

TECHNIQUE

COMBI OVENS

COMBI

GAS AND ELECTRIC

MANUFACTURERS INSTRUCTIONS

Part A: Technical characteristics

Part B: Technical instructions for the installer

- WARRANTY -

To ensure the guarantee on this equipment, you should comply with the MANUFACTURER'S INSTRUCTIONS in this manual.

However if you cannot undertake the required maintenance operations, our installation and service network is available to provide you with a personalized contract.

- WARNING -

- The product delivered to you complies with current standards. If any modifications are made the manufacturer cannot accept any responsibility whatsoever. The manufacturer cannot be held responsible in the event of inappropriate use of the equipment.
 - This equipment is intended for use by suitably trained professionals.
- When handling it, it is imperative to leave the appliance on its base till final installation.
 - Read all the documentation before installation.
 - Keep your documents for future reference.
 - Translation of the original manual

The logo for Hobart, featuring the word "HOBART" in bold, red, uppercase letters inside a blue rounded rectangular border.

3HE390995EI

CONTENT

COMBI

GAS AND ELECTRIC

A) TECHNICAL CHARACTERISTICS	2
B) TECHNICAL INSTRUCTIONS FOR THE INSTALLER	
1 DATA PLATE	3
1.1 GAS OVENS.....	3
1.2 ELECTRIC OVENS.....	4
2 INSTALLATION.....	5
2.1 GENERAL.....	5
2.2 RECOMMENDATIONS.....	5
2.3 HANDLING.....	6
2.4 UNPACKING.....	7
3 INSTALLATION: LOCATION	8
3.1 20 LEVEL OVEN.....	8
3.1 TWIN CAVITY OVENS	8
3.2 6 AND 10 LEVEL OVENS ON A STAND	9
3.3 INSTRUCTION FOR HOT CONTAINERS	9
3.4 ACCESSORIES.....	10
4 INSTALLATION: CONNECTIONS	12
4.1 ELECTRICAL CONNECTION.....	12
4.2 GAS CONNECTION	14
4.3 WATER CONNECTION.....	15
4.4 DRAIN CONNECTION.....	16
4.5 CONNECTION OF CLEANING PRODUCTS (OPTION).....	17
5 PARAMETER ADJUSTMENT	18
5.1 FACIA.....	18
5.2 WATER TREATMENT COUNTER	19
6 CHANGING THE APPLIANCE FROM ONE GAS TO ANOTHER	20
6.1 LIST OF AUTHORISED GASES/PRESSURES ACCORDING TO CATEGORIES AND COUNTRIES	20
6.2 CHANGING FROM ONE GAS TO ANOTHER:.....	21
6.3 GAS FLOW RATES AND POWERS	21
6.4 CHART OF GAS JETS	21



A: TECHNICAL CHARACTERISTICS

CODE	Designation	Energy	U	Lib	KwE	I _{max} (A)	KwG kW	Débit gaz / Gas flow / Gasdurchsatz					Poids / Weight / Gewicht / Peso		Dimensions / Maße / Dimensiones (mm)			
								G31 37/50 Kg/h	G30 28/50 Kg/h	G20 20 m ³ /h	G25 20 m ³ /h	G25 25 m ³ /h	Avancée / Depth / Tiefe / Profundidad	Largeur / Width / Breite / Anchura	Hauteur / High / Höhe / Altura			
HEB061E	Combi Boiler 6 Levels GN1/1 (Elec)	Electric	400	3Na.c.	9,3	14,3	-	-	-	-	-	-	110	846	920	899		
HEB061E	Combi Boiler 6 Levels GN1/1 (Elec)	Electric	230	3a.c.	9,3	27,3	-	-	-	-	-	-	110	846	920	899		
HEB061G	Combi Boiler 6 Levels GN1/1 (Gas)	Gas	230	a.c.	3,3	14,3	23,00	1,79	1,81	2,43	2,76	2,76	125	846	920	899		
HEB101E	Combi Boiler 10 Levels GN1/1 (Elec)	Electric	400	3Na.c.	15,8	23,8	-	-	-	-	-	-	129	846	920	1069		
HEB101E	Combi Boiler 10 Levels GN1/1 (Elec)	Electric	230	3a.c.	15,8	40	-	-	-	-	-	-	129	846	920	1069		
HEB101G	Combi Boiler 10 Levels GN1/1 (Gas)	Gas	230	a.c.	3,3	14,3	23,00	1,79	1,81	2,43	2,76	2,76	144	846	920	1069		
HEB201E	Combi Boiler 20 Levels GN1/1 (Elec)	Electric	400	3Na.c.	27,7	42,2	-	-	-	-	-	-	280	862	990	1947		
HEB201E	Combi Boiler 20 Levels GN1/1 (Elec)	Electric	230	3a.c.	27,7	70,4	-	-	-	-	-	-	280	862	990	1947		
HEB201G	Combi Boiler 20 Levels GN1/1 (Gas)	Gas	230	a.c.	0,7	3	68,50	5,33	5,40	7,25	8,23	8,23	297	862	990	1947		
HEB202E	Combi Boiler 20 Levels GN2/1 (Elec)	Electric	400	3Na.c.	54,7	81,3	-	-	-	-	-	-	328	1187	990	1947		
HEB202E	Combi Boiler 20 Levels GN2/1 (Elec)	Electric	230	3a.c.	54,7	138,2	-	-	-	-	-	-	328	1187	990	1947		
HEB202G	Combi Boiler 20 Levels GN2/1 (Gas)	Gas	230	a.c.	0,7	3	68,50	5,33	5,40	7,25	8,23	8,23	345	1187	990	1947		
HEJ061E	Combi 6 Levels GN1/1 (Elec)	Electric	400	3Na.c.	9,3	14,3	-	-	-	-	-	-	103	846	920	899		
HEJ061E	Combi 6 Levels GN1/1 (Elec)	Electric	230	3a.c.	9,3	27,3	-	-	-	-	-	-	103	846	920	899		
HEJ061G	Combi 6 Levels GN1/1 (Gas)	Gas	230	a.c.	0,3	1,3	23,00	1,79	1,81	2,43	2,76	2,76	118	846	920	899		
HEJ101E	Combi 10 Levels GN1/1 (Elec)	Electric	400	3Na.c.	15,3	23	-	-	-	-	-	-	121	846	920	1069		
HEJ101E	Combi 10 Levels GN1/1 (Elec)	Electric	230	3a.c.	15,3	38,8	-	-	-	-	-	-	121	846	920	1069		
HEJ101G	Combi 10 Levels GN1/1 (Gas)	Gas	230	a.c.	0,3	1,3	23,00	1,79	1,81	2,43	2,76	2,76	136	846	920	1069		
HEJ102E	Combi 10 Levels GN2/1 (Elec)	Electric	400	3Na.c.	24,3	36,1	-	-	-	-	-	-	250	1171	920	1069		
HEJ102E	Combi 10 Levels GN2/1 (Elec)	Electric	230	3a.c.	24,3	61,4	-	-	-	-	-	-	250	1171	920	1069		
HEJ102G	Combi 10 Levels GN2/1 (Gas)	Gas	230	a.c.	0,3	1,3	23,00	1,79	1,81	2,43	2,76	2,76	265	1171	920	1069		
HEJ201E	Combi 20 Levels GN1/1 (Elec)	Electric	400	3Na.c.	27,7	42,4	-	-	-	-	-	-	228	862	990	1947		
HEJ201E	Combi 20 Levels GN1/1 (Elec)	Electric	230	3a.c.	27,7	70,4	-	-	-	-	-	-	228	862	990	1947		
HEJ201G	Combi 20 Levels GN1/1 (Gas)	Gas	230	a.c.	0,7	3	45,50	3,54	3,59	4,81	5,47	5,47	255	862	990	1947		
HEJ202E	Combi 20 Levels GN2/1 (Elec)	Electric	400	3Na.c.	54,7	81,3	-	-	-	-	-	-	287	1187	990	1947		
HEJ202E	Combi 20 Levels GN2/1 (Elec)	Electric	230	3a.c.	54,7	138,2	-	-	-	-	-	-	287	1187	990	1947		
HEJ202G	Combi 20 Levels GN2/1 (Gas)	Gas	230	a.c.	0,7	3	45,50	3,54	3,59	4,81	5,47	5,47	304	1187	990	1947		
HEJ611E	Combi 6 on 10 Levels GN1/1 (Elec)	Electric	400	3Na.c.	24,6	37,4	-	-	-	-	-	-	233	887	920	1945		
HEJ611E	Combi 6 on 10 Levels GN1/1 (Elec)	Electric	230	3a.c.	24,6	62,5	-	-	-	-	-	-	233	887	920	1945		
HEJ661E	Combi 6 on 6 Levels GN1/1 (Elec)	Electric	400	3Na.c.	18,6	28,7	-	-	-	-	-	-	215	887	920	1825		
HEJ661E	Combi 6 on 6 Levels GN1/1 (Elec)	Electric	230	3a.c.	18,6	47,5	-	-	-	-	-	-	215	887	920	1825		

