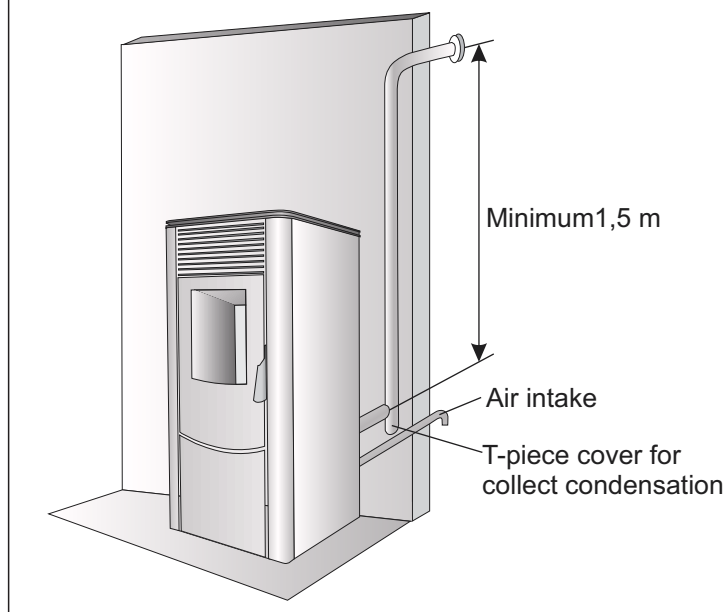
It is possible to have up to three 90° curves.

If the discharge tube does not insert into the flue, an appropriately fastened vertical section of at least 1.5 m is necessary (except for obvious safety contraindications) together with a windproof termination (Fig.3). The vertical duct may be inside or outside.

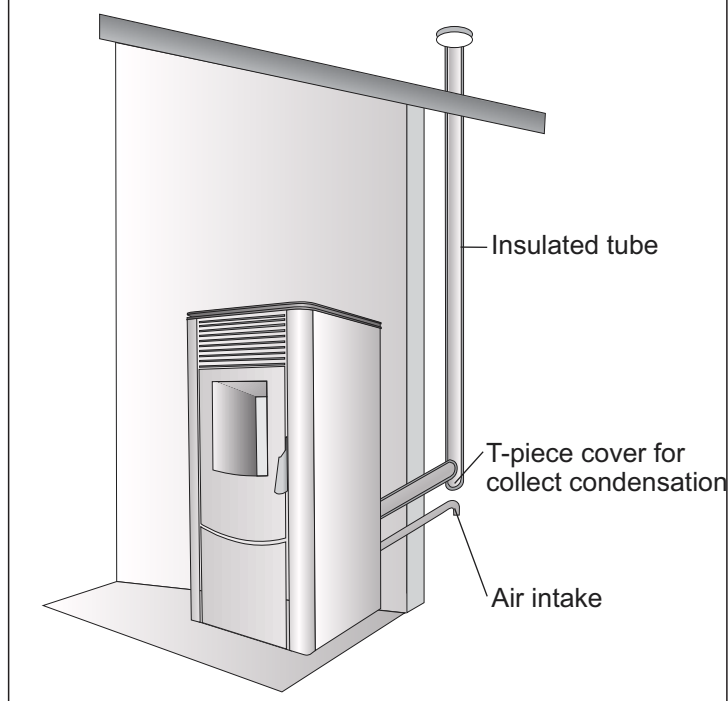
If the smoke duct is inserted in a flue, it must be certified for solid combustibles and if it is larger than 150 mm in diameter, modification is necessary by inserting a tube and sealing the discharge in relation to the brick parts of the cover.

It must be possible to inspect all sections of the smoke duct. If it is a fixed duct, it must have openings for inspection and cleaning.

