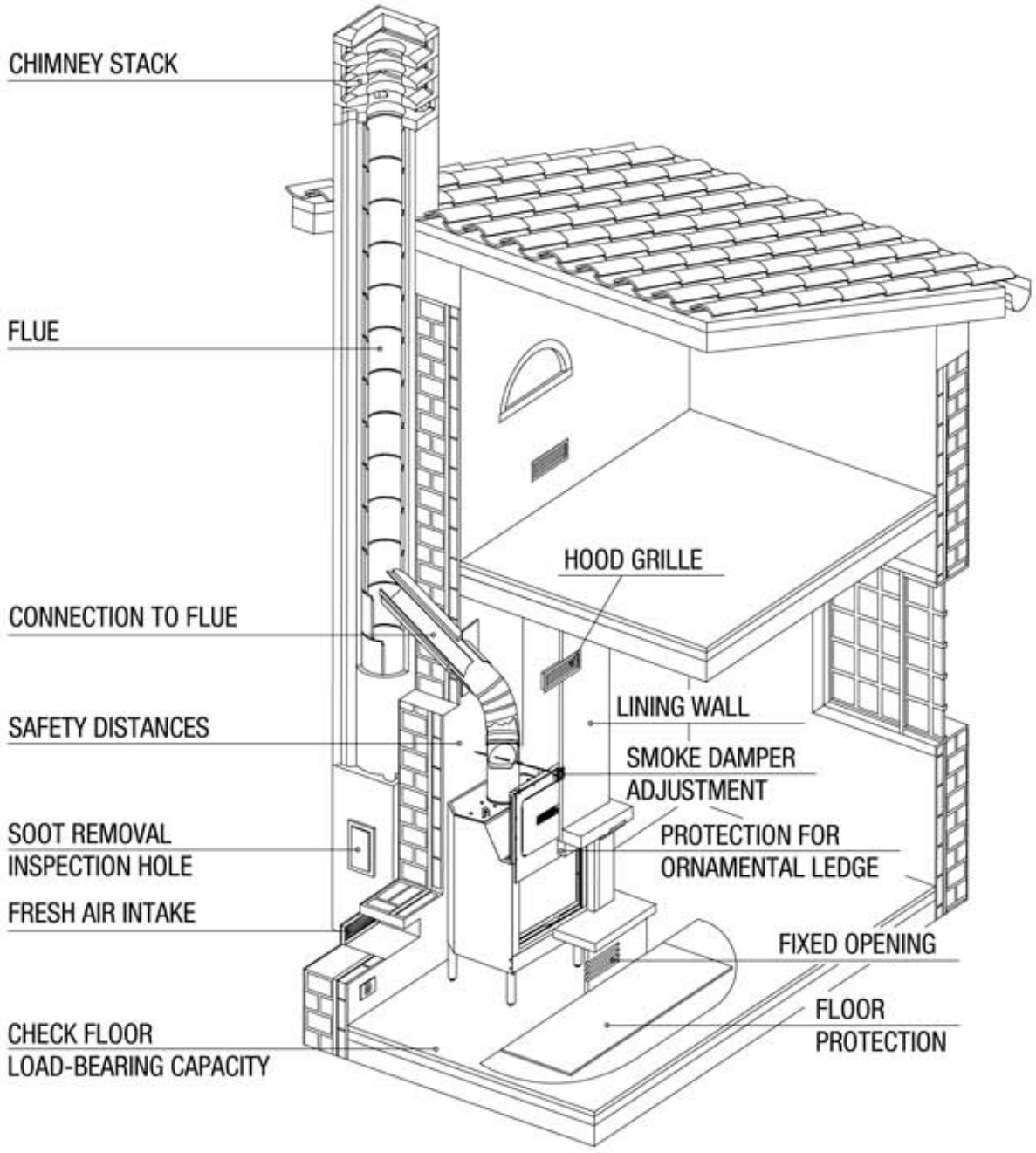
Before proceeding with installation, choose the most suitable position for your fireplace according to the indications given in the section **"MINIMUM SAFETY DISTANCES"** and to all the indications below.

Fig. 1



DT2033152-00

1.1 SINGLE FLUEWAY OR CHIMNEY

DT2010169-00

Every appliance must have a vertical flue pipe operating by natural draught to discharge the combustion gases outdoors.

The flue must:
- comply with regulations in force in the place of installation of the appliance;
- be tight to the products of combustion, waterproof, suitably insulated and made with materials resistant to corrosion by the gases and to stress;
- be connected to just one stove, fireplace or extraction hood;
- be properly sized, with constant free internal section, equal to or greater than the diameter of the flue pipe of the stove and at least 3.5 m in length;
- be mainly in a vertical position with a deflection from the axis of no more than 45° (Fig. 2);
- be at a suitable distance from combustible or flammable materials, ensured by an air gap or suitable insulating material;
- be of uniform internal section, preferably round. Square or rectangular sections must have rounded corners with a radius of at least 20mm and a maximum ratio between the sides of 1.5 (Fig. 3-4-5);
- have smooth walls if possible and without narrowing. Bends must be regular and without discontinuity (Fig. 6).