The balanced acoustic pressure level A is less than 70 dB(A).



HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

1 DATA PLATE

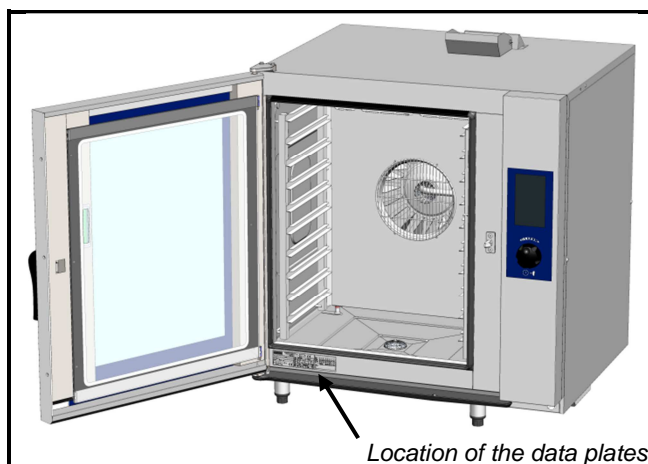
1.1 GAS OVENS

In any correspondence about your equipment, please indicate:

- The model number (Model.)
- The serial number (Fab.Nr.)
- The date (Date).

The data plate, on all ovens, is fixed onto the front panel, in the lower left hand corner when the door is open.

HOBART		HOBART GmbH Robert Bosch Str. 17, 77656 Offenburg - Germany	0032	ΣQ_n <input type="text"/> kW	Type A ₃	CE -----	
Famil.	<input type="text"/>	Art	<input type="text"/>	Pays	CH-CZ-GR-IT	ES-GB-IE-PT	
Model.	<input type="text"/>			Cat.	I _{2H} · I _{3B/P} · I _{3P} · I ₃₊	I _{2H} · I _{3P} · I ₃₊	
Date	<input type="text"/>	Fab. Nr.	<input type="text"/>	Pays	NL	FR	BE
<input type="text"/>	V	<input type="text"/>	A	Cat.	I _{2L} · I _{3B/P} · I _{3P}	I _{2Esi} · I _{3P} · I ₃₊	I _{2E(s)B} · I _{3P} · I ₃₊
<input type="text"/>	kW	<input type="text"/>	Hz	Pays	DE-LU	DK-FI-NO-SE-AT	AT
				Cat.	I _{2ELL} · I _{3B/P} · I _{3P}	I _{2H} · I _{3B/P}	I _{3P}



Gas changing plate

A second plate is fixed next to the data plate which indicates:

- The gas for which the appliance has been adjusted.
- The country(ies) of destination.

The box marked with a cross indicates the gas for which the appliance has been adjusted

Gaz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	G20	G25	G25	G30	G31	G30	G31	G31
Pmbar	20	25	20	50	50	28 - 30	30	37
	Gaz Nat.		But. Pro.		But. Pro.		Pro. Pro.	
Pays:	<input style="width: 100%; height: 20px;" type="text"/>							

Country of destination of the appliance



IN CASE OF A CHANGE OF GAS (See Section: Changing the appliance from one gas to another) Modify this plate, and mention the new gas used.

Fill in the "Pays" zone with the name of the country where the appliance is installed.

NOTE: Both the Gas and Pressure for which the appliance is set must be authorised in the country in question. Check this point in the section: Changing the appliance from one gas to another.



HOBART GmbH
Registered office:
Robert Bosch Str. 17,
77656 Offenburg - Germany

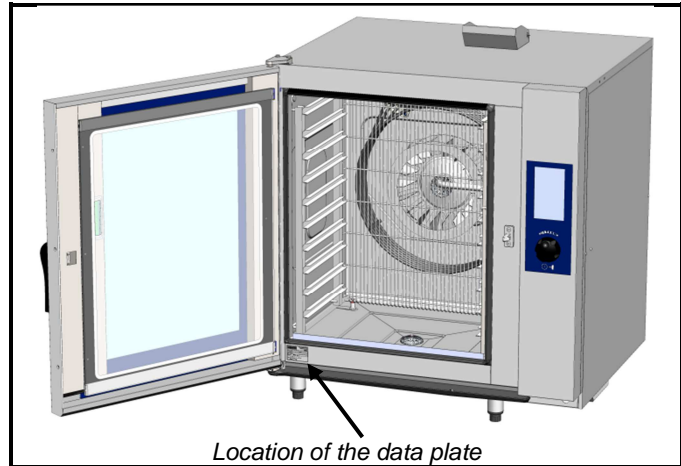
1.2 ELECTRIC OVENS

In any correspondence about your equipment, please indicate:

- The model number (Model.)
- The serial number (Fab.Nr.)
- The date (Date).

The data plate, on all ovens, is fixed onto the front panel, in the lower left hand corner when the door is open. On twin cavity ovens it is fixed to the lower oven.

