
EN

THERMOSTOVES

INSTALLATION, USE AND MAINTENANCE MANUAL



DEMETRA








Summary

1	MANUAL SIMBOLOGY	3	10.17 LEVELLING	25
2	DEAR CUSTOMER.....	3	10.18 ELECTRIC CONNECTION	25
3	CAUTIONS.....	3	11 USE	25
4	WARRANTY CONDITIONS	4	11.1 ATTENTION.....	25
5	SPARE PARTS.....	5	11.2 INTRODUCTION.....	25
6	WARNINGS FOR THE CORRECT DISPOSAL OF THE PRODUCT.....	5	11.3 POSITION COMMANDS.....	26
7	PACKAGING AND HANDLING	5	11.4 MAIN CONTROL PANEL	27
	7.1 PACKAGING.....	5	11.5 SMOKE BYPASS	27
	7.2 STOVE HANDLING.....	5	11.6 GENERAL CHECKS	27
	7.3 TRANSPORT	5	11.7 ADJUSTMENT	28
8	CHIMNEY FLUE	6	11.8 SUMMERTIME OPERATION	30
	8.1 INTRODUCTION.....	6	11.9 SPRING AND AUTUMN OPERATION	30
	8.2 CHIMNEY FLUE	6	11.10 FUEL LOADING.....	30
	8.3 TECHNICAL FEATURES	7	11.11 ADVERSE WEATHER CONDITIONS	31
	8.4 HEIGHT-DEPRESSION.....	8	11.12 CREOSOTE DANGER	31
	8.5 MAINTENANCE	8	11.13 FIRE EXTINGUISHING IN CASE OF FIRE...31	
	8.6 CHIMNEY POT	8	12 MAINTENANCE.....	32
	8.7 CHIMNEY COMPONENTS.....	9	12.1 INTRODUCTION.....	32
	8.8 EXTERNAL AIR INLET	9	12.2 BURNING POT AND ASH TRAY CLEANING	32
	8.9 CHIMNEY FLUE CONNECTION.....	10	12.3 FUME PIPES ANNUAL CLEANING	32
	8.10 EXAMPLES OF CORRECT INSTALLATION... 11		12.4 GENERAL CLEANING	32
9	FUEL	12	12.5 CLEANING OF PAINTED METAL PANELS	33
	9.1 FUEL.....	12	12.6 CLEANING OF CERAMIC PANELS	33
10	INSTALLATION	14	12.7 GLASS CLEANING	33
	10.1 INTRODUCTION.....	14	12.8 OVEN CLEANING	33
	10.2 DESCRIPTION OF THE RANGE DEMETRA... 14		12.9 COOKTOP CLEANING	33
	10.3 OVERALL DIMENSIONS.....	15	12.10 FUME PASSAGES CLEANING	33
	10.4 IDENTIFICATION DATA.....	16	12.11 EXTRAORDINARY CLEANING.....	33
	10.5 ON ISSUE ACCESSORIES.....	16	12.12 GASKET REPLACEMENT	34
	10.6 ASSEMBLING	17	12.13 HEART BREAK.....	34
	10.7 CONNECTION DIAGRAM CIRCULATION DEVICE THERMOSTAT	18	13 IN CASE OF ANOMALY	35
	10.8 WIRING DIAGRAM CIRCULATION DEVICE THERMOSTAT	18	13.1 PROBLEM SOLVING	35
	10.9 REAR CONNECTION DIAGRAM	19	14 TECHNICAL DATAS	37
	10.10 HYDRAULIC CONNECTION DIAGRAMS ... 19		14.1 FEATURES	37
	10.11 PROCEDURES AND CHECKS BEFORE CONNECTING THE RANGE	22		
	10.12 FEEDWATER CHARACTERISTICS	22		
	10.13 FILLING THE SYSTEM	23		
	10.14 CONNECTING THE SAFETY HEAT EXCHANGER (OPTIONAL).....	23		
	10.15 POWERING OF BOILER	23		
	10.16 GENERAL INSTALLATION.....	23		

1 MANUAL SIMBOLOGY

- The icons with the stylized figures indicates whom the subject dealt in the paragraph is addressed to (between the User and/or the Authorized Technician and/or the Specialized Stove-repairer).
- WARNING symbols indicates an important note.

	<p>USER</p>
	<p>AUTHORISED TECHNICIAN (ONLY to interpret or the Stove-manufacturer or the Authorized Technician of Technical Assistance Service approved by the Stove-manufacturer)</p>
	<p>SPECIALIZED STOVE-REPAIRER</p>
	<p>CAUTION: READ CAREFULLY THE NOTE</p>
	<p>CAUTION: DANGER OR IRREVERSIBLE DAMAGE POSSIBILITY</p>

2 DEAR CUSTOMER

- Our products are designed and manufactured in compliance with standards EN 13240 for wood stoves, EN 14785 for pellet stoves, EN 13229 for fire places, EN 12815 for wood cooker stoves, C.P.R. 305/2011 for manufacturing products, Re n.1935/2004 for materials and objects which are in contact with foods, Dir. 2006/95/CEE for low tension, Dir.2004/108/EC for Electromagnetic compatibility.
- Read carefully the instruction contained in this manual to obtain the best efficiency.
- This instruction manual is an integral part of the product: make sure it is delivered with the appliance also in case of sold to others. In case of loss please ask a copy to your local Technical Assistance Service.
- All local regulations, including those referring to national European standards, must be respected during appliance installation.



In Italy biomass system installation below 35 kW must comply with MD 37/08. Every qualified installer who own these requirements, has to issue the certificate of conformity for the installed system ("system" means: stove + chimney + air inlet).

- According to (EU) No. 305/2011 regulation, the " Declaration of Performance" is available online at the web sites www.cadelsrl.com / www.free-point.it.

3 CAUTIONS

- All the pictures carried in this manual are only for indicative and explanatory purpose and could therefore slightly differ from your appliance.
- The referring appliance is those you purchased.
- In case of doubts or difficulties in the comprehension or for problems not described in this manual, please promptly contact your distributor or installer.
- It is forbidden to modify the appliance without authorization.

4 WARRANTY CONDITIONS

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The company guarantees the product, **with the exception of elements subject to normal wear** listed below, for a period of **2 (two) years** from the date of purchase attested by:

- a document to serve as proof of purchase (invoice and/or receipt) that shows the name of the vendor and the date on which the purchase was made;
- forwarding of the completed certificate of guarantee within 8 days of purchase.

Furthermore, the product must be installed and started by specialised personnel who must, where provided, issue a declaration of conformity of the plant and of the proper functioning of the product, for the warranty to be valid and effective.

We recommend testing the product before completion with the relative finishes (claddings, painting of walls, etc.).

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

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

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

The guarantee covers the replacement or free repair **of parts recognised as being faulty at source due to manufacturing defects**.

To benefit from the guarantee, in the event of a fault, the customer must have the guarantee certificate and present it with the proof of purchase document to the Technical Assistance Office.

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

- Damage caused during transportation or relocation.
- All parts that develop faults due to negligence or improper use, incorrect maintenance, installation that does not comply with the manufacturer's instructions (always refer to the installation and use manual provided with the appliance).
- Incorrect dimensioning with regards to the use or faults in the installation or failure to adopt the necessary devices to guarantee proper execution.
- Improper overheating of the equipment, use of fuels not conforming to the types and quantities indicated in the instructions provided.
- Further damage caused by incorrect user interventions in an attempt to fix the initial fault.
- Worsening of the damage due to the continued use of the equipment by the user, once the defect has been noticed.
- In the presence of a boiler, any corrosions, incrustations or breaks caused by water flow, condensation, hardness or acidity of the water, improperly performed descaling treatments, lack of water, mud or limescale deposits.
- Inefficiency of chimneys, flues or parts of the plant affecting the equipment.
- Damage caused by tampering with the appliance, atmospheric agents, natural disasters, vandalism, electrical discharges, fires, faults in the electric and/or hydraulic system.

Also excluded from this guarantee are:

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

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

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

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

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

5 SPARE PARTS

For each repair or adjustment which should be necessary, please contact the dealer where you purchased your stove or your nearest Technical Assistance Service, specifying:

- Appliance model
- Serial number
- Type of problem

Use only original spare parts which you can find at our Technical Assistance Services.

6 WARNINGS FOR THE CORRECT DISPOSAL OF THE PRODUCT

The owner is the sole party responsible for demolishing and disposing of the product. This must be performed in compliance with laws related to safety and environmental protection in force in his/her country.

At the end of its working life, the product must not be disposed of as urban waste.

It must be taken to a special differentiated waste collection centre set up by the local authorities or to a retailer that provides this service.

Separating and recycling prevents potential negative effects on the environment and health (often caused by inappropriately disposing of product parts). It also allows materials to be recovered in order to obtain significant savings in energy and resources.



7 PACKAGING AND HANDLING

7.1 PACKAGING

- The packaging is made up of recyclable cardboard boxes according to RESY standards, recyclable expanded polystyrene inserts and wooden pallets.
- All packaging materials can be re-used for a similar use or eventually discharged as waste assimilable to the municipal solid ones, in accordance with current regulations.
- After having removed the packaging please assure you about the integrity of the product.



Packaging are not toys and could cause suffocation or strangulation and other health hazards! People (children included) with reduced mobility, psychological diseases or without experience and knowledge must be kept away from packaging. The stove is not a toy, please see **ATTENTION page 25**.

7.2 STOVE HANDLING

Both whether the stove is packed or not it is necessary to observe the following instructions for handling and transporting the stove from its sale point to its installation point and for any future movements:

- The stove must be handled with idoneous means paying attention to the existing safety regulations;
- do not turn the stove upside down and/or upset it on one side, but keep it in vertical position or as accorded with the constructor instructions;
- if the stove is made up of ceramic, stone, glass or any particularly fragile material components, all must be moved with the utmost care.

7.3 TRANSPORT



When handling the range after unpacking, use the eyebolt located at its top (see **Fig. 1 page 6**).

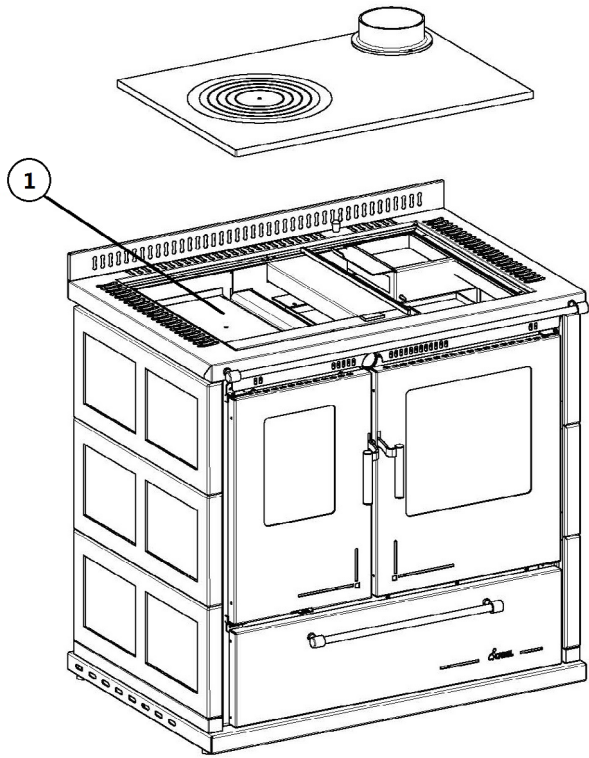


Fig. 1 - The stove handling

LEGEND Fig. 1 page 6	
1	Eyebolt

8 CHIMNEY FLUE



8.1 INTRODUCTION

This chapter about the Chimney Flue has been drawn up in cooperation with Assocosma (www.assocosma.org) and is based on European Standards (EN 15287 - EN 13384 - EN 1856 - EN 1443 - UNI 10683:2012). It provides instructions for a good and correct execution of the chimney flue but it does not absolutely replace the current standards which the qualified manufacturer/installer should comply with.



Please check with your local authorities if exists any restrictive regulation which regards the combustible air inlet, the fumes exhaust system, the chimney flue and the chimney pot.

The company declines any responsibility regarding the bad running of the stove if it is due to the use of a no correctly dimensioned chimney flue which does not respect current regulations.

8.2 CHIMNEY FLUE

- The chimney flue or chimney is of great importance for the correct running of the heating appliance.
- It is fundamental that the chimney flue is perfectly built and always maintained with a perfect efficiency.
- The chimney flue must be sole with insulated stainless-steel pipes or installed on the existing chimney flue.
- Both this solutions must be endowed with an inspection door.