⛔ **It is forbidden to make fixed or mobile apertures on the flue to connect appliances other than the one to which it is already connected.**

⛔ **It is forbidden to pass other air ducts or service pipes inside the flue, however large it is.**

⚠ **If the flue is an incorrect size or installed other than in compliance with the above instructions, Gruppo Piazzetta S.p.A. cannot be held liable for malfunctioning of the appliance, damage to property or injury to persons or animals.**

Fig. 2

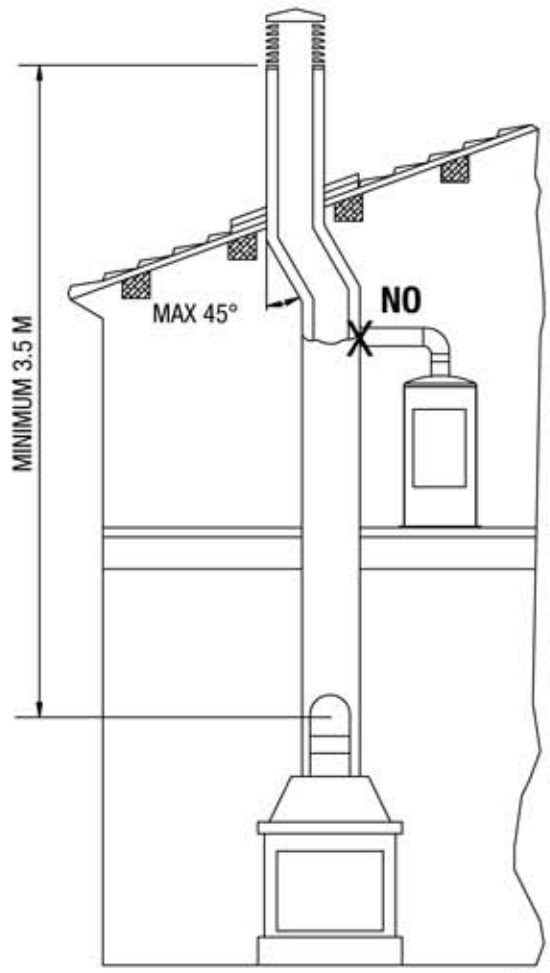


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Fig. 3

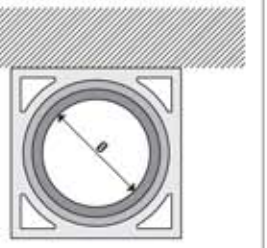

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Fig. 4

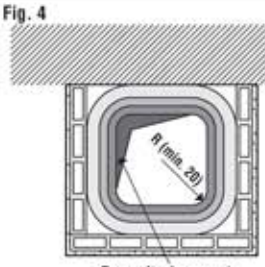

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Fig. 5

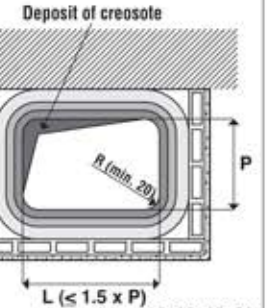

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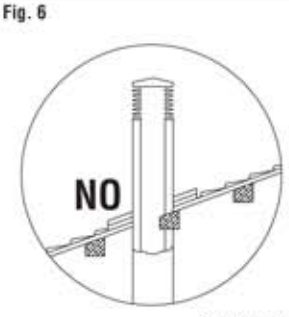
Fig. 6



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1.2 SOOT INSPECTION

DT2010031-01

We recommend that the flue have a chamber for collecting solid matter and any condensate located below the connection and which may be easily inspected by means of an airtight door. (Fig.1)

1.3 CHIMNEY STACK

The chimney stack is a device fitted on the top of the chimney that is designed to aid dispersion of the flue gas into the atmosphere.
The chimney stack must comply with the following requirements:
- it must have an internal section and shape the same as the flue (A);
- it must have a useful outlet section (B) of not less than twice that of the flue (A);
- the part of the chimney that emerges from the roof or remains in contact with the outside (e.g. in the case of a flat roof), must be covered with brick or tile elements and in any case be well insulated;
- It must be built in such a way as to prevent the penetration of rain, snow and foreign matter into the flue and to ensure that in the event of winds from all directions and angle, discharge of the combustion products is assured (chimney stack with down-draught cowl).