HOBART		HOBART GmbH	
		Robert Bosch Str. 17, 77656 Offenburg - Germany	
		0032	
Famil.	<input type="text"/>	Art	<input type="text"/>
Model.	<input type="text"/>		
Date	<input type="text"/>	Fab.Nr.	<input type="text"/>
<input type="text"/>	V	<input type="text"/>	A
<input type="text"/>	kW	<input type="text"/>	Hz

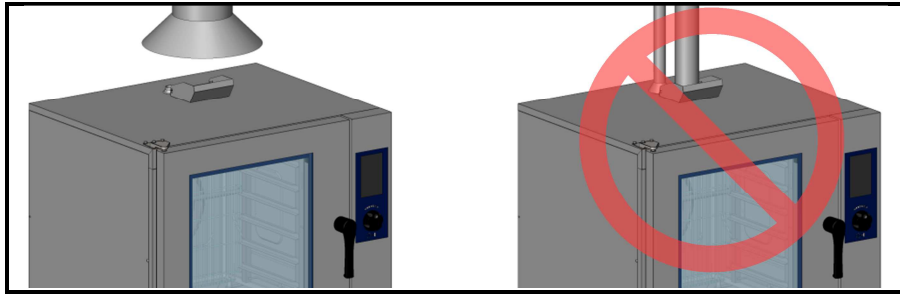


HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

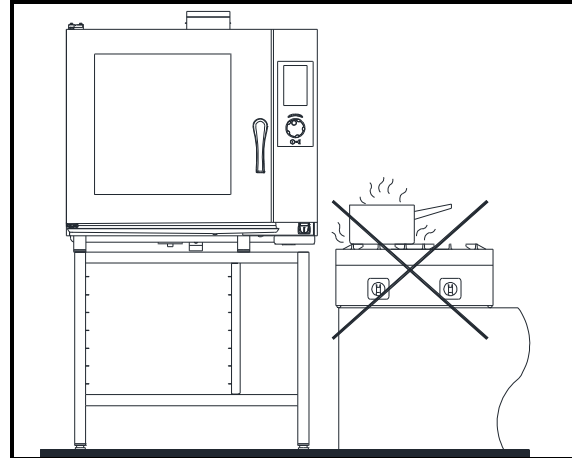
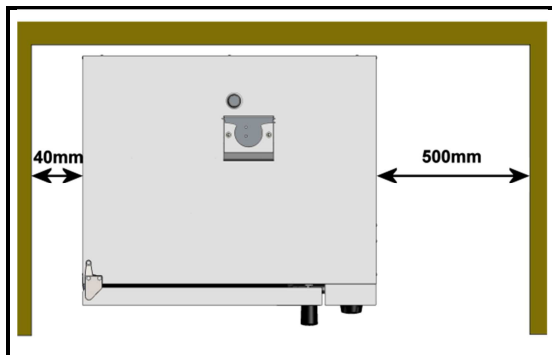
2 INSTALLATION

2.1 GENERAL

- A qualified engineer must carry out the installation, modification or repair of the appliance in a workmanlike manner.
- These appliances must be installed with sufficient ventilation to prevent the formation of excessive concentrations of noxious substances hazardous to health in the area in which they are installed.
- The appliance is of Type A (not connected to an exhaust duct for combustion products).
- The required flowrate of new air for combustion is 2 m³/h per kW of heat release rate.
- The equipment is not designed to work in an explosive atmosphere. Accordingly it must not be installed in an area subject to an ATEX directive
- The steam exhaust flues should not to be connected directly to a hood or extract duct.



- If these units are installed against a wall or a partition, this must be of non-combustible materials or, if not, it must be covered with an appropriate, good insulating and non-combustible material.
- These appliances may be installed on a floor with maximum slope of 1 cm/m.
- Observe the necessary minimum distances between the appliance and a partition (wall or other cooking appliances) (4cm on the left, 50cm on the right).
- Do not place a source of heat against the right hand side of 6 and 10 level ovens.



- The manufacturer certifies that the packaging meets the provision 94/62/CE (relating to packaging and packaging waste of 20.12.94) and requests that the final installer (or user) observes the rules relating to the removal of the packaging (recycling or reuse).
- Always comply with current local regulations regarding connecting the unit to water, electricity and drainage.

2.2 RECOMMENDATIONS

- Only for use on dedicated individual circuits
- ATTENTION – Disconnect electrically before any form of maintenance.
- Combination ovens should be cleaned with specific products which can resist temperature of up to 70°C. An inappropriate cleaning or descaling product may have a slightly corrosive effect.

HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

- We strongly recommend the use of cleaning products suggested by the manufacturer and supplied with the oven to ensure good results and optimise the service life of its components.
Except for the UK market: No detergent product is recommended or supplied. Any detergent used with this appliance must have been verified to represent no greater risk than Fluid Category 3. If the detergent used represents a Fluid Category risk greater than Fluid Category 3 alternative backflow protection to the double check valve supplied with the appliance will be required immediately upstream of the appliance. The backflow protection used must be appropriate to the risk posed by the detergent.
- For maximum efficiency of the descaling product without damaging the material and components of the oven, you should use an appropriate descaler. The use of certain acids has an irreversible destructive effect that may cause significant damage. The descaling product must contain corrosion inhibitors to prevent metal attack. It must also comply with legal requirements, in particular for material intended to come into contact with foodstuffs. Chemical products containing nitric acid are strictly prohibited.
Recommended composition:
 - Phosphoric acid <50%
 - Corrosion inhibitor
- **Never use descaling product in the automatic cleaning system. This could seriously damage the ovens hydraulic circuits.**
- Danger of irritation to the skin and eyes or acid burns.
Detergents and descalers will cause irritation and possible burns if in direct contact with the skin or eyes.
 - Do not inhale the mist or spray
 - Avoid direct contact with these products
 - Never open the oven door during the automatic cleaning cycle
 - Wear protective clothing, gloves and hermetic protective goggles in accordance with the safety data sheet.
- Remember the dangers identified on the safety data sheet for each detergent or descaler
 - Harmful if swallowed.
 - Can result in serious burns.
 - Irritates the eyes.
 - Irritates the respiratory tracts.
 - Risk of serious eye lesions.
- Remember the safety advice provided by the safety data sheet for each detergent or descaler
 - Do not eat or drink when using these products.
 - Do not inhale their vapours.
 - In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
 - Wear appropriate protective clothing, gloves and face and eye protective gear.
 - In the event of an accident or sickness seek immediate medical attention
 - Dispose of the product and its container as hazardous waste.

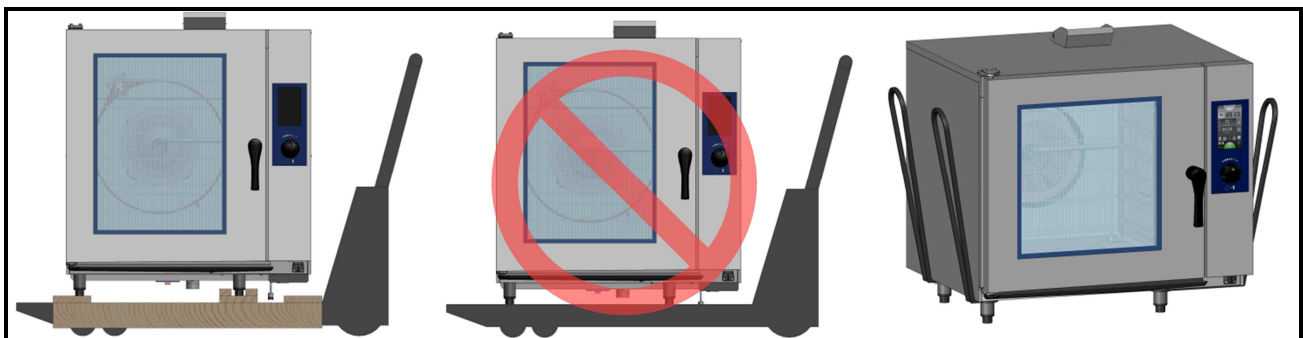
2.3 HANDLING

The appliance should only be handled with suitable lifting equipment.

Should the appliance need to be transported, this must be on its original pallet and it must not be stacked on other appliances under any circumstances.

If the appliance is to be moved without its pallet, it should be carried and not pulled.

6 and 10 level ovens



Ovens with two cavities and 20 level**2.4 UNPACKING**

Before installation, remove the strapping from the appliance. The individual parts are not bolted down. Remove the protective plastic film from all stainless steel parts before heating.

On 20 level and twin cavity ovens retain the leg retaining plates from the pallet they are used to hold the legs when the oven is installed.

HOBART

HOBART GmbH
Registered office:
Robert Bosch Str. 17,
77656 Offenburg - Germany

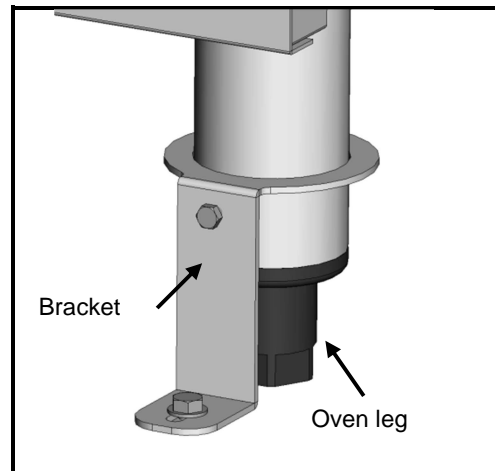
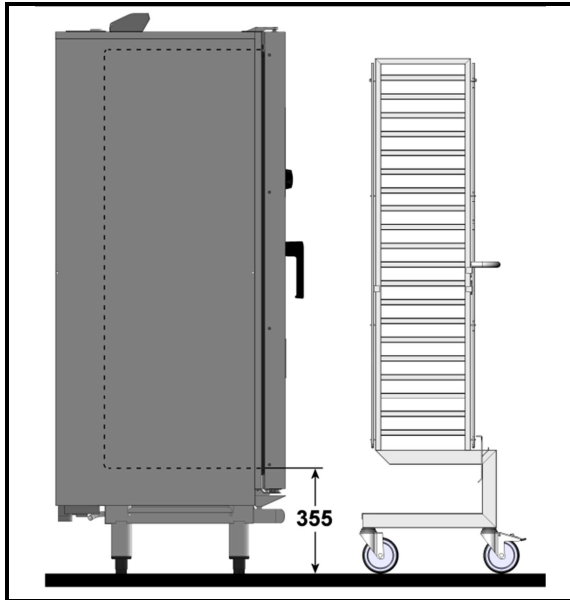
3 INSTALLATION: LOCATION

3.1 20 LEVEL OVEN

The oven level is checked in the lower part of the cavity with a maximum floor slope of 1 cm/m.

The required height of the **loading threshold** is **355mm**.

The oven must be fixed to the floor using the two brackets supplied with the oven. Fit both brackets to the rear legs.

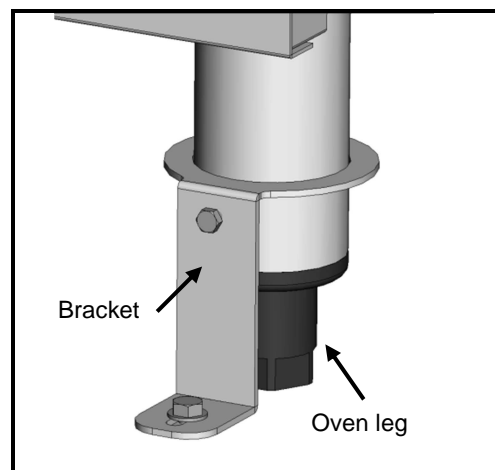
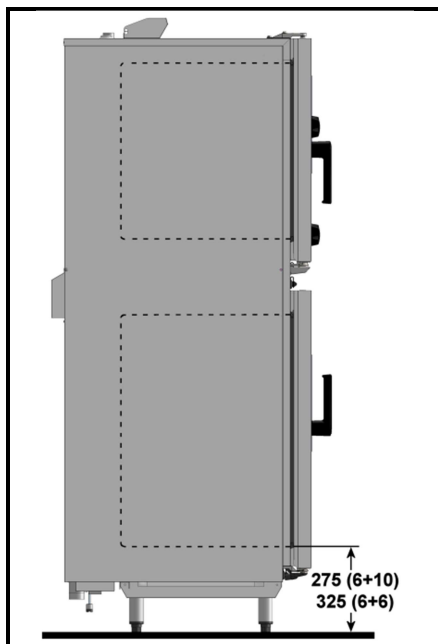


3.1 TWIN CAVITY OVENS

The oven level should be checked in the lower part of the cavity with a maximum floor slope of 1 cm/m.

The required height of the **loading threshold** is **275mm** on 6+6 ovens and **325mm** on 6+10 ovens.

The oven must be fixed to the floor using the two brackets supplied with the oven. Fit both brackets to the rear legs.



3.2 6 AND 10 LEVEL OVENS ON A STAND

Level the stand, the maximum floor slope is 1 cm/m.

Position the oven on its stand. Openings are provided for the oven legs.

The required height of the **loading threshold** is **900mm**.

Fix the stand to the floor. The rear legs must be fixed to the floor using the two stainless sockets provided with the stand. Depending on the type of floor this can be done in one of two ways:

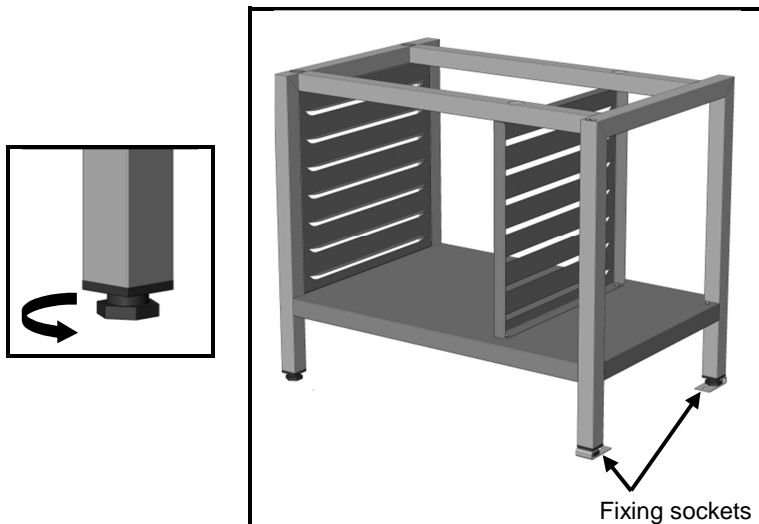
Glued using epoxy resin such as « loctite 9466 »

- Lift stand using a pneumatic or hydraulic jack.
- Remove the fixing plate
- Clean and degrease the parts (Loctite degreaser ref 7063)
- Roughen all the surfaces to be glued with course sandpaper
- Apply 2 beads of glue to each fixing plate and allow 24 hours to dry.
- The weight of the oven provides sufficient pressure.

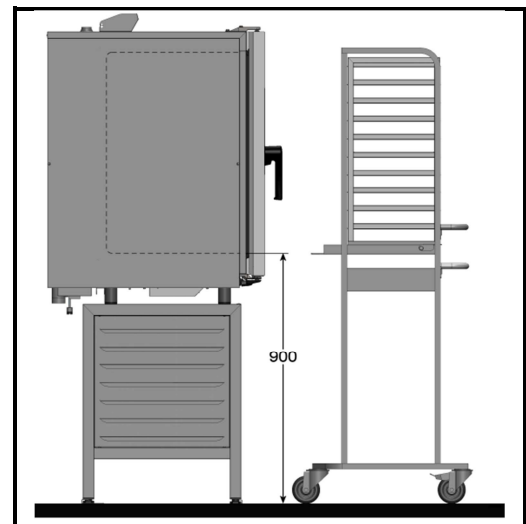
Bolted using rawl bolts :

- Mark the points to drill on the floor
- Lift the fixing brackets (same procedure as if gluing)
- Drill the holes in the floor
- Fix the plates to the floor with rawl bolts

Adjusting the stand



Location of the oven

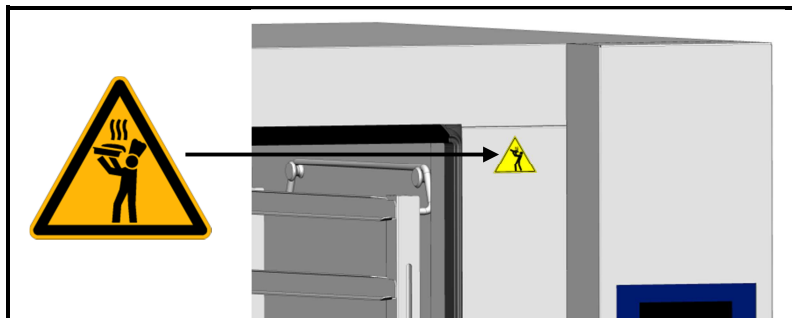


3.3 INSTRUCTION FOR HOT CONTAINERS

Maximal height for loading is 1600mm from the ground. A sticker is delivered with the instructions manual.

Place the sticker on the Combi oven at 1600mm from the ground

Danger: For containers that are filled with liquid or food that liquefies during the cooking process, operators must be able to see the contents of the container if it is inserted any higher.



3.4 ACCESSORIES

3.4.1 CORE PROBE KIT

Opening the technical compartment

- Open the right hand side of the oven
 - Undo the various fixing screws
 - Remove the side cover

Fitting the core probe

- Open the oven door
- Remove the right hand runners, the cooking module or trolley.
- Undo the blanking screw covering the route for the probes wires.
- To fit the probe
 - Feed the probes wires through the router elbow and the hole into the technical compartment
 - Fit the sealing washer and back nut on the technical compartment side
 - Tighten the nut to secure the router elbow.

Attention: the router elbow should point downwards

Connecting the probe

- Connect the two wires to the 4 point green terminal block on the mini relay card or 8 point green terminal block on the maxi relay card:
 - The wire marked COM to Com
 - And E2 to E2

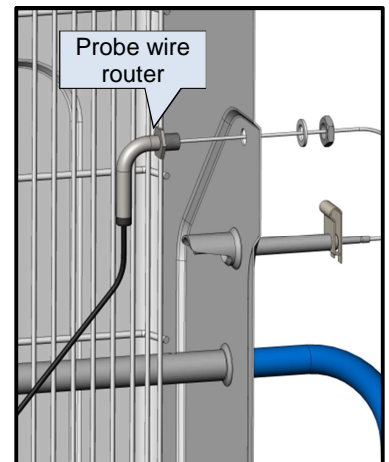
In the case of a multi-point probe: fold the unconnected wires onto the probe cable and attach them with a collar

Mounting the probe holder and storage the probe

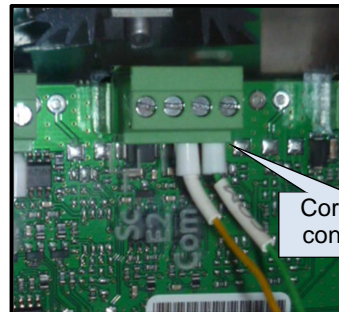
- Ovens with runners:
 - Store the probe in the holder on the runner upright : probe upwards
- Ovens with runners trolley (6 & 10 level oven) or with trolley (20 level ovens)
 - Fix the probe holder to the oven ventilation duct
 - Store the probe in the holder: probe upwards



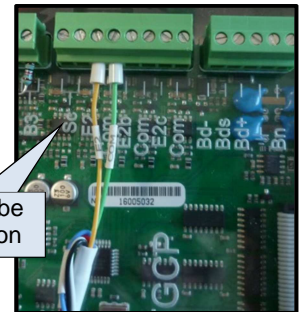
Blanking screw



Probe wire router

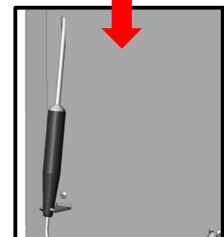
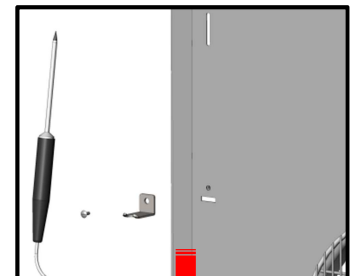
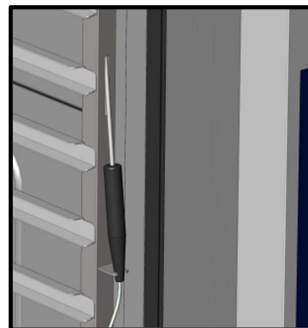


Core probe connection



Ovens with runners

Ovens with trolley



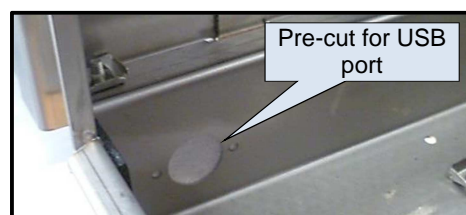
3.4.2 USB PORT KIT

Opening the technical compartment

- Open the right hand side of the oven
 - Undo the various fixing screws
 - Remove the side cover

Fitting the USB port

The USB port fits on the fascia of the oven below the control panel



Pre-cut for USB port

- Cut the Lexan where the cut out is located and remove the pre-cut metal circle
- Pierce the two holes for the screws with a sharp point

Assembling the port

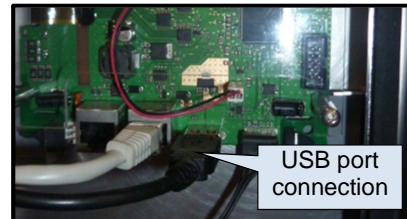
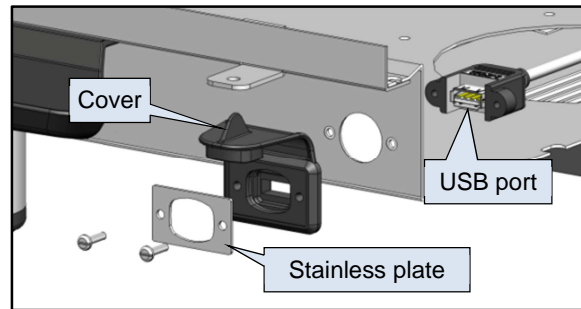
- Inside the technical compartment position the USB port
- From the outside fit the silicone cover and stainless plate over the outlet hole.

Note: the cover of the silicone protection must be above the opening

- Fix the assembly with the two screws.

Connecting the USB port

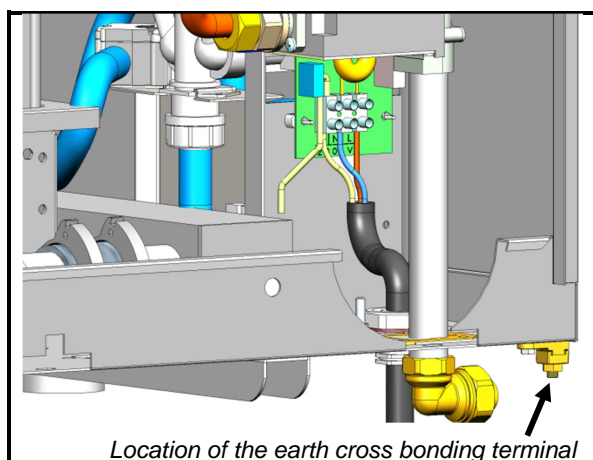
- Connect the USB port to the screen card



4 INSTALLATION: CONNECTIONS

4.1 ELECTRICAL CONNECTION

4.1.1 GAS OVEN



Electric connection is carried out from the at the rear of the appliance on the right, whatever the model

- Remove the right hand panel.
- Pull the cable through the gland.
- Connect the wires (check the neutral and the earth).
- Tighten the gland.
- Refit the side panel.
- Connect the equipotential link to the terminal provided for this purpose.

- **IMPORTANT:** Only use a supply cable of the HO 7 RNF type with 5 x 2.5 mm² section.

Provide an approved omnipolar isolation device, (with at least 3 mm clearance between the contacts).

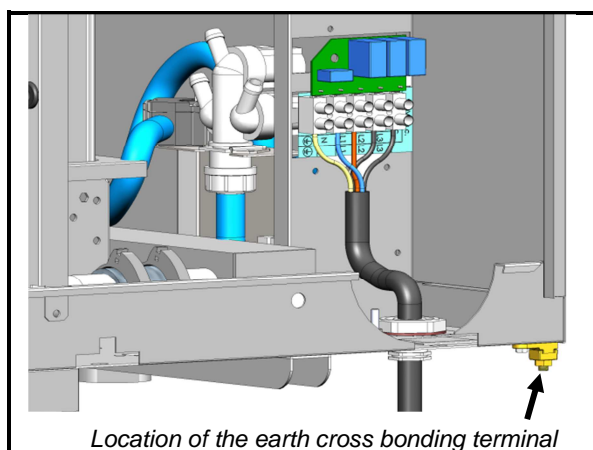
The fixed electrical supply to the unit must incorporate an appropriate isolator that can be locked in the off position.

All aspects of the installation should be in compliance with current local regulations (In France: NFC 15.100).

The appliance must be connected to the earth. Different electric appliances **must also be cross bonded** (all metallic structures at the same potential) using the terminal provided for this purpose located next to the cable gland.

The manufacturer accepts no responsibility whatsoever if these instructions are not followed.

4.1.2 ELECTRIC OVEN



Electric connection is carried out from the at the rear of the appliance on the right, whatever the model

- Remove the right hand panel.
- Pull the cable through the gland.
- Connect the wires (check the neutral and the earth).
- Tighten the gland.
- Refit the side panel.
- Connect the equipotential link to the terminal provided for this purpose.

- Only use H07 RN-F type supply cable sized to suit the load of the unit as defined in the table below. (see chapter 1 « technical characteristics » which give the electrical rating).

Intensity (A)	Cable section (mm ²)
0.1 to 16	2.5
16 to 25	4
25 to 40	6

Intensity (A)	Cable section (mm ²)
40 to 63	10
63 to 96	16
96 to 127	25

HOBART

HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

The fixed electrical supply to the unit must incorporate an appropriate isolator that can be locked in the off position.

All aspects of the installation should be in compliance with current local regulations (In France: NFC 15.100).

The appliance must be connected to the earth. Different electric appliances **must also be cross bonded** (all metallic structures at the same potential) using the terminal provided for this purpose located next to the cable gland.

The manufacturer accepts no responsibility whatsoever if these instructions are not followed.

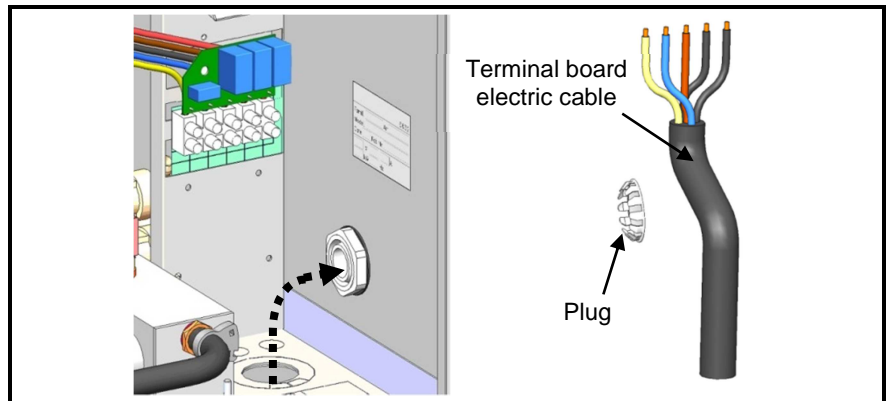
4.1.2.1 CONNECTING THE DOUBLE POWER SUPPLIES ON STACKED OVENS

It is possible to separately connect the power supplies for the upper and lower ovens. To do so, please follow this procedure. The data plate and these instructions are stuck inside the rear oven panel.

Remove the right side panel.

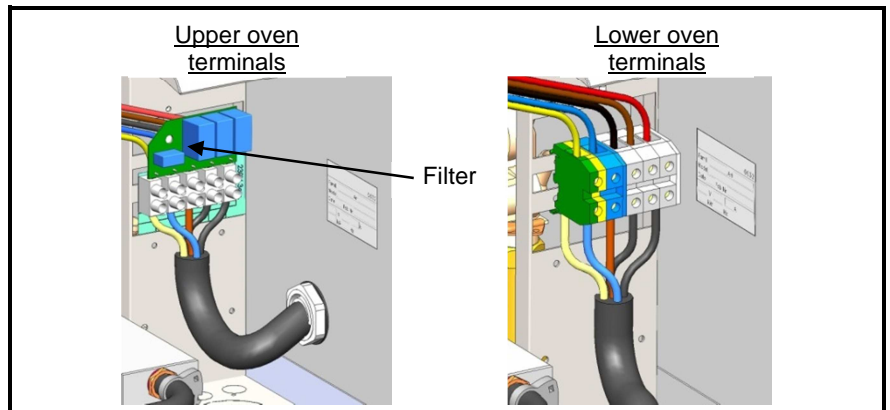
Disconnect and remove the electric cable between the 2 sets of terminal.

Unscrew the cable gland from the upper terminals and fit it to the rear panel instead of the plug.



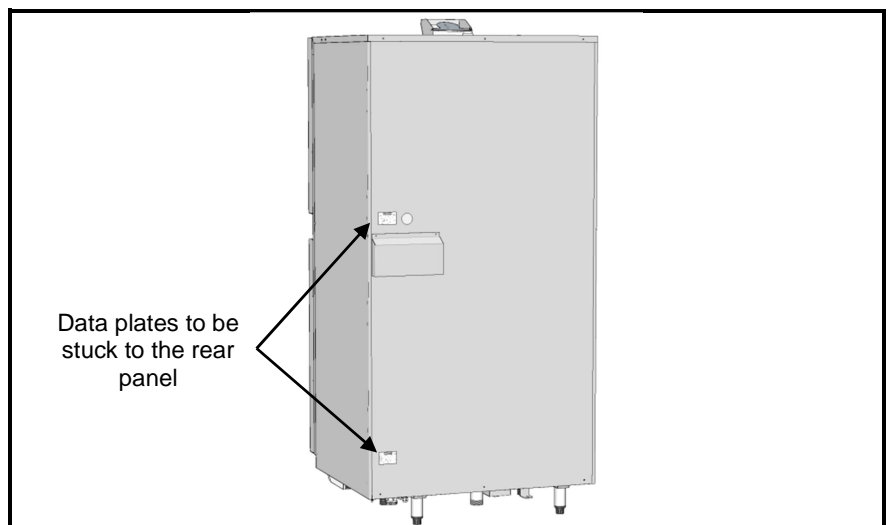
Connect the power supply to each set of terminals.

When disconnecting the cable from the terminals, ensure the filter between the blue and black wires is secure and all terminals are tight.



Stick the 2 data plates onto the rear panel opposite each set of terminals.

For a 6 on 10 stacked oven, ensure the data plate for the 10 level oven is stuck on the lower oven.



4.1.2.2 ENERGY ECONOMIZER

6 and 10 level ovens (optional)

Only use HO 7 RNF type supply cables with a section of 5 x 1.5 mm².

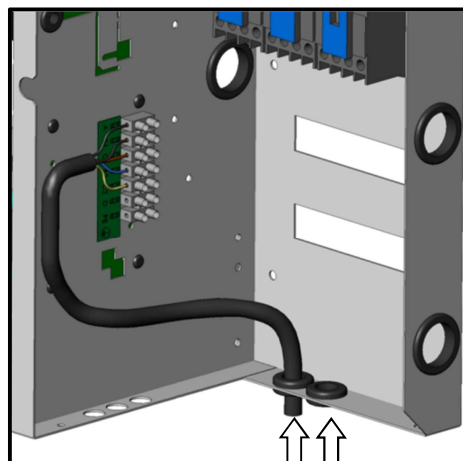
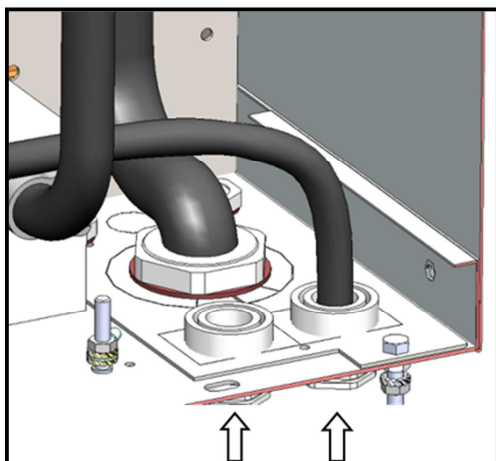
A local and approved isolation device is required for the energy saver (with at least 3mm clearance between all contacts when open). Dangerous voltages may be present in the appliance in case of inappropriate installation.

Connection of the energy saver on 20 level units:

The installation must meet current national statutory provisions (France: NFC 15.100)

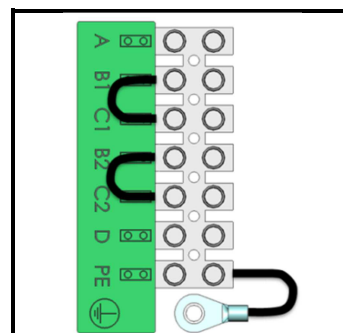
Use H07 RN-F type 1.5mm² cables with the number of cores required by the energy saver.

Pass the cable(s) through the cable glands on the connector support and through the outer grommets on the electrical support:



Remove the cable bridges B1-C1 and B2-C2 when connecting the energy saver to these terminals.

- A : Oven output information = switch on/ switch off
- B1 : Oven output information: dry heat power request
- C1 : Oven input information: power allocation or not by the energy saver for dry heat
- B2 : Oven output information: steam heat power request
- C2 : Oven input information: power allocation or not by the energy saver for steam heat
- D : Neutral
- PE : Earth terminal



4.2 GAS CONNECTION

Check that the adjustments of the appliance correspond to the nature and pressure of the gas distributed in the network. (See section 1: Data plate).

Connect the appliance to the gas supply via a local isolation valve.

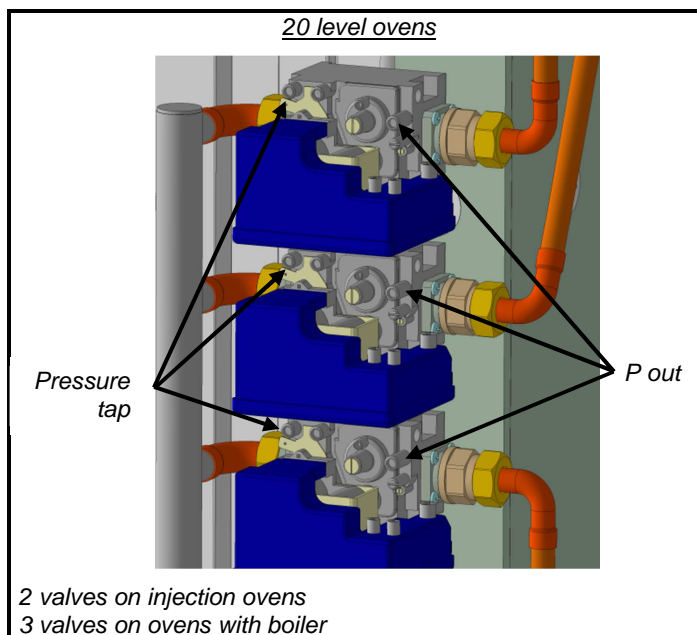
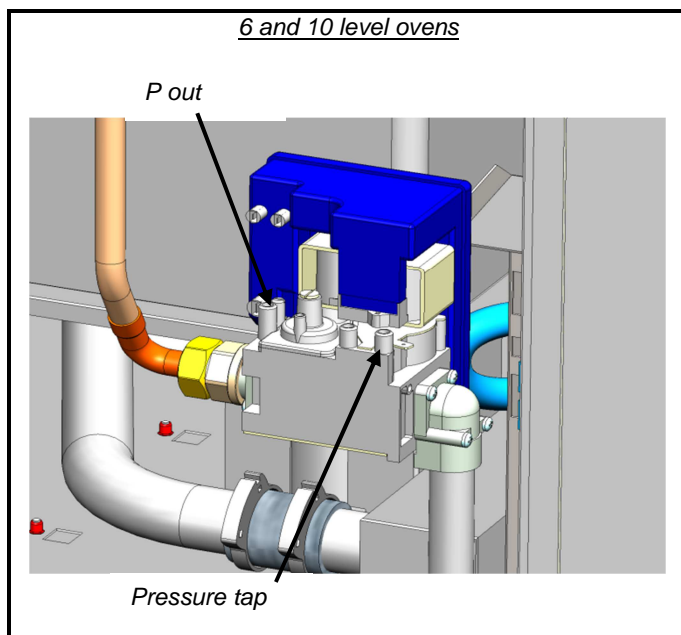
The gas supply pipe should be sized so as to minimize the load losses: Its diameter should be determined to suit its run (length, number of elbows...) and the total power of the appliance.

CHECKING THE CONNECTION PRESSURE

To check the gas supply pressure to the appliance, just connect a water column pressure gauge to the pressure tap (see the sketch hereafter), when the burners are working.



The gas pressure thus measured must be equal to that indicated on the data plate for the gas used (See section 1: Data plate).



NOTE: The appliance is equipped with a safety flame control, in case of a failure. When switching the oven on, it may be necessary to bleed the pipework. To do this, switch the appliance on, select convection and set a temperature higher than 100°C. The oven will try to ignite but this may lead to a flame control safety situation, if ignition does not succeed (about 1 minute). In this case, switch off the appliance and repeat the operation.

Gas operating pressure on the jets (*P out*)

The pressure should be from 8 to 11 mbar. Use a calibrated and accurate measuring device. If the value is inconsistent do not change the setting of the gas valve, replace it.

Connection of a flexible hose:

Recommended solution: 6/10 level ovens: NF approved gas flexible hose (of "TUBOGAZ" type, 0.75 m in length, 15/21 (1/2") Ø with coupling).

4.3 WATER CONNECTION

- To ensure that the mains water supply is protected and to comply with current regulations a backflow prevention device conforming to CAa standard (Ovens fitted with automatic wash function including an integral detergent pump) as per norms : EN14367 or EA (all other units) to norms EN13959 and in compliance with local regulations (WRAS, SVGW, DVGW).

Pipework and anti pollution protection is not fitted because the distance between the water supply and the unit are variable. Installation, connection and commissioning should be undertaken by specialist concessionaires or authorised personnel.

- **Maximum 23°C cold potable water**
- **Maximum 23°C cold softened water**
- Hardness of softened water: maximum 7° TH (5°e, 4°h, 70ppm).

Water consumption: Indication of maximum water consumption for adjustment of a separate softener.

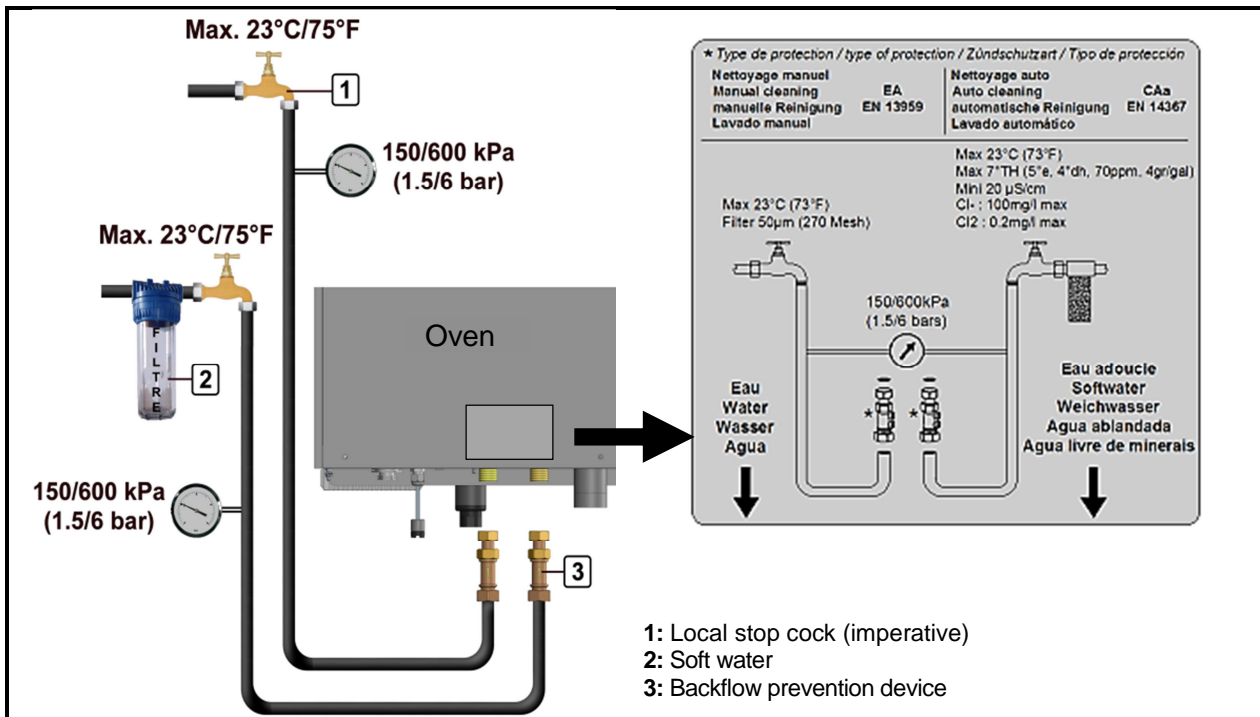
Maximum water consumption	Ovens				
	6 GN 1/1	10 GN 1/1	10 GN 2/1	20 GN 1/1	20 GN 2/1
Litres / hour	50	80	120	150	200



HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

- Nature: 168 µm filter integral with the oven
 - Conductivity: Min 20 µS/cm²
 - Water quality: Maximum concentration of Chloride Cl⁻: 100 mg/l and Chlorine Cl₂: 0.2mg/l
 - Minimum pressure: 1.5 bar max: 6 bar.
 - Provide a local stop cock.
 - Any deterioration resulting from lime scale (cavity walls, heating elements, fan ...) will not be covered by the -
- Final connection at the rear via **male thread 20/27 Ø**

Attention (UK specification): Fit an approved double check valve to comