

I

ISTRUZIONI PER L'INSTALLAZIONE
E L'USO

GB

**INSTALLATION AND OPERATING
MANUAL**

D

INSTALLATIONS- UND
GEBRAUCHSANLEITUNG

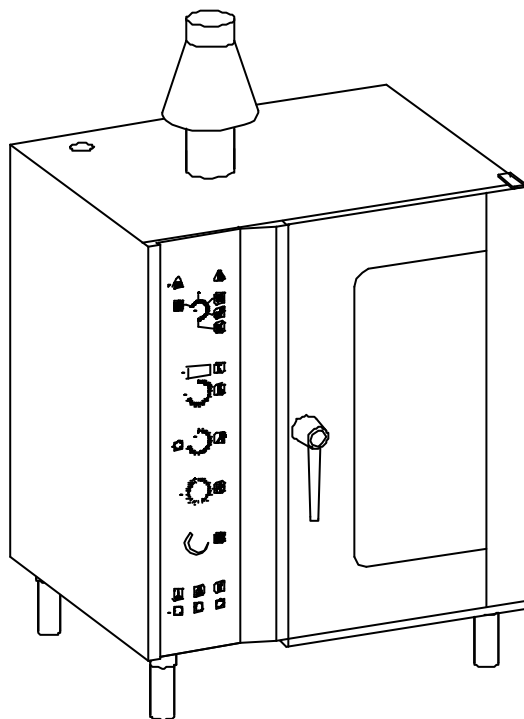
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NOTICE D'INSTALLATION, D'EMPLOI
ET D'ENTRETIEN

E

INSTRUCCIONES PARA LA INSTALACIÓN
Y EL USO

COMBI-COMBIMIX-COMBIPLUS CV/FC - CVM/FCM - CVP/FCV



FORNO TRIVALENTE
CONVECTION-STEAM OVEN
GERÄTE MIT HEISSLUFT- UND DAMPFBETRIEB
FOUR VAPEUR-AIR PULSE
HORNO CONVECCIÓN/VAPOR

Modello Model Modell Modèle Modelo	Dimensioni in mm.(LxLxA) Over-all Dimensions in mm.(LxWxH) Maße in mm.(LxTxH) Dimensions d'encombr. en mm.(LxLxH) Dimensiones en mm.(LxAxH)	N° griglie N° grills Grillrostanzahl N° grilles N° parrillas	Generazione vapore Steam generation Dampferzeugung Génération de vapeur Generación de vapor	Potenza nom. Rated output Nennleistung Débit nominal Potencia nom. kW
CV 6G/FC 6G	950 x 750 x 890	6	assente/absent/keinte/absente/ausente	12
CV 10G/FC 10G	950 x 750 x 1150	10	assente/absent/keinte/absente/ausente	20
CV 20G/FC 20G	1155 x 915 x 1150	20	assente/absent/keinte/absente/ausente	27
CV 21G/FC 21G	950x764x1970	20	assente/absent/keinte/absente/ausente	29.5
CVM 6G/FCM 6G	950 x 750 x 890	6	istantaneo/instantaneous/sofortig/ instantanée/instantánea	12
CVM 10G/FCM 10G	950 x 750 x 1150	10	istantaneo/instantaneous/sofortig/ instantanée/instantánea	20
CVM 20G/FCM 20G	1155 x 915 x 1150	20	istantaneo/instantaneous/sofortig/ instantanée/instantánea	27
CVM 21G/FCM 21G	950x764x1970	20	istantaneo/instantaneous/sofortig/ instantanée/instantánea	29.5
CVP 6G/FCV 6G	950 x 750 x 890	6	con boiler /with boiler/mit Boiler/avec chaudière con calentador	12
CVP 10G/FCV 10G	950 x 750 x 1150	10	con boiler /with boiler/mit Boiler/avec chaudière con calentador	20
CVP 20G/FCV 20G	1155 x 915 x 1150	20	con boiler /with boiler/mit Boiler/avec chaudière con calentador	27
CVP 21G/FCV 21G	950x764x1970	20	con boiler /with boiler/mit Boiler/avec chaudière/ con calentador	29.5

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6 GRIGLIE / 6GRILLS / 6 GRILLROSTE / 6 GRILLES / 6 PARRILLAS

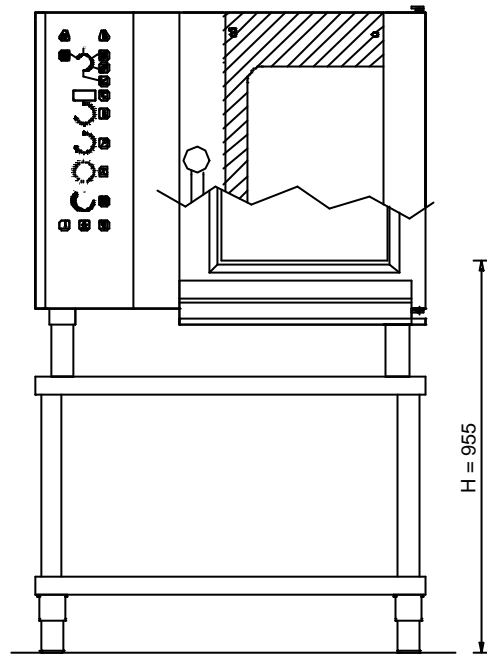
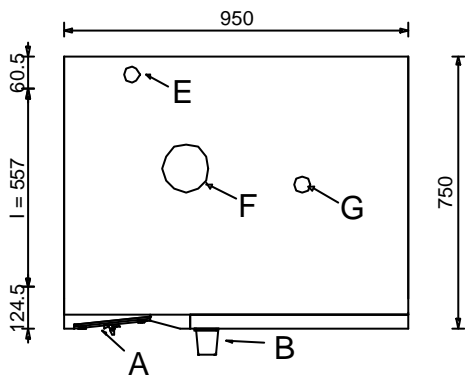
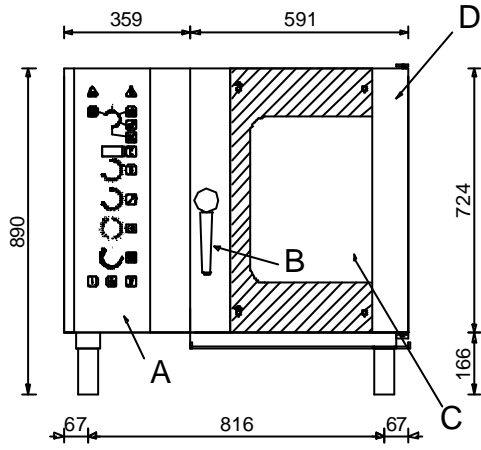
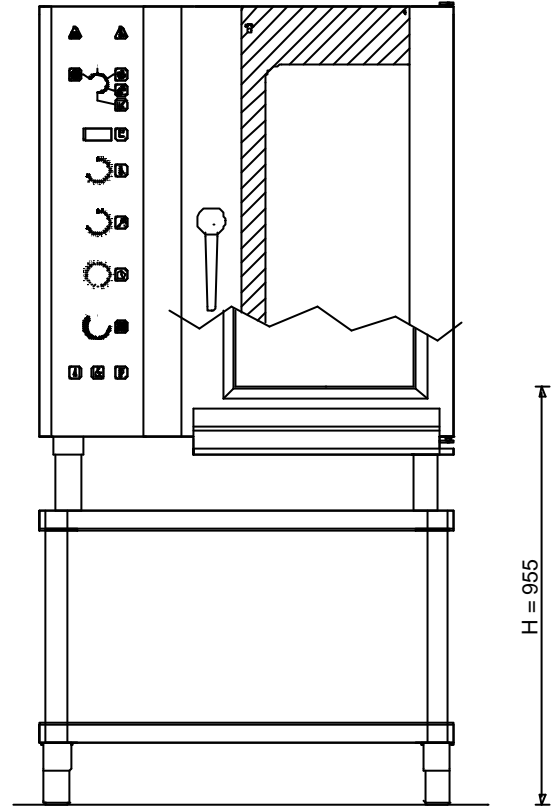
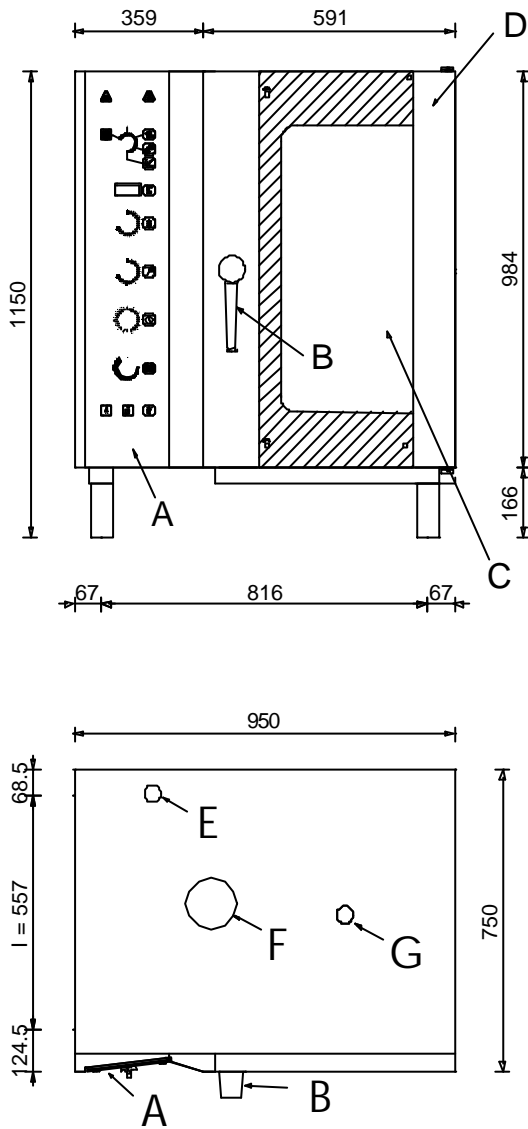


Figura 1	Figure 1	Abbildung 1	Figure 1	Figura 1
<p>A - Pannello comandi B - Maniglia porta C - Vetro porta D - Porta E - Sfiato fumane F - Scarico evacuazione fumi G - Sfiato camera H - Altezza della bocca di carico del forno da rispettare per l'utilizzo del carrello estrattore. I - Interasse piedini</p>	<p>A - Control panel B - Door handle C - Door glass D - Door E - Exhaust Flue F - Exhalations removal exhaust pipe G - Chamber breather H - Oven's loading bounded height mesured from the ground, to ensure the functionality of the trolley I - Legs/wheelbase</p>	<p>A - Schaltfeld B - Türgriff C - Türglasscheibe D - Tür E - Dampfauslass F - Auslass d. Herausförderung des Rauchs G - Kammerentlüfter H - Verbindliches Eingabenniveau des Garrums, vom Boden gemessen, um die Bbenutzung des Hordengestellwaghens zu gew ährleisten. I - Achsenabstand Fuesse</p>	<p>A - Panneau de contrôle B - Poignée de la porte C - Verre de la porte D - Porte E - Sortie vapeurs chambre F - Décharge pour l'évacuation des fumées G - Event de la chambre H - Hauteur de terre obligée de la bouche de chargement du four pour l'utilisation du chariot. I - Entre-axes pieds</p>	<p>A - Painel de comandos B - Puxador da porta C - Vidro da porta D - Porta E - Descarga para la vacuación de vapores F - Descarga para a evacuação de vapores G - Alívio da câmara H - distância para a boca de carga do forno que dem de ser respeitada para a utilização do carrinho extrator. I - Intereje pies.</p>

10 GRIGLIE / 10 GRILLES / 10 GRILLROSTE / 10 GRILLS / 10 PARRILLAS



<p>Figura 2</p> <p>A - Pannello comandi B - Maniglia porta C - Vetro porta D - Porta E - Sfiato fumane F - Scarico evacuazione fumi G - Sfiato camera H - Altezza della bocca di carico del forno da rispettare per l'utilizzo del carrello estrattore. I - Interasse piedini</p>	<p>Figure 2</p> <p>A - Control panel B - Door handle C - Door glass D - Door E - Exhaust Flue F - Exhalations removal exhaust pipe G - Chamber breather H - Oven's loading bounded height mesured from the ground, to ensure the functionality of the trolley I - Legs wheelbase</p>	<p>Abbildung 2</p> <p>A - Schaltfeld B - Türgriff C - Türglasscheibe D - Tür E - Dampfauslass F - Auslass d. Herausförderung des Rauchs G - Kammerentlüfter H - Verbindliches Eingabenniveau des Garrums, vom Boden gemessen, um die Bbenutzung des Hordengestellwaghens zu gew ährleisten. I - Achsenabstand Fuesse</p>	<p>Figure 2</p> <p>A - Panneau de contrôle B - Poignée de la porte C - Verre de la porte D - Porte E - Sortie vapeurs chambre F - Décharge pour l'évacuation des fumées G - Event de la chambre H - Hauteur de terre obligée de la bouche de chargement du four pour l'utilisation du chariot. I - Entre-axes pieds</p>	<p>Figura 2</p> <p>A - Painel de comandos B - Puxador da porta C - Vidro da porta D - Porta E - Descarga para la vacuación de vapores F - Descarga para a evacuação de vapores G - Alívio da câmara H - distância do chão da boca de carga do forno que dem de ser respeitada para a utilização do carrinho extrator. I - Intereje pies.</p>
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20 GRIGLIE/20 GRILLES / 20 GRILLROSTE/20 GRILLS / 20 PARRILLAS

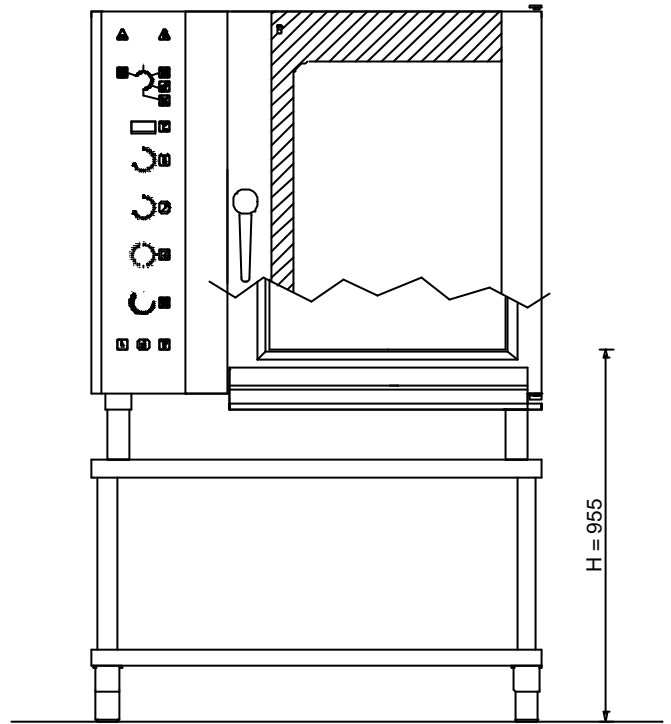
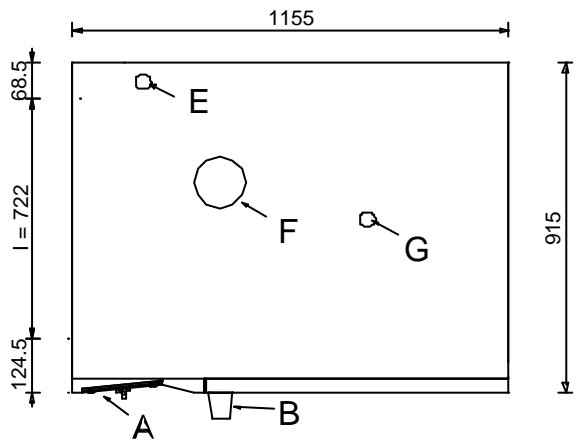
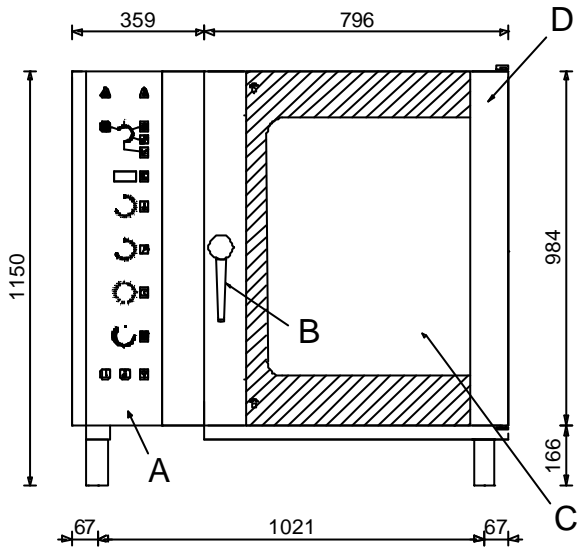


Figura 3	Figure 3	Abbildung 3	Figure 3	Figura 3
A - Pannello comandi	A - Control panel	A - Schaltfeld	A - Panneau de contrôle	A - Painel de comandos
B - Maniglia porta	B - Door handle	B - Türgriff	B - Poignée de la porte	B - Puxador da porta
C - Vetro porta	C - Door glass	C - Türglasscheibe	C - Verre de la porte	C - Vidro da porta
D - Porta	D - Door	D - Tür	D - Porte	D - Porta
E - Sfiato fumane	E - Exhaust Flue	E - Dampfauslass	E - Sortie vapeurs	E - Descarga para la
F - Scarico evacuazione fumi	F - Exhalations removal exhaust pipe	F - Auslass d. Herausförderung des Rauchs	F - Décharge pour l'évacuation des fumées	vacuación de vapores
G - Sfiato camera	G - Chamber breather	G - Kammerentlüfter	G - Event de la chambre	F - Descarga para a
H - Altezza della bocca di carico del forno da rispettare per l'utilizzo del carrello estrattore.	H - Oven's loading bounded height mesured from the ground, to ensure the functionality of the trolley	H - Verbindliches Eingabenniveau des Garrums, vom Boden gemessen, um die Bbenutzung des Hordengestellwaghens zu gew ährleisten.	H - Hauteur de terre obligée de la bouche de chargement du four pour l'utilisation du chariot.	evacuação de vapores
I - Intersasse piedini	I - Legs wheelbase	I - Achsenabstand Fuesse	I - Entre-axes pieds	G - Alívio da câmara
				H - distância do chão da boca de carga do forno que dem de ser respeitada para a utilização do carrinho extrator.
				I - Intereje pies.

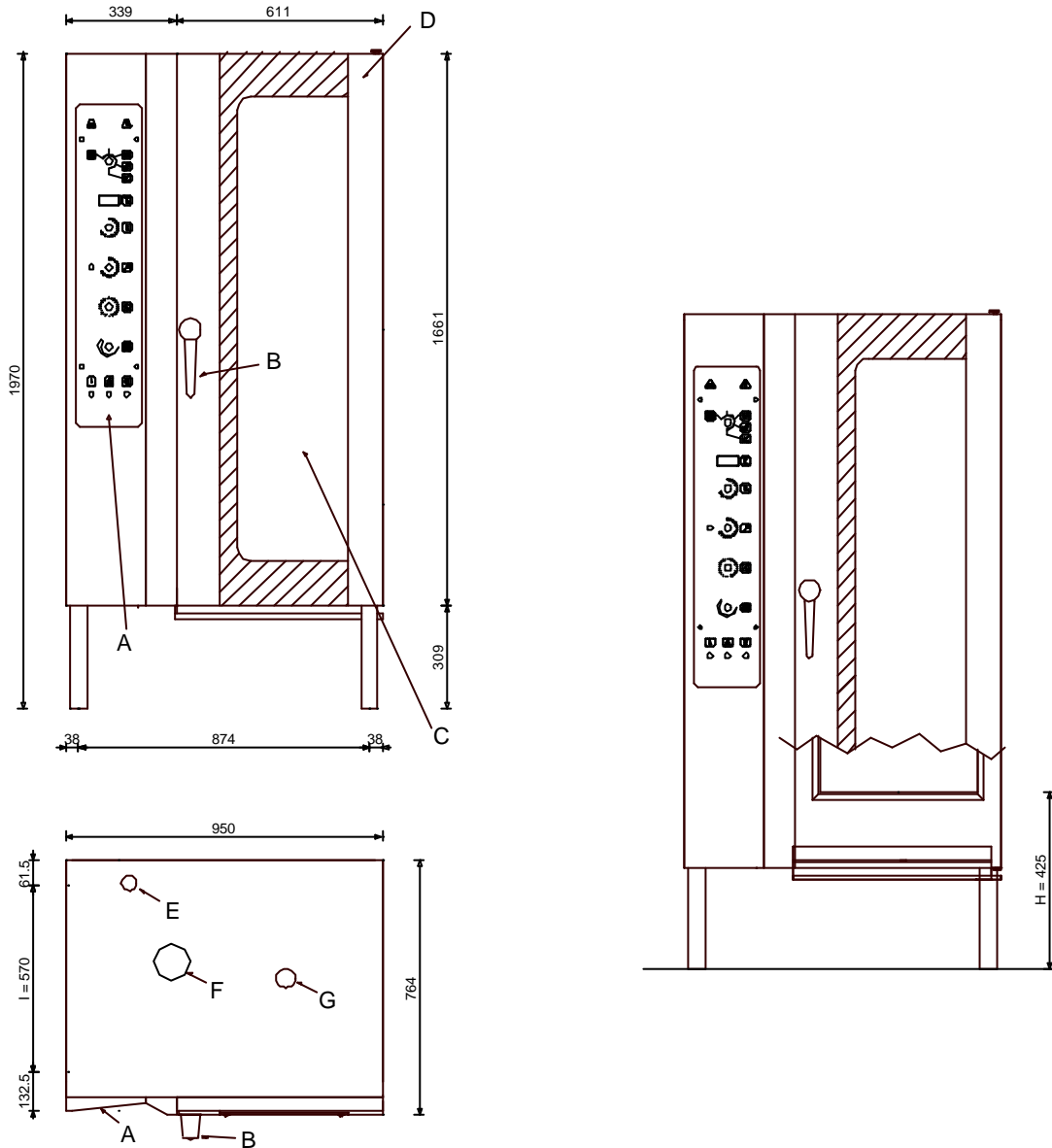


Figura 4	Figure 4	Abbildung 4	Figure 4	Figura 4
A - Pannello comandi	A - Control panel	A - Schaltfeld	A - Panneau de contrôle	A - Painel de comandos
B - Maniglia porta	B - Door handle	B - Türgriff	B - Poignée de la porte	B - Puxador da porta
C - Vetro porta	C - Door glass	C - Türglasscheibe	C - Verre de la porte	C - Vidro da porta
D - Porta	D - Door	D - Tür	D - Porte	D - Porta
E - Sfiato fumane	E - Exhaust Flue	E - Dampfauslass	E - Sortie vapeurs chambre	E - Descarga para la evacuación de vapores
F - Scarico evacuazione fumi	F - Exhalations removal exhaust pipe	F - Auslass d. Herausförderung des Rauchs	F - Décharge pour l'évacuation des fumées	F - Descarga para a evacuação de vapores
G - Sfiato camera	G - Chamber breather	G - Kammerentlüfter	G - Event de la chambre	G - Alívio da câmara
H - Altezza della bocca di carico del forno da rispettare per l'utilizzo del carrello estrattore.	H - Oven's loading bounded height mesured from the ground, to ensure the functionality of the trolley	H - Verbindliches Eingabenniveau des Garrums, vom Boden gemessen, um die Bbenutzung des Hordengestellwaghens zu gew ährleisten.	H - Hauteur de terre obligée de la bouche de chargement du four pour l'utilisation du chariot.	H - distância do chão da boca de carga do forno que dem de ser respeitada para a utilização do carrinho extrator.
I - Interasse piedini	I - Legs/wheelbase	I - Achsenabstand Fuesse	I - Entre-axes pieds	I - Intereije pies.



I

INSTRUCTIONS FOR THE QUALIFIED INSTALLER**1. FEATURES OF THE OVEN.**

These instructions are intended for our electrical steam/convection ovens

The rating plate, depending on the model, is placed as indicated in the following pages; it contains the following data:

Manufacturer:	
Model:	(refer to cover and table # 1)
Registration no.:	
Year of manufacture:	
Category:	II 2H3+
Heating power:	(see table 1)
Liquid gas consumption:	(see table 1)
Supply pressure:	
natural gases: G20	20 mbar
liquid gases (butane/propane): G30/G31	28/37 mbar
Gas inlet pipe size:	1/2" ISO R7
This unit is set to use:	natural or liquid gases See the label on the packaging and on the unit.

Tabella 1

Model	Potenza camera kW	Potenza del boiler kW	Potenza nominale totale kW	Sezione minima conduttori* (mm ²)	Pressione acqua bar	Diametro scarico fumi combustibili	Fabbisogno aria per la combustione m ³ /h	Tipo
CV6G/FC6G	12		0.550	1.5**	1.5 ÷ 5	110	24	A
CV10G/FC10G	20		0.550	1.5**	1.5 ÷ 5	110	40	B
CV20G/FC20G	27		0.550	1.5**	1.5 ÷ 5	150	54	B
CV21G/FC21G	29.5		1.100	1.5**	1.5 ÷ 5	150	59	B
CVM6G/FCM6G	12		0.550	1.5**	1.5 ÷ 5	110	24	A
CVM10G/FCM10G	20		0.550	1.5**	1.5 ÷ 5	110	40	B
CVM20G/FCM20G	27		0.550	1.5**	1.5 ÷ 5	150	54	B
CVM21G/FCM21G	29.5		1.100	1.5**	1.5 ÷ 5	150	59	B
CVP6G/FCV6G	12	7.5	8.050	2.5***	1.5 ÷ 5	110	24	A
CVP10G/FCV10G	20	15	15.550	4***	1.5 ÷ 5	110	40	B
CVP20G/FCV20G	27	15	15.550	4***	1.5 ÷ 5	150	54	B
CVP21G/FCV21G	29.5	15	16.100	4***	1.5 ÷ 5	150	59	B

Gas connection: 1/2" ISO R7.

Water connection: 3/4".

Exhaust pipe: Ø 50 mm

*supply wire type H07RN-F

**supply voltage: 230V 1-Ph

***supply voltage: 400V 3-Ph+N

TABLE 2

		Version 6	Version 10	Version 20	Version 21
Nominal output (kW)		12	20	27	29.5
Minimum output (kW)		9	15	21	22
Gas consumption					
- natural gas (m³/h) G20		1.27	2.11	2.85	3.12
- liquid gas (kg/h)		0.94	1.56	2.11	2.30
Natural gas	Nominal Press.(mbar)	20	20	20	20
	Reduced Press.(mbar)	10	10	10	10
Nozzles (1/100mm)	Max.	260	240x2	280x2	290x2
	Min.	/	/	/	/
Liquid gas	Nominal Press.(mbar)	28	28	28	28
	Reduced Press.(mbar)	16	16	16	16
Nozzles (1/100mm)	Max.	175	160x2	190x2	195x2
	Min.	/	/	/	/
Primary air distance H mm	Natural gas	3	9	9	19
	Liquid gas	10	12	19	34

E = adjustable

TABLE 3			
GAS	PRESSURE mbar		
	Rated	Minimum	Maximum
G20	20	17	25
G30	28	25	35
G31	37	25	45

1.1. Ovens manufacture and features

1.1.1. Features

Load bearing structure made of stainless steel standing on 4 stainless steel adjustable feet. Exterior covering wholly made of stainless steel (AISI 304).

1.1.2. Convection/steam oven

- Heating is effected by steel burners, resistant to mechanical and thermal stress, with autostabilized flame.
- The burners have fixed injectors.
- The lighting and operation of burners is managed by a ionization control acting on a solenoid valve.
- Burners work at a reduced power when temperature gets close to the pre-set value.
- Tube nest heat exchanger, wrapping up the fan (fans).

- Steam operation:

steam is generated by an electrical boiler in "COMBIPLUS" models, and by water injection in the chamber, atomised on the resistances nest in "COMBIMIX" models. Maximum working temperature is 100°C.

- Combined operation:

steam/convection mixed operation, reducing water inlet. Maximum working temperature is 270°C.

The total nominal output is always corresponding to data on tab. 1.

2. INSTALLATION

2.1. Installation, servicing, connection to the electrical supply and starting must all be done by a qualified installer who shall observe the safety standards in force in the place where the oven is installed. For information purposes only, we remind you that all appliances installed in buildings open to the public should conform to the following:

REGULATION INSTALLING REQUIREMENTS

Installation and servicing of this appliance must be carried out by an installer authorised in compliance with the rules and regulations below.

- Fire safety regulations and anti-panic regulations in public places.
- General rules for all appliances:
- Heating, ventilation, cooling, air conditioning, steam and hot water production for sanitary use.
- Installation of cooking appliances for the catering trade.
- Special regulations applying to each type of public building (hospitals, shops, etc.).

2.2. Exhalations removal

The appliances must be installed in a well-ventilated room (if possible under an extraction hood) in compliance with installation rules and regulations in force.

Our ovens are defined of the **type** indicated on table 1. The ovens are supplied with a vent stack with draft switch for 10-20 grills models. The stack has to be inserted as schematically shown in figure 2b.

2.3.1. (versions 6-10-20) Level the oven controlling that the grill-holder trolley is horizontal - by using the adjustable feet: this is essential for a homogeneous cooking.

2.3.2. (version 21) Level the unit by using the adjustable feet (fig. 2a, item B) and making sure that the rack-holding trolley is perfectly horizontal. Such operation is essential to ensure even cooking.

To carry out such adjustment, loosen the adjustable feet fixing screws (fig 2a item D). Now you can move the unit's feet and access the adjusting screw (fig. 2a item C) to screw it or unscrew it as required.

After finishing the adjustment, tighten the adjusting screw lock nut and the fixing screws.

Figure 2a

- A - Non-adjustable foot
- B - Adjustable foot
- C - Adjusting screw
- D - Fixing screws

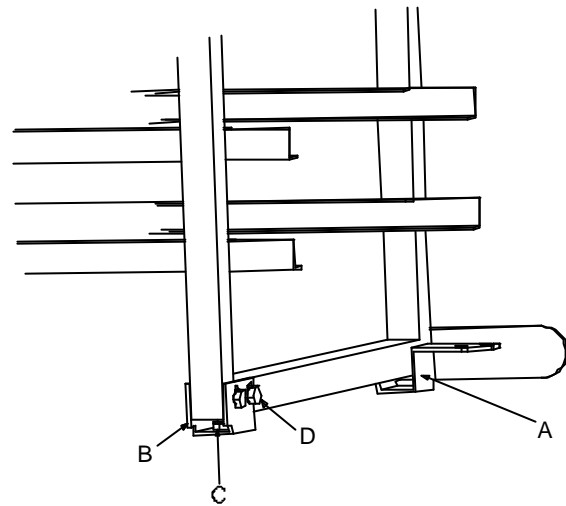


Figure 2a

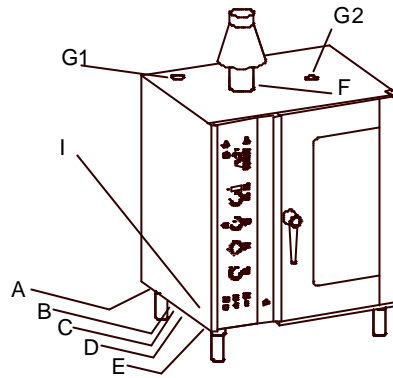
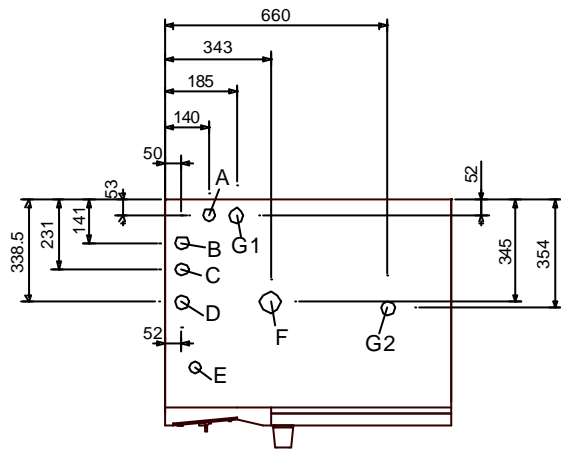
2.4. Before setting the oven at work, remove the plastic protective film from the panels being careful that no traces of glue remain on the steel surface; if necessary remove the glue using petrol or solvents.

2.5. The oven should not be installed on flammable surfaces: if walls or floors are flammable, cover them adequately. As far as accessibility and air circulation are concerned, leave at least 50 cm. (20 inches) of space between the left side and the wall, and at least 10 cm. (4 inches) between the back side and the wall, and between the right side and the wall.

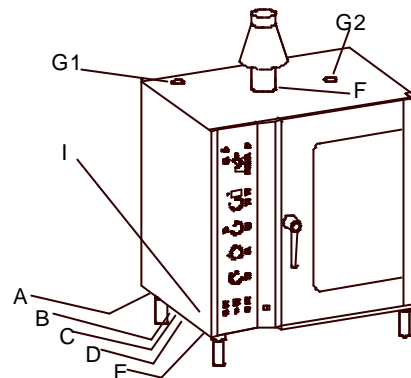
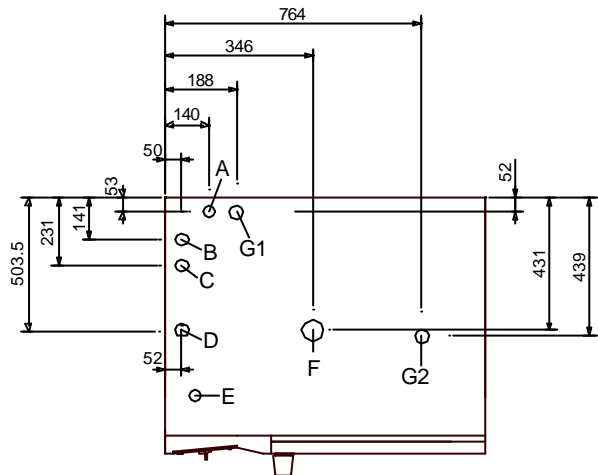
2.6. Gas connection

2.6.1. The gas supply connection must be done with rigid or flexible metallic material, with pipes having a proportional section (table 1). When joining pipe fittings, do not use tow or Teflon, since their residuals could get to the solenoid valve and endanger its operation. Install a cut-off cock on the gas supply pipe of the oven, which will have to be closed whenever the oven is not working. Operating pressures can be found on the rating plate and are indicated in Table 2.

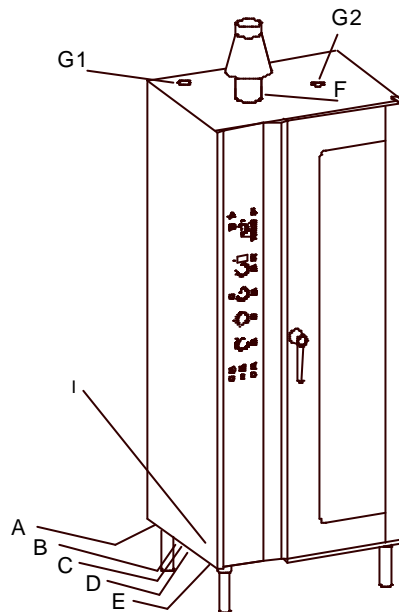
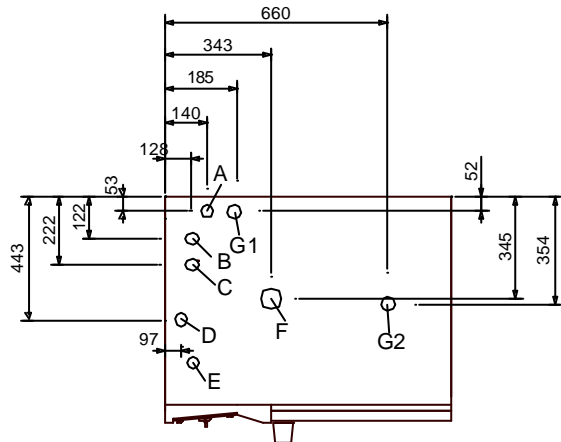
2.6.2. Once the gas connection has been completed, it is necessary to check for leaks in the joints and pipe fittings. To do this, use soapy water or a specific leak-finder product (spray).



6 / 10 GRILLS



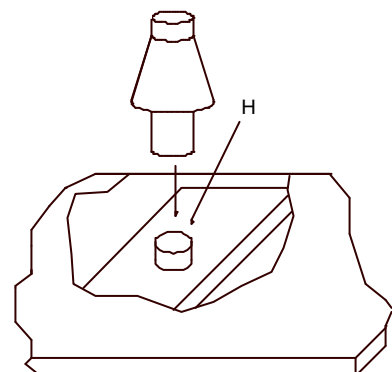
20 GRILLS



20 GRILLS

Figure 2b

- A - Chamber exhaust pipe
- B - Normal water inlet (except for COMBI models)
- C - Decalcified water inlet.
- D - Gas supply inlet
- E - Power supply inlet
- F - Exhalations removal exhaust pipe
- G1, G2 - Vapors breather, chamber breather
- H - Stack vent insertion
- I - Rating Plate



2.7. Electrical connection

Note: Connecting a Y-type power cord.

The power cord can only be fitted or replaced by the manufacturer, by the manufacturer's after-sales service or by a technician having similar qualifications (the unit can be supplied with power cord or without it).

WARNING: this unit can only operate provided it has been properly earthed.

2.7.1. These ovens are designed for a fixed connection.

Before connecting the oven to the supply mains, the following must be checked: the voltage of the power mains must have the values indicated on the rating plate.

The earth system must be efficient.

The supply wire must be made of rubber, and its quality must be at least equal to that of H07RN-F-type wires. Leads must have a square measure suitable for the maximum load to be supported (see specifications - tab. 1).

Besides, when installing the oven, an efficient omnipolar cut-off device must be installed before the oven, with at least a 3-mm (0.125 in) opening. In order to do this, automatic magnetothermal switches can be used.

The omnipolar switch must be close to the oven and it must be very easy to reach.

The installation of an integrated magnetothermal switch with fuses protection is suggested.

The supply wire must not be exposed to direct heat sources.

2.7.2. Unipotential terminal.

The oven must be connected to a unipotential system. In order to do this, on the lower left side of the oven, close to the inlets, there is a connecting terminal marked with the "equipotential" writing (fig. 2c).

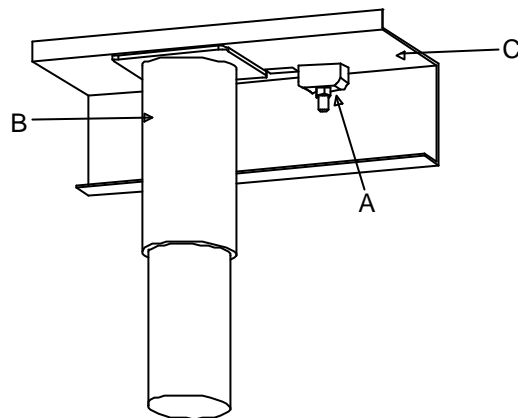


Figure 2c

- A – Equipotential terminal
- B – Front left hand leg
- C – Socket

2.7.3.1. Connecting the supply wire to the terminal block of the oven (versions 6-10-20).

To reach the supply terminal block, unscrew the two "M" screws on the right-hand side of the control panel (fig. 2d), translate the panel for about 3 cm (1.2 inches) and then swing it as indicated in the figure.

The terminal block and the wire-presser can be directly reached.

The supply wire must be blocked with the wire-presser assembled on the oven, so as to avoid the risk of rips.

The earth wire must have such a length as to suffer any mechanical stress after the live leads.

The sequence of the connection of the electrical phases has no influence on the direction of the engine rotation as this one is provided with an automatic reversing system of rotation.

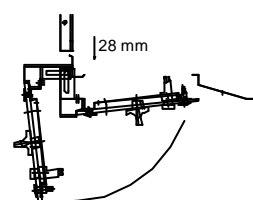
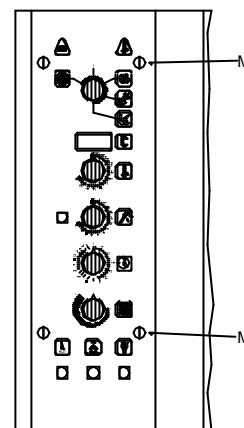


Figure 2d

M - control panel opening screws

2.7.3.2. Connecting the supply wire to the terminal block of the oven (versions 21).

To access the power supply terminal box, unscrew the four "A" screws (fig 2e item 1), pull the panel (fig. 2e item 2) towards yourself and turn it forward (fig. 2e item 3). Unscrew the seven "B" screws securing the cover; the terminal block is located in position "C" (fig. 2e item. 4).

The terminal block and the wire-presser can be directly reached.

The supply wire must be blocked with the wire-presser assembled on the oven, so as to avoid the risk of rips.

The sequence of the connection of the electrical phases has no influence on the direction of the engine rotation as this one is provided with an automatic reversing system of rotation.

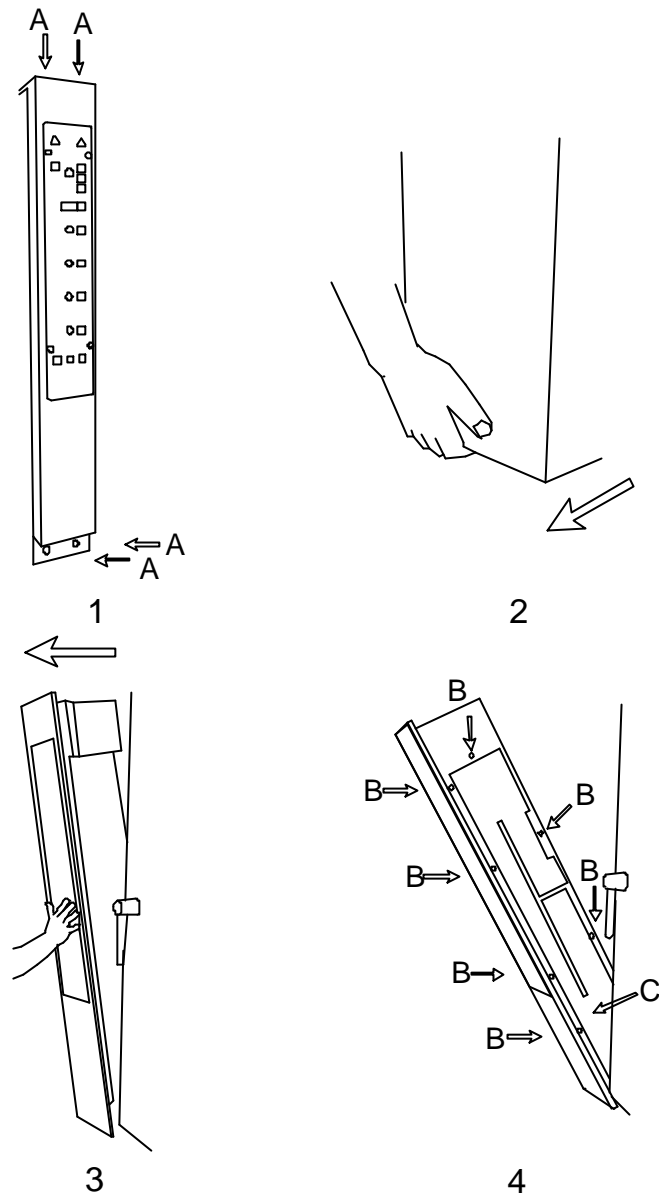


figure 2e

control panel opening

The earth wire must have such a length as to suffer any mechanical stress after the live leads.

ATTENTION: IF THE CONNECTIONS OF THE PHASE WIRE AND OF THE NEUTRAL WIRE ARE INVERTED, THE ELECTRONIC CONTROL OF THE LIGHTING WILL NOT WORK.

2.8. Water connection

2.8.1. A cut off cock must be installed on the supply pipe to the oven. The positions of the two water inlets (for normal and for decalcified water) and of the exhaust pipe are illustrated in figure 2b. For the type of connection, see the specifications, tab. 1. We recommend applying a filter on the inlets.

2.8.2. For the condensing function, the oven must be fed with cold water, having a pressure ranging from 1.5 bar to 5 bar. In order to avoid waste of water, we advise you not to exceed 2 bar.

Should a value higher than 5 bar be measured, install before the oven a pressure reducing valve. Should a value lower than 1.5 bar be found, use, in case of need, a pump to increase pressure.

2.8.3. The steamer needs to work with softened water, having a supply pressure as indicated above, with a maximum hardness degree of 7°F and pH = 7.

On the COMBIMIX ovens without boiler, a built-in pressure regulator is installed. It automatically regulates the nozzle output pressure at the level fixed by the manufacturer (1bar). Such pressure can be read on the manometer "C" (fig. 2f) and, if necessary, adjusted to the said value by means of the regulating screw "B".

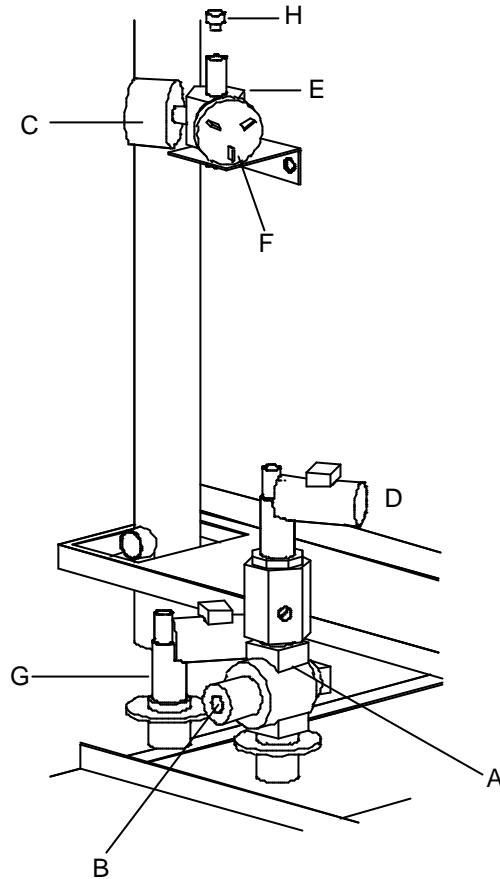


Figure 2f

- A** - Water pressure regulator
- B** - Regulating screw
- C** - Manometer
- D** - Steam solenoid valve
- E** - Nozzle and manostat holder
- F** - Manostat
- G** - Condensation solenoid valve
- H** - Nozzle

2.7.4. Exhaust pipe

The connection to the exhaust pipe (Ø=50 mm /about 2 inches) must be done with a heat-resistant (80°C - 177°F) rubber pipe as shown in fig. 2g, by using a funnel-shaped element "A". No direct contact with the pipe coming off the oven is allowed, in accordance with sanitary regulations in force.

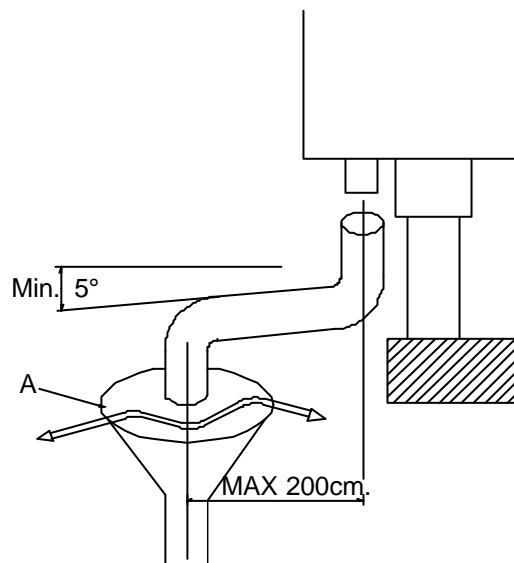


Figure 2g

- A** - funnel-shaped piping

3. CHECKING THE OPERATION AND STARTING

3.1. Preliminary Check

Check if the oven is adjusted for the family of gas rating supplied on place where used. Should the available gas not be the same, it will be necessary to adjust the oven for the new type of gas (par. 4).

3.2. Operation with rated output

The oven is set at work at it's nominal output, with the suitable injectors (see table 2).

Supply pressure must be within the range specified in Table 3 in this chapter (par. 3.4).

3.3. Checking supply pressure

Gas supply pressure can be measured with a liquid gauge (for example a U-shaped gauge, with minimum subdivision of 0.1 bar).

All operations described under this paragraph are to be carried out with the burners at work.

On the valve there are two pressure inlets shown in figure 3a: input pressure "E" inlet and output pressure "A" inlet.

- Checking input pressure:

connect the gauge pipe end to the "E" inlet. If the measured pressure is within the values shown in table 3, the oven can be started. Otherwise, contact the Gas Company.

- Checking output pressure:

the oven is pre-set by the manufacturer. However, to check output pressure do the following (fig. 3a) after at least 30" from the lighting of the burners: connect the gauge to the "A" intake:

for liquid or natural gas operation, take off the "C" cap and check that the pressure regulator "D" is not working (it must be completely screwed down, until it stops). Otherwise, screw it with a 10-mm spanner, by turning it clockwise. At this point, maximum output pressure has been adjusted, and it will be slightly higher than the input one. Minimum pressure must absolutely be regulated right after regulating the maximum one just described: de-energise the "B" connector while the oven is working, and check that the gauge indicates the reduced pressure shown in table 2. To adjust it, turn the "F" screw, clockwise to increase pressure, and counterclockwise to reduce it, keeping the "D" screw fixed with the special spanner.

Now calibration has been completed. Replace the connector, keeping the gauge connected, and make the oven work for about 1', and then disconnect the connector again to check that the pressure value hasn't moved away from the value shown in table 2. If necessary, calibrate again.

Replace the "C" cap, disconnect the gauge pipe from the gas intake and plug it with the screw again.

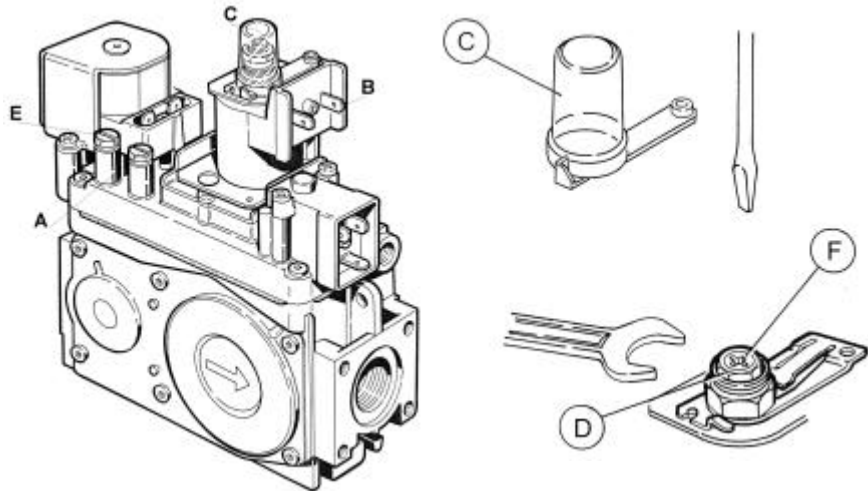


Figure 3a

- A - Output pressure intake
- B - Connector
- C - Cap
- D,F - Pressure adjustment screws
- E - Input pressure intake

Town gas:

if the oven works with town gas, in order to check input pressure you must perform exactly the same operations as above (natural or liquid gas), whereas to check output pressure, follow these instructions:

with the burners working at maximum power, unscrew the "D" screw until you obtain the pressure value indicated in table 2.

Then disconnect the "B" connector, and adjust the reduced pressure (tab. 2) .

Screw and seal all screws again. Carry out checking as described above.

3.4. Primary air control

Primary air is correctly adjusted when all flames are stable, i.e., the flame does not detach when burners are cold, and there is no backfire (fire at the nozzle) when burners are hot. Besides, lighting must be regular, both at maximum and at minimum power.

The distance to adjust the primary air of the burners is shown in table 2. See chapter 5 on how to access to it. Unscrew both "D" screws shown in figure 3b and adjust the width of the fissure "H".

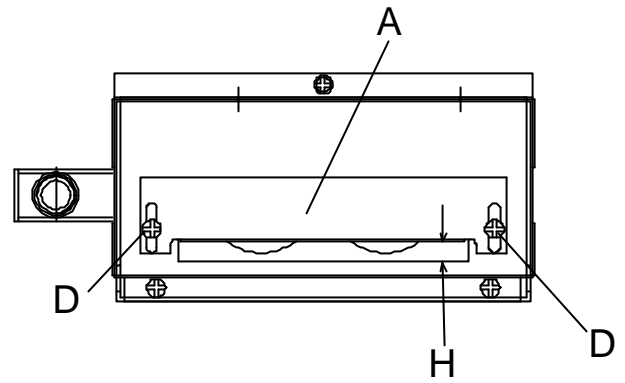


Figure 3b

Figure 3b

A - Adjustment plate

D - Screws fixing the primary air adjustment plate

H - Primary air distance

TABLE 2

		Version 6	Version 10	Version 20	Version 21
Nominal output (kW)		12	20	27	29.5
Minimum output (kW)		9	15	21	22
Gas consumption					
- natural gas (m ³ /h) G20		1.27	2.11	2.85	3.12
- liquid gas (kg/h)		0.94	1.56	2.11	2.30
Natural gas	Nominal Press.(mbar)	20	20	20	20
	Reduced Press.(mbar)	10	10	10	10
Nozzles (1/100mm)	Max.	260	240x2	280x2	290x2
	Min.	/	/	/	/
Liquid gas	Nominal Press.(mbar)	28	28	28	28
	Reduced Press.(mbar)	16	16	16	16
Nozzles (1/100mm)	Max.	175	160x2	190x2	195x2
	Min.	/	/	/	/
Primary air distance H mm	Natural gas	3	9	9	19
	Liquid gas	10	12	19	34

E = adjustable

TABLE 3			
GAS	PRESSURE mbar		
	Rated	Minimum	Maximum
G20	20	17	25
G30	28	25	35
G31	37	25	45

4. ADJUSTMENT FOR OPERATION WITH DIFFERENT TYPES OF GAS

To do this, for example, to change from natural gas to liquid gas, you must change the injectors of the main burners. With regard to this, see the specifications.

All the injectors necessary for such adjustment are supplied together with the oven in a small bag.

The injectors of the main burners are marked in hundredths of mm.

4.1. Changing the nozzle of the burners

(fig. 4a)

To change the nozzle (item A fig. 4a), follow the instructions in chapter 5 on how to access, remove the primary air adjustment plate by taking off the three fixing screws (item G fig. 4a). Replace the injectors with those suitable for the type of gas used (table 2), which are supplied as spare parts in a separate bag.

After each replacement, primary air should be adjusted (see table 2).

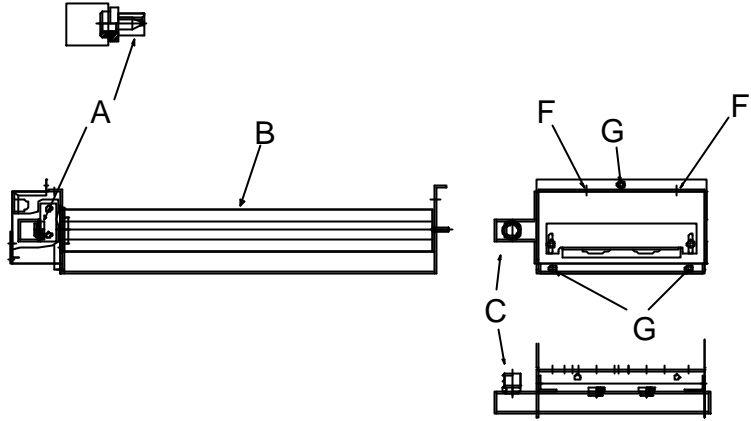


Figure 4a

A - Nozzle

B - Burner

C - Distribution ramp

G - Fixing screws

F - Position of screws fixing the burner

Figure 4a

4.5. Checking the operation

- Start the oven following the instructions (chapter 7).
- Check that there are no leaks. In particular, check the mechanical seal of the nozzle on the manifold.
- Check the stability of the flames throughout the adjustment range, going from maximum to minimum.
- Check the ignition process along the main burner and control that the flames are regular.

4.6. Minimum adjustment

Gas supply pressure can be measured with a liquid gauge (for example a U-shaped gauge, with minimum subdivision of 0.1 bar).

All operations described under this paragraph are to be carried out with the burners at work.

On the valve there are two pressure inlets shown in figure 4b: input pressure "E" inlet and output pressure "A" inlet.

• Checking input pressure:

connect the gauge pipe end to the inlet (item E fig. 4b). If the measured pressure is within the values shown in table 3, the oven can be started. Otherwise, contact the Gas Company.

• Checking output pressure:

the oven is pre-set by the manufacturer. However, to check output pressure do the following (fig. 8) after at least 30" from the lighting of the burners: connect the gauge to the intake (item A fig. 4b):

for liquid or natural gas operation, take off the cap (item C fig. 4b) and check that the pressure regulator (item D fig. 4b) is not working (it must be completely screwed down, until it stops). Otherwise, screw it with a 10-mm spanner, by turning it clockwise.

At this point, maximum output pressure has been adjusted, and it will be slightly higher than the input one. Minimum pressure must absolutely be regulated right after regulating the maximum one just described: de-energise the connector (item B fig. 4b). while the oven is working, and check that the gauge indicates the reduced pressure shown in table 2. To adjust it, turn the screw (item F fig. 4b)., clockwise to increase pressure, and counterclockwise to reduce it, keeping the screw (item D fig. 4b). fixed with the special spanner.

Now calibration has been completed. Replace the connector, keeping the gauge connected, and make the oven work for about 1', and then disconnect the connector again to check that the pressure value hasn't moved away from the value shown in table 2. If necessary, calibrate again.

Replace the cap (item C fig. 4b), disconnect the gauge pipe from the gas intake and plug it with the screw again.

TABLE 2

		Version 6	Version 10	Version 20	Version 21
Nominal output (kW)		12	20	27	29.5
Minimum output (kW)		9	15	21	22
Gas consumption					
- natural gas (m ³ /h) G20		1.27	2.11	2.85	3.12
- liquid gas (kg/h)		0.94	1.56	2.11	2.30
Natural gas	Nominal Press.(mbar)	20	20	20	20
	Reduced Press.(mbar)	10	10	10	10
Nozzles (1/100mm)	Max.	260	240x2	280x2	290x2
	Min.	/	/	/	/
Liquid gas	Nominal Press.(mbar)	28	28	28	28
	Reduced Press.(mbar)	16	16	16	16
Nozzles (1/100mm)	Max.	175	160x2	190x2	195x2
	Min.	/	/	/	/
Primary air distance H mm	Natural gas	3	9	9	19
	Liquid gas	10	12	19	34

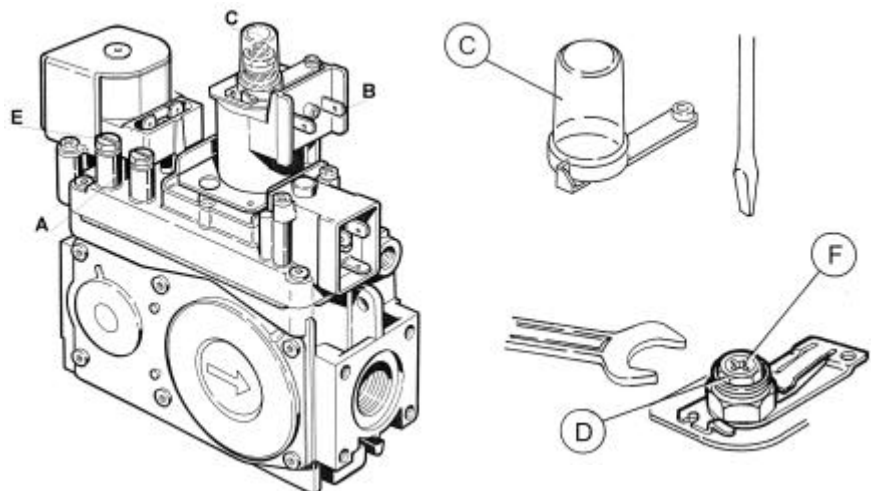
E = adjustable

TABLE 3

GAS	PRESSURE mbar		
	Rated	Minimum	Maximum
G20	20	17	25
G30	28	25	35
G31	37	25	45

Figure 4b

- A - Output pressure intake
- B - Connector
- C - Cap
- D,F –Pressure adjustment screws
- E - Input pressure intake



5. ACCESSIBILITY AND DISASSEMBLY OF THE PARTS - RESETTINGS

(for qualified installers only)

Before carrying out any repair or service work on the appliance, it is necessary to disconnect the power and to close the water supply cocks installed on the feeding circuits of the oven.

5.1.1. Door glass (versions 6-10-20)

- Should it become necessary to replace the **internal** glass of the door, remove it and place it on a completely horizontal surface. Remove any remainders of glass and take away any big pieces of silicone. Spread a product (see accessories) to dissolve the silicone and remove it completely from the metal parts. Clean the metal support where the edge of the glass plate will be fit with a special size (see accessories). Spread on the perimeter an even string of silicone, and put it in place -observing the adhesive indication on the glass- centring it perfectly in the area of the door where it will be housed. Spread the silicone uniformly, take away any excess and add it in those points between the door and the glass where it may lack.

Leave the door in a horizontal position for at least 72 hours before reassembling it on the oven and applying the external glass.

- Should it become necessary to replace the **external** glass of the door, be careful when reassembling the 2 components making up the rotation pivot of the glass plate: put some glue (silicone type) between the metal plate and the glass, so as to obtain a better stability.

5.1.2. Door glass (versions 21)

- Should it become necessary to replace the **inner** door glass (checkable), follow the directions below:

Loosen the upper hinge (item B fig. 5a); unhook the three glass-securing blocks found on the opposite side (item D fig. 5a), and then extract the pivots (item C fig. 5a) from their seats in the hinges. Now you can replace the old glass with a new spare glass which is supplied complete with pivots.

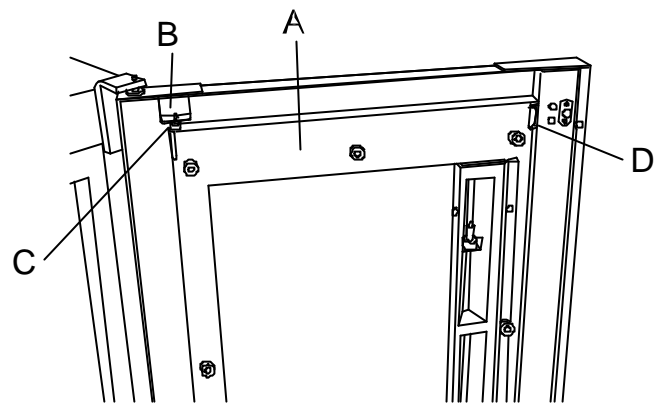


Figure 5a

- A - Glass
- B - Upper hinge
- C - Upper pivot
- D - glass-securing block

- Should it become necessary to replace the **outer** door glass, unscrew the four screws (item A fig. 5b), remove the Seger ring from its seat and take the screws away from the holes in the glass. Now, you can replace it. To secure the spare door glass you should reverse the above procedure, i.e.: introduce the screws in the appropriate holes (making sure that the gaskets (item B fig. 5b) are in place), apply the Seger rings (item C fig. 5b) and lastly secure the glass to the door.

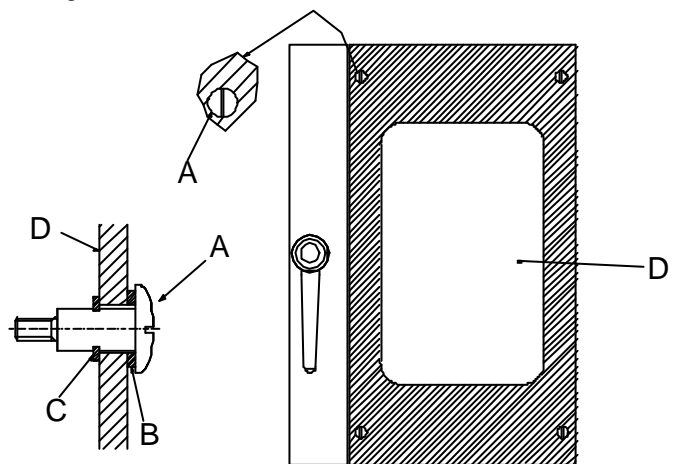


Figure 5b

- A - Screw
- B - Gasket
- C - Seger Ring
- D - Glass

5.2. Door gasket

- The gasket is fixed to the front part of the oven with an inserting support. To remove it, lift its edges and extract it. It can be replaced with a simple mechanical pressure, fixing the external part of the perimeter first, and then the internal one.

5.3.1. Lamp and chamber lights (versions 6-10-20)

- Open the glass by unscrewing the two screws (item A fig. 5c) on the handle side with the "open" writing on them and rotate the plate. Remove the three visible screws on the support (closing side) and extract the lamp holder parabolic support. The lamps can now be reached. Considering that they are halogen lamps, they must be replaced very carefully, following the instructions given by the lamp manufacturer. Both when opening the door and when assembling the lamps, be particularly careful so as to avoid traction or squeezing stress on the power supply wires of the lamps.

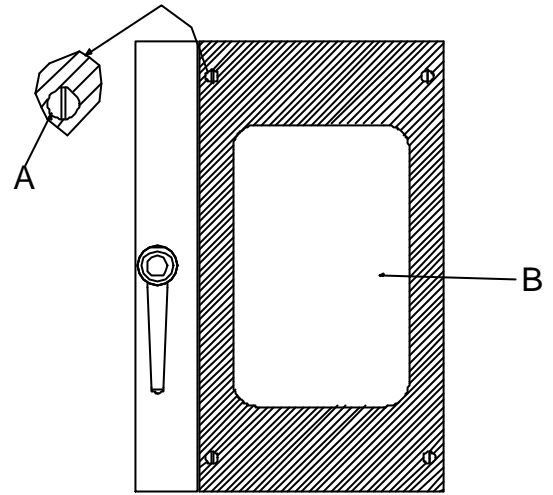


Figure 5c

- A - Screw
- B - Glass

5.3.2. Oven interior lamp and lighting (versions 21)

- Open the inner glass by unhooking the two blocks (fig. 5d item D) located on the handle side, and pivot it.

The oven interior lighting lamps are protected by a glass that must be removed in order to access them. Loosen the screws (fig. 5d item C, only partially shown in the figure) located on the standard (closing side) that secure the protection and extract the glass. Now you can have direct access to the lamps. Being halogen lamps, they should be replaced very carefully and strictly abiding by the directions given by the lamp manufacturer.

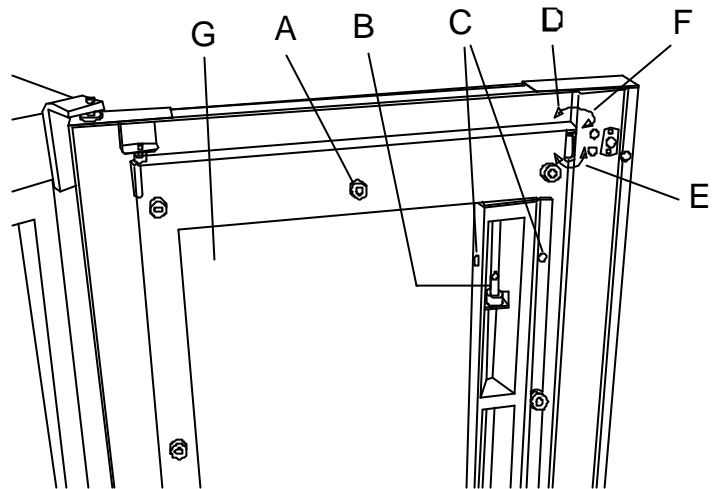


Figure 5d

- A - Glass spacer
- B - Halogen lamps
- C - Lamp protection glass fixing screws
- D - Glass locking block
- E - Unhooking
- F - Glass pivoting
- G - Glass

5.4. Door switch

- The magnet is housed in the lower left side of the door. To access to the working part of the door switch, unscrew the plate placed on the lower part of the front panel of the oven, near the door (fig. 5e) and the door switch can be unthreaded together with its support.

To disconnect the electrical connections, it is necessary to open the control panel (see fig.5h for versions 6-10-20 and 4n for version 21).

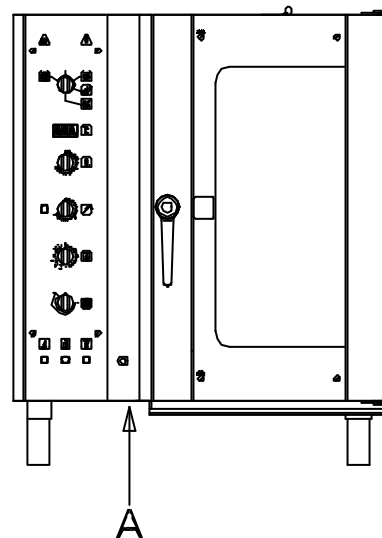


Figure 5e

- A - Point of access to the door switch

5.5.1. Fan (versioni 6-10-20)

- From inside the oven chamber, remove the screws fixing the left panel (fig. 5f item A). The fan is fixed to the driving shaft with two screws with different thread. The internal one (smaller head) has a right thread, whereas the other one (bigger head) has a left thread. To disassemble the fan, remove first the screw with a smaller head and then the one with a bigger head. The fan can be extracted with a special extractor (see accessories). To replace it, perform the same operations in the inverse order, and tighten the screws firmly.

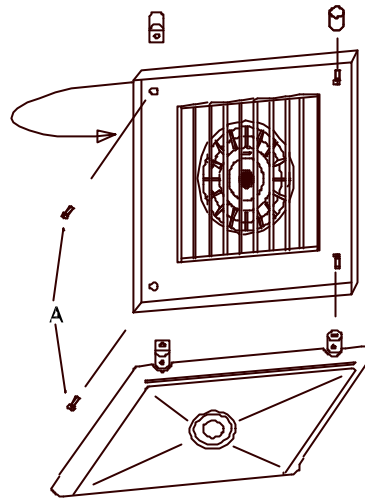


Figure 5f

A - Fan cover panel fixing screws

5.5.2. Fan (version 21)

- From the oven interior, turn 90° the two "A" screws by using a screwdriver. You should press the screw while turning it so that the fixing pin goes from the "CLOSED" (fig. 5g item C) to the "OPEN" (fig. 5g item D) position. Now you can pivot the fan cover panel.

The fan is fixed to the driving shaft with two screws with different thread. The internal one (smaller head) has a right thread, whereas the other one (bigger head) has a left thread. To disassemble the fan, remove first the screw with a smaller head and then the one with a bigger head. The fan can be extracted with a special extractor (see accessories). To replace it, perform the same operations in the inverse order, and tighten the screws firmly.

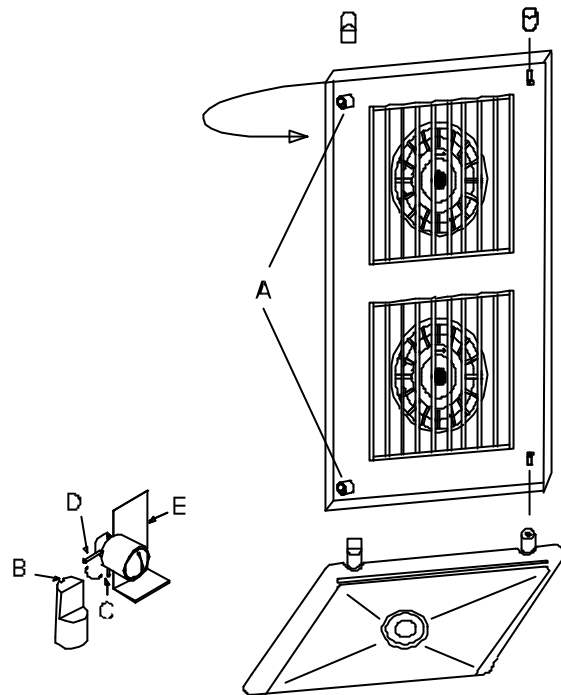


Figure 5g

A - Fan cover panel fixing screws

B - Fixing block

C - Screw pin in "CLOSED" position

D - Screw pin in "OPEN" position

E - Fan cover panel

5.6. Contactors, relays, fuses, chamber light timer, chamber light power supply transformer, safety thermostat, exhalations reduction thermostat, engine rotation inverter, gas solenoid valve, flame control card, engine capacitor, engine capacitor, line terminal block, chamber temperature control probe.

- For versions 6-10-20 : Open the control panel (fig. 4m). All the listed components are fixed with meter screws or DIN bars. Once you have found the faulty part, remove it from its support, disconnect its power supply and replace it, being careful to meticulously respect the electrical connections.

- For version 21: open the control panel by unscrewing the "A" screws (fig. 4n) and remove the cover by unscrewing the "B" screws (fig. 4n).). All the listed components are fixed with meter screws or DIN bars. Once you have found the faulty part, remove it from its support, disconnect its power supply and replace it, being careful to meticulously respect the electrical connections.

Concerning the gas solenoid valve, follow the instructions below:

disconnect its power supply, disconnect the outlet pipe (fixed with an ogive) and disconnect the solenoid valve from the block by reaching the 4 fixing screws from the lower part of the oven, through the special "B" holes placed on the crosspiece of the frame under the solenoid valve (fig. 5i). After replacing the components, you must always check that there are no leaks, using soapy water or a special leak finder spray.