8.3 TECHNICAL FEATURES

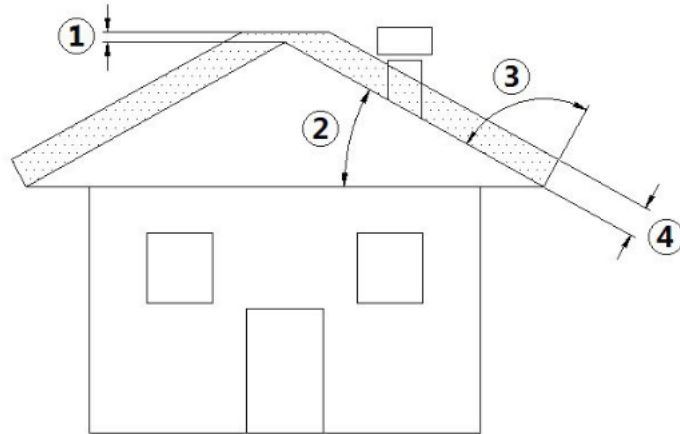


Fig. 2 - Inclined roof

LEGEND	Fig. 2 page 7
1	Height over the ridge of the roof = 0,5 mt
2	Roof inclination $\geq 10^\circ$
3	90°
4	Measured distance at 90° from the roof surface = 1,3 mt

- The chimney flue must be sealed from fumes.
- It must have a vertical run without narrowing. It must be realized with fume and condensation resistant materials with thermal insulation and able to last against usual mechanical stresses.



It must be insulated to avoid condensation and to reduce fume cooling effects.

- The stove must be spaced out from fuels or flammable materials with an air gap or with insulating materials. Check the distance with the chimney manufacturer.
- The chimney entrance must be placed in the same room where the appliance is installed or otherwise in the adjacent room and it must be provided with a solid and condensation collection chamber under the entrance, accessible through the sealed metal gate.
- The inner section of the chimney flue can be round (the best one) or square and the jointed sides must have a minimum radius of 20 mm.
- The section dimension must be minimum $\varnothing 160$ mm and maximum $\varnothing 180$ mm.
- Made the efficiency of the chimney flue overhauled by an expert stove-repairer and if necessary cover the chimney flue with materials in compliance with current regulations.
- The flue system must be placed on the roof.
- The chimney flue must be provided CE in accordance with EN 1443 regulation. Please find attached an example of label:



Fig. 3 - Example of label



It is important to adequately insulate the flue since the fumes leave the range at temperatures above 100°C in order to avoid damaging condensation. An inspection hatch should be fitted to the base of the flue.

8.4 HEIGHT-DEPRESSION

The depression (draught) of a chimney flue depends also on its height. Check the depression with the values provided at **FEATURES page 37**. Minimum height 4,5 meters.

8.5 MAINTENANCE

- The chimney flue must be cleaned, since the soot and unburnt oil deposits reduce its section so blocking the draught. In great quantities they can flare up.
- The fumes extraction pipes (fumes conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an expert stove-repairer, in compliance with current regulations, with the instructions of the stove-manufacturer and the directives of your insurance company.
- In case of doubts, please follow the most restrictive regulations.
- Have your chimney flue and chimney pot checked and cleaned by an expert chimney sweep at least once a week. The chimney sweep has to release a written declaration about the security of the system.
- Not cleaning compromise safety.

8.6 CHIMNEY POT

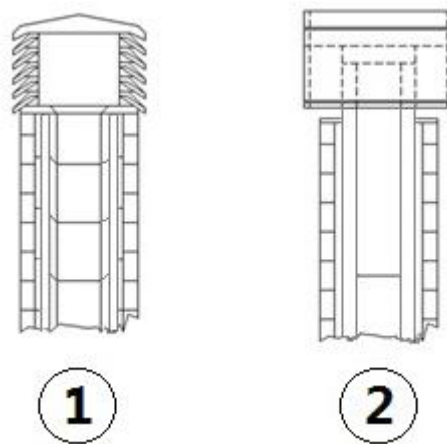


Fig. 4 - Anti-wind chimney pots

The chimney pot is important for the correct running of the heating appliance:

- We recommend using an anti-wind chimney pot, see **Fig. 4 page 8**.
- The hole width for fumes exhaust must be the double of the chimney flue width and fitted in a way that the fume exhaust is assured also in case of wind.
- It should prevent the infiltration of rain, snow and animals.
- The outlet height in the atmosphere must be away from the reflux area caused by the roof structure or by obstacles laying nearby (see **FEATURES page 37**).

8.7 CHIMNEY COMPONENTS

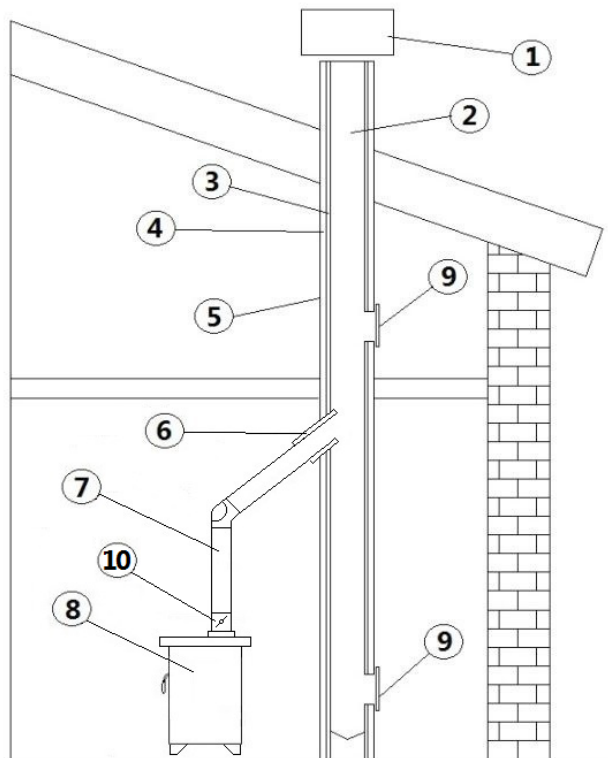


Fig. 5 - Chimney components

LEGEND	Fig. 5 page 9
1	Chimney pot
2	Fume outlet
3	Chimney flue
4	Thermal insulation
5	External wall
6	Chimney union
7	Fume pipe
8	Heat generator
9	Inspection door
10	Damper

8.8 EXTERNAL AIR INLET

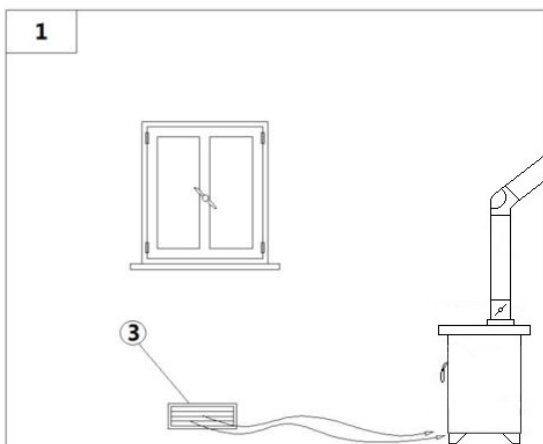


Fig. 6 - Direct air inflow

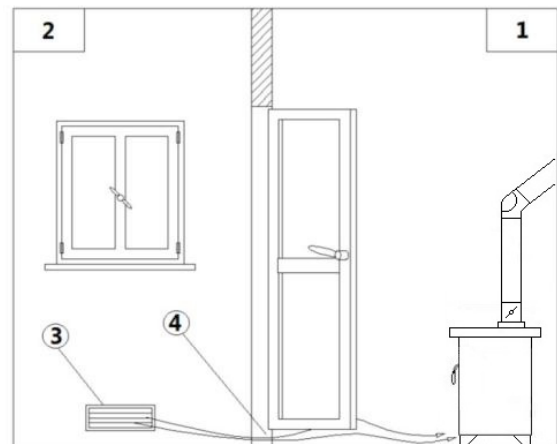


Fig. 7 - Indirect air inflow

LEGEND	Fig. 6 page 9 Fig. 7 page 9
1	Room to ventilate
2	Adjacent room
3	External air inlet
4	Cleft under the door

- The room must be endowed with an external air recycling for a good climate in your ambient.
- The air inflow from outside to the inner occurs directly, through an opening on the external wall of the room (see **Fig. 6 page 9**); otherwise it occurs indirectly by air suction from rooms adjacent to the one to ventilate (see **Fig. 7 page 9**).
- Bedrooms, garages, and store of flammable materials are excluded.
- The air inlet should have a total net surface of 100 sqcm²: the aforesaid surface is to widen if inside the room there are other activated appliances (for example: electric ventilators for foul air suction, cooker hoods, other stoves, etc...) which depress the environment.
- At switched on appliance it is necessary to check that the pressure fall between the room and the outside does not exceed 4,0 Pa value: if necessary widen the air inlet (EN 13384).
- The air inlet must be realized at a height close to the floor with an external grid against birds. In such a way it cannot be obstructed by any object.
- In case of installation with sealed-chamber the air inlet is not necessary.

8.9 CHIMNEY FLUE CONNECTION

Your stove works through a natural draught. It is obligatory to check that all pipes are realized in compliance with the following regulation on material selection: EN 1856-1, EN 1856-2 e UNI/TS 11278. All must be effected by specialized personnel or companies as provided by UNI 10683:2012.

- The connection between the appliance and the chimney flue should be short in order to favor the draught and to avoid condensation in the pipes.
- The fume conduit should be equivalent or longer than the outlet joint ones.
- Some stove models are endowed with a lateral and/or back exhaust. Check that the unused exhaust is sealed with the plug given with standard equipment.

SYSTEM TYPE	Ø150 mm PIPE	Ø240 mm PIPE
Minimum vertical length	1,5 mt	2 mt
Maximum length (with 1 union)	6,5 mt	10 mt
Maximum length (with 3 unions)	4,5 mt	8 mt
Maximum number of unions	3	3
Level section (minimum inclination 3%)	2 mt	2 mt
Installation at a height above 1200 m a.s.l.	NO	Obligatory

- Use a specific plate pipe for stoves.
- It is forbidden to use metal, fibre cement or aluminium flexible pipes.
- For change of direction it is obligatory always to use a T-union (or a curve not with right angle) with inspection plug which enables an easy periodic cleaning of the pipes.
- Please assure you that after the cleaning the inspection plugs are sealed with its efficient gasket.
- It is forbidden to connect more appliances to the same fume conduit.
- It is forbidden to convey in the same fume conduit exhausts from overhanging cooker hoods.
- It is forbidden to exhaust flue gases directly from the wall towards the outside and closed spaces also at open top.
- It is forbidden to connect any other appliance (wood stoves, cooker hoods, boilers, etc...).
- The fume conduit must be placed at a distance of minimum 500 mm from flammable or heat-susceptible components.
- The fume conduit must be connected with stove exhaust in a fixed and tight manner, and if required with the insertion of a damper (see **FEATURES page 37**).

8.10 EXAMPLES OF CORRECT INSTALLATION

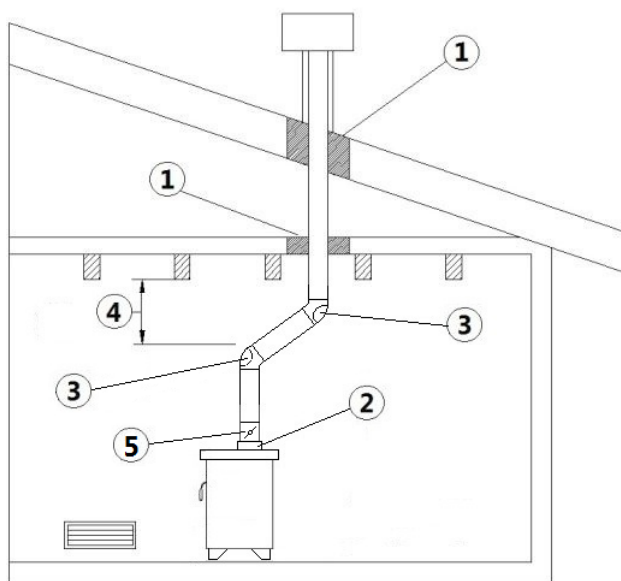


Fig. 8 - Example 1

LEGEND	Fig. 8 page 11
1	Insulating material
2	Reduction from $\varnothing 160$ to $\varnothing 120$ mm
3	Inspection plug
4	Minimum safety distance = 0,5 mt
5	Damper

- Chimney flue installation $\varnothing 160$ mm with an enlarged drilling for pipe transit.

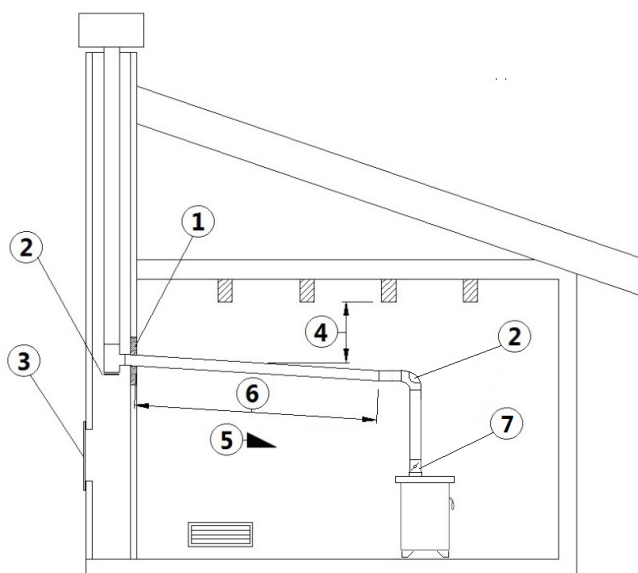


Fig. 9 - Example 2

LEGEND	Fig. 9 page 11
1	Insulating material
2	Inspection plug
3	Chimney inspection entrance
4	Minimum safety distance = 0,5 mt
5	Inclination $\geq 3^\circ$
6	Level section ≤ 1 mt
7	Damper

- Old chimney flue with an inserted pipe of minimum $\varnothing 160$ mm and with an external door which enables the chimney cleaning.

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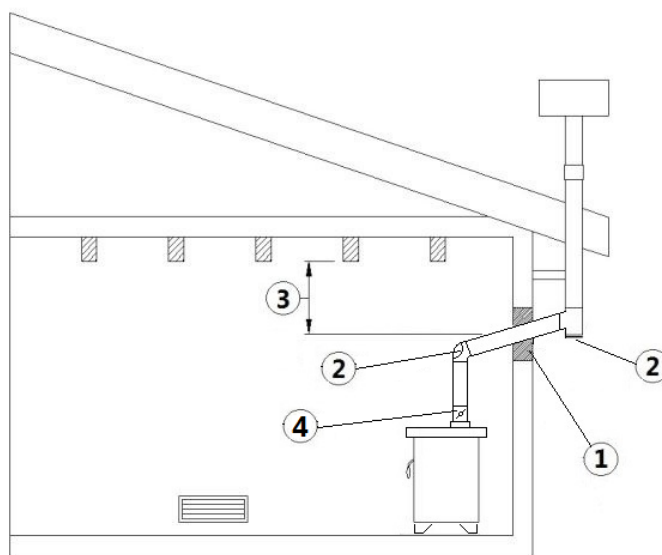


Fig. 10 - Example 3

LEGEND	Fig. 10 page 12
1	Insulating material
2	Inspection plug
3	Minimum safety distance = 0,5 mt
4	Damper

- External chimney flue entirely made up of insulated stainless steel pipes, i.e. with double wall of minimum $\varnothing 150$ mm: all must be firmly attached to the wall. For chimney against wind effects please (see Fig. 4 page 8).
- Ducting system through T-unions which enables an easy cleaning without disassembling the pipes.



We recommend to check with your chimney flue manufacturer the safety distances which must be respected and the type of insulating material. The aforesaid regulations are valid also for holes made on the wall (EN 13501 - EN 13063 - EN 1856 - EN 1806 - EN 15827).

9 FUEL



9.1 FUEL

- The allowed fuel is firewood and its derivatives (lignite blocks, compressed sawdust, etc.) with a maximum water content of 20%.
- To obtain good firewood, it must be seasoned outside for at least 2 years in a place protected from the weather.
- Using humid wood or waste bark could create condensation and creosote into the ductions and in the hearth. A heat yield of humid wood is great lower than dry wood.



Fig. 11 - Wood positioning

- To know the length of wood log to use, check the dimensions of stove combustion chamber.
- It is advisable to place the wood in horizontal position (see **Fig. 11 page 13**) and adjust the air flow with the aid of the register.
- To ignite proper igniter products can be used.



It is forbidden to use any type of liquid combustible!



It is forbidden to burn wood processing waste containing glue or paint, waste in general and cardboard!

- Here following some information about the quality of different type of woods:

TYPE OF WOOD	QUALITY	% PERFORMANCE
Oak	Excellent	100
Hornbeam	Excellent	100
Ash	Very good	92
Maple	Very good	91
Birch	Good	89
Elm	Good	84
Beech	Good	80
Willow	Sufficient	71
Spruce	Sufficient	70
Red deal	Fair	67
Larch	Fair	66
Lime	Worst	57
Poplar	Worst	50

Small pieces of wood are easily inflammable and so increase the power of the range. They are the best to light the fire.

The nominal power and the best combustion of the boiler is obtained by using beech logs of medium-big dimension (as, for ex. 4/5 logs of total weight 8 kg, getting more less 1 hour of full power combustion).



10.1 INTRODUCTION

- The assembly position depends on environment, exhaust, chimney flue.
- Check with local authorities if there are any restrictive regulations which regard the combustible air inlet, room ventilation, fume exhaust system together with chimney flue and chimney pot.
- The manufacturer declines any responsibility in case of installation which are not in compliance with current regulations, in case of a wrong room ventilation system, in case of an electric connection which is not in compliance with regulations and in case of a wrong use of the appliance.
- Installation, electric connection, operation test and maintenance must be carried out by an authorized and skilled technician.
- Check if there is the combustible air inlet.
- Check the probable presence of other stoves or appliances which could depress the room (see **EXTERNAL AIR INLET page 9**).
- Check at switched on stove if there is the presence of CO in the room.
- Check if the chimney has the necessary draught.
- Check if during the fume passage all has been executed in safety (probable fume losses and distances from flammable materials, etc....).
- The installation of the appliance must enable an easy access for appliance, fume exhaust pipes and chimney flue cleaning.
- The installation must enable an easy access to the electric connection plug.
- It is forbidden to install the stove in bedrooms, bathrooms and in rooms used for storing combustible materials and in one-room flats.
- In any case the stove must not be installed in rooms where it can get in touch with water or water splashes because this can cause burn hazards and short-circuit.
- To install more appliances, the external air inlet must be correctly dimensioned (see **EXTERNAL AIR INLET page 9**).
- Only in room used as kitchen is possible to use appliances for cooking with its hood without steam extractor.
- Only type "C" appliances are allowed and not type "B": make reference to regulations active in the country where the appliance is installed.

10.2 DESCRIPTION OF THE RANGE DEMETRA

Heavyweight steel range, in conformity with standard UNI 9026 and UNI EN 10111.

The circulation of fumes is designed to maximise exploitation of the calorific potential of the wood.

COMPONENTS (see **Fig. 12 page 15**):

- 1 - Handrail
- 2 - Cast iron grills
- 3 - Concentric rings for cooking in direct contact with the fire
- 4 - Cast iron hot plate
- 5 - Selector for "Lighting-up - Heating/Cooking"
- 6 - Boiler thermometer
- 7 - Thermostatic adjustment: adjusts the inlet of combustion air (primary and secondary air), increasing or decreasing the rate of combustion.
- 8 - Fume outlet ring
- 9 - Range body
- 10 - Oven
- 11 - Cleaning hatch
- 12 - Oven thermometer
- 13 - Cinder box
- 14 - Grill raising adjustment access
- 15 - Front loading door
- 16 - Circulation device thermostat

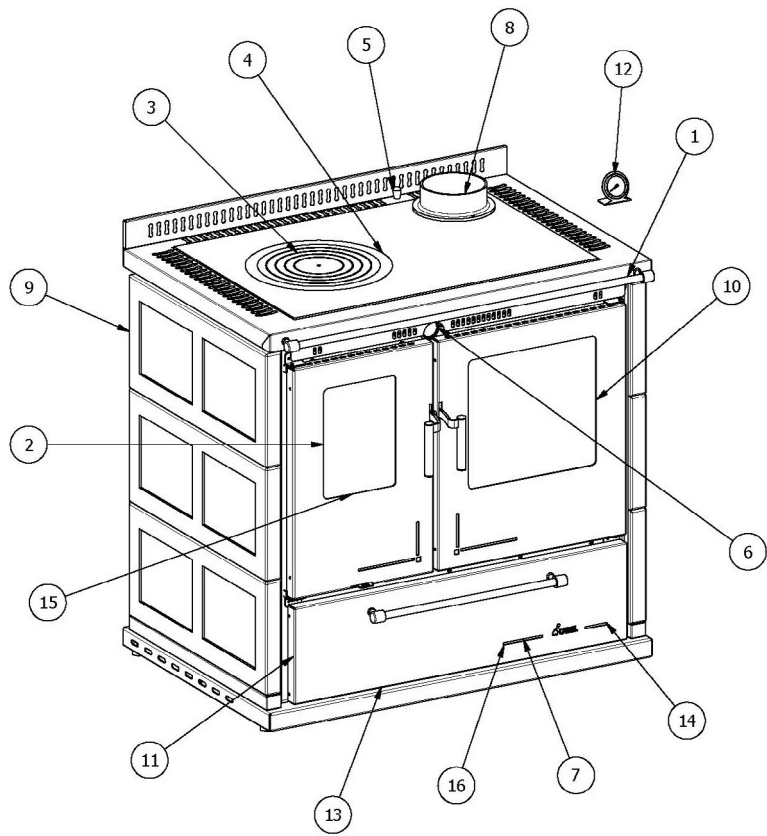


Fig. 12 - Demetra thermostat stove signs

10.3 OVERALL DIMENSIONS

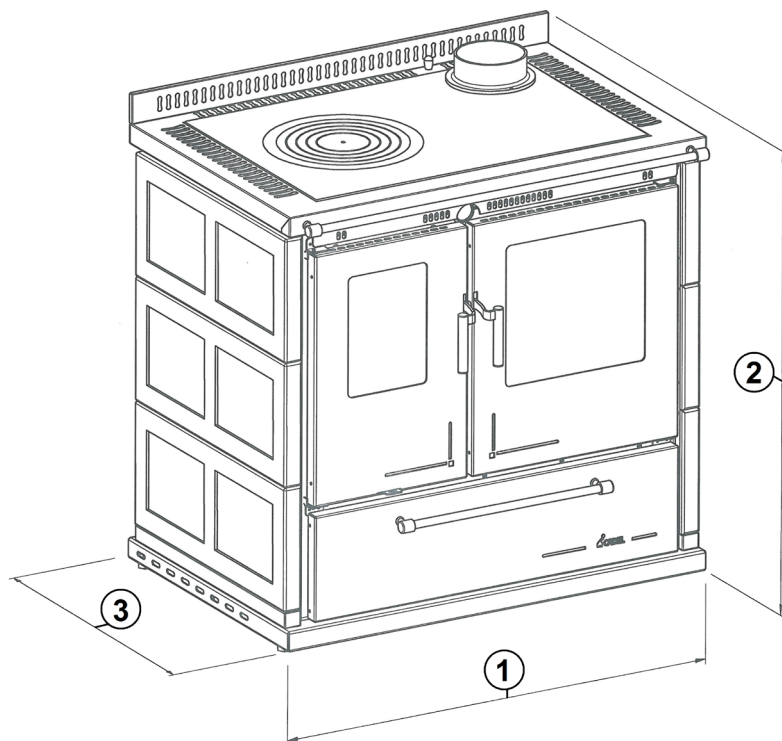


Fig. 13 - Overall dimensions

LEGEND	Fig. 13 page 15
1	90 cm
2	87 cm
3	60 cm

FAC-SIMILE





		Distributed by: CADEL SRL Via Foresto Sud, 7 31025 Santa Lucia di Piave (TV) MADE IN ITALY	
Azienda con sistema di gestione qualità certificato da KIWA UNI EN ISO 9001:2008			
		EN 12815:2001/A1:2004/AC:2007	
Apparecchio per il riscaldamento domestico alimentato a legna Residential space heating appliance fired by wood Appareil de chauffage domestique alimenté à bois Haushaltsgerät für Heizung mit Holzbrandstoff Aparato de calefacción alimentado por madera Toestel voor ruimteverwarming met houtbrandstof			
N° DoP / DoP Nr.		0128-00	
N° org notificato / Notified body num. / N° org notifié / Notifizierte Stelle N° / N° org notificado / Aangemelde instantie num.		0407	
Modello / Model / Modèle / Modelo / Model / Modell		DEMETRA	
Articolo / Item / Code / Artículo / Artikel		DEM0100	
Matricola / Serial Number / Numéro de série / Matrikelnummer / Matricula / Registratienummer		00.000.000000	
Potenza nominale / Nominal power / Puissance nominale / Nennleistung / Potencia nominal / Nominaal vermogen		kW(nom) 21.6	
Potenza nominale acqua / Nominal water power / Puissance nominale eau / Wasser Nennleistung / Potencia nominal agua / water nominaal vermogen		kW(nom) 17.8	
Potenza nominale aria / Nominal air power / Puissance nominale air / Luft Nennleistung / Potencia nominal aire / Lucht nominaal vermogen		kW(nom) 3.8	
Rendimento nominale / Nominal efficiency / Rendement nominal / Wirkungsgrad bei Nennleistung / Rendimiento nominal / Nominaal verlaagd		% (nom) 70.7	
CO (13 % O ₂) nominale / nominal / Nennwert / Nominaal		% (nom) 0.84	
CO (13 % O ₂) nominale / nominal / Nennwert / Nominaal		mg/Nm ³ (nom) 10500	
Particolato / Dust / Poussières / Feinstaub / Polvos / Poeiras / Rookgasstof (13 % O ₂) nominale / nominal / Nennwert / nominaal		mg/Nm ³ -	
OGC (13 % O ₂) nominale / nominal / Nennwert / nominaal		mg/Nm ³ -	
NOx (13 % O ₂) nominale / nominal / Nennwert / nominaal		mg/Nm ³ -	
Tensione / Voltage / Tension / Spannung / Tensão / Spanning		V- Hz 230-50	
Potenza elettrica assorbita / Power input / Puissance absorbée / Leistungsbedarf / Potencia absorbida / Potencia absorvida / Opgenomen vermogen		W -	
Max pressione idrica / Max water pressure / Pression max hydrique / Max Wasserdruk / Max presión de agua / Max pressão água / Water max druk		Bar 2	
Temperatura fumi / Fume temperature / Temperature des fumées / Rauchtemperatur / Temperatura humos / Rook temperatuur		C° 228	
Combustibile legna / Wood fuel type / Combustible à bois / Holzbrandstof / Combustible de madera / Combustível do madeira / Houtbrandstof		mm 330x3 pz	
Distanza da materiali infiammabili / Distance from flammable materials / Distance du matériel inflammable / Entfernung von entzündliches Material / Distancia de materiales enflamables / Distancia do material inflamável / Aafstand van ontvlambaar materiaal		 R=mm 0 B=mm 0 L=mm 0 F=mm 0	
Leggere e seguire le istruzioni del manuale / Read and follow the instruction manual / Lisez et suivez le mode d'emploi / Gebrauchsanleitung lesen und einhalten / Lees atentamente el manual de instrucciones / Leer atentamente el manual de instruções / Lees met opmerking met aandacht de handleiding			
Apparecchio ad alimentazione intermittente / Intermittent supply appliance / Appareil à alimentation intermittente / Gerät mit zeitweilige Speisung / Aparato con alimentación intermitente / Aparelho com alimentação intermitente / Intermitterende voeding apparaat			

Fig. 14 - EC label



Never modify the data shown in the identification plate.

10.5 ON ISSUE ACCESSORIES

Accessory type "A" (see Fig. 15 page 16): adjustable height grill raiser.

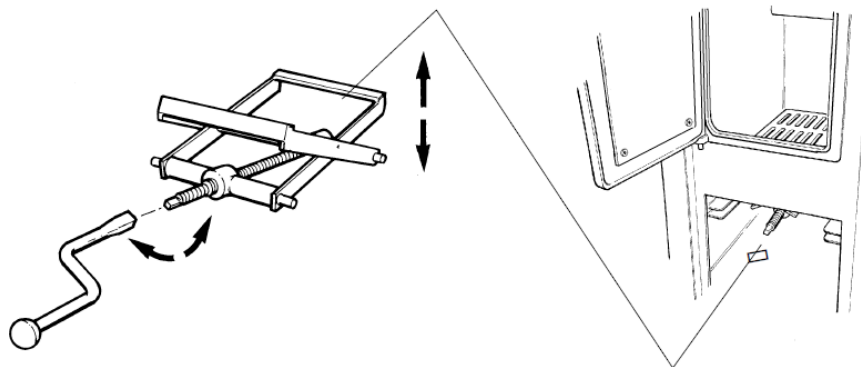


Fig. 15 - Height grill

Accessory "F" (see Fig. 16 page 17): rear right fume outlet.

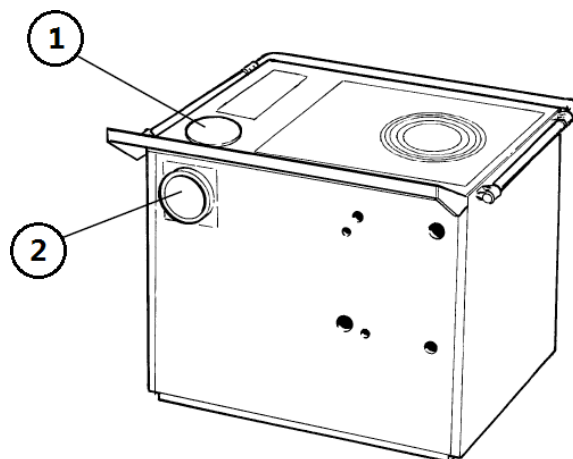


Fig. 16 - Fume outlet

LEGEND	Fig. 16 page 17
1	Cover
2	Fume outlet



Only original authorized parts are allowed. Non authorized modifies on any parts of the boiler are not allowed, otherwise the warranty will not be valid.

Accessory "Handle" (see Fig. 17 page 17): place and fix it with appropriate screw.

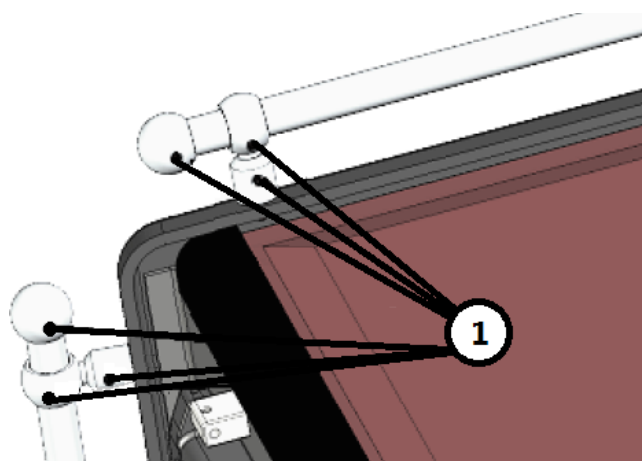


Fig. 17 - Handle

LEGEND	Fig. 17 page 17
1	Screws to fix

10.6 ASSEMBLING

Demetra ranges must be installed in accordance with the provisions of the laws in force by professional skilled personnel only.

The range can be supported on the floor. If it is necessary to isolate it from the flooring (high humidity, etc.) construct a suitably scaled base.



It is essential to provide the range room with air intakes according to the current regulations in force, considering others eventual devices installed in the same room.



In the range room must not be present any air intake device, if not provided supplementary ventilation.



Install the range keeping free air entrance to the intake grid in the back.



Provide a thermal exhaust device to the boiler.



It is very important for your safety to respect the minimal safety distance of the stove from flammable materials in its neighbourhood (see **GENERAL INSTALLATION page 23**).

10.7 CONNECTION DIAGRAM CIRCULATION DEVICE THERMOSTAT

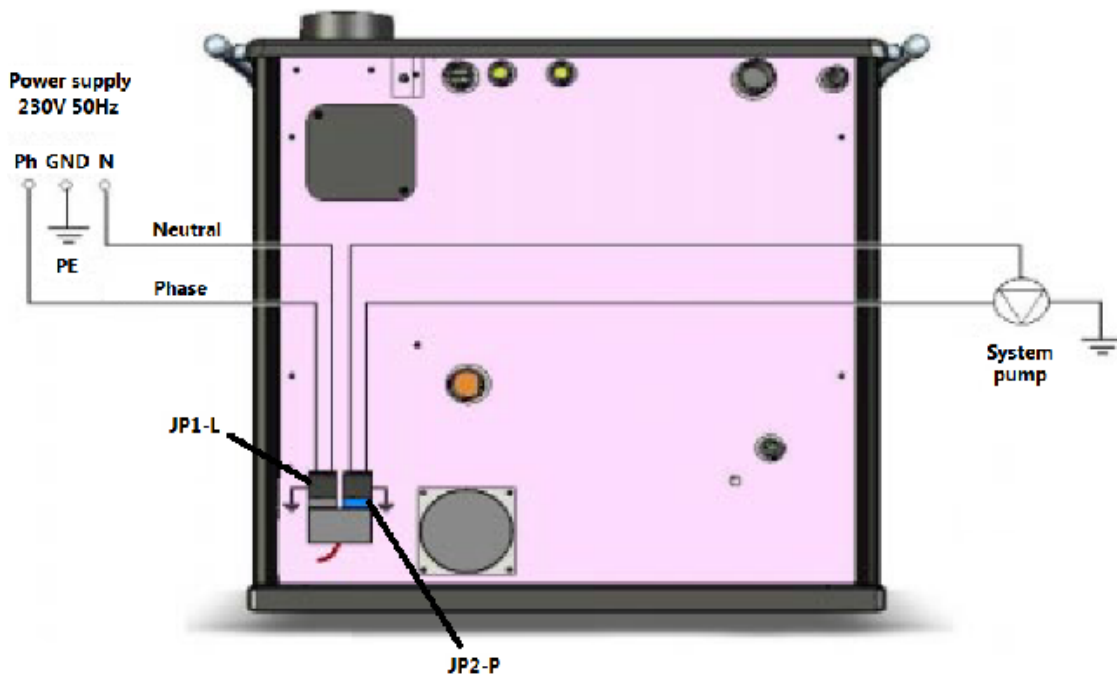


Fig. 18 - Wiring scheme

10.8 WIRING DIAGRAM CIRCULATION DEVICE THERMOSTAT

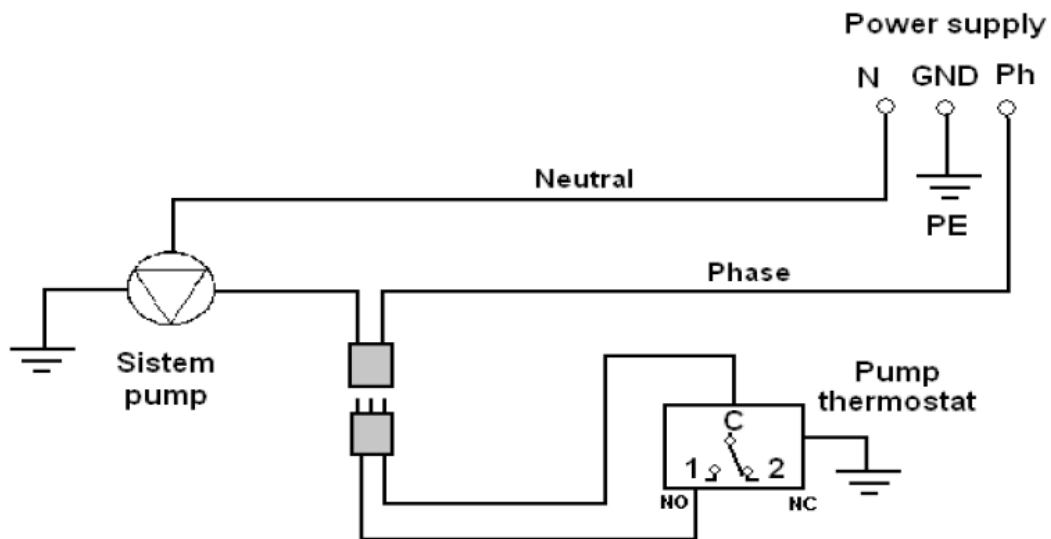


Fig. 19 - Wiring scheme



Sensible changes of tension may cause damages to the electrical features.

10.9 REAR CONNECTION DIAGRAM

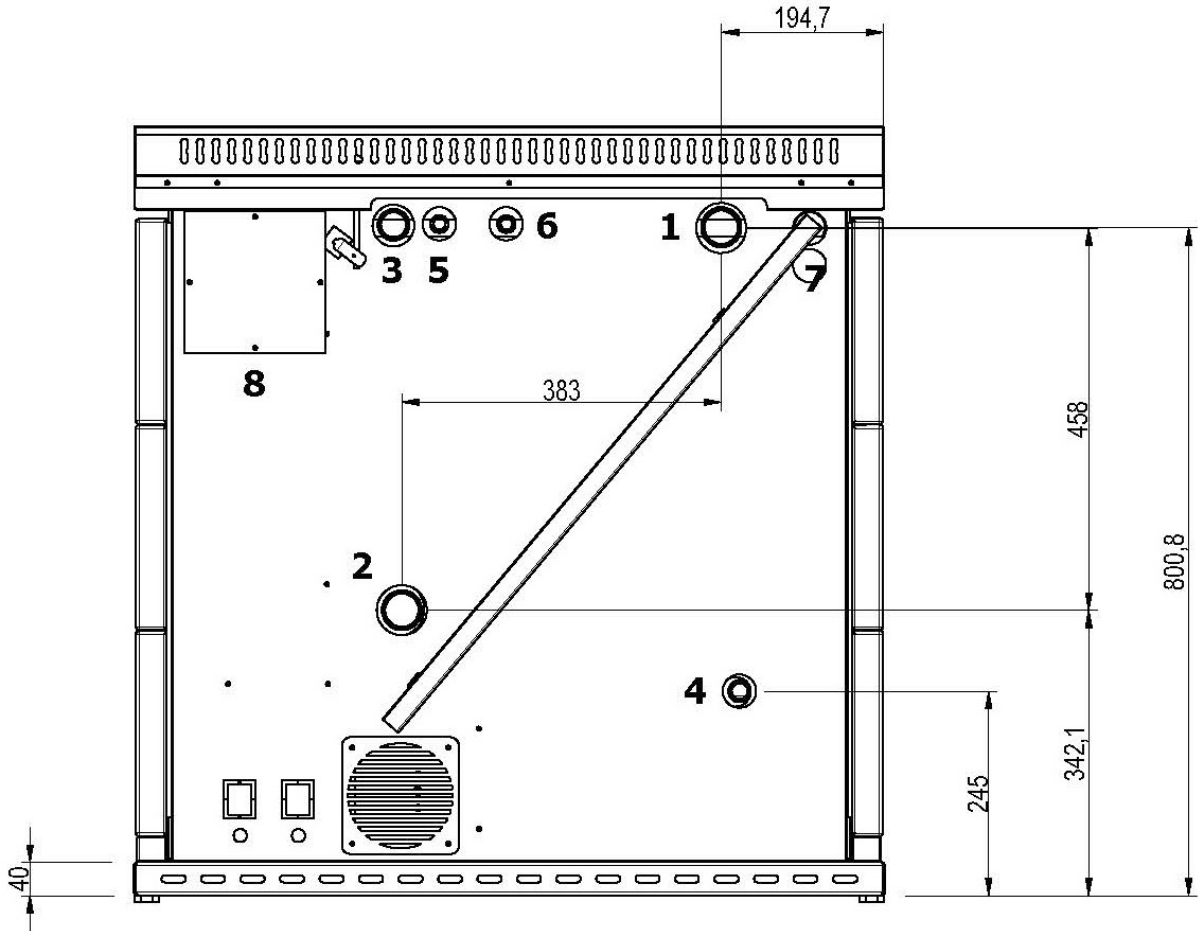


Fig. 20 - Rear connection diagram

LEGEND	Fig. 20 page 19
1	System supply 1" 1/4
2	System return 1" 1/4
3	Safety pressure valve 1"
4	System sump drain 1/2"
5	Hot water outlet exchanger 1/2"
6	Cold water inlet exchanger 1/2"
7	Probe holder for thermal release valve 1/2"

10.10 HYDRAULIC CONNECTION DIAGRAMS



Diagrams are for reference only. For a correct installation, comply with the local, national and european relevant regulations in force.



It's advisable to install a water treating device at the water inlet to reduce its calcareous residuum because it can cause the thermal exchanger pipe choking (see **FEEDWATER CHARACTERISTICS page 22**)



Hand wood boilers must be equipped with an open expansion tank. Any other assembly layout is forbidden.

EN

Hydraulic connection diagrams for Demetra: use only for heating.

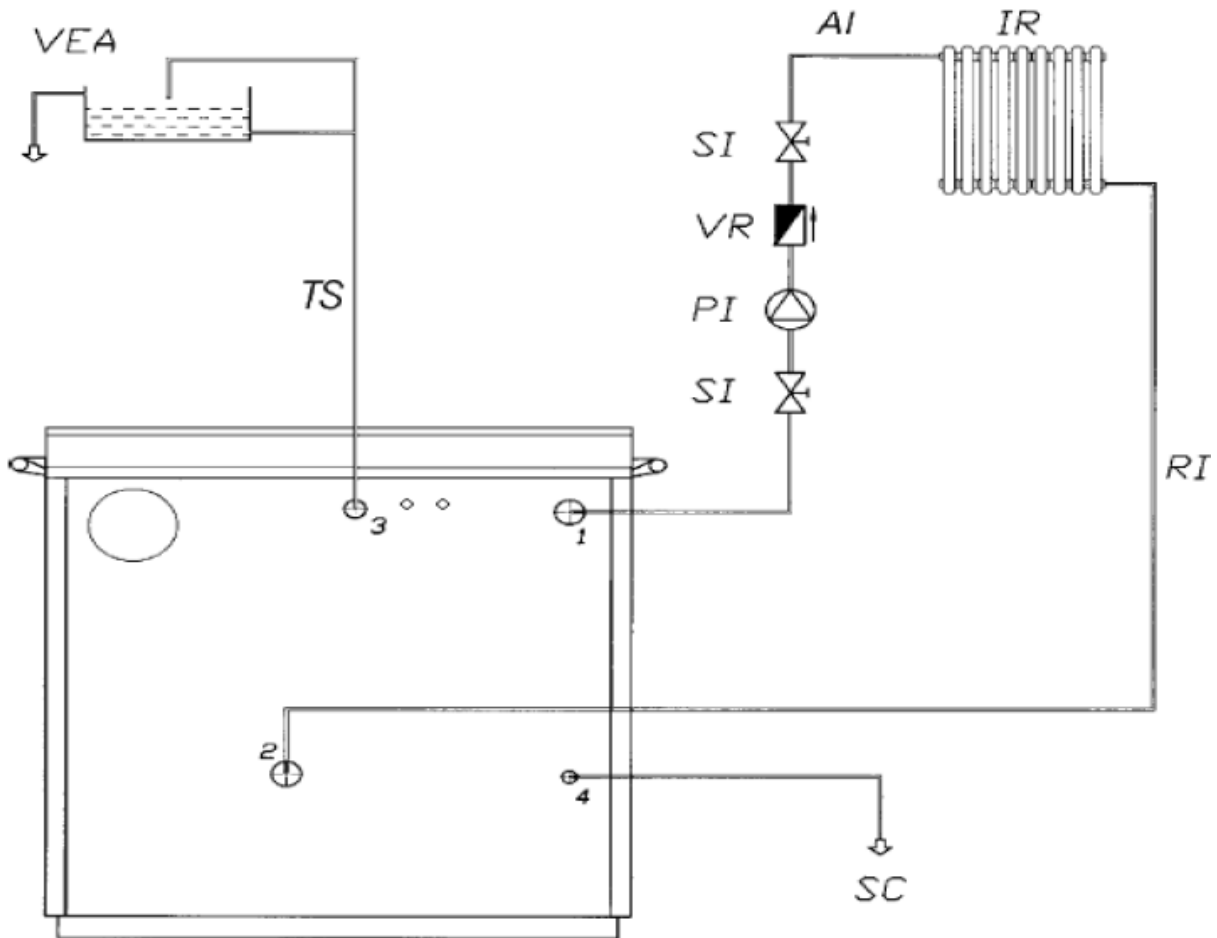


Fig. 21 - Connection 1

LEGEND	Fig. 21 page 20
VEA	Open expansion tank
IR	Heating system
AI	System supply
SI	Flue damper
VR	Check valve
PI	System pump
RI	System return
SC	System drain
TS	Safety pipe

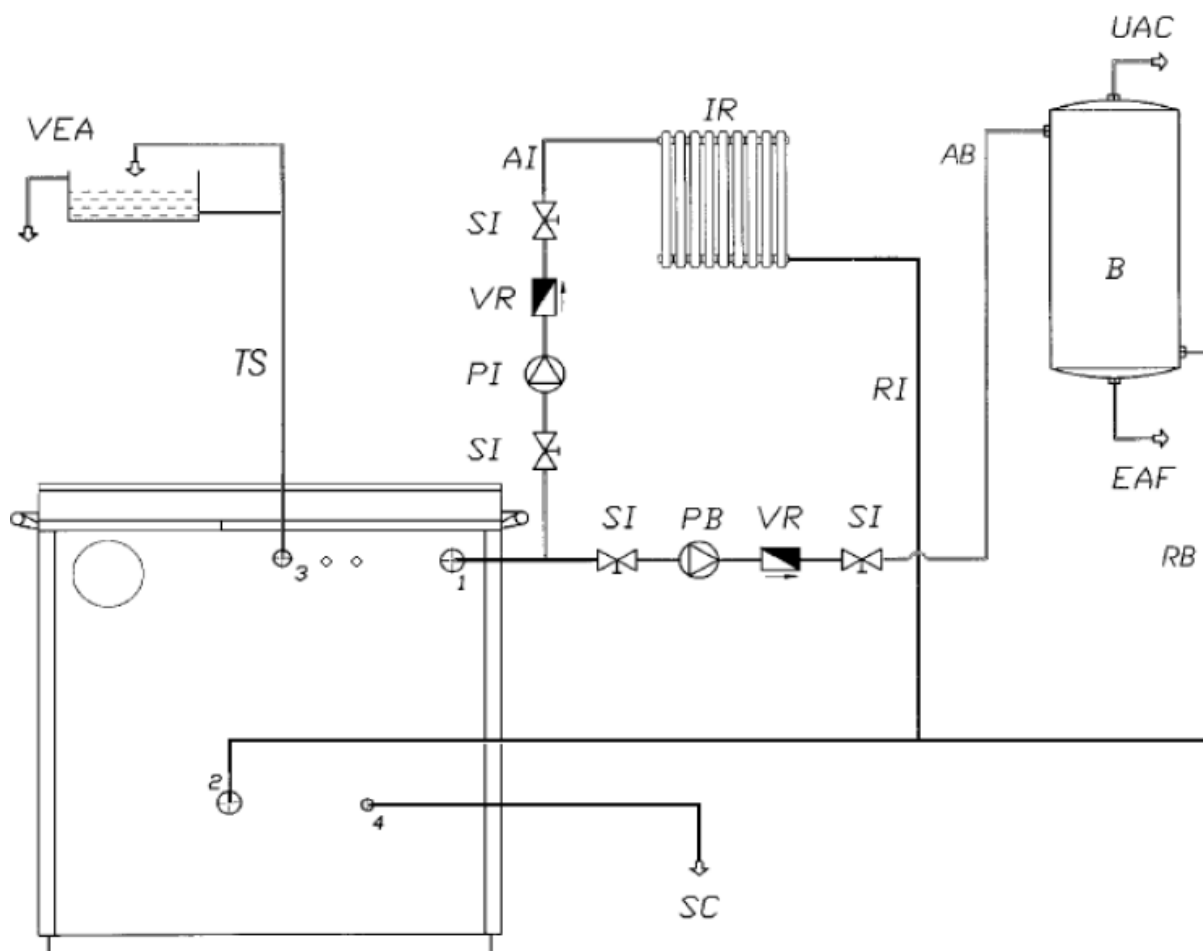


Fig. 22 - Connection 2

LEGEND	Fig. 22 page 21
VEA	Open expansion tank
IR	Heating system
AI	System supply
SI	Flue damper
VR	Check valve
PI	System pump
RI	System return
SC	Drain
EAF	Cold water inlet
UAC	Hot water outlet
B	Boiler
PB	Boiler pump
AB	Boiler supply
RB	Boiler return
TS	Safety pipe

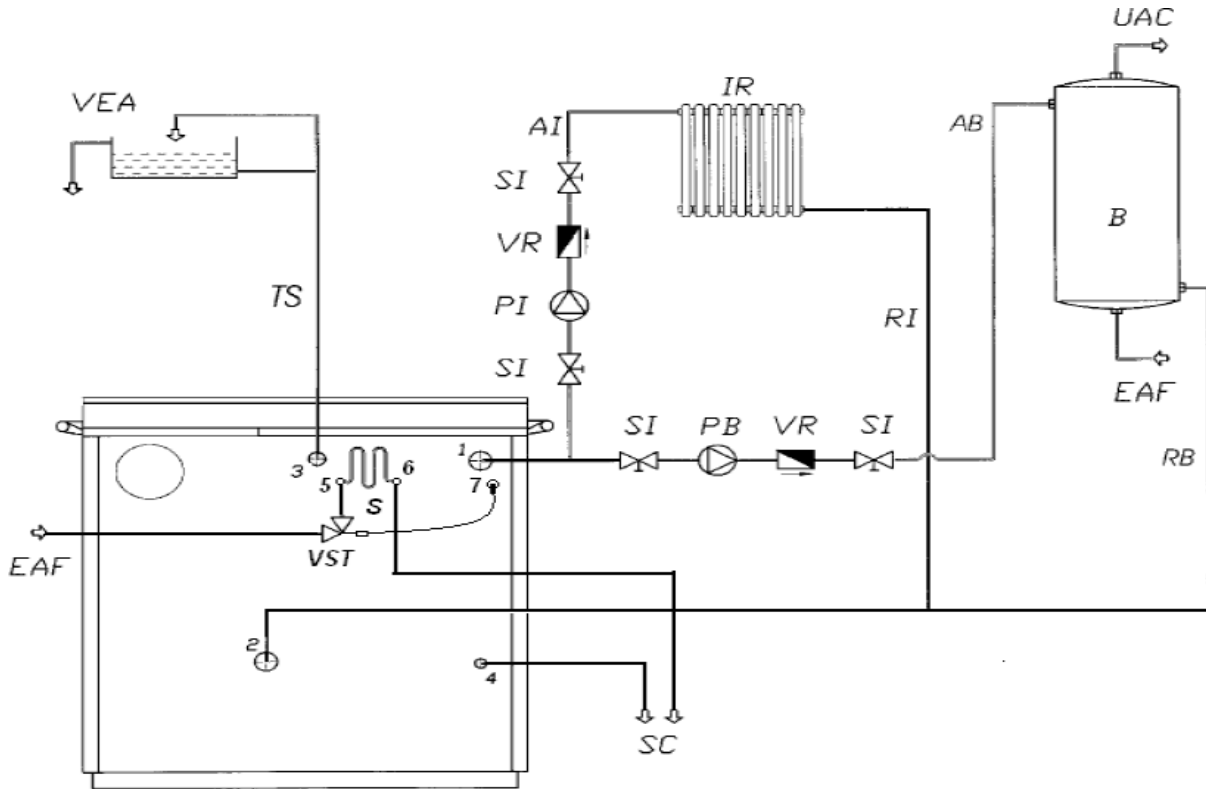


Fig. 23 - Connection 3

LEGEND	Fig. 23 page 22
VEA	Open expansion tank
IR	Heating system
AI	System supply
SI	Flue damper
VR	Check valve
PI	System pump
RI	System return
SC	Drain
EAF	Cold water inlet
UAC	Hod water outlet
B	Boiler
PB	Boiler pump
AB	Boiler supply
RB	Boiler return
S	Coil
TS	Safety pipe
VST	Download thermal valve

10.11 PROCEDURES AND CHECKS BEFORE CONNECTING THE RANGE

- 1 - Carefully wash all the pipes in the system in order to remove any manufacturing residue which might compromise the correct operation of the pumps, valves, etc.
- 2 - Ensure that the chimney flue does not have chocked section, that there is a good draft and that the flue is made in compliance with the laws in force.
It is advisable to install a draft regulator to limit the suction of the flue to 16 Pa, in order to avoid unexpected increases in power. Joints should be checked in the existing flues.
- 3 - Verify the air entrance on the rear will not be chocked.

10.12 FEEDWATER CHARACTERISTICS

Chemical and physical characteristics of water are fundamental to guarantee long life and an efficient operation of the range.
Scale deposits are the most frequent problems affecting heat exchange surfaces, caused by bad-quality water. The low heat conductivity of scale generates localised overheating, detrimental for the range.

Water treatment is highly recommended in the following cases:

- 1 - Very hard water.
- 2 - Large systems.
- 3 - Frequent fillings due to leakages.
- 4 - Re-filling after system maintenance.

For water analysis and treatment, contact specialised centres.

It is also advisable to periodically check the scale conditions of the range.

10.13 FILLING THE SYSTEM

After the water connections have been made, proceed to fill the system.

Open all the air bleeder valves on the radiators.

Gradually open the inlet cock, making sure that the automatic air release valves (if present) operate correctly.

Close the air release valves when water comes out. Use the manometer to check that the system is pressurised.

Close the inlet cock and again release air through the air release valves. Start the water circulating pump or pumps to check for correct operation.

10.14 CONNECTING THE SAFETY HEAT EXCHANGER (OPTIONAL)

Solid fuel burning systems must be installed with the safety devices provided for in the relevant regulations in force (see **HYDRAULIC CONNECTION DIAGRAMS page 19**).

The boilers are therefore fitted with safety heat exchangers.

The safety exchanger is connected to the water and drainage systems by means of a thermal release valve (VST) with its temperature sensor (SV) fitted in the seat provided.

10.15 POWERING OF BOILER

1 - Qualified technicians must verify that the power of heaters is matching the required calories of the heating system. This is important because the wooden boilers need to sell out the burned calories to avoid the ebullition and long halt of the ventilator, which in absence of combustion, leads the firewood to form acid condensed which are hurtful for the heater.

2 - In case the boiler is over powered it is absolutely necessary to install a heat accumulator.

10.16 GENERAL INSTALLATION

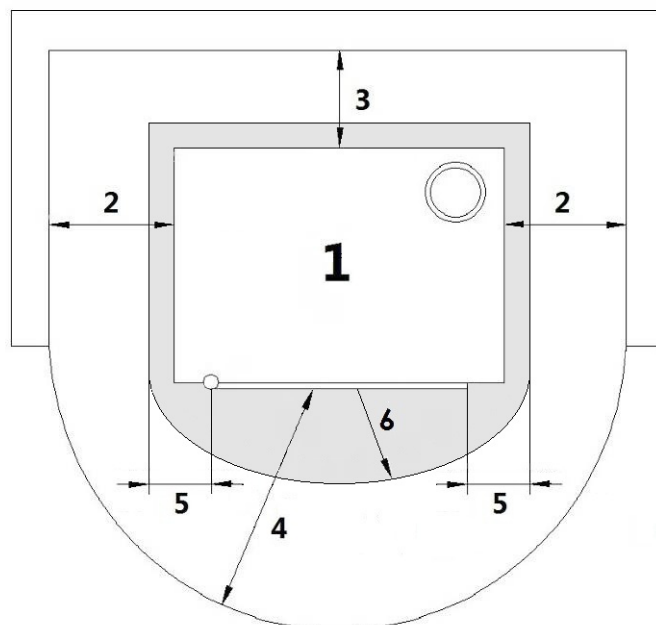


Fig. 24 - General installation

POS.1	POS.2	POS.3	POS.4	POS.5	POS.6
DEMETRA	20 cm	0 cm	100 cm	30 cm	50 cm

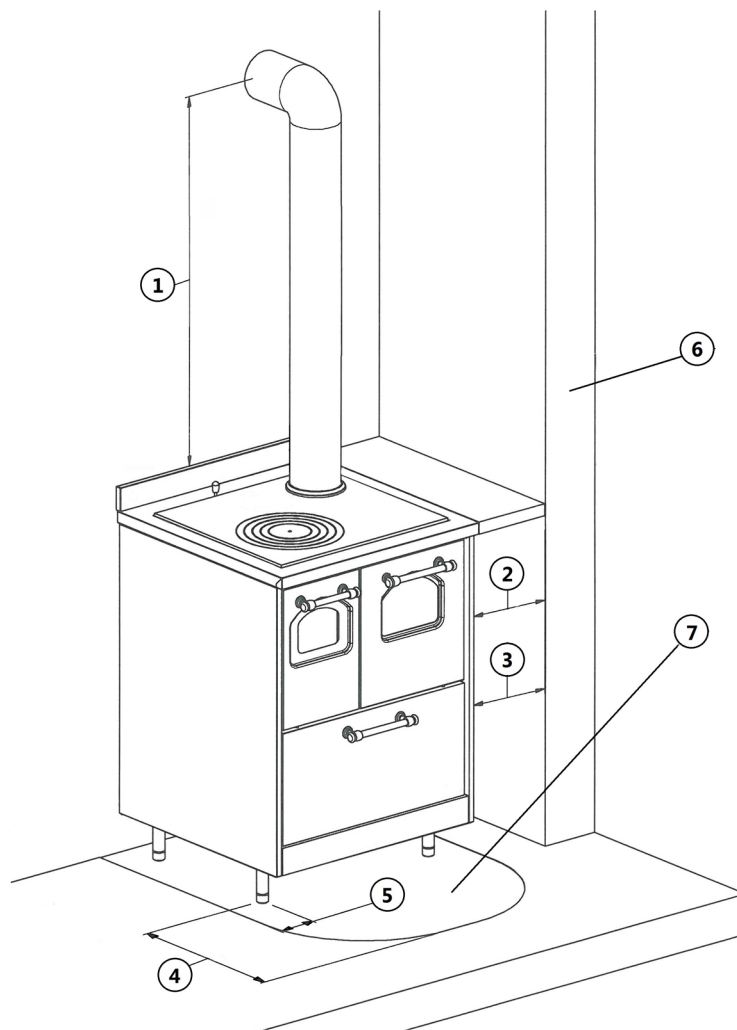


Fig. 25 - Distances from walls

LEGEND	Fig. 25 page 24
1	min. 1,5 mt
2	min. 10 cm from the wall
3	min. 20 cm from flammable wall
4	50 cm
5	20 cm
6	wall
7	Floor cover

- According to the choosed model, the wood stove can be installed apart, pulled over a wall or recessed between two walls.
- In the last two cases, the side wall over the the cooktop must be at a minimum distance of (see **Fig. 25 page 24**) from the stove border.
- Possible adjacent pieces of furniture's sides and the back side of the stove must be made up of high temperature resistance (90°C) and fireproof materials.
- Also the back side over the cooktop must be made up of high temperature resistance (120°C) and fireproof materials. Do not use wood backs.
- In case od apart installed stove, it must be detached from possible walls and/or pieces of furniture, with a minimum air flow at the sides and at the back in order to allow an appliance cooling and a good distribution of heat in the environment (see **Fig. 24 page 23**).
- For fire regulations distances from flammable or sensible to heat materials must be respected (sofas, pieces of furniture, wood coatings etc...) as described in **Fig. 24 page 23**.
- If highly flammable materials (curtains, carpets, etc...), all these distances must be increased of 1 meter.
- In some countries also loadbearing masonry walls are considered flammable.
- If the floor is made up of flammable material, an unburnt material cover must be realized (steel plate, refractory, marble...). For cover dimensions see **Fig. 25 page 24**.
- Check if the floor has a proper load capacity. If the existing manufacture does not reach this requirement, proper measures must be taken (for example a load distribution plate).
- If air recirculation hoods are used, they must be suitable to be used over the stove and must be placed at a distance of minimum 60 cm.

10.17 LEVELLING

All stove models are endowed with adjustable feet which allow a plumbed appliance.

10.18 ELECTRIC CONNECTION



Warning: the appliance must be installed by an authorized technician!

- The plug must be easily accessible when the appliance is installed.



The cable must not get in touch with the fume exhaust pipe and nor with every other part of the stove.

- Please further assure you that your network is endowed with an efficient earth connection: if it does not exist or if it is not efficient, please endow you with one in compliance with the law.
- Do not use extension cables.
- If the feeder cable is damaged, it must be replaced by an authorized technician.
- When the stove is not going to be used for a long period of time, it advisable to remove the plug from the socket on the wall.

11 USE



11.1 ATTENTION



This appliance must not be used by people (children included) with reduced mobility, psychological diseases or without experience and knowledge except in case of supervision or instruction about the use of the appliance by people responsible for their safety.



Children must be constantly overseen in order to assure that they do not play with the appliance.



During its running, the stove reaches high temperatures: keep away children and animals and for your safety please use appropriate fireproof devices, such as heat-protecting gloves.

11.2 INTRODUCTION

To have the best performance with the lowest consumption please follow the here described instructions.

- Wood ignition occurs very easily if the installation is correct and if the chimney flue is efficient.
- By first ignition of the stove hold a slow fire for at least 4-5 hours in order to allow the material of which the heater and the hearth are made up of to adjust the inner mechanical stresses. This operation must be executed at least 3-4 times a year.
- Plant fat waste and varnishes can release bad smells and smoke during first working hours: it is advisable to ventilate the room because they can be noxious to people and animals.



Do not use flammable liquids during the ignition (alcohol, petrol, oil, etc...).



Do not subject the cast iron cooktop to too high temperature (cherry red) because there is the risk of breakage!

11.3 POSITION COMMANDS

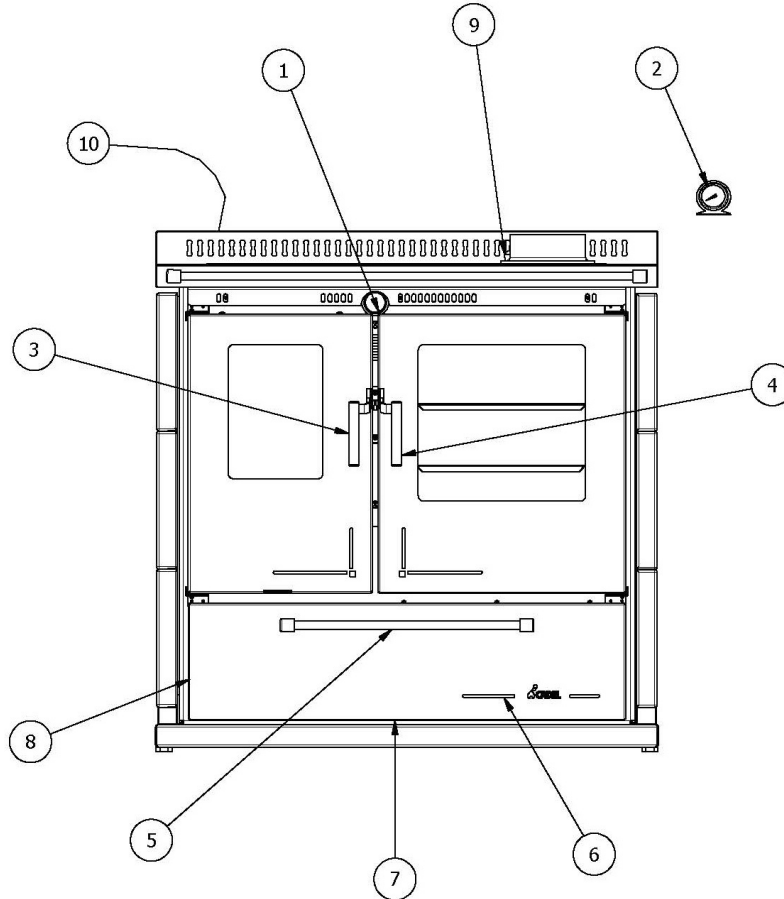


Fig. 26 - Position commands

LEGEND Fig. 26 page 26

1	Boiler thermometer
2	Oven thermometer
3	Furnace opening handle
4	Oven opening handle
5	Secondary air inspection
6	Oven cleaning duct
7	Further secondary air entrance
8	Ash extraction door
9	Main control panel inspection door (air regulator, pump thermostat)
10	Smoke bypass for ignition
11	Internal mobile buffer

11.4 MAIN CONTROL PANEL

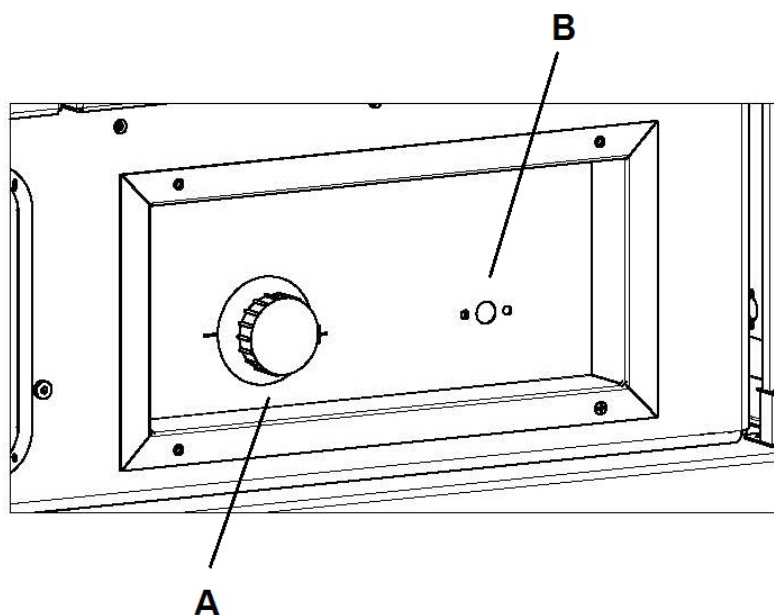


Fig. 27 - Main control panel

A - Thermostatic adjustment

Adjusts the inlet of comburent air. By turning the knob to cold position, the closing (based on boiler water temperature), will be anticipated.

B - Sistem pump thermostat

Define the system pump activations.

11.5 SMOKE BYPASS

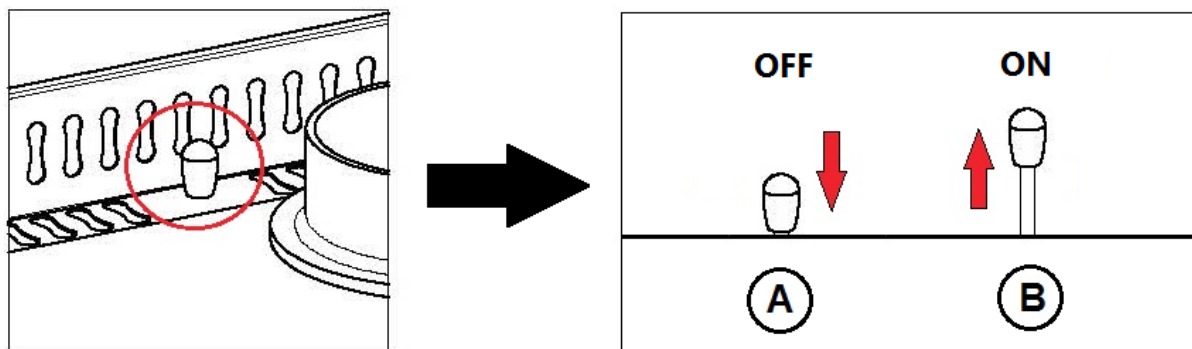


Fig. 28 - Smoke valve

Smoke bypass (see Fig. 28 page 27): by lightening the boiler, turn fo 90° the knob to position B to allow the direct smoke passage to the flue duct, helping the starting of the flame and the heating of the flue self. After the starting, turn the knob back to position A (see ADJUSTMENT page 28).

11.6 GENERAL CHECKS

- Check that the system is full of water.
- That the safety heat exchanger is connected to the water system through the valve (see Fig. 23 page 22), only for VF version.
- That the electrical connections have been made.
- That the chimney flue is effective.
- That all the pumps are functioning.
- That all the accessories (grills, etc.) are positioned in their seats.
- When locating both the grills in their seats it is essential to position them with the EMBERS SIDE upwards (see Fig. 29 page 28).

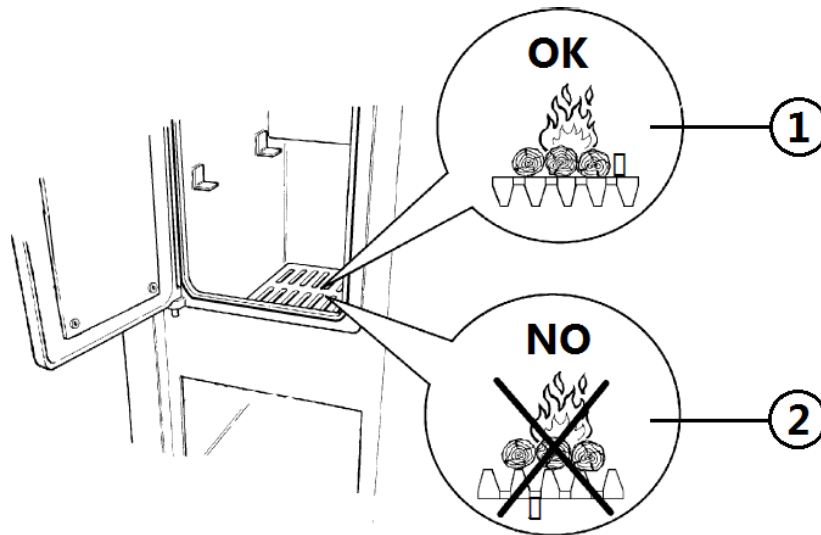


Fig. 29 - Embers side

LEGEND		Fig. 29 page 28
1	Correct embers side	
2	Not correct embers side	

11.7 ADJUSTMENT

To ensure that, the thermal cooker works efficiently it is important to regulate correctly. There fore the range is equipped with devices to select the 3 main functions phases:

- ignition
- heating-cooking (normal)
- heating-oven baking (high temperature)

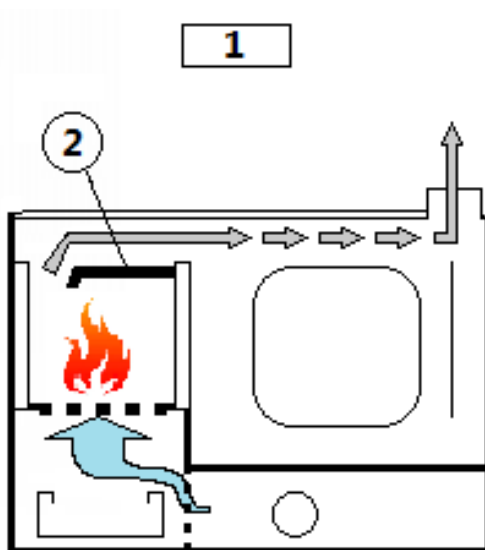


Fig. 30 - Ignition

LEGEND		Fig. 30 page 28
1	Ignition	
2	Deflector in the normal position	
3	POS.A	

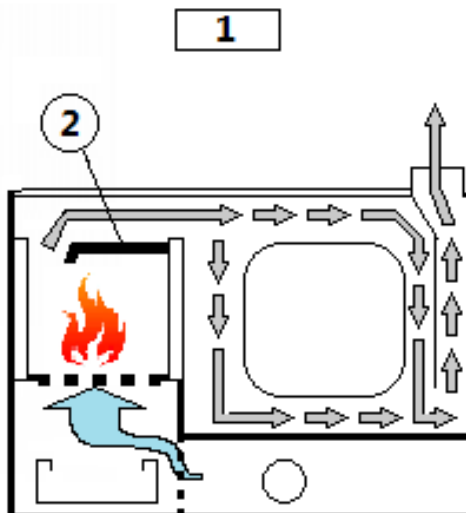


Fig. 31 - Heating-cooking

LEGEND	Fig. 31 page 29
1	Heating-cooking
2	Deflector in the normal position
3	POS.B

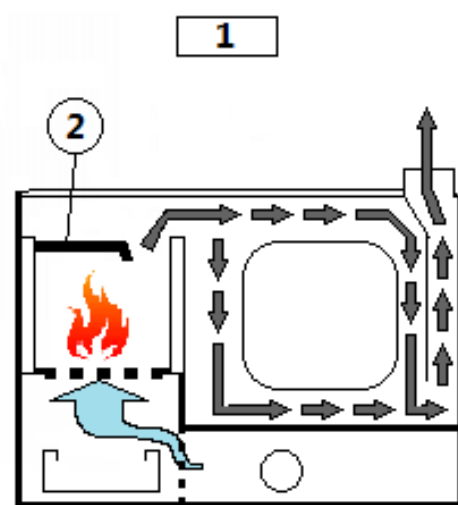


Fig. 32 - Heating-oven baking (high temperature)

LEGEND	Fig. 32 page 29
1	Heating-oven baking (high temperature)
2	Deflector position HT (high temperature)
3	POS.C

11.7.1 IGNITION

- Turn the selector (see Fig. 28 page 27) on ignition position to allow the direct flow of the smokes from the furnace to the flue. Open the rings on the cooking plane and put the internal deflector on right position (POS.A-B see Fig. 30 page 28 and Fig. 31 page 29). Turn to maximum the thermostatic air regulator (see Fig. 27 page 27).
- Open the furnace door (pos. 3) and introduce on the grid some paper and a small quantity of dry, thin wood, then light it on.
- When the fire is on, complete the loading of the furnace, trying to put wood logs not too tight. In this way the primary air will be allowed to pass trough the spaces between the logs well touching all the fuel surface.
- Once ignifio is completed, turn smokes selector back to vertical position (see Fig. 28 page 27) and turn the

- thermostatic regulator to choose the right quantity of combustion air.
- Over the ash box there is a slot opening (see **Fig. 26 page 26**) which allows the entry of additional air for starting up or to revitalise the fire for cooking (the water temperature must not exceed 90°).



After starting up or filling the system, always close the filling door.



To move the buffel, use the dedicated tools and remind to close the rings



If one gets smoke leakage during ignition (for ex. from cooking rings), this indicate loss of flue drought (see **CHIMNEY FLUE CONNECTION page 10**)

11.7.2 HEATING-COOKING NORMAL

- Once ignition is completed, turn the smoke buffel (see **Fig. 28 page 27**) to vertical position (A) to exploit the must of boiler's power to central heating (even for normal cooking and oven baking).
- Verify the inthermal deflector is en right positions as shown (see **Fig. 31 page 29**). In this position, the smokes turn is longer allowing a better thermal exchange to central heating and plate cooking.
- Also the oven will be regularly heated.
- Turn the thermostatic regulator (see **Fig. 27 page 27**) to choose the right quantity of combustion air, increasing or decreasing the combustion speed. The thermostatic regulator will automatically works based on the boiler water temperature avoiding fuel waste and avoiding water overtemperature.

11.7.3 HEATING-OVEN BAKING HIGH TEMPERATURE

- Once ignition is completed, turn the smoke buffel (see **Fig. 28 page 27**) to vertical position (A) to exploit the must of boiler's power to central heating and also for plated cooking and oven backing.
 - Verify the internal deflector is in right positions (see **Fig. 32 page 29**). In this position the smokes turn is better exploited for the oven heating, and mean while it will be lower the thermal axchange to boiler's water and to cooking plate.
 - The oven temperature, may be increased or decreased, by the logs size or by elevating the fire room grid.**
- To increase or obtain a better combustion, it's possible to turn the hand-valve under the loading door.

IMPORTANT: when cooking, make sure that the system circulating pump is running. When the pump is not running, it is necessary to use the heat produced by means of a cilinder for domestic hot water production of warm water, making sure that its pump is running. Failure to comply with the above indications, will result in boiling of the water in the boiler, thus causing irreversible damages to the boiler.

11.8 SUMMERTIME OPERATION

If the boiler is merely used to have hot household water, strictly follow the instructions below:

- 1 - Only use very dry wood.
- 2 - Fill the system with small quantities of wood and repeat the operation as needed.

Never fill the boiler with great quantities of wood, to obtain long autonomy of operation.

In such a way, much acid condensation forms inside the wood store chamber, causing corrosion of the steel plates.

11.9 SPRING AND AUTUMN OPERATION

In spring and autumn, fill the system with the quantity of wood that is actually required.

11.10 FUEL LOADING

When there start to be less fuel in the furnace, it is possible to load again the furnace, filling it up to the upper glass level. Before loading check if it is needed to move the embers with the dedicated tool, just to make them more compact. while loading the furnace dont put the logs too tight.



When using the range, always mind the hot plate as it becomes very hot as well as the oven glass, all the handles, wood filling door and smoke pipe.

IMPORTANT: use small-sized dry firewood and keep the hearth fed in order to get a good fire.



Never use solvents to start or feed combustion as they might lead to boiler explosion.



The thermostove is not a waste burner, don't use it to burn anything else than wood! Don't use wood treated with paint or plastic materials. There is high danger of bad working and pollution!

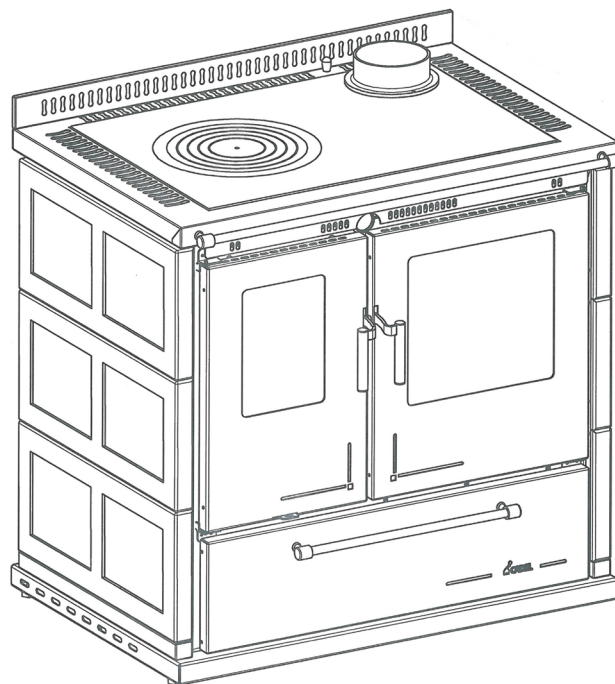


Fig. 33 - Thermostove Demetra

11.11 ADVERSE WEATHER CONDITIONS

When the external temperatures are severe and/or there are adverse weather conditions (strong wind), the chimney is subjected to a lack in draught thus impeding a correct fume expulsion.

- Fill the heart with few wood logs and keep air register valves opened completely.

11.12 CREOSOTE DANGER

The use of humid and/or bad quality wood (for example resinous wood) cause creation of creosote along the chimney flue obstructing fume passages. The creosote is flammable and if amassed over the time it must be removed in order to prevent the risk of fire of the chimney flue.

- In case of fire close air register valves and contact immediately the firemen.
- When the chimney has stopped burning, have the chimney flue checked by an expert stove-repairer.

11.13 FIRE EXTINGUISHING IN CASE OF FIRE

In case it would be necessary to extinguish the fire emitted by the stove or by the chimney flue, use a fire-extinguisher or contact the firemen. DO NOT use water to extinguish the fire inside the burning pot.

12 MAINTENANCE



12.1 INTRODUCTION

For a long working life of the stove, have a periodic cleaning of the stove as described in the following paragraphs.

- Fume outlet pipes (fume conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an authorized technician in compliance with local regulations, with the instructions of the manufacturer and those of your insurance company.
- If there are no local regulations and no instruction from your insurance company, it is necessary to have your fume pipe, chimney flue and chimney pot cleaned at least once a year.
- It is also necessary to have the combustion chamber, motors and fans cleaned and to have the gaskets and the electrical elements (if there are) checked at least once a year.



All these operations must be planned in time with your Authorized Technical Assistance Service.

- After a long ineffective time, before turning on the stove check if there are obstructions in the fume exhaust.
- If the stove had been using continuously and intensely, the whole system (chimney included), must be cleaned and checked more frequently.
- In case of replacement of damaged pieces please ask for the original spare part at the Authorized Retailer.



Before any movement let the fire inside the combustion chamber extinguish till the total cooling and always disconnect the plug from the socket (if there are).

12.2 BURNING POT AND ASH TRAY CLEANING



For a good combustion, before of every stove ignition, remove the ash which has settled in the burning pot. The abundant ash obstructs the primary air flow which is fundamental for a good combustion.

- Remove ash from the burning pot by shaking it to let it fall in the ash tray.
- If full, the ash tray must be empty.
- Ash must be kept in a metal container with sealed cap, the same container must not ever be in contact with flammable materials (for example lent over a wooden floor), as ash inside keeps embers glowing for a long time.
- Only when the ash is completely extinguished can be thrown in the organic waste.
- Clean the ash also in the ash compartment.

12.3 FUME PIPES ANNUAL CLEANING



Clean once a week from soot with brushes.

The cleaning operation must be executed by a specialized stove-repairer who will provide for the cleaning of fume pipe, chimney flue and chimney pot. He will also check their efficiency and will release a written declaration of the safety of the appliance. This operation must be executed at least once a year.

12.4 GENERAL CLEANING



For cleaning external and inner parts of the stove do not use steel wools, muriatic acid or other corrosive and abrasive materials.

12.5 **CLEANING OF PAINTED METAL PANELS**

To clean painted metal panels use a soft cloth. Do not use degreasant agents like alcohol, diluents, acetone, gasoline because these could irretrievably damage the varnish.

12.6 **CLEANING OF CERAMIC PANELS**

Some stove models have an external lining made up of ceramic. These pieces are handmade therefore they could inevitably present crazings, seediness, shadings. To clean ceramic panels use a soft and dry cloth. If using any cleaners this will seep through the crazings putting them in evidence.

12.7 **GLASS CLEANING**

The glass-ceramic of the fire door is able to stand till 700°C but not to thermal shocks. The probable cleaning with usual sale product for glass cleaning must be effected at cool glass in order to avoid explosions.

12.8 **OVEN CLEANING**

Clean the oven inner after every cooking by using a soft cloth with hot water or appropriate products. Do not ever use a steel wool as they could irreparably damage the surfaces.

12.9 **COOKTOP CLEANING**

The cast iron plate has an oily protection on the surface which wears out over the time by the use. This could cause dark or rusty spots on the plate surface. To contrast this problem during long period of no use of the stove, clean the top with fine-grained emery cloth and then oil the surface with liquid paraffin.


12.10 **FUME PASSAGES CLEANING**

Periodically clean the chamber under the oven by removing the cleaning hatch.

 When finished the cleaning, ALWAYS replace the oven bottom in its original position!

12.11 **EXTRAORDINARY CLEANING**

After long non working periods make a general cleaning and inspection and check the door seals to avoid smoke leakage.

 In case of freezing risk, fill the system with a mixture of antifreezing liquid, or force the system pump working or take out water from the system.



Periodically check the efficiency of the range regulation (thermostatic regulator, smoke buffel, pump thermostat).



Periodically check the expansion vessel and eventually keep it filled.



In case of uncorrect working, close the combustion air, let the range turn off and call specialized technician.



IN CASE OF SMOKE LOSS, ADEGUATELLELY VENTILATE THE ROOM!



In case of fire of the chimney flue, close all the combustion air inlet to slow down the combustion as much as possible and wait for the range turn in off. Verify after wards the conditions of the chimney.



12.12 **GASKET REPLACEMENT**

In case of deterioration of fire door gaskets and oven door gaskets it is necessary to replace them by an authorized technician in order to guarantee the good running of the stove.

12.13 **HEART BREAK**

Probable cast iron or refractory heart break are due to an excessive overheating caused by too much fuel or by too much combustion air. Have the damaged elements immediately replaced in order to avoid feather damages to the stove.



Use exclusively original spare parts.











13 IN CASE OF ANOMALY










13.1 PROBLEM SOLVING



In case of doubts regarding the use of the stove, please contact ALWAYS the Authorized Technician on order to avoi irreparable damages!

PROBLEM	CAUSE	SOLUTION	INTERVENTION
Ignition difficulties	Too large wood	Use small and well dried wood logs during ignition, before bigger wood logs.	
	Too humid wood	Use well seasoned wood.	
	Lack of chimney draught	Open the registers completely. (If the problem persists, contact and expert stove repairer who will check the chimney flue efficiency).	
	Ambient without air recycling	Create immediately a ventilation grid.	
Creation of condensation	Large chimney flue section	Reduce the chimney flue section with thermal insulater pipes.	
	No insulated chimney flue	Cover the chimney flue with insluating material.	
	Too slow combustion	Open air registers in order to increase the fire and fume output temperature.	
Fume leakage from the heart	No insulated chimney flue	Cover the chimney flue with insulating material.	
	Adverse wheather conditions	No windproof chimney pot: have it replaced.	
	Too humid wood	Use well seasoned wood.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
The glass blackens excessively	Lack of chimney draught	Open the registers completely. (If the problem persists, contact and expert stove repairer who will check the chimney flue efficiency).	
	Too humid wood	Use well seasoned wood	
	Too slow combustion	Open air registers in order to increase the fire and fume output temperature.	
	Bad quality fuel	Use fuel described in FUEL page 12	
Cooker overheating	Too much wood in the heart (red coloured plate or oven over 300°C)	Close all registers and open the oven door in order to have a faster cooling.	
The water does not reach the required temperature	Bad quality fuel	Use well seasoned wood	
Humidity in the cinder box and/or under the range	These problems are caused by the formation of condensation	An inefficient use of the range or from too cold system water temperature.	

14 TECHNICAL DATAS



14.1 FEATURES

DESCRIPTION	DEMETRA 21,6 kW
WIDTH	900 mm
DEPTH	600 mm
HEIGHT	870 mm
WEIGHT	258 - 278 kg
NOMINAL THERMIC POWER (Max)	21,6 kW
EFICIENCY (Max)	70,7 %
FUME TEMPERATURE (Max)	228 °C
CO EMISSIONS (13% O ₂) (Max)	0,84 %
CHIMNEY DEPRESSION (Max)	16 Pa
FUME OUTLET DIAMETER	140 mm
DAMPER REQUIRED	NO
FUEL	WOOD
WOOD HUMIDITY	< 12%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Max)	518 m ³
BURNING POT VOLUME	46,5 dm ³
BURNING POT OPENING	4,8 dm ²
BURNING POT OPENING DIMENSIONS (LxH)	180 x 268 mm
OVEN DIMENSIONS (LxPxH)	350 x 400 x 315 mm
ASH TRAY CAPACITY	10,4 dm ³
BURNING POT GRID SHAKER	NO
ADJUSTABLE PRIMARY AIR	YES
ADJUSTABLE SECONDARY AIR	NO
FAN	NO
SUPPLY	230 V - 50 Hz
MINIMUM EXTERNAL AIR INLET (last effective area)	-

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