**Figure 3.** Internal flue installations that must be carried out in accordance with regulations



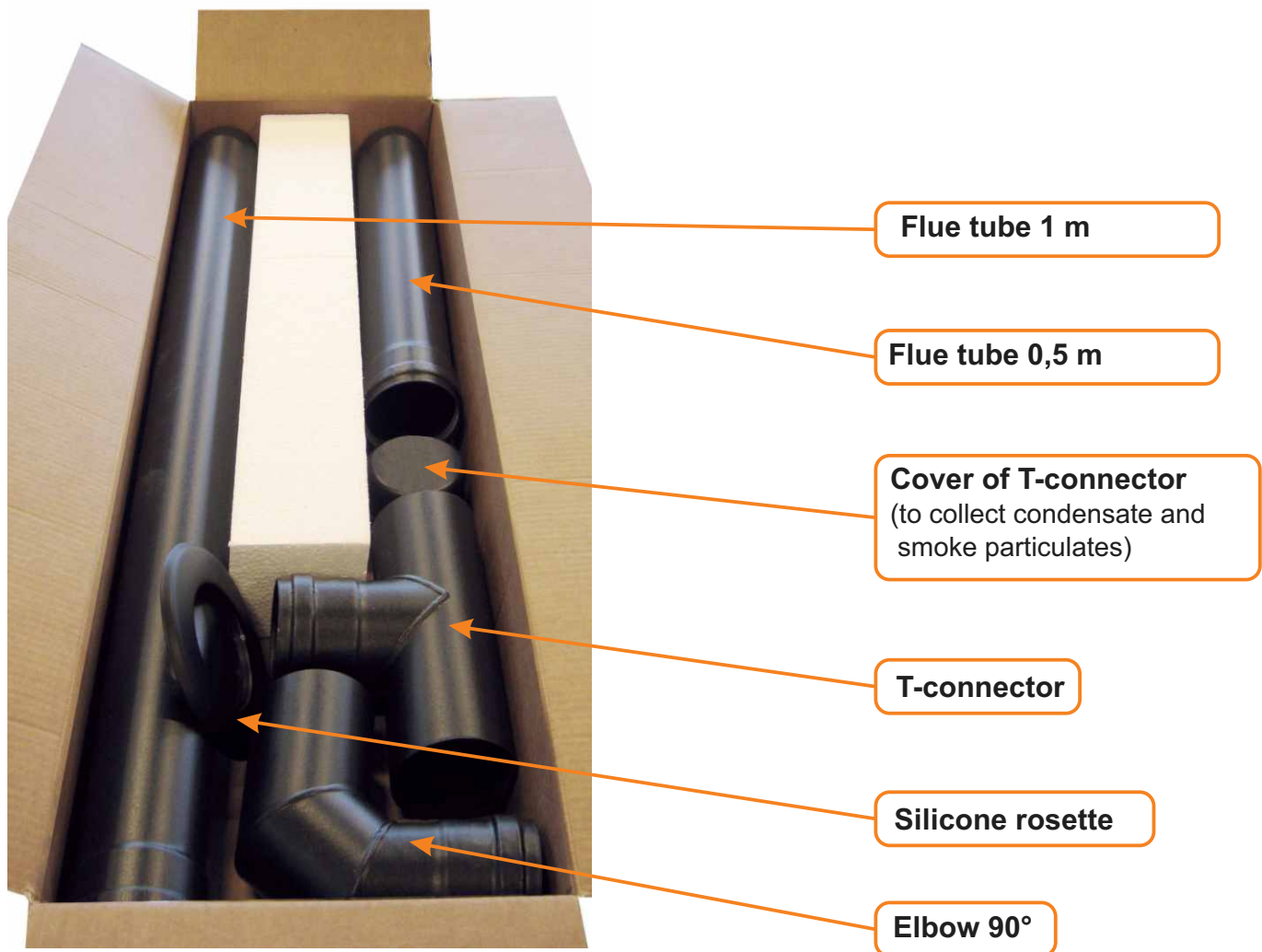
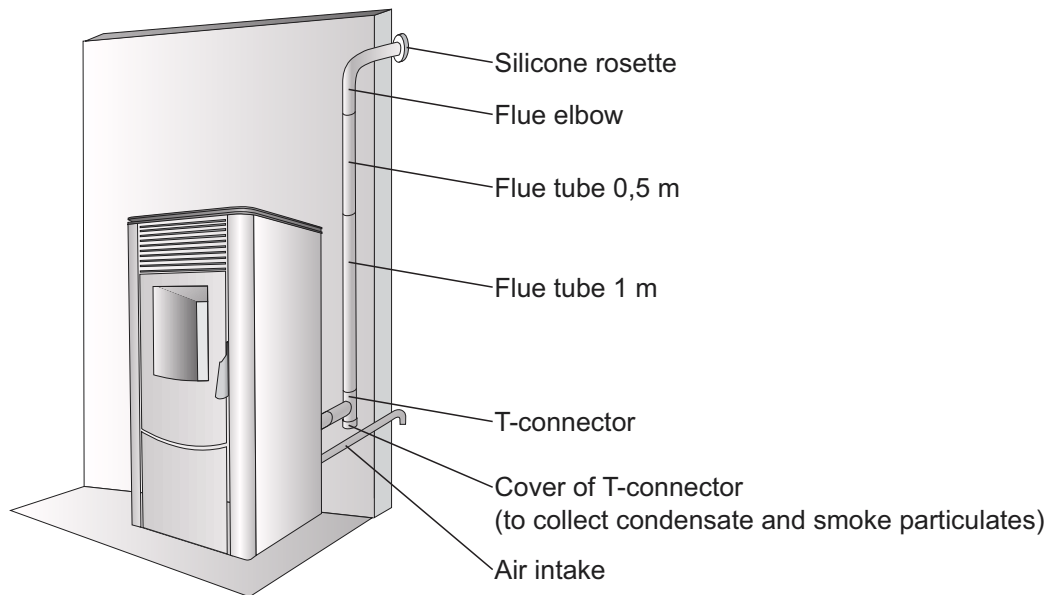
**Figure 4.** External flue installations that must be carried out in accordance with regulations



**The adjacent locale must not be used as a garage or be a space without ventilation or air exchange, a storage area for combustible material or used for an activity that has a fire hazard.**

According to the UNI 10683/98 standard, the stove must not be in the same environment as extractors or type B gas devices and never with devices that create lower atmospheric pressure.

## Flue tubes examples



### NOTE:

- It is required the installation of T-connector with cover for collecting condensate and particulate matters in the smoke.
- at all joints must be silicone seals or require sealed with silicone putty (min. to 300°C)

## Dimensions

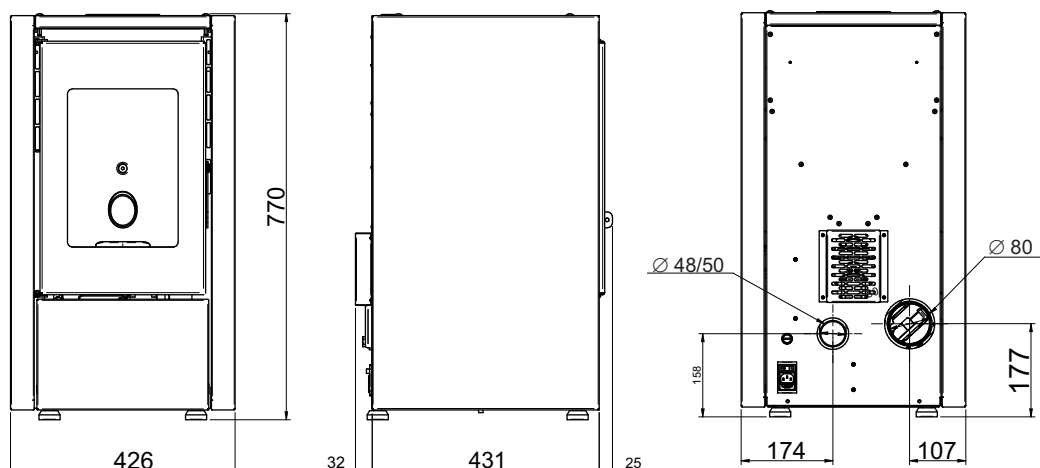
### External air intake:

The stove must be equipped with the air necessary to guarantee the regular functioning of the combustion and an environmental well-being.