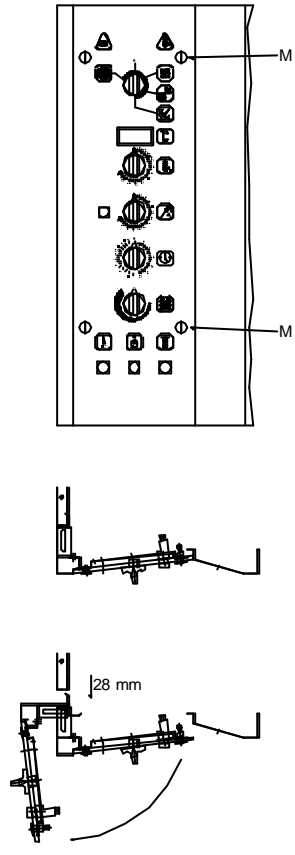


Figure 5h

M - control panel opening screws

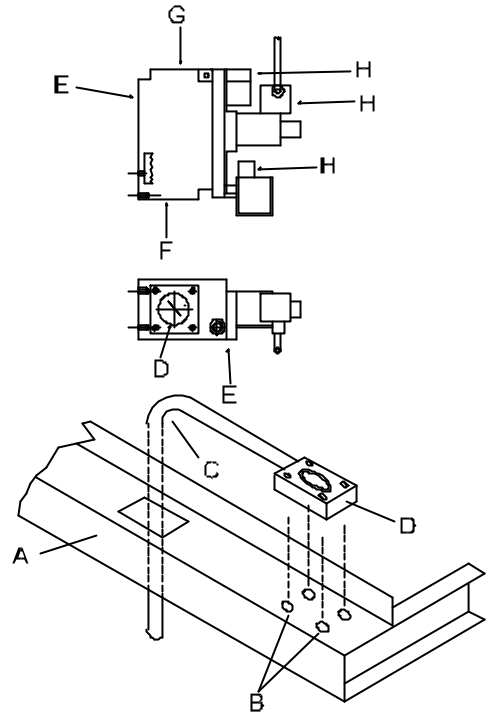


Figure 5i

- A** - Frame
- B** - Frame holes
- C** - Gas ramp
- D** - Block
- E** - Solenoid valve
- F** - Gas inlet
- G** - Gas outlet
- H** - Electrical connections

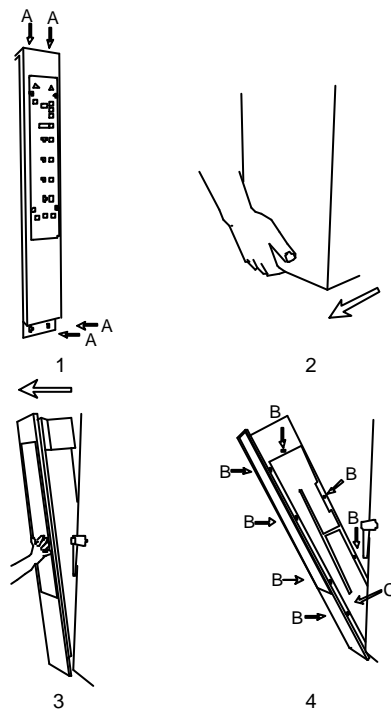


Figure 5l

control panel opening

5.7. Electronic card, potentiometers, pilot lamps, control push-buttons

- Open the control panel(see fig. 5h for versions 6-10-20 and fig. 5l for version 21).
- For version 21: open the control panel by unscrewing the "A" screws (fig. 5l) and remove the cover by unscrewing the "B" screws (fig. 5l). After replacing the necessary components, reassemble them very carefully.

5.7.1. Push-buttons and lamps: remove the push-buttons from their support by unloosening the screws. Remove the lamps by taking off the inserting tongues. The push-buttons are made up of three elements: one push-button unit, visible on the control panel (outer side), a support, and an extractable base working as a switch when the push-button unit is pressed. The latter is the most subject to wear-out of all the components. The extractable base can be removed by setting free with a tool the inserting tongue located in the central rear part of the support. Extract it by making it slide on its guides.

If you also need to replace the push-button itself or its support, unloose the 2 screws located on the support and unhook the 2 springs, thus separating both components and extracting them, one from the front panel side, the other one from the opposite side.

5.7.2. Electronic card:

remove it from its support by unscrewing the corresponding screws.

5.7.3. Potentiometers:

detach the knob and remove the screws fixing the support plate. Open the tightening metal ring, extract the potentiometer and disconnect it from the electronic card. Any replacement of a potentiometer makes a new calibration necessary (§ 5.11 e 5.11.1).

5.8.1. Selector switch, timer 120', humidifier (versions 6-10-20)

Remove all knobs from the control panel. After opening it, reaching from the inner side, disconnect all the bases of the switches. Open the 2 springs behind the "M" screws in fig. 5m and unloose the "L" screws from the front side of the control panel. Now the glass can be separated from the support of the components, thus allowing you to reach the above mentioned components. When assembling the support again be careful to centre well the pivots of the knobs in the holes of the glass plate.

We recommend you to perform a new calibration (§ 5.11 and 5.11.1).

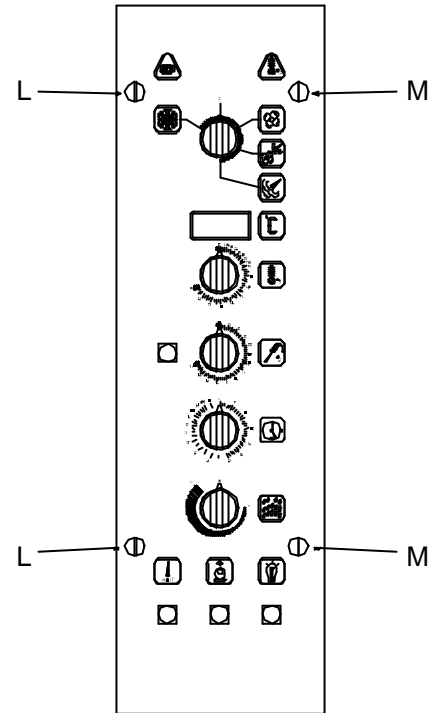


Figura 5m

Control panel

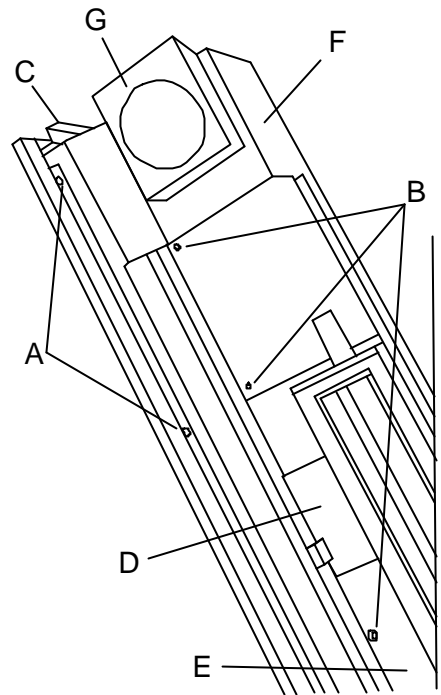


Figure 5n

- A,B - Instrument board fixing screws
- C - Instrument board
- D - Electronic card
- E - Component holding plate
- F - Cover

5.8.2. Selector switch, timer 120', humidifier (version 21)

Remove all knobs from the control panel. After opening it (fig. 5n), reaching from the inner side, disconnect all the bases of the switches.

To be able to replace the above mentioned components, the steel instrument board (fig 5n item C) has to be detached from the aluminised plate cover (fig. 5n item F).

The instrument board is fixed to the control panel cover by 2 series of screws (only partially shown in fig. 4i) that have to be removed removed (fig. 5n items A and B; such screws can be accessed after removing the cover, as shown in fig. 5l). After replacing the necessary components, reassemble them very carefully.

The pins of the components should be perfectly aligned with the corresponding holes in the glass. If required, a further adjustment is possible --the screws that secure the component holding plate can be used to adjust its position (fig 5n item E) conveniently.

5.9. Engine of the chamber fan, components of the cooling fan, water solenoid valve, pressure switch, water pressure regulator, pressure indicator gauge, nozzles to reduce vapours, water supply pipes.

Unloosen the lower and upper screws on the left side of the oven, and extract the side. The above mentioned components can now be reached..

In versions "21", the removal of the side panel can be made easier by opening the control panel (fig. 5l) first and The cooling fan is in position G fig. 5n.

5.9.1. Fan engine - disassembling:

Open the door of the oven and remove the screws fixing the panel on the fan side. Rotate it. Unloosen the screws fixing the fan to the drive shaft (§5.5.1 e 5.5.2). Unhook the fan with the special extractor (see accessories) and extract it. Then disconnect the electricity from the engine and unloosen the 4 screws fixing the engine body to the structure of the chamber.

If you replace the engine, replace also the grommet: remove, using an 8 mm spanner, the "B" flange where the grommet is housed -located inside the chamber- shown in fig. 5o, removing the 3 "C" screws forming a star. Replace the grommet housed inside the flange. Do not put the "B" flange back in its position before mounting the engine again.

5.9.2. Motore ventilatore - montaggio.

Fix the engine with the 4 supporting screws, being careful that the drive shaft doesn't cause an excessive friction on the walls of the hole of the flange. Friction can be reduced if necessary by centring the flange on the drive shaft so that the shaft itself can freely rotate. This operation has to be done from inside the chamber, unloosening the "D" screw (fig. 5o) and carrying out the regulation, with the help of the grommet which centres the support.

Screw uniformly the 3 "C" screws and, lastly, the "D" screw.

After finishing the above described operations, replace the fan (§5.5.1 e 5.5.2).

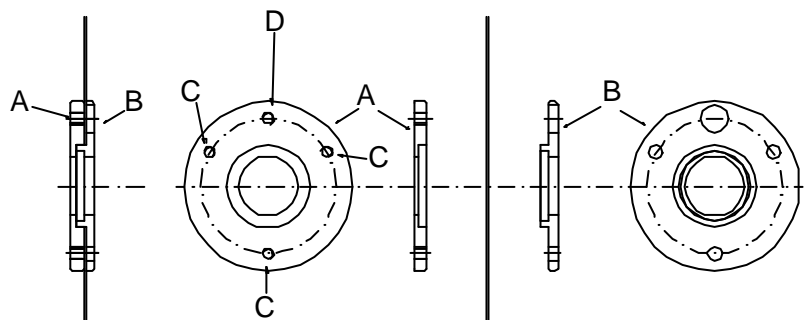


Figure 5o
Bride

5.10. Main burner, nozzles, ignition and flame control electrodes.

5.10.1. Nozzles: the adjustment plate of the primary air, and therefore also the nozzle, can be directly reached from the lower part of the oven, left-hand side.

5.10.2. Burner and electrodes: they can be reached in the same way as the nozzles. To disassemble the burners set, remove the primary air adjustment plate, loosen the gas pipe from the manifold and unloosen the 2 screws in "F" position (fig. 5p). Drag the burner for about 5 mm (0.19 in) towards the operator. Then it can be moved downwards and extracted from the rear pivots.

At this point, the burners or the spark plugs can be replaced, if necessary. When replacing them, do the same operations but in the inverse order. Respect the distance between electrodes and burner shown in figure 5p. Then check for leaks between the ramps and the manifold. Lastly, adjust the primary air.

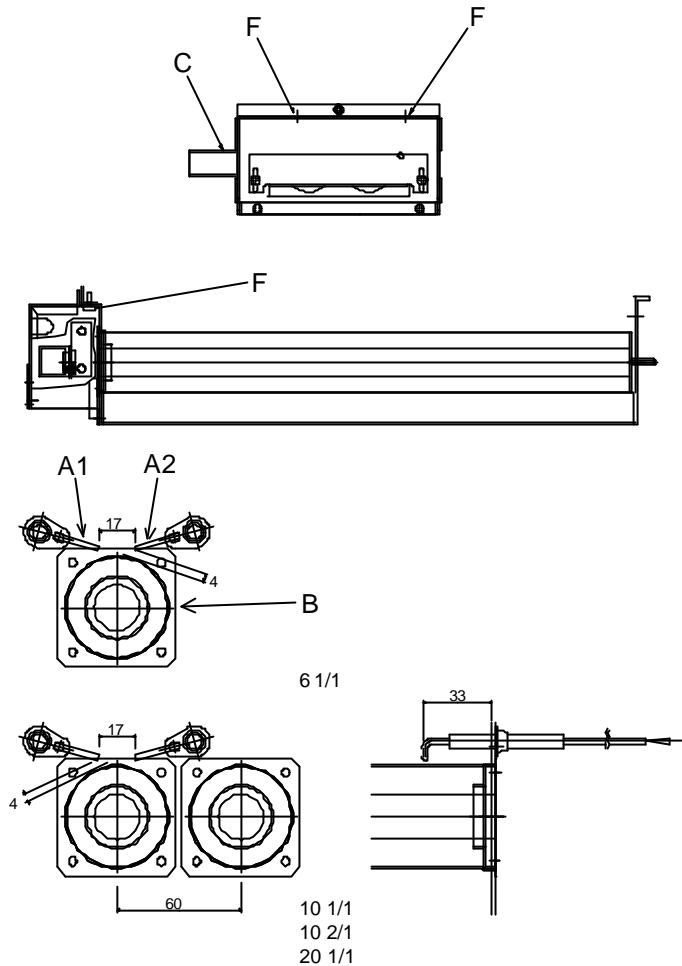


Figure 5p

- A1 - Ignition electrode
- A2 - Control electrode
- B - Burner
- C - Distribution ramp
- F - Position of the screws fixing the burner

5.11. Calibrations

WARNING! Before doing calibration, check the following points.

1) In order for the electronic card to work, jumper PRG should always be jumping the centre pin and the left pin (see fig. 5r, item D).

2) Versions without core temperature probe: the butterfly connector should always be properly inserted in position J3 (see fig. 5r, item A).

Versions with core temperature probe: the butterfly connector should always be properly inserted in position J3 (see fig. 5r, item C).

3) During calibration, J1 and J2 must never be jumped at the same time because this would cause the card to go to "calibration" mode and any further action would cause it to reset --all operating parameters are erased and the card becomes useless to the user. Should the card go to "calibration mode" and the writing C1 be displayed, stop and do the following:

cut out power supply immediately and remove the connector from jumper J1 (do not press the "start ore probe" (start core temperature probe) button or jump terminals 20 and 21 until you have removed the jumper from J1).

4) The card calibration procedure can only start within 3" after it has been energised. Calibration cannot start after 3" have elapsed. When such time limit has expired, de-energise the card, power it again and (in versions without core temperature probe only) short terminals 20 and 21 on the left side of the card until the writing "P1" appears on the display. In versions with core temperature probe, press the "set core probe" (set core temperature probe) ("F" fig. 5t) button and the "P1" writing will appear automatically.

5.11.1. Calibration of the main electronic card

a) Locate on the electronic card the "J2" jumper shown in fig. 5r.

b) Turn the function selector knob B», fig. 5t) to the "convection" position.

c) Put the connector shown in fig. 5r on the J2 jumper. The connector can be found on one of the pins.

- d) In the models without core probe, short-circuit the terminals 20 and 21 on the left-hand side of the card, until "P1" appears on the display. In the models with core probe, press the "set core probe" push-button («F», fig. 5t), and the "P1" writing will appear automatically.
- e) Turn the "set camera" knob («D», fig. 5t) to **65°C** as accurately as possible. In the models with core probe, turn the "set core probe" » («E», fig. 5t) knob to **35°C**.
- f) Repeat point d) above, and "P2" will appear on the display.
- g) Set the following temperatures: "set chamber" knob («D», fig. 5t) to **110°C** and "set core probe" knob («E», fig.5t) to **50°C**.
- h) Repeat point d) above, and "P3" will appear on the display.
- i) Set the following temperatures: "set chamber" knob to **240°C** and "set core probe" knob to **80°C**.
- l) Repeat point d) above, and "P4" will appear on the display.
- m) Set the following temperatures: "set chamber" knob to **270°C** and "set core probe" knob to **100°C**.

n) Repeat for the last time the procedure described under point d), and the display will show the maximum temperature available on the "set chamber" scale, i.e. **270°C**.

o) The accuracy of the calibration for the "set chamber" scale can be checked by turning the knob and putting its pointer on the temperatures that you wish to check. The temperature set by the pointer and the one shown by the display, both have to correspond.

In the core probe models, the same operation can be carried out with the "set core probe" knob, after extracting the connector from the "J2" position and putting it in the "J1" (fig. 5r) position.

If calibration is accurately performed, you should get -when checking- a maximum difference of **1°C** in the "set core probe" scale, **2°C** in the **65°C - 110°C** range and **5°C** in the **110°C - 270°C** range of the "set chamber" scale.

p) After finishing these operations, extract the connector, and insert it on one of the pins, as you found it at the beginning(fig. 5r pos.C). The electronic card automatically returns to its thermostatic function, and the display shows the actual temperature inside the chamber.

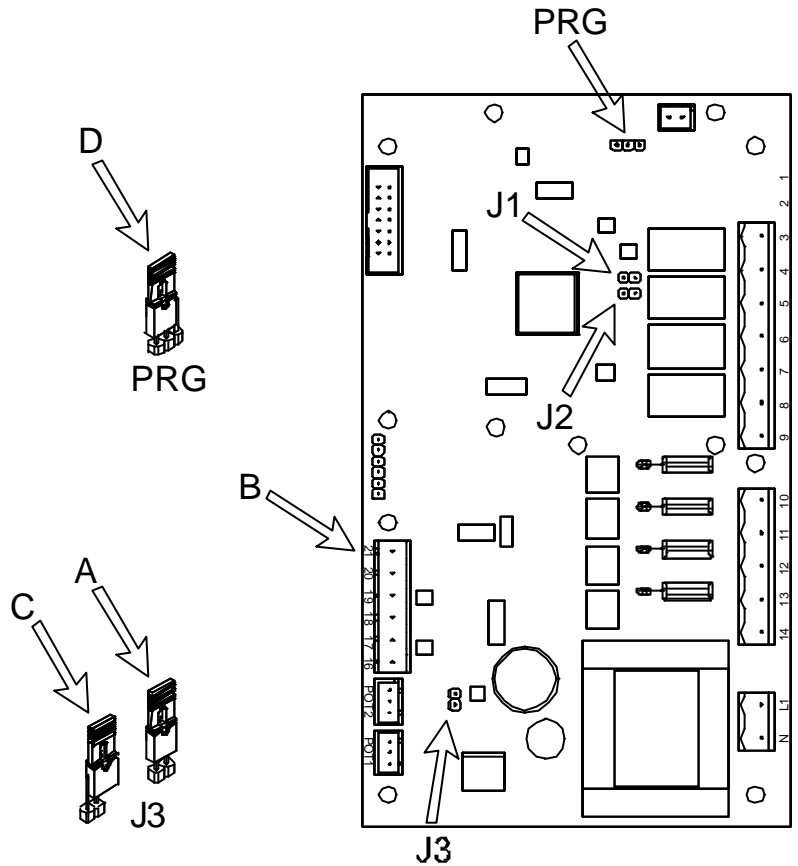


Figure 5r

B - terminals 20 – 21
J1, J2, J3, PRG - Jumper J1, J2, J3, PRG

5.11.2. Calibration of the steam generator card.

The steam generator card can manage 2 different rinsing periods among other functions. The rinse standard period duration takes 90 seconds. During this time water has collected from the pipe which the generator is connected to and injected into the boiler to remove the limestone just accumulated as more as possible. If on special request the rinse period has to be reduced this can be shorted up to 30 seconds realising on the electronic card (Figure 5s) the position of the jumper nr. 4.

If placed as per pos. A, duration will be 30 seconds, 90 seconds if B.

The setup can be changed according to the requirements by a qualified engineer.

The calibration has no influence on the other parameters managed by the electronic card.

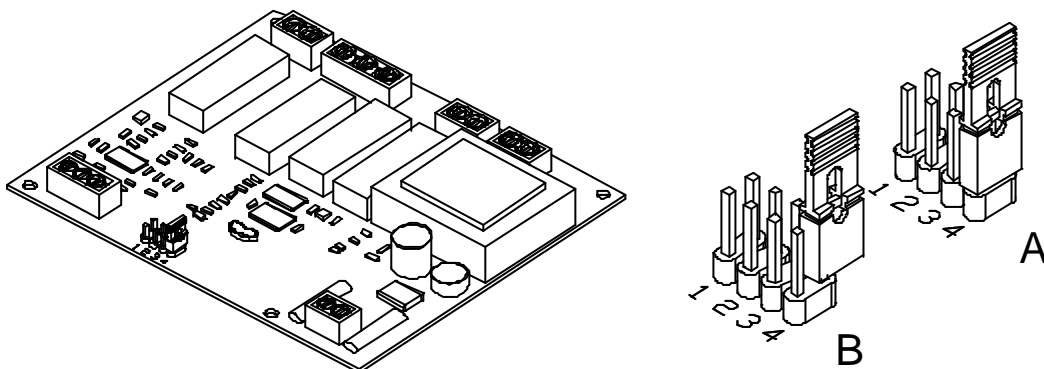


Figure 5s

5.12 Resettings

5.12.1. Safety thermostat resetting.

The safety thermostat acts in case of excess temperature, which can be caused by:

- breakdown of the electric circuit (relays controlling the operation of resistances)
- the oven has been stored at low temperatures. In this case, once the oven is placed in a warmer place and after resetting it, it will work regularly.

In all above cases, to reset the oven you must open the control panel and reach the thermostat, situated on the right-hand side. You must strongly press the red push-button placed on the thermostat itself. When you reset the oven, the excess temperature pilot lamp ("L" - fig. 5t) goes off.

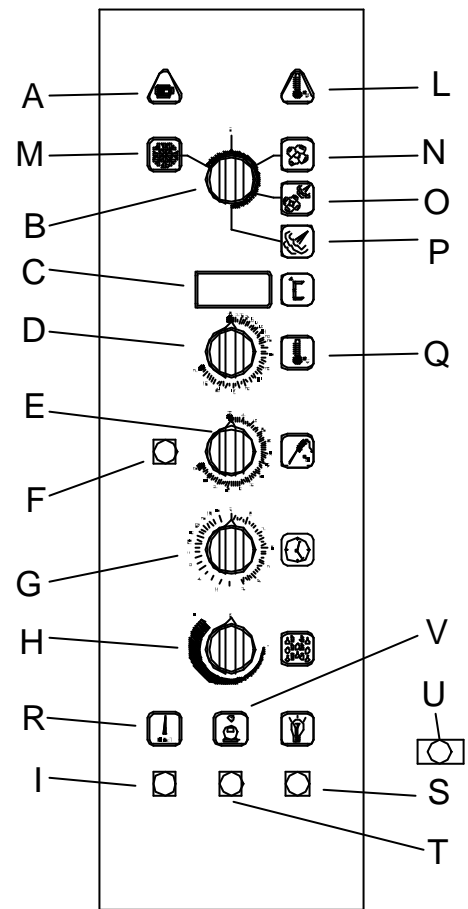
The safety thermostat can also operate due to a breakdown of the thermostat itself (for ex. of the capillary or of the bulb). In that case, the component must be replaced.

5.12.2. Fuse replacement

- Open the control panel (see fig. 5h for versions 6-10-20 and fig. 5l for version 21), now you can see the fuses that are in the upper left side of the control panel, then find the broken fuse and replace it with another fuse having the same electrical properties. Find out the reason by checking all the components whose failure could have caused the fuse to burn. To do so, use the wiring diagram.

Figure 5t

- A** - Engine overheating pilot lamp
- B** - Cooking mode selector knob
- C** - Temperature display
- D** - Chamber temperature selector knob
- E** - Core temperature selector knob
- F** - Push-button to switch on the Core Probe
- G** - Timer knob 120'/∞
- H** - Humidifier knob
- I** - (Gas models only) Burner reset push-button
- L** - Chamber overheating pilot lamp
- M** - Cooking chamber cooling position
- N** - Convection position
- O** - Combined Convection-Steam position
- P** - Steam position
- Q** - Heating on pilot lamp
- R** - Burners warning light (for gas equipment only)
- S** - Chamber lights switch
- T** - Push-button to reduce fan rotation speed and power
- U** - Core probe connector
- V** - Reduced speed working light



6. WHAT TO DO IF...

(For qualified technicians only)

6.1. The blinking "H2O" writing appears on the display.

Possible reasons:

- 1) insufficient pressure: in this case, contact the water company and, if necessary, install a device to increase water pressure. Meanwhile, the oven can only work in convection mode.
- 2) breakdown of the water regulation valve.
- 3) breakdown of a solenoid valve
- 4) water circuit clogged at the filters on the feeding line or at the solenoid valve intake.

6.1.1. (COMBIMIX models only)

In steam or combined mode, there is no steam production inside the chamber.

Possible causes:

- 1) the "H" injector on the pressure switch-gauge support (fig. 6a) is clogged. Extract the rubber hose from the support. Remove the injector using a 10-mm spanner. Clean it.
- 2) (In combined mode only) Condensation thermostat default. Check that the condensation thermostat works properly. If the condensation solenoid valve ("G", fig. 6a) remains on when the oven is cold, it means that the thermostat is not working.

6.1.2 (COMBIPLUS models only)

Apart from the causes listed under § 6.1, the anti-overflowing function might have operated. This means that water didn't reach its maximum level in the boiler within 180 seconds. Possible causes:

- 1) broken down fill-up solenoid valve;
- 2) level control out of order (electrodes don't have enough sensitivity);
- 3) hydraulic circuit clogged at the filters placed upstream the solenoid valve unit, or at its intake.
- 4) water leak in the pipe going from the fill-up and rinse solenoid valve to the boiler, or leak in the boiler itself; boiler emptying solenoid valve open (at least partially).

6.1.3 (COMBIPLUS models only)

While working in steam mode, steam doesn't form inside the chamber, and no alarm messages are displayed.

Possible causes:

- 1) there are too many scales inside the boiler, and especially on the water level control electrodes. Therefore, the oven works without any water and the safety thermostat operates.
 - 2) level control is out of order;
- In order to find out immediately whether the breakdown has to do with cause n° 1, reset the safety thermostat and check if the electrodes placed on the upper part of the boiler are working properly, by de-energising them (you just have to unplug the wires connecting them to the water level control). If the boiler starts filling up immediately, it means that the electrodes have too many scales, due to insufficient cleaning.

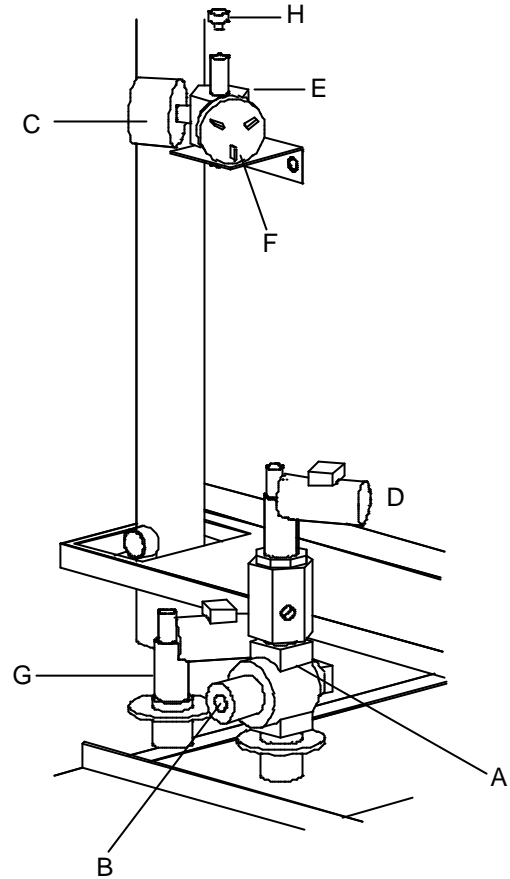
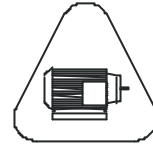


Figure 6a

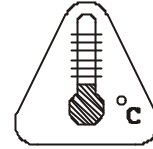
- A - Water pressure regulator
- B - Regulating screw
- C - Manometer
- D - Steam solenoid valve
- E - Nozzle and manostat holder
- F - Manostat
- G - Condensation solenoid valve
- H - Nozzle

6.2. The "A" pilot lamp goes on - fig. 5c (ENGINE).



Possible reasons:

- 1) Breakdown of the electric installation (lack of one phase).
- 2) Breakdown of the relay controlled by the thermal protector of the engine (see wire diagram at the end of the booklet).
- 3) Breakdown of the engine (faulty rotation due to wear-out of the mechanical components).



6.3. The "L" pilot lamp goes on - fig. 5c (chamber overheating).

Check:

- 1) The relay on the electronic board commanding the flame control system.
- 2) The flame control system itself.
- 3) (for electrical units only) the power contactors.

6.4. The display doesn't work.

Possible reasons:

- 1) the general fuse has blown out. Find out the reason by checking (with the wiring diagram) all those components whose breakdown could have caused the fuse to blow out.
- 2) the jumper (PRG) is not properly jumped: its proper position is between the centre and left pins.
- 3) Electronic card default.



6.5. The "R" pilot lamp goes on fig. 6d (burners alarm)

- 1) Starting electrode.

Check that the discharge takes place at the tip of the electrode; check the electrode-burner (fig. 6b) distance.

- 2) Control electrode.

Check that the control electrode is correctly connected (see wiring diagram).

- 3) Electrical connections.

Check that the connections – phase, neutral wire- have not been inverted at the main terminal block.

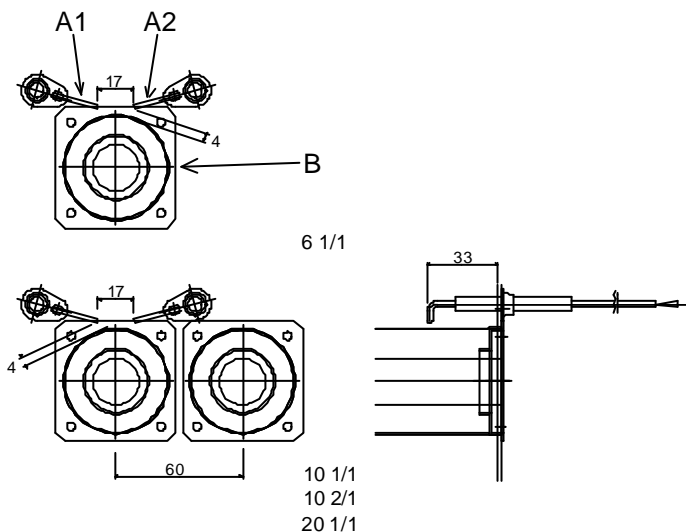


Figure 6b

A1 - Ignition electrode

A2 - Control electrode

B - Burner

6.6. The blinking "E1" message appears on the display.

Reason: breakdown of the chamber temperature control probe.

6.7. The "E2" blinking message appears on the display.

Possible reasons:

- 1) a core probe cooking cycle has been set by error without having connected first the probe to the connector on the front panel of the oven.
- 2) breakdown of the core probe.

6.8. The "E3" blinking message appears on the display.

Possible reason:

breakdown of the "set camera" potentiometer controlled by the "D" knob in fig. 6d, or in ovens with core probe (core probe cooking): breakdown of the "set core probe" potentiometer controlled by the "E" knob in fig. 6d.

Core probe models only: using the butterfly connectors (fig. 6c) you can determine which one of the potentiometers is broken down: first of all, insert a connector to short the J3 terminals. Then, putting the other connector on the J1 terminals, as it is done for calibration, check by turning the "set core probe" knob ("E" - fig. 6d) that on the display appears the temperature set by the knob, turning it to several positions. If this does not happen, then the "set core probe" potentiometer is broken down.

Insert the first connector on the terminals J3, and the other connector on the J2 terminals. Check by turning the "set camera" ("D" - fig. 6d) knob, that the display shows the temperature set by the knob, turning it to several positions. If this doesn't happen, the "set chamber" potentiometer is broken down.

Another possible reason, concerning always the "E3" message (for models without core probe): the butterfly connector (fig. 6d) is not correctly inserted in the J3 position, as it must always be for the above mentioned model.

6.9 The chamber lights do not switch on.

Possible reason:

one or more fuses are blown out. Check the components after them, consulting the wiring diagram.

6.10 The burners do not light

Possible reason: the fuse of the flame control or the general fuse have blown out

Find such fuses, using the wiring diagram, and check to see if there is a breakdown of the flame control or of the solenoid valve coils (see also par. 6.5).

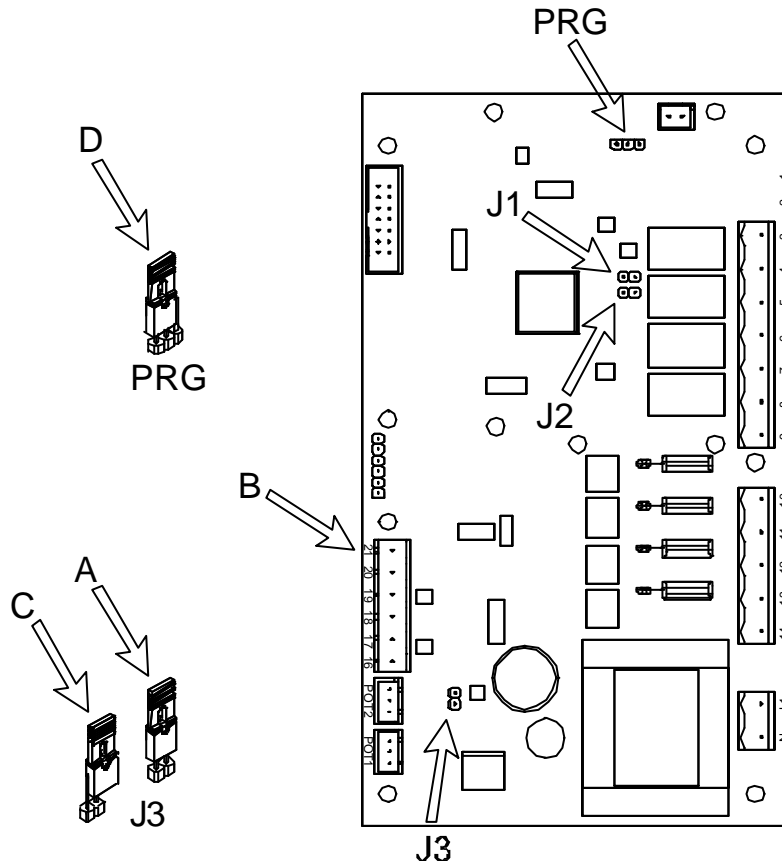


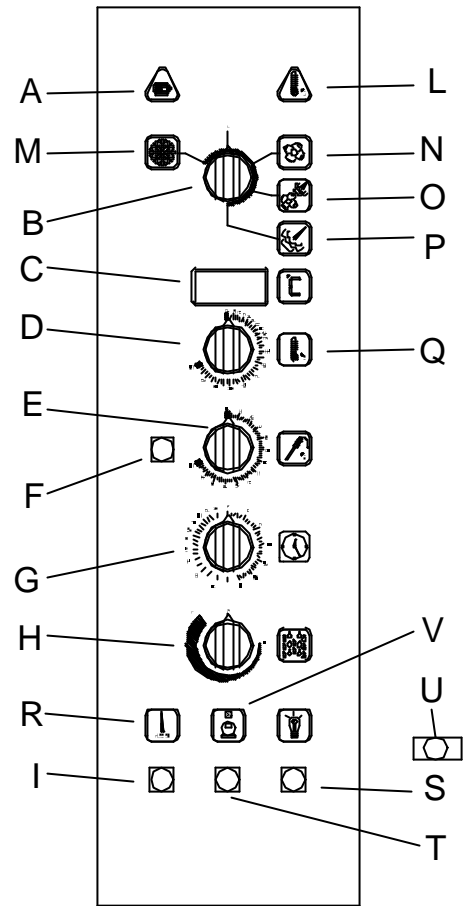
Figure 6c

B - terminals 20 – 21

J1, J2, J3, PRG - Jumper J1, J2, J3, PRG

Figure 6d

- A** - Engine overheating pilot lamp
- B** - Cooking mode selector knob
- C** - Temperature display
- D** - Chamber temperature selector knob
- E** - Core temperature selector knob
- F** - Push-button to switch on the Core Probe
- G** - Timer knob 120'/∞
- H** - Humidifier knob
- I** - (Gas models only) Burner reset push-button
- L** - Chamber overheating pilot lamp
- M** - Cooking chamber cooling position
- N** - Convection position
- O** - Combined Convection-Steam position
- P** - Steam position
- Q** - Heating on pilot lamp
- R** - Burners warning light (for gas equipment only)
- S** - Chamber lights switch
- T** - Push-button to reduce fan rotation speed and power
- U** - Core probe connector
- V** - Reduced speed working light



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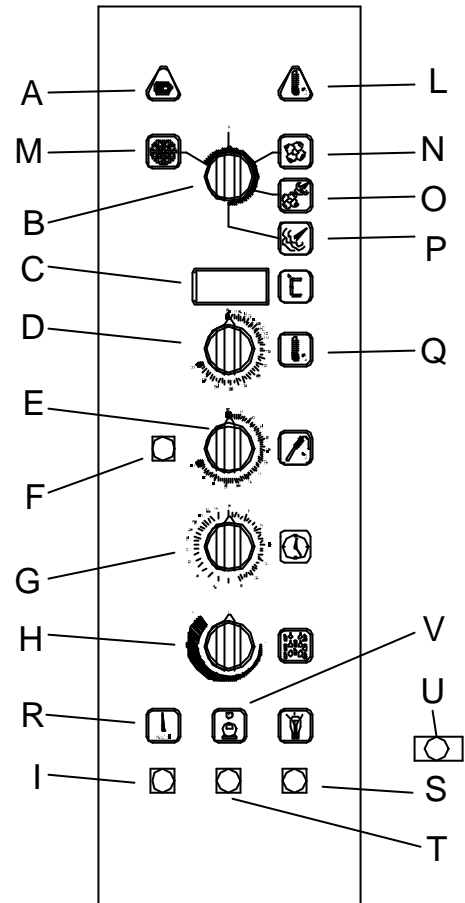
7. OPERATION

This oven has been designed for a professional use only. Therefore, it must only be used by qualified personnel.

7.1. Control devices and pilot lamps

Figure 7a

- A - Engine overheating pilot lamp
- B - Cooking mode selector knob
- C - Temperature display
- D - Chamber temperature selector knob
- E - Core temperature selector knob
- F - Push-button to switch on the Core Probe
- G - Timer knob 120'/∞
- H - Humidifier knob
- I - (Gas models only) Burner reset push-button
- L - Chamber overheating pilot lamp
- M - Cooking chamber cooling position
- N - Convection position
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- P - Steam position
- Q - Heating on pilot lamp
- R - Burners warning light (for gas equipment only)
- S - Chamber lights switch
- T - Push-button to reduce fan rotation speed and power
- U - Core probe connector
- V - Reduced speed working light



6.2. Preheating

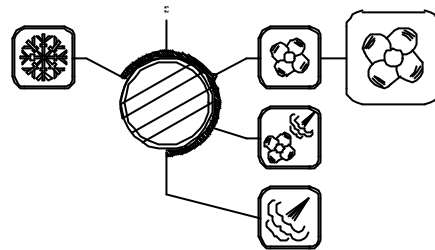
The preheating of the chamber allows a perfect cooking. Whichever one of the cooking modes described below you may choose, it is always advisable to preheat the chamber. To do so, set the temperature at a higher value (about 20% more if possible) than the working one. Taking into account that the temperature lowers when you open the door, it is better to wait until the set temperature stabilises, before introducing any food and setting the cooking temperature. During this phase, turn the timer («G» knob - fig. 7a) to the infinite time position (8).

7.3. Cooking

7.3.1. Convection cooking.

Temperature setting range:

65°C - 270°C



Timer («G» knob - fig. 7a): if set to zero (0), all functions remain inoperative; if set to the infinite position (8), heating will work permanently; otherwise, when the set time expires, heating stops and a buzzer informs the user.

Humidifier («H» knob - fig. 7a) if you need moisture inside the chamber to make special recipes, you can use the humidifier function, by turning the «H» knob in fig. 7a, which regulates the quantity of humidity inside the chamber.

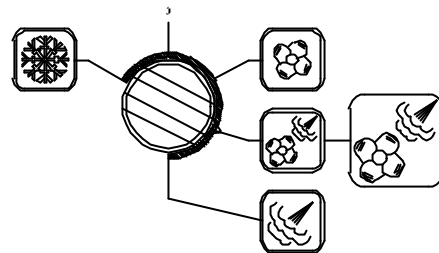
This function also stops when the time set on the timer expires.

Door opening: stops heating, time count and humidifier; these functions will restart as soon as you close the door.

7.3.2. Convection-steam cooking

Temperature setting range:

65°C - 270°C



Timer: see 7.3.1.

Door opening: all functions stop, and start again when you close the door.

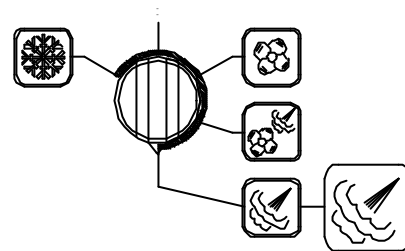
It allows you to add steam generation to convection cooking. Therefore, the cock on the water inlet of the appliance must be open. Otherwise, after some seconds the blinking writing «H2O» will appear on the display and heating will stop.

The appliance automatically starts when water starts flowing again.

7.3.3. Steam cooking

Temperature setting range:

65°C - 100°C



Timer: see 7.3.1.

If you set a higher temperature, the oven keeps working normally until it reaches 100°C inside the chamber. But the display -which keeps showing the actual chamber temperature- blinks. If the temperature inside the chamber is already higher than 100°C- 212°F, (for example after a convection cycle), no error message will appear on the display, but the oven will only start working in steam mode after the temperature goes under the set value. In this case, set the time on the timer only after temperature has gone down and the cooking cycle starts. In order to reach the desired temperature more quickly, use the cooling cycle (7.6).

Lack of water: as in convection-steam cooking, the blinking writing «H2O» appears on the display (see 7.3.2.).

Door opening: all functions stop, and start again when you close the door.

7.3.4 Special working features of COMBIPLUS models

7.3.4.1 Convection cooking

When you set the knob to this cooking mode, convection heating starts immediately, and after about 3" the solenoid valve gives an input to start filling the boiler with water. Once it reaches the minimum level, the convection heating power is reduced to 2/3, and preheating of the boiler starts. When water reaches its maximum level, the solenoid valve stops water inflow. The water inside the boiler is heated until it reaches about 90±95°C, and then the boiler is switched off, and convection heating starts working at full power again.

Having heated the water inside the boiler allows you to have the oven ready to immediately pass to a convection/steam cycle or to a steam cycle. In that case, when the time set on the convection cycle finishes, set directly the new cycle, without setting the cooking method selector knob to "zero", otherwise the water inside the boiler will be emptied.

Water failure: if there is water failure, convection heating will continue to work normally; no message will appear on the display. If water starts flowing again in 90" or less, the boiler will start filling up and the boiler water heating cycle will

begin (as discussed above). In any case, if water fails to reach the maximum level in 180", the anti-flood device triggers and de-energises the solenoid valve. The oven will continue operating normally, in convection mode.

7.3.4.2 Convection/steam cooking and steam cooking

If one of these cooking methods is set, after about 3" the boiler starts filling up, and after about 6" heating stops. At this point, the message "H2O" (lack of water) is displayed, until water reaches the minimum level. Once such level is reached, within 90" at the most, heating of the boiler power starts, at full power for steam cooking, and at a reduced power (1/3) in convection/steam cooking. In the latter case, convection heating at half power also starts again. The solenoid valve stops water inflow once the maximum level is reached

Water failure: if there is water failure while the boiler is filling up and therefore water fails to reach the maximum level in 180", the anti-flood function will trigger, de-energising the water inlet solenoid valve and stopping the oven. As a consequence of this, the writing "H2O" will be displayed after about 10 seconds. (Please note that the "H2O" message will disappear once the minimum level has been reached, regardless of the elapsed time, but it will appear again if water fails to reach the maximum level). In order to reset level control, you have to restore water feeding and to zero the cooking mode selector for at least 3" or to switch off the main switch.

If water lacks while the oven is working, the water inside the boiler will keep decreasing, even if when water is under the maximum level the solenoid valve is open and authorises water inflow to fill the boiler; When water goes under the minimum level, heating stops and the "H2O" message is displayed.

If within 180" water does not reach minimum level, the anti-flood function stops all oven operations.

This will certainly happen in combined mode, due to the lower "H2O" consumption. In this case, the lack of water will cause insufficient humidity inside the chamber, before the oven stops working.

Note: by setting the cooking mode selector knob to "zero" (0), the solenoid valve automatically empties the boiler.

7.4. Options

7.4.1. Core probe cooking

In the models where this option is present, you can use the core probe cooking method by setting the temperature at the core of the product. To do so, it is enough to stick the product with the supplied probe, being careful to put its point as close to the centre of the product as possible. To set the desired core temperature, turn the "E" selector knob (fig. 7a). As far as the chamber temperature is concerned, it has to be set by turning the "D" knob (fig. 7a) and setting it at least at 4°C more than the core temperature (otherwise the display will blink and the appliance won't work). The higher the difference between both temperatures, the shorter the cooking time will be..

Timer (knob«G» - fig.7a):it must be set at the infinite position (8).

To start a core probe cycle, push the "F" (fig. 7a) push-button. At this point, on the display appears the temperature measured by the core probe, and a small dot appears on the lower right corner of the display, to show that a core probe cycle is in progress..

Door opening:it stops all functions, which start again when the door is closed.

The display shows the temperature measured at that moment at the core. Once it reaches the set temperature, the cycle ends, the end-of-cycle alarm sounds, and the display shows the chamber temperature again. There are also three blinking dots to indicate the end of the cooking cycle: at this point, in order to be able to start a new cycle with temperature control in the chamber, it is necessary to reset the timer.

To start a new core probe cooking cycle, set the temperature again and push the "F" (fig. 7a) push-button as explained above, without setting the timer to the "0" position.

7.4.2. Double speed function (optional)

In the models equipped with this function, you have the possibility to reduce both air flow inside the chamber and heating unit power. You may achieve this thanks to the double fan rotation speed function, useful to meet special cooking requirements. However, good cooking results will only be assured when using a limited number of baking pans inside the chamber.

To activate this function, push the "T" button in fig. 7a. The "V" pilot lamp in fig. 7a will light up. The oven will work at reduced speed until the time set on the timer expires, or, when using a core probe, until the cycle ends. The double speed function won't be interrupted by changing cooking mode. In order to return to normal speed and power, turn the cooking mode selector ("B", fig. 7a) to zero or reset the timer (in this case the "V" pilot lamp goes off).

Door opening: it stops all functions, which will only restart when you close the door.

7.5. Cooking cycle end

Taking into account that the opening of the door stops all functions, if for any reason you wish to stop one of the above mentioned cycles, you can:

- turn the timer («G» - fig. 7a) to the zero (0) position. By doing so, the buzzer makes a sound signal, or:

- turn the selector knob («B» - fig. 7a) to the zero (0) position; in this last way, you cut off the tension to the electronic card, which needs about 10 seconds to restart its functions.

7.6. Cooling down

If you want to quickly lower the temperature inside the chamber, keep the door open and set the «B» selector (fig. 7a) to the cooling position "M".

Timer («G» - fig. 7a): it must be set at any value different from zero: if you set it at infinite (∞) you must stop the process manually once the desired temperature has been reached; if you set it at a finite time, the sound signal will indicate, as usual, when the time has expired.

Attention: if you keep the door closed during the cooling, the time required to execute such operation will be considerably longer.

7.7. Dispositivi di sicurezza

The appliances have the following safety devices (after some of these devices work, it is necessary to reset them).

7.7.1. Gas solenoid valve.

It prevents production of unburnt gas if the oven turns off for any reason, or if it fails to turn on.

7.7.2. Cooking chamber safety thermostat.

It stops the operation of the oven by cutting gas supply to the flame control in the case of gas ovens, and electric supply to the resistors in the case of electric ovens, whenever the temperature inside the chamber reaches an excessive value. In this case the «L» pilot lamp in fig. 7a lights.

7.7.3. Auxiliary electric circuit protection

It operates thanks to the fuses behind the control panel.

7.7.4. Engine protection.

A thermal protector cuts the electric supply in case of overheating: the «A» pilot lamp in fig. 7a lights up..

7.7.5. Micro switch

It stops the operation of the oven when the door is open.

7.7.6. Two-phase door opening.

It avoids dangerous steam escapes due to a quick opening of the door.

7.7.7. (COMBIPLUS models only) Protection against overpressure inside the chamber

(COMBIPLUS models only) Safety valve against overpressure in the boiler.

7.7.8. (COMBIPLUS models only) Safety thermostat to prevent the overheating of the resistors of the boiler.

8. WARNINGS - WHAT TO DO IF...

8.1 Warnings

8.1.1. Read carefully the following warnings for a correct use and servicing of the appliance.

8.1.2. The appliances must only be used by qualified personnel, and according to this user's guide.

8.1.3. Have the appliance controlled in general - including the exhalations evacuation pipes at least twice a year. In particular, the safety devices have to be carefully checked. Specialised technicians must do this: it is advisable to stipulate a service agreement.

8.1.4. During its operation, the oven must be kept under watch.

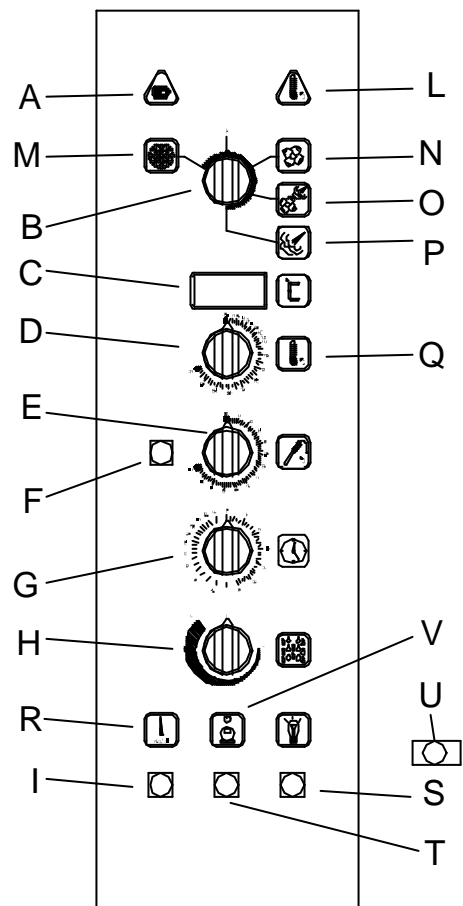
8.1.5. Be careful with hot surfaces during operation. After a steam cooking cycle, the 2-phase door opening safety device allows avoiding a violent escape of steam, which could cause scorching. Be very careful anyway, and open the door with the two well-differentiated jerking motions, delaying the second one, which allows a complete opening of the door.

8.1.6. For a perfect use of this appliance from a cooking point of view, preheat the chamber at a temperature about 20% higher than the one you intend to set for the following cooking cycle. The preheating of the chamber allows a perfect cooking. Whichever one of the cooking modes described below you may choose, it is always advisable to preheat the chamber. To do so, set the temperature at a higher value (about 20% more if possible) than the working one. Taking into account that the temperature lowers when you open the door, it is better to wait until the set temperature stabilises, before introducing any food and setting the cooking temperature. During this phase, turn the timer («G» knob - fig. 8a) to the infinite time position (∞).

For the food requiring high temperatures to be cooked, put also the baking-pans or the grills inside the chamber during preheating.

Figure 8a

- A - Engine overheating pilot lamp
- B - Cooking mode selector knob
- C - Temperature display
- D - Chamber temperature selector knob
- E - Core temperature selector knob
- F - Push-button to switch on the Core Probe
- G - Timer knob 120'/∞
- H - Humidifier knob
- I - (Gas models only) Burner reset push-button
- L - Chamber overheating pilot lamp
- M - Cooking chamber cooling position
- N - Convection position
- O - Combined Convection-Steam position
- P - Steam position
- Q - Heating on pilot lamp
- R - Burners warning light (for gas equipment only)
- S - Chamber lights switch
- T - Push-button to reduce fan rotation speed and power
- U - Core probe connector
- V - Reduced speed working light



8.1.7. Be very careful when moving the extractor trolley used to move the grill-holder structure, so as to avoid damages to things or to people.

8.1.8. In order to obtain a homogeneous cooking, food must be uniformly distributed on each baking-pan. When cooking solid food, the pieces, layers or thickness must be as even as possible.

8.1.9. During a cooking cycle, avoid unnecessary openings of the door: it is a waste of energy and it prolongs the required cooking time. To control how the cooking proceeds, use the cooking chamber lights.

8.1.10. For a rational use of energy, and to avoid putting the appliance under an excessive stress, avoid using the highest available temperatures for long periods, unless you need them for a special cooking.

8.1.11. Don't ever let any kitchen-salt deposit on a steel surface. Should this happen, clean the surface immediately.

8.1.12. Don't obstruct the vent-holes for any reason.

8.1.13. At the end of the daily use of the appliance, cut off the water and voltage circuits.

8.1.14. After you finish using the appliance, clean it carefully, including the cooking chamber and the baking-pan holder.

8.1.15. If the appliance must remain inoperative for a long period, close all supply circuits, clean it carefully and put a suitable cover on it, so as to protect it from dust.

8.2 What to do if...

(Instructions for the end-user)

8.2.1. On the display appears the blinking writing «H2O»..

Possible causes:

1) Closed water cock;

If the water cock is open, call the Service Department.

8.2.1.1 (COMBIMIX models only) In steam or steam/convection mode, there is no steam formation inside the chamber

Call the Service Department.

7.2.1.2 (COMBIPLUS models only)

1) when operating in steam or combined mode, the "H2O" writing usually appears for about 90 seconds during filling up (see also § 8.3.4.2), even if there are no anomalies.

2) when operating in steam or combined mode, the anti-overflowing function acted: make sure water supply is not interrupted and, if needed, open the tap again. To reset the anti-overflow safety device again once water restarts flowing, you just have to turn the oven off for a few seconds and turn it on again, setting the appropriate cooking mode
In other cases, call the Service Department.

8.2.1.3 (COMBIPLUS models only)

When operating in steam mode, steam doesn't form inside the chamber, and no alarm message is displayed;

Call the Service Department.

8.2.2. The «A» pilot lamp -fig. 8a (ENGINE) lights up.



Possible causes :

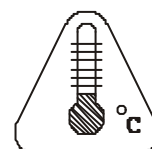
1) the movement of the fan is blocked: check the possible presence of cooking wastes, behind the deflector-panel of the fan.

If that's the cause, the fan can start turning again without any problem once the engine windings cool down.

If this is not the cause, call the Service Department..

8.2.3. The "L" pilot lamp -fig. 8a lights up (chamber overheating)

Call the Service Department



8.2.4. The display doesn't work.

Possible causes:

1) lack of tension on the electric line: check the main switch;

If this is not the cause, call the Service Department .

8.2.5. The cooking is not even or homogeneous on the baking-pan.

Possible causes

- 1) the slides of the baking-pan holder trolley are not levelled: level them by adjusting the feet.
- 2) you did not follow the indications under § 8.1.8
- 3) the fan works without inverting periodically its sense of rotation.

call the Service Department.

8.2.6. The display is on, but the functions are not performed within 25 seconds (in this case check also all pilot lights):

Possible causes

- 1) The door is not completely closed.
- 2) The timer has not been set.

8.2.7. On the display, the indication of temperature stops at a certain value, even if a higher chamber temperature value had been set, or the buzzer sounds without any apparent reason :

Possible causes: a core probe cooking cycle was wrongly set.

To stop the cycle:

- turn the timer («G» - fig. 8a) to the zero (0) position. By doing so, the buzzer makes a sound signal, or:
- turn the selector knob («B» - fig. 8a) to the zero (0) position; in this last way, you cut off the tension to the electronic card, which needs about 10 seconds to restart its functions.

8.2.8. The "R" pilot lamp -fig. 8a - lights up (burners alarm).



Possible cause: no gas inflow to the burners.

Press the reset push-button («I» – fig. 8a), wait for about 10 seconds. Check, from under the appliance, through the special inspection hole, the lighting of the burners; if they are still out, repeat the operation. If you still don't succeed in lighting them up, call the Service Department .

8.2.8. The chamber lights do not light up.

Possible causes

- 1) dirt on the chamber feeding mobile contacts, located on the door and on the front-side, on top on the left hand side
- 2) the door is not completely closed.
- 3) a fuse broke the circuit.

In this case, call the Service Department.

8.2.9. The blinking message «E1» appears on the display

Cause:

breakdown of the chamber temperature probe.

Call the Service Department

8.2.10. The blinking message «E2» appears on the display.

Possible causes

- 1) a core probe cooking cycle has been set without having connected the core probe to the connector located on the front of the appliance;
- 2) breakdown of the core probe: request the spare part.

In this case, call the Service Department.

8.2.11. The blinking message «E3» appears on the display

Possible causes:

breakdown of the «set chamber» potentiometer, controlled by the «D» knob in fig. 8a in the core probe models (food centre temperature cooking), breakdown of the "set core probe" potentiometer, controlled by the "E" knob in fig. 8a.

In this case, call the Service Department.

8.2.12. While in steam mode, the chamber temperature shown on the display blinks on and off.

Possible causes

a temperature value higher than 100°C has been set .

If you set a higher temperature, the oven keeps working normally until it reaches 100°C inside the chamber. But the display -which keeps showing the actual chamber temperature-blinks.

9. CLEANING AND SERVICING

Attention: before starting to clean or to make any servicing, turn off the oven and cut off all supply circuits (, water and voltage).

9.1 General Information

Main causes of wearing out or corrosion of stainless steel are:

- use of abrasive or acid detergents, especially those with a basis of chlorine, such as hydrochloric acid or sodium hypochlorite (bleach). Therefore, before buying a detergent, make sure that it does not corrode steel. (see also § 9.2.1);
- stagnation of ferrous deposits (such as those caused by the rust dissolved in the water going through the pipelines, especially after a period of inactivity). This stagnation must be avoided. Avoid using steel wool to remove the most difficult food residues. Use stainless steel wool or stainless steel spatulas instead, or other tools made of softer, non-ferrous materials;
- stagnation of substances with acid components, such as vinegar, lemon juice, sauces, salt, etc. Do not allow prolonged contacts between such substances and the steel parts of the appliance. The evaporation of saline solutions on the steel surfaces is particularly harmful.

9.2. Cleaning of external parts

9.2.1. Ordinary cleaning.

It must be done with a humid cloth, using water and soap or detergents, but avoiding abrasive or acid ones, as explained above. Such detergents should not even be used to wash the floors close to the appliance, since their fumes can also deposit and damage the steel. Rinse the oven with pure water and dry it; never use direct water jets so as not to cause problems due to harmful water infiltration.

9.2.2. Scratches and burnishes can be smoothed or removed with stainless steel wool or synthetic abrasive sponges, using them always in the same direction of the glaze.

9.2.3. Rust.

In order to face the problem of rust stains, it is necessary to contact producers of industrial detergents, so as to use a detergent which removes such stains. For this purpose, you can also use industrial products for the cleaning of calcareous deposits. After having used and rinsed the oven, it could be necessary to clean it with an alkaline detergent in order to neutralise the acid compounds left on its surface

9.2.4. Inactivity period.

If the appliance is not used during a certain period of time, protect it with a film of a suitable product (for example, spray vaseline oil or similar products), after having cleaned it and dried it.

9.3. Cleaning of the cooking chamber

9.3.1. Cool down the appliance until it reaches room temperature.

9.3.2. Remove the filter from the back of the chamber, and clean it separately.

9.3.3. Spray a suitable degreasing detergent on the walls, on the inner side of the door, through the protective grid of the fan and along the perimeter of the panel (fig. 9a and 9b) following always the using directions and warnings given by the manufacturer of the product. Use rubber gloves and be careful that the product does not touch your skin or eyes.

9.3.4. After about 5 minutes with the door closed, carry out a steam cycle for about 10 minutes at 70-80°C.

9.3.5. Once the cycle finishes, switch off the oven, open carefully the door and rinse it with plenty of water. This can be done with the sprayer available on request.

9.3.6. In order to dry it, perform a convection cycle for about 5 minutes at 150°C. After that, check that the chamber is completely dry (otherwise, perform another brief cycle) and turn off the appliance. Cut off all supply circuits.

9.3.7.1. Cleaning of the fan (versions 6-10-20).
Clean periodically the fan with special anti-scale products.

ATTENTION: turn off both the oven and the electrical switch on the supply line to the oven.

To reach the fan, remove the «A» screws in fig. 9a, which fix the panel on the left hand-side inside the chamber of the oven. The fan must be uniformly cleaned, and no calcareous scales must remain.

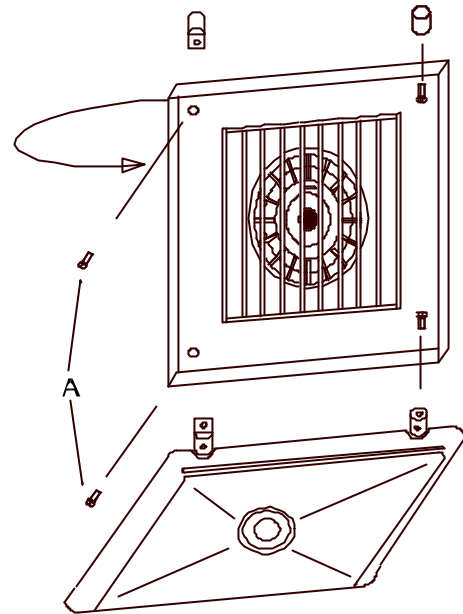


Figure 9a

A - Panel fixing screws versions 6-10-20

9.3.7.2. Cleaning the fans (version 21).
Clean the fans on a regular basis by using specific anti-scale products.

Caution: turn off the oven and switch off the electric switch upstream of the unit.

To access, turn the screws "A" from position "C" (closed) to D (open) (see fig. 9b) and then rotate the fan cover panel. The fans should be cleaned evenly: do not leave any scaled area.

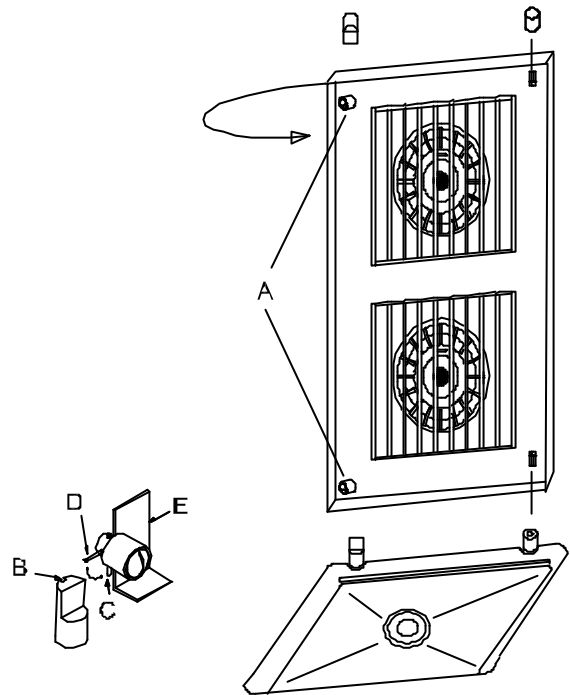


Figure 9b

A - Fan cover panel fixing screws
B - Fixing block
C - Screw pin in "CLOSED" position
D - Screw pin in "OPEN" position
E - Fan cover panel

For COMBIMIX models: besides cleaning the fan, clean also the water sprayer with the same anti-scale product.

Once you've finished the above operation, it is necessary to perform a steam cycle and a rinsing (§ 9.3.4 - § 9.3.5). The rinsing of the fan (and of the sprayer for COMBIMIX models) must be particularly careful.

9.3.8.1. Door cleaning (versions 6-10-20).

To clean the glass facing the chamber, use the same product you applied for cleaning the chamber. To clean the outer glass, use a normal, non-toxic product, suitable for glass cleaning.

If you see opaque stains in the inside area of the glasses, clean them by opening fan-wise the outer glass after having unscrewed the two «OPEN» screws on the left hand-side of the glass plate (fig. 9c).

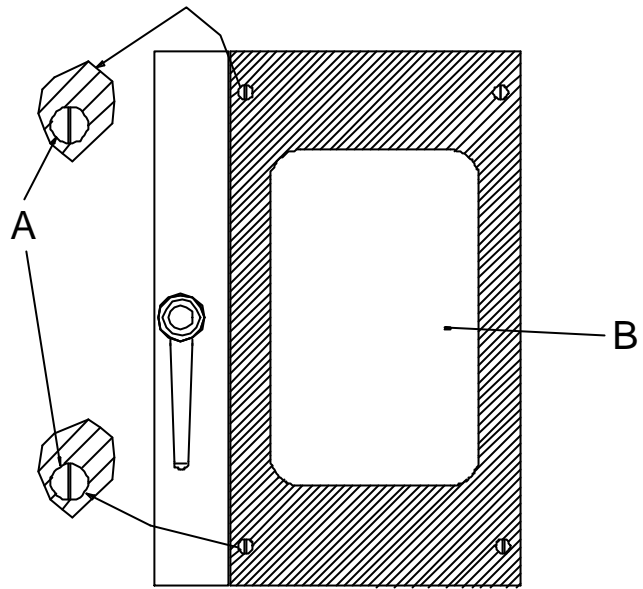


Figure 9c

- A - Screw
- B - Glass

9.3.8.2. Cleaning the door (version 21).

To clean the glass facing the oven interior, use the same product suitable for cleaning the interior itself. To clean the external glass, use a common, non-toxic glass cleaning product.

When you notice opaque areas in the inner side of the glasses, clean them by easily fanning out the innermost glass after unhooking the two locks located on the right of the glass sheet (fig. 9d item D).

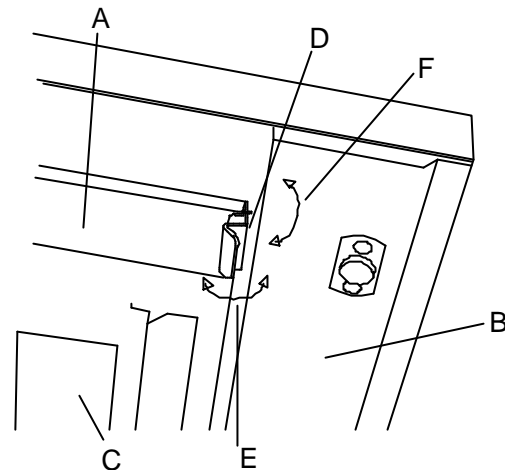


Figure 9d

- A - Inner glass
- B - Door
- C - Oven interior light seat
- D - Lock
- E - Unhooking
- F - Glass rotation

9.4 COMBIPLUS models only) Ordinary servicing of boiler – heating unit decalcification process.

9.4.1 Frequency of procedure.

When there is an efficient and controlled water softener device, boiler can be serviced every 4-6 months. Without a water softener device, servicing frequency will depend on water hardness. If boiler is used for a few hours a day, with very hard water, we advise to service it once a week.

9.4.2 Type of product.

The scale remover liquid should not be corrosive for stainless steel. It should have efficient anti-scale properties. After rinsing, it should be compatible with alimentary uses. You can use commercial products or normal alimentary vinegar, which has all required properties. Quantities to be poured are summarised in the following table:

models	CVP6G/FCV6G	CVP10G/FCVG10G-CVP20G/FCV20G-CVP21G/FCV21G
Liters	4	6

9.4.3 Procedure

Servicing must only be carried out when the oven is shut off, i.e. when the function selector knob ("B", fig. 9f) is in the zero position.

Do the following (fig. 9e): lift the mobile part ("A") of the weight safety valve and move it sideways; insert a funnel in the same opening and pour the scale remover liquid carefully.

Avoid splashing it on the ceiling of the oven. The scale remover should act over an 8-hour period (for example, during the night). Then, boiler should be emptied and rinsed.

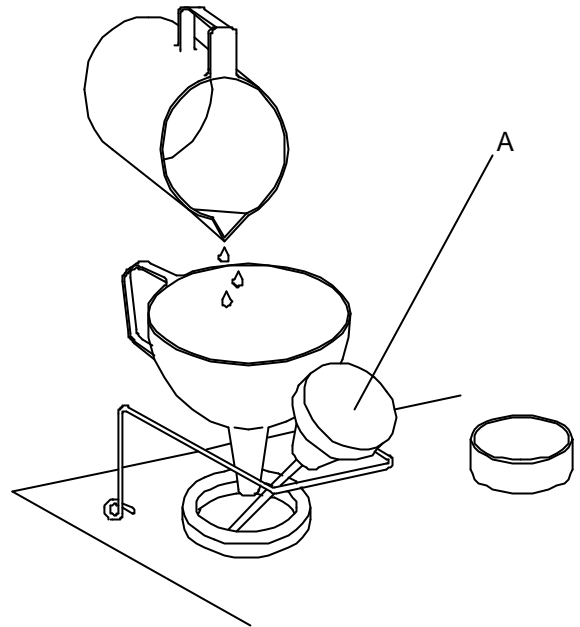


Figure 9e
Safety valve of boiler

9.4.4 Rinsing.

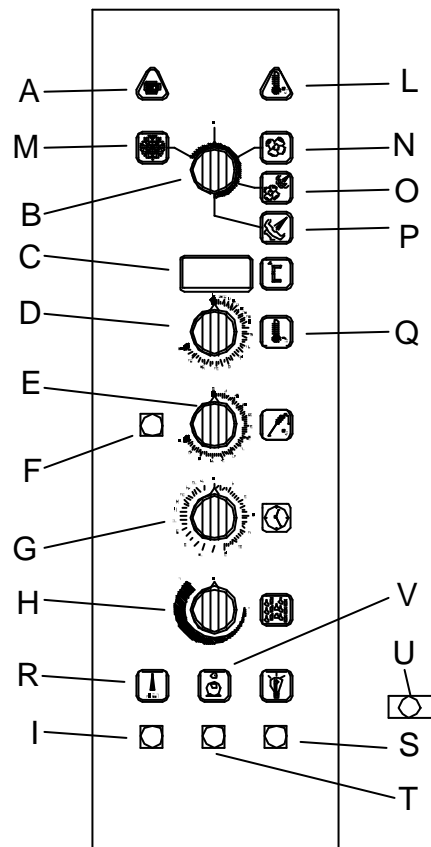
During this phase, water supply should be restored.

To empty the boiler, turn the "B" knob in fig. 16 to the convection position ("N", fig. 9f). Set any time different from zero on the timer. Wait about 10 seconds and turn the "B" knob back to zero. After about 5 seconds, the boiler starts emptying. Such operation lasts about 3 minutes. In order to remove residues completely and at the same time assure a perfect cleaning, perform one filling up and one emptying cycle of the boiler by operating it for a few minutes as follows:

turn the "B" knob (fig. 9f) to the "P" steam position and set a time different from zero on the timer. Now the boiler starts filling up. This operation lasts 2 minutes at the most. The blinking "H2O" appears on the display. After this writing disappears, the boiler reaches its working temperature in about 2 minutes, and the first steam jets appear in the chamber. At this point, the oven must be turned off ("B" knob turned to zero position). After about 5 seconds, the boiler starts emptying. This operation lasts about 3 minutes. Now the oven is ready to cook again.

Figure 9f

- A - Engine overheating pilot lamp
- B - Cooking mode selector knob
- C - Temperature display
- D - Chamber temperature selector knob
- E - Core temperature selector knob
- F - Push-button to switch on the Core Probe
- G - Timer knob 120'/∞
- H - Humidifier knob
- I - (Gas models only) Burner reset push-button
- L - Chamber overheating pilot lamp
- M - Cooking chamber cooling position
- N - Convection position
- O - Combined Convection-Steam position
- P - Steam position
- Q - Heating on pilot lamp
- R - Burners warning light (for gas equipment only)
- S - Chamber lights switch
- T - Push-button to reduce fan rotation speed and power
- U - Core probe connector
- V - Reduced speed working light



9.5.1. Maintenance of control panel protection filter (Versions 6-10-20)

Approximately every 15 days, you should remove the dust that deposits on the control panel protection filter. Such filter is located as shown in figure 9g.

Extract the filter envelope by pulling it downwards. Clean it and replace it by carrying out the same operations in reverse order.

Should the working environment be very dusty, we strongly recommend cleaning the filters at least once a week or even more often, as required.

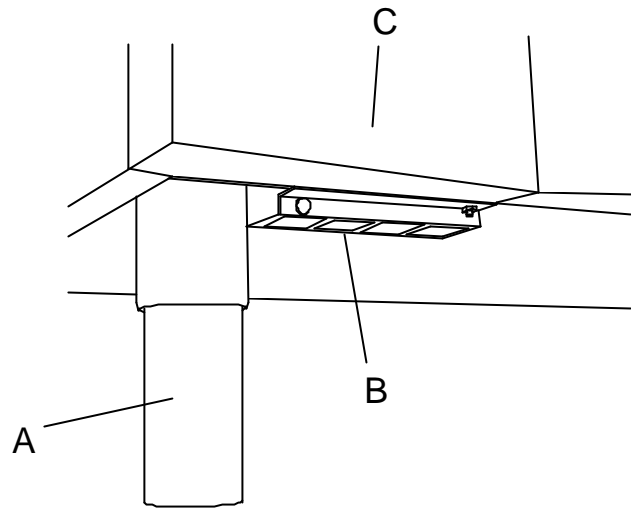


Figure 9g

- A - Leg
- B - Protection filter
- C - Control Panel

9.5.2. Maintenance of control panel protection filter (Versions 21)

Approximately every 15 days, you should remove the dust that deposits on the control panel protection filter. Such filter is located as shown in figure 9h.

Extract the filter envelope by pulling it downwards. Clean it and replace it by carrying out the same operations in reverse order.

Should the working environment be very dusty, we strongly recommend cleaning the filters at least once a week or even more often, as required.

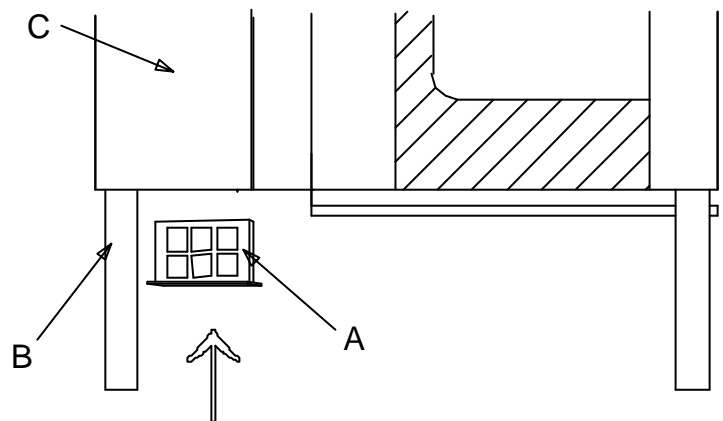


Figure 9h

- A - Leg
- B - Protection filter
- C - Control Panel