Fig. 7

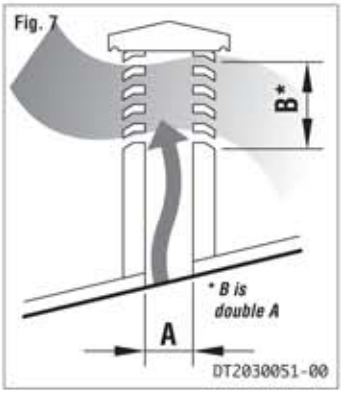
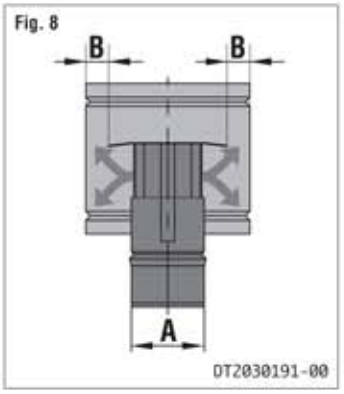
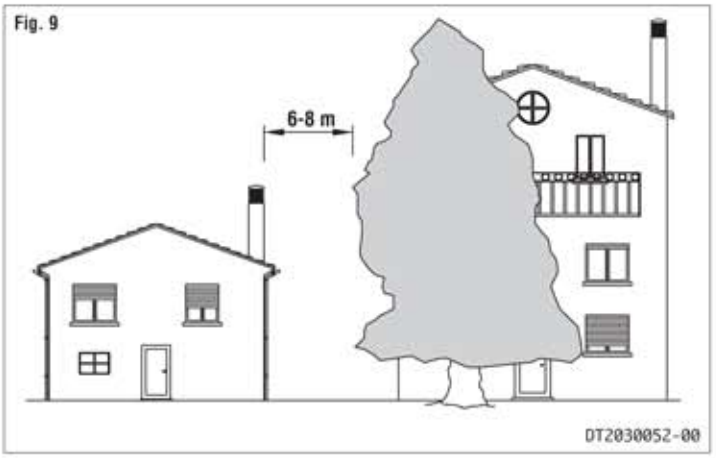


Fig. 8



Recommended distances for correct chimney operation.
To ensure trouble-free operation of the chimney and allow correct dispersion of the flue gas in the air, the chimney stack must be installed at the distances given below:
- 6-8 metres from any buildings or other obstacles that are higher than the chimney stack;
- 50 centimetres higher than any obstacles located at a distance less than 5 metres away;
- outside the reflux area. The size and shape of this area differ according to the angle of inclination of the roof and it is therefore necessary to adopt the minimum heights shown below.

Fig. 9



Example: *Check the slope of the roof (column α), and the anticipated distance of the chimney stack from the axis of the ridge (column **A**); if the distance is greater than "**A**" the height of the chimney stack may be read in (column **H**); if the distance is less than "**A**" the chimney stack must rise above the ridge by 0.5 metres.*

Fig. 10

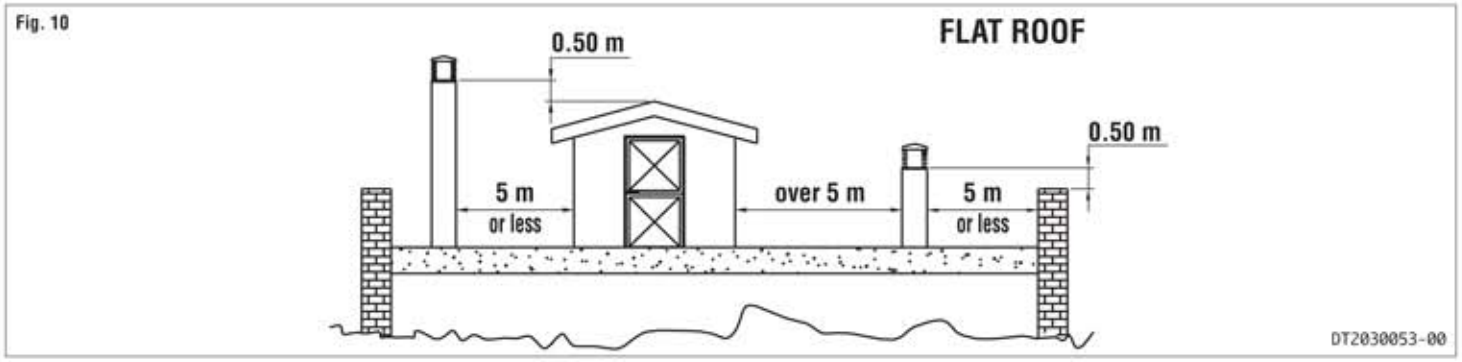
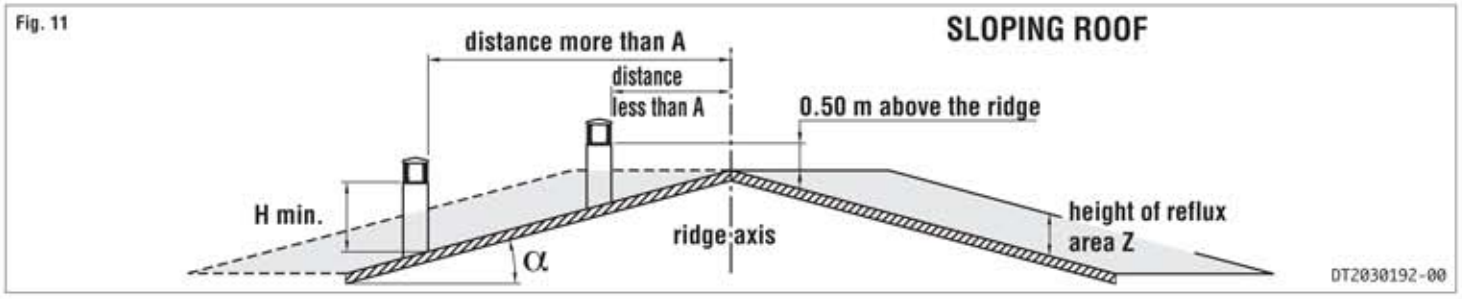


Fig. 11



Pitch of the roof	Horizontal width of reflux area from ridge axis	Minimum height of outlet from roof	Height of reflux area
α	A	Minimum H	Z
15°	1.85 m	1.00 m	0.50 m
30°	1.50 m	1.30 m	0.80 m
45°	1,30 m	2.00 m	1.50 m
60°	1.20 m	2.60 m	2.10 m

1.4 FRESH AIR INTAKE

To ensure trouble-free operation the stove/fireplace must have the necessary air available for combustion and this is provided through the fresh air intake.

The fresh air intake must:
- have a total free cross section at least equal to the size given under **"TECHNICAL DATA"**;
- be protected by a grille or suitable guard provided it does not reduce the minimum recommended section;
- be in a position where it cannot be obstructed.

The airflow necessary for the fire may be obtained in different ways:
- through a fresh air intake direct into the room of installation (it is advisable to place the air intake behind the appliance so that the air warms up before flowing into the room through the hood grille);
- with ducting through pipes direct to the room of installation, increasing the recommended minimum free cross section by at least 15%;
- from an adjacent room to the place of installation provided this air flows freely through permanent apertures communicating with the outside.

⚠ **The pressure in the adjacent room from which air is taken must not be lower than the exterior pressure because of a counter draught caused by the presence in that room of another appliance in use or of a suction device.**
The permanent apertures in the adjacent room must comply with the requirements given above.

⛔ **Combustion air must not be taken from adjacent rooms used as a garage or a combustible materials store or for activities posing a fire hazard.**

Fig. 12

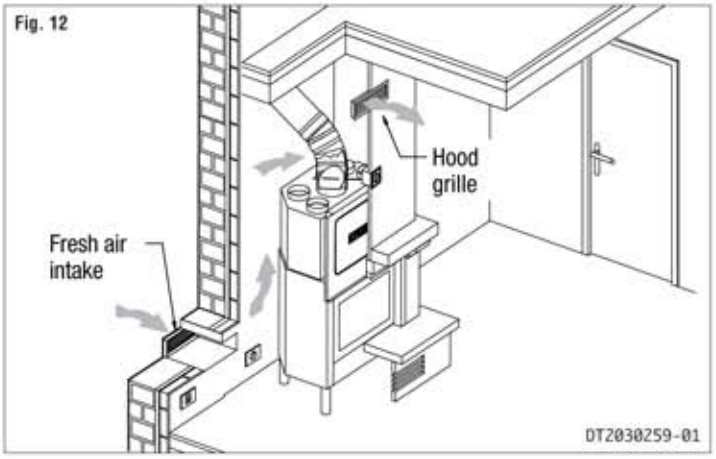


Fig. 13

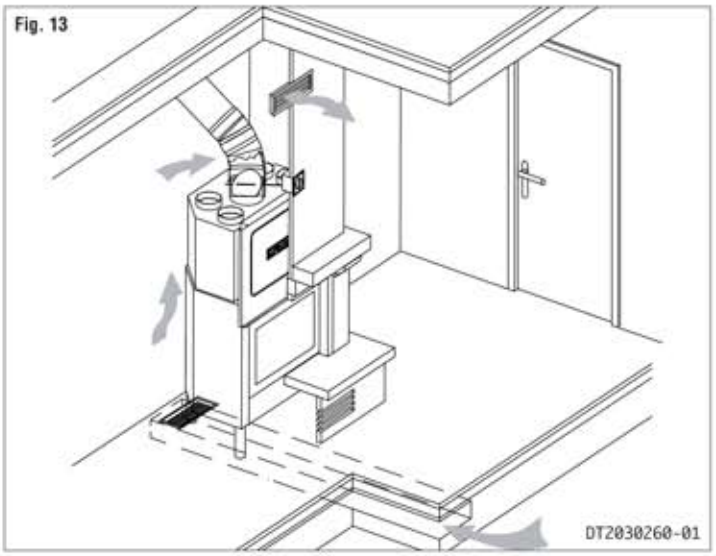
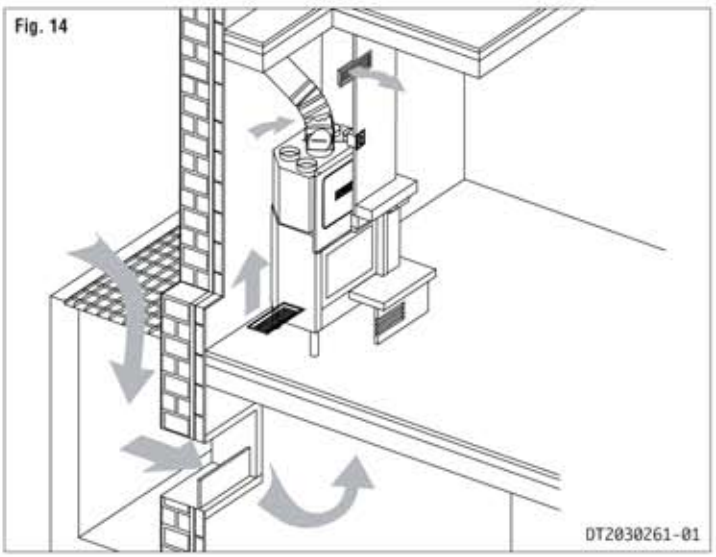


Fig. 14



1.5 INSTALLATION ENVIRONMENT

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The appliance must be installed in a location which allows safe and convenient use as well as easy maintenance. If the appliance being installed requires an electrical socket, the room must also be provided with an earthed power supply in accordance with current regulations.

The room where the appliance is to be installed must comply with the following requirements:

⚠ **it must not be used as a garage, store for combustible material or for activities posing a fire hazard;**

⚠ **it must not be in a vacuum in relation to the outside environment due to the effect of contrary draught caused by the presence in the room where the appliance is installed of another appliance or an extractor device.**

⚠ **Do not use two stoves, a fireplace and a stove, a stove and a wood-fired cooking range, etc. in the same environment, since the draught of one could affect the draught of the other.**

- Devices suitable for cooking food with relative hoods without an extractor fan may only be used in kitchens.
- Gas appliances of type C are allowed (refer to current legislation and regulations in the place of installation)

⛔ **Gas appliances of type B are not allowed (refer to current legislation and regulations in the place of installation)**

⛔ **The heating appliance must not be used simultaneously with collective type ventilation ducts with or without extractor fan, other devices or other appliances such as: forced ventilation systems or other heating systems using ventilation to change the air. Such systems could cause a vacuum in the environment of installation even if installed in adjoining or communicating rooms.**

⛔ **The appliance must not be used: in stairwells except in buildings with no more than two apartments; in corridors for common use; in bedrooms; in bathrooms or shower-rooms.**

1.6 CAPACITY LOAD OF THE FLOOR

DT2010171-00

Check the load-bearing capacity of the floor by adding together: the weight of the protection (lining walls), insulating materials, surround (given in the surround instruction booklet) and the appliance (given under **"TECHNICAL DATA"**).
If the floor has an unsuitable load-bearing capacity, take adequate countermeasures.

1.7 HEATING CAPACITY

DT2010130-01

Check the heating capacity of the appliance by comparing the rated power given under **"TECHNICAL DATA"** with the power required by the environment to be heated.
The energy requirement may be calculated approximately by multiplying the square metres of area by the height of the ceiling; the result is then multiplied by a coefficient, which depends on the degree of insulation of the building, that is, on internal and external factors of the dwelling, as described below.

a) **Internal factors:** type of window and door frames, thickness of the insulation and walls, type of building materials, presence of stairwells, walls with extensive glazing, high ceilings, position of the rooms to be heated in relation to other adjacent heated or unheated rooms, …
b) **External factors:** geographical position, average outdoor temperature, exposure, wind speed, latitude, altitude, …

Example of approximate calculation of the energy requirement to heat a fixed volume to 18/20° C
*The **coefficient** that is normally **used** is determined according to the real conditions as they occur case by case.*
*- From **0.04** to **0.05 kW** per cubic metre in a **well insulated environment***
*- From **0.05** to **0.06 kW** per cubic metre in a **poorly insulated environment***

3 rooms measuring 20m2 X (H ceiling) 2.7m = 162 m³ (volume)
In an environment with a good degree of insulation, an average value (coefficient) of 0.045 kW may be taken
162 (volume) X 0.045 (kW) = 7.3 kW necessary (6300 kcal/h)

Conversion 1kW = 860 kcal/h

⚠ **Consult a heating technician or engineer for a correct check and calculation of the requirement of the environments to be heated (see "REFERENCE STANDARDS").**

1.8 SUITABLE HEAT INSULATING MATERIALS

Type of suitable heat insulating materials.

Material: mineral fibre; ceramic fibre; rock wool.
Form: sheets; mat; shells.
Specifications: specific weight of at least 245 kg/m³ with working temperature limit of at least 1000°C.
Thermal conductivity λ (400°C) ≤ 0.1 W/mK
Thickness: as shown in the figures under **"MINIMUM SAFETY DISTANCES"**.

⚠ **If the insulating material is not lining the walls, it must be fixed all over the surface of the walls with anchorage points every 30cm.**

Material coded "AGI Q132" or "DIN 18895" is allowed for heat insulation.

1.9 MINIMUM SAFETY DISTANCES

WALLS

- **FLAMMABLE WALLS:** the heating appliance may be installed near flammable walls provided suitable protection consisting of insulating and non-combustible material is inserted.
  To insulate the appliance and to install the surround correctly, construct a lining wall in non-flammable material (e.g. plasterboard) and insert a thick layer of insulating material **"C"** between the two walls.
  Always leave a gap **"A"** between the appliance and the lining wall. (Fig. 15 - 16)

- **NON-FLAMMABLE WALLS:** always leave a gap of 5 cm between the heating appliance and the lining wall.

CEILING

- **FLAMMABLE CEILING:** create an 8 cm false ceiling of non-flammable material.
  The minimum distance between the false ceiling and connection to the flueway must be 20 cm, while the flue connection must be insulated with at least 3 cm thick non-flammable material that is resistant to high temperatures. (Fig. 15-16)
  If the surround canopy and the flue connection are metal, the minimum distance from the false ceiling may be reduced to 10 cm, but the insulation of the connection to the flueway must be at least 6 cm thick.

- **NON-FLAMMABLE CEILING:** the minimum distance between the ceiling and connection to the flueway must be 20 cm.

FLOOR

If the floor is made of flammable material, it must be protected with a layer of insulating material of thickness "**E**" while an air space "**D**" must be left between the heating appliance and the floor. (Fig. 15)

⚠ **For insulation, use insulating material with the characteristics given under "SUITABLE HEAT INSULATING MATERIALS".**

Fig. 15

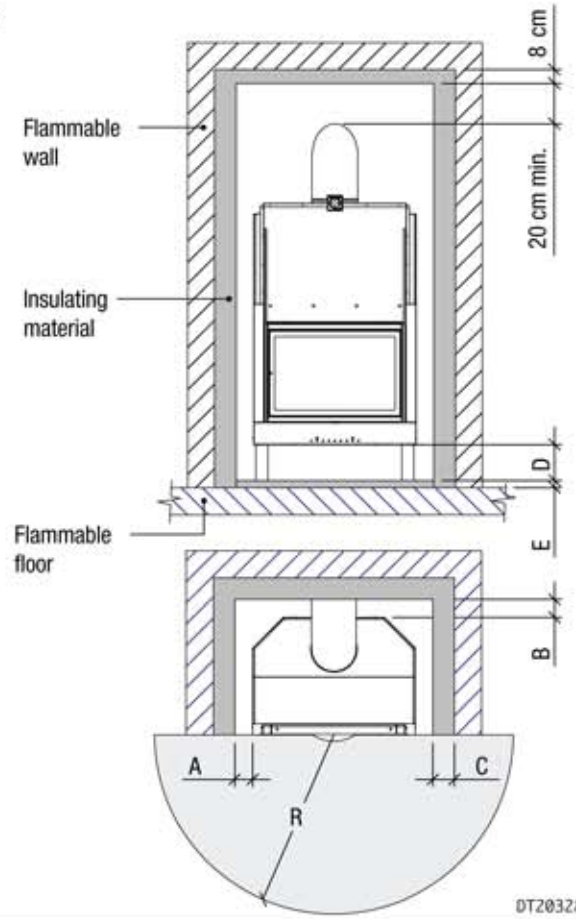

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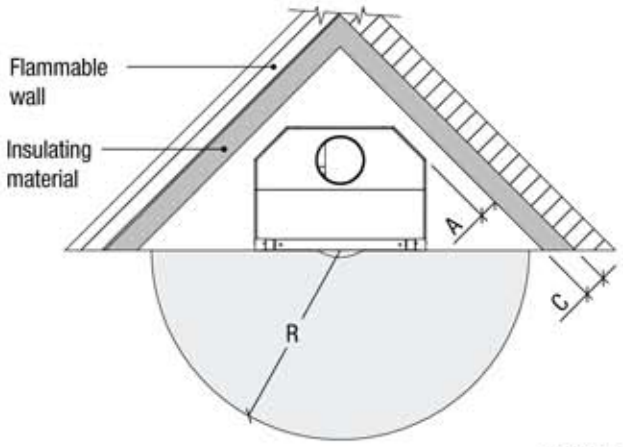
Fig. 16



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DANGER AREA FOR RADIATION

There is a radiation area in front of the stove which must be kept free of any flammable element, such as: carpets, curtains, wood furnishings, ornaments, flammable liquids, fire-lighting products or firewood, etc.
This area is defined by the distance "**R**". (Fig. 15 - 16)

⚠ **Failure to comply with the above could cause a fire!!!**

The minimum safety distances to be observed are given in the table below:

			MODELS MT 361
A	clearance from appliance to flammable wall at the side	cm	10
B	clearance from appliance to flammable wall at the rear	cm	10
C	thickness of insulating material for wall to side/rear	cm	12
D	clearance from appliance to flammable floor	cm	26 (foot height)
E	thickness of floor insulating material	cm	4
R	minimum clearance from appliance front to flammable material	cm	150

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DT2011907-00

1.10 CONNECTION TO THE FLUEWAY

Connection to the flueway must be done using pipes as short as possible without narrowing or restrictions and with a maximum slope of 45°.

⚠ **Flexible metal or asbestos-cement pipes must not be used**

Pipes and bends or elbows must be made in compliance with current regulations

WARNINGS WITH REGARD TO FLAMMABLE WALLS OR CEILING:
If the connection has to go through elements or walls in heat-sensitive flammable materials, create a layer of at least 20 cm insulation around the pipe. (Fig. 17)

After having drilled a hole in the wall to insert the pipe through into the flueway, the air gaps must be filled with non-flammable, resilient materials with a reduced capacity of heat transmission (e.g. lightweight concrete). Fig. 18

Check that the connection to the flueway is gas/smoke-tight, since the appliance operates in a vacuum.

⚠ **It is recommended that the connector pipes be insulated with insulating material having the characteristics given in the section "SUITABLE HEAT INSULATING MATERIALS".**

Check that the pipe does not penetrate too far into the flueway, thereby choking the pipe for the passage of smoke and combustion gases.

Fig. 17

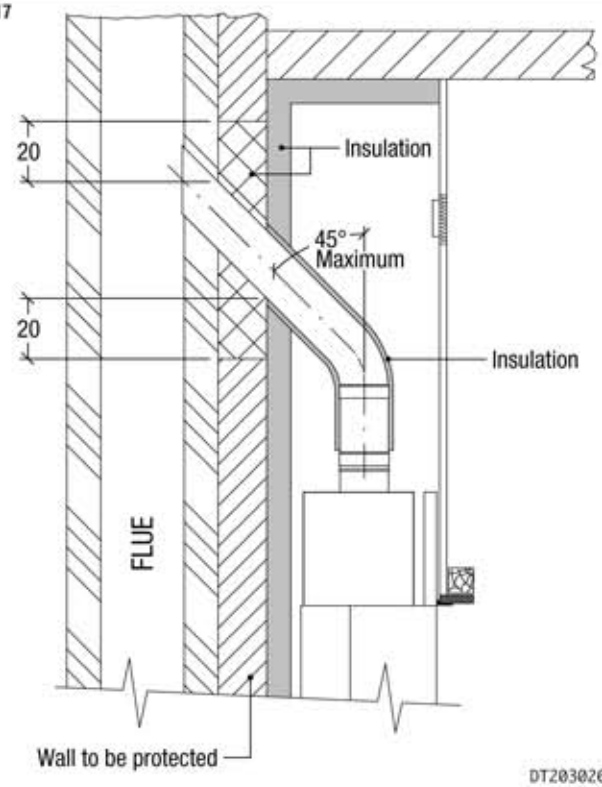

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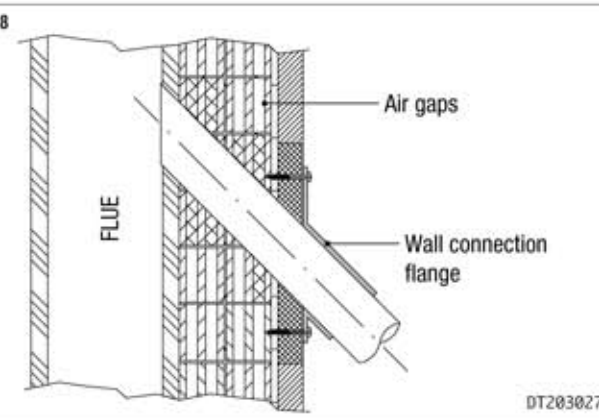
Fig. 18



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1.11 LINING WALL

The surround or the lining wall of the fireplace must be self-supporting regardless of the materials with which it is made and under no circumstances must it come into contact with the heating appliance. Furthermore, the surround must be made with non-flammable materials in compliance with regulations.
For Gruppo Piazzetta S.p.A. surrounds, follow the instructions enclosed with the product.

⚠ **Testing and lighting for first time**
Only a visual inspection can be made in the intermediate stage for heating appliances that must be assembled or clad with brickwork or require the use of cement binders. In this case operation of the whole installation must be tested after all the building works directly connected with the "**LIGHTING FOR THE FIRST TIME**" test have been completed, following the instructions given in the booklet.

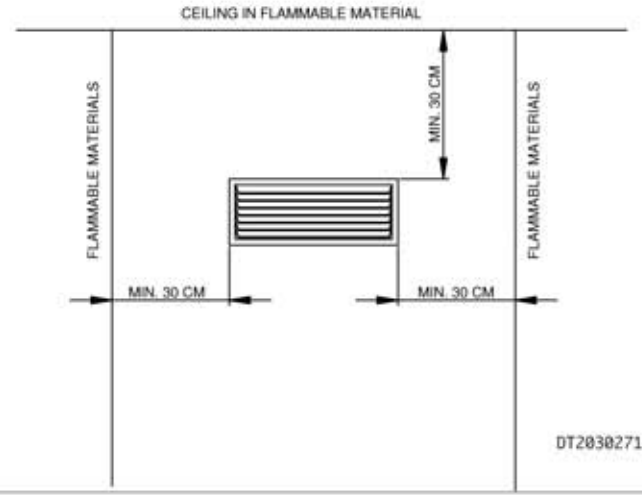
1.12 HOOD GRILLE

The hood grille has the function of allowing air to pass from inside the hood to the environment or vice versa if the Multifuoco system is installed.
Warm air comes out of the hood grille with the natural convection system and it is therefore necessary to maintain the safety distances from flammable materials such as: flammable ceilings or walls, ledges/beams, furniture, curtains, etc.. The hood grille must be installed at least 50cm from the ceiling and with at least 30cm safety distance to the sides.
For the hood grille size, see **"TECHNICAL DATA"**.

⚠ **A non-closable hood grille must be installed without connecting it to the stove so that the warm air that has stratified inside the lining wall can flow out.**

⚠ **With a ceiling over 3 metres high, a NON-CLOSABLE hood grille must be installed on the hood lining at a height of 30cm from the ceiling to allow the stratified air to flow out.**

Fig. 19

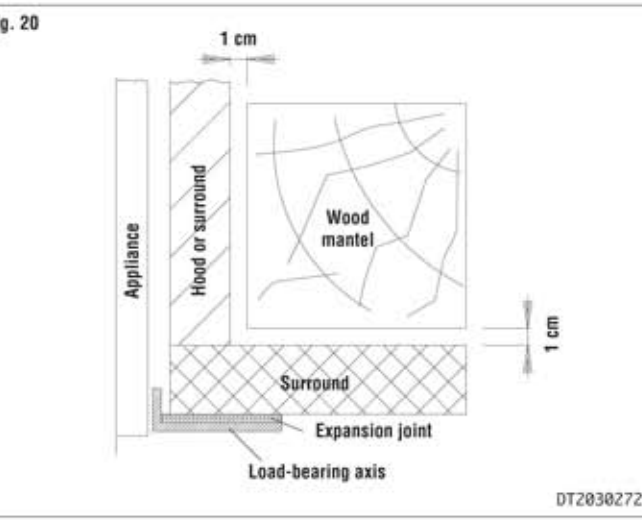


1.13 WOOD MANTEL PROTECTION

Wooden finishes, e.g. wood mantels, may be mounted on the surround.
Wood mantels must be:
- installed outside the heat radiation area;
- self-supporting;
- installed with 1cm air gap from the surround or from the heating appliance;

⚠ **The expansion joint is in ceramic fibre, which has the function of insulating the surround from the metal structure of the appliance.**

Fig. 20



1.14 PREVENTION OF DOMESTIC FIRES

The appliance must be installed and used in compliance with the manufacturer's instructions and European and national standards as well as local regulations.

⚠ **When a flue pipe passes through a wall or a ceiling, special installation methods must be applied (protection, thermal insulation, distances from heat-sensitive materials, etc.) See "CONNECTION TO THE FLUEWAY"**

- It is also recommended that all elements made of combustible or flammable material, such as beams, wooden furniture, curtaining, flammable liquids, etc. be kept outside the heat radiation range of the appliance and at a distance of at least 1.5m from the actual firebox.
- For other information, see **"MINIMUM SAFETY DISTANCES"** and **"CONNECTION TO THE FLUEWAY".**
- The flue, chimney stack, chimney and fresh air intake must always be free of obstructions, clean and checked periodically, that is, at least twice during the seasonal period from the lighting of the stove and during its use. When the stove has not been used for some time it is advisable to carry out the checks mentioned above. For further information, consult a chimneysweep.
- Only use recommended fuels (See **"FUEL"**).