- Be sure that the room where the stove is installed has sufficient ventilation and, if necessary, install an air intake duct with a minimum recommended diameter of 50 mm to bring in air from the outside.
- The external air intake must be connected to the stove and positioned so that it is not obstructed. It must be protected with a permanent non-closable grill or other suitable protection provided that the minimum diameter is not reduced.

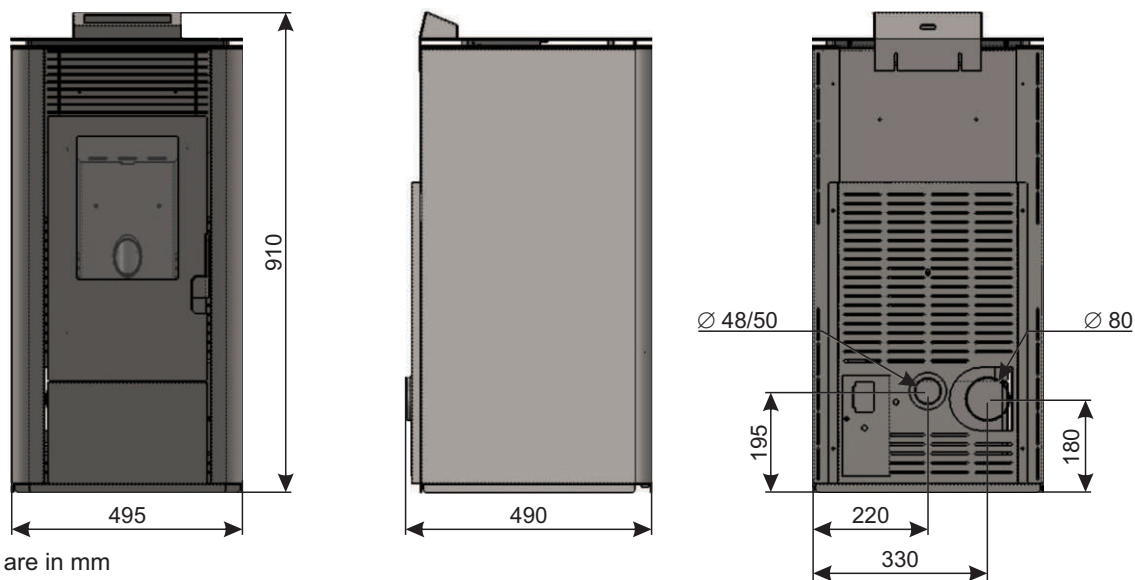
- The presence in the local adjacent to where the stove is installed, of other devices in use or of suction devices that cause a contrary draught effect must not create a lower air pressure in the locale than in the outside environment.
- In the adjacent locale the permanent openings must respond to the requisites which are listed in the points above.

## Dimensions of CentroPelet Z6



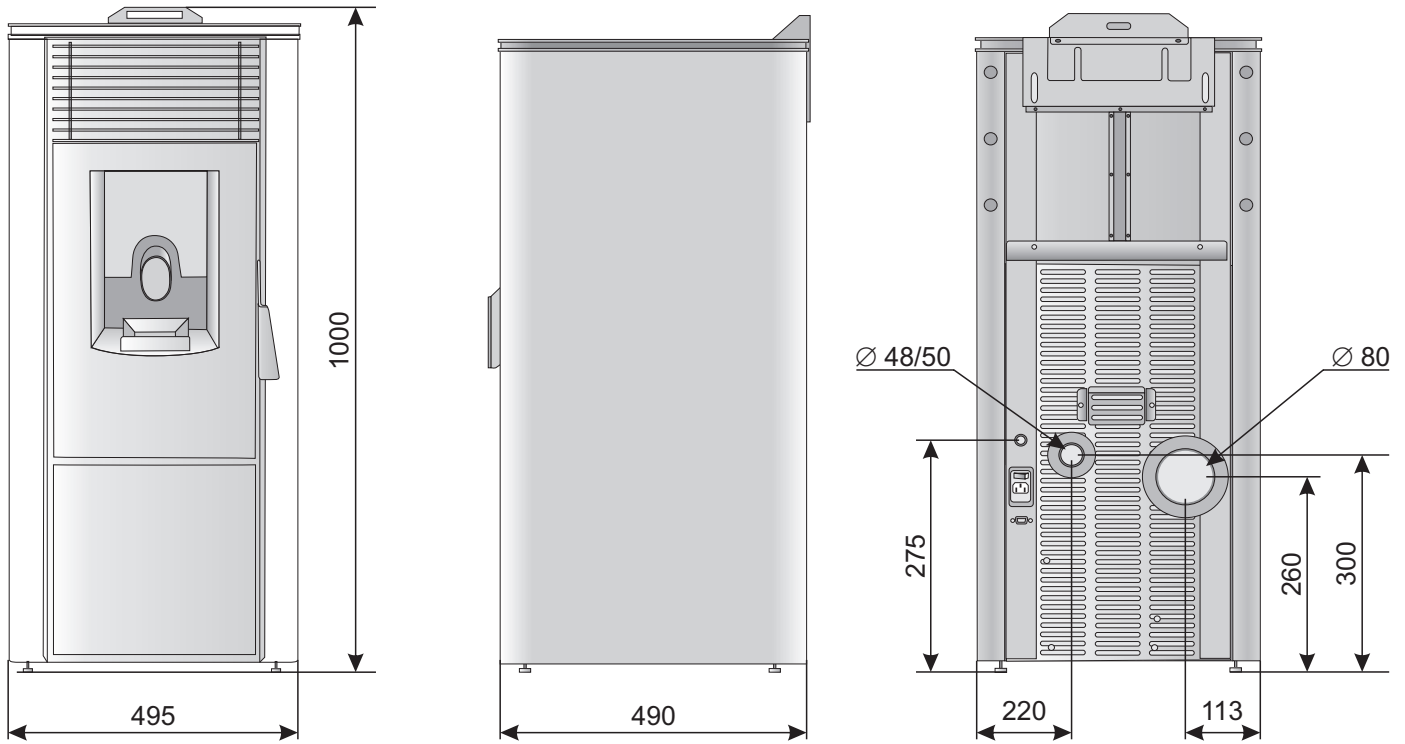
- All dimensions are in mm
- tolerance 10 mm

## Dimensions of CentroPelet Z8



- All dimensions are in mm
- tolerance 10 mm

## Dimension of CentroPelet Z12 / ZR12



- All dimensions are in mm
- tolerance 10 mm



The stove is equipped with an electrical cable to connect to a 230V 50Hz socket, preferably with a thermal-magnetic switch. Variations in voltage of more than 10% may compromise the stove (if not already present, an adequate differential switch should be provided).

The electrical system must comply with the norms; verify in particular the efficiency of the ground circuit. The electrical feed cable must be of a diameter adequate to the power of the device. The stove must be completely level. Check the weight bearing capacity of the floor. The placement of the stove within the living environment is determined so that the environment is heated in a uniform manner. Before deciding where to place the stove, bear in mind that:

- The air used for combustion must not come from a garage or a space without ventilation or air exchange, but from a space open to fresh air or the outside;
- The stove should not be installed in a bedroom;
- It is preferable to install the stove in a large, central room of the house to ensure maximum heat circulation;
- A grounded electrical connection is obligatory (if the cable issued with the stove is not long enough to reach the interior female socket, use an extension cable along the floor).

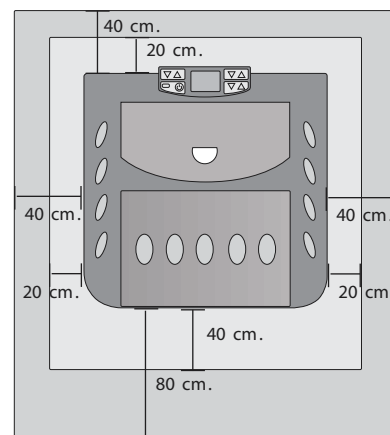
### Fire Safety Distance:

Minimum distance from the sides and the back must be 20 cm from non-flammable material; The stove must be installed respecting the following safety conditions:

- Minimum distance from the sides and the back must be 20 cm from non-flammable material;
- Minimum distance from the sides and the back must be 40 cm from moderately non-flammable material;
- Easily inflammable material must not be placed closer than 80 cm in front of the stove;

- If the stove is installed on inflammable flooring, the stove must be placed on a slab of material that insulates it from the heat which is wider at the sides by 20 cm and 40 cm at the front;
- Do not place objects made of flammable material or any material that can compromise the operation of the stove on the stove or within the safety distance;
- In addition, it is advisable to keep all elements of combustible or inflammable material such as beams, wooden furniture, curtains, inflammable liquids, etc. outside the radiation area of the stove and, in all cases, at least 1 m from the heating block (Fig. 8);
- In case of connection to wooden walls or other inflammable material, it is necessary to insulate the smoke discharge tube with ceramic fibre or another material with the same characteristics.

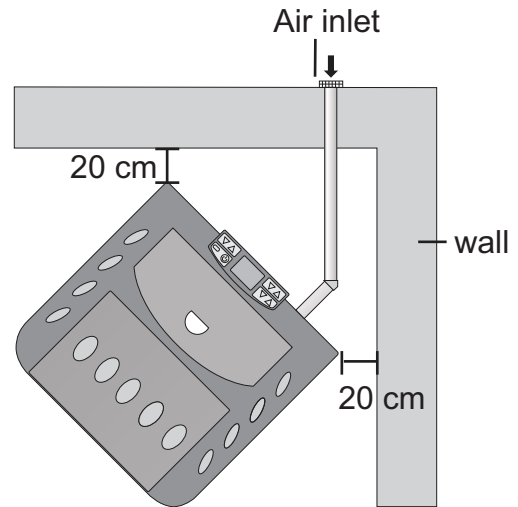
**Figure 8.** Minimum distance of objects



## Minimum air intake for introducing carburated air:

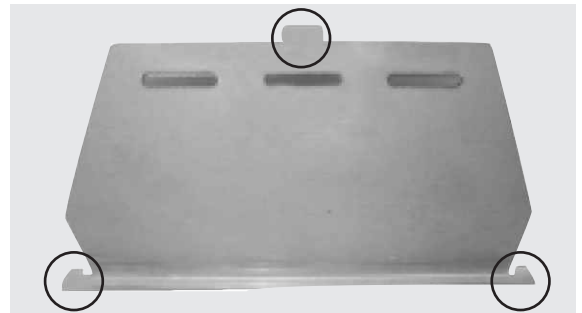
Combustion air must be taken completely from the outdoor environment. For a correct and safe placement of the air intake all the measures and rules (Fig. 9) must be respected. There is a series of distances to respect to prevent carburated air from being extracted from another source: for example the opening of a window could cause eddies in the outside air, extracting it from the stove.

**Figure 9.** Distance from walls

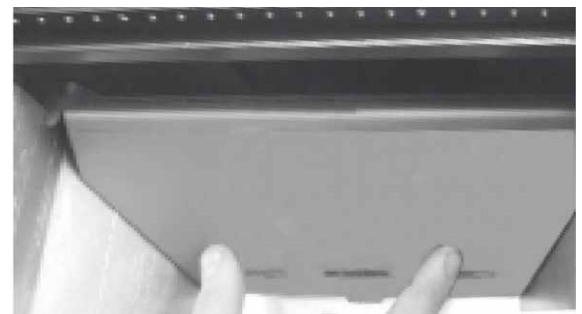


## Instructions to install the flame protection

Remove the flame protection from its packaging, following the instructions shown in figures 11-12-13-14. A vacuum cleaner should be used to clean residual ashes from the upper part. Once this has been done, install the fire protection plate, ensuring that the three support hooks have been correctly placed.



**Figure 10.** Support hooks



**Figure 11.** Lift the fire protection plate



**Figure 12.** Lift the fire protection plate



**Figure 13.** Turn the fire protection plate



**Figure 14.** Remove the fire protection plate

## Mounting the display (unless already installed)

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Mounting the display is performed after having inserted the majolica pieces (where present) and is carried out as follows:

1. Lightly unscrew the two central screws on the rear of the stove in order to insert the display (Fig. 19). Slide the display down until it stops and then tighten the two previously loosened screws.
2. Slide the whole length of the flat cable through the appropriate channel on the rear of the stove (Fig. 19 - A).
3. Connect the flat cable to the board connector on the board for this purpose (Fig. 20).

## Ignition


- Before igniting the stove, carefully read the user and maintenance manual.
- Remove all the tools that were inserted during packaging from the tank and ensure that the tank is free from possible extraneous bodies.
- Unroll the environmental sensor which will be placed on the rear of the stove, without placing it on the heated parts of the stove.
- Correctly connect the pellet stove to the flue.
- Fill the tank with 6mm diameter pellets.
- Open the door and check that the basket is properly inserted in its slot and that the flame trap is located in the upper part of the combustion chamber.
- Close the door. Never open the door while the pellet stove is operating.
- Connect the stove to an outlet with the appropriate cable received with the stove.
- Place the switch on the rear of the stove in the "1" position.
- Press the button  for 2 seconds and the gear-case will begin its ignition cycle.

Figure 18: Connecting the display panel

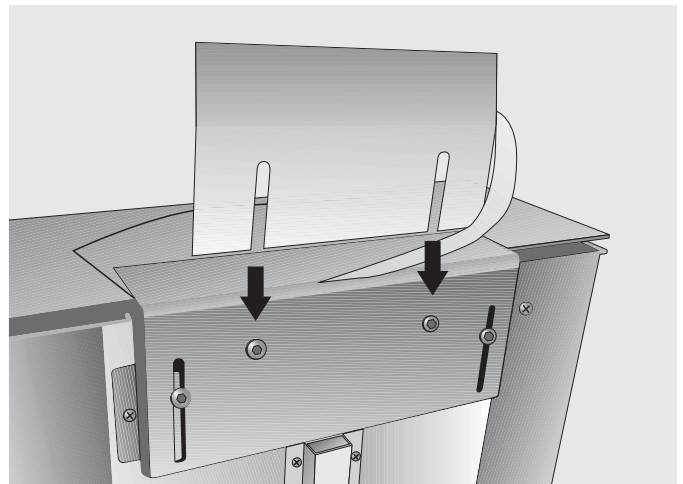


Figure 19. Inserting the flat cable

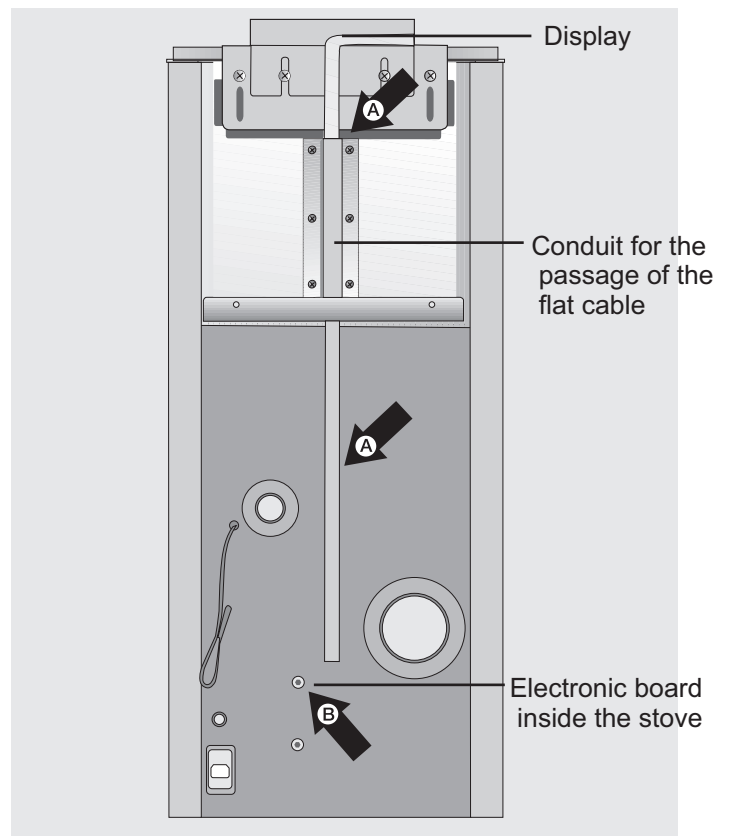
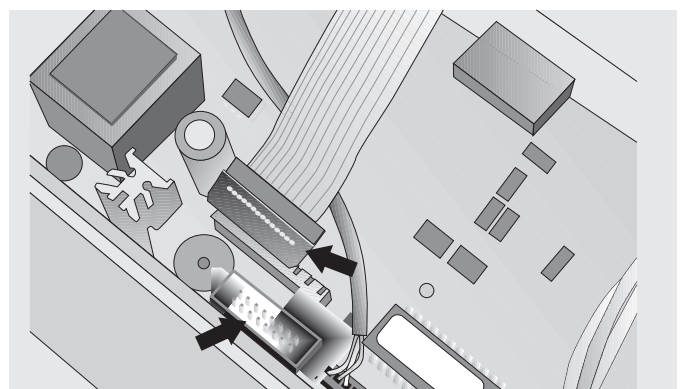


Figure 20. Connecting the flat cable to the board



## Maintenance performed by the authorised service

### WARNING !!!

During the first ignition it is necessary to ventilate the environment well, since during the first hours of operation unpleasant odours could develop due to fumes from the paint and the grease in the wrapping..

If, during the normal operation of the stove, the temperature of the smoke reaches 220°C (a parameter which can be modified by a technician) the smoke is modulated as follows:

- Smoke extraction motor set at maximum speed;
- Pellet loading gear motor at minimum speed;
- Tangential heat exchange fan at maximum speed.

This procedure is to reduce the temperature of the smoke. When this returns below the level of 220°C, the stove will restore the speed of the three motors returning them to the settings before the level was passed.

If the electrical current cuts out, once it is restored, the display will indicate a state of anomaly and will read **"Fire cool"** (flame present).

The suction will be increased to expel the residual smoke.

### Operations to be performed by the Authorised Service Centre every season before ignition.

- A general cleaning inside and outside.
- A careful cleaning of the exchange tubes.
- A careful cleaning and descaling of the crucible and the corresponding compartment.
- Clean the motors, checking the play and fastenings of the mechanisms.
- Clean the smoke channel (replace the gaskets in the tubes) and smoke extractor fan compartment.
- Clean pressure switch, replace the silicone tube.
- Check the sensor.
- Replace the batteries in the clock on the electronic board.
- Clean, inspect and descale the ignition resistor compartment, replacing it if necessary.
- Clean/check the display panel.
- Visually inspect the electrical cables, connections and electric power cable.
- Clean the pellet container and check the play with the screw feeder gear motor.
- Replace the door seals.
- Operational test, loading the screw feeder, ignition, 10 minutes of operation and shut down.
- Check the electrical parts and the electronic components.
- Check and possible cleaning of the channelling.

### Notes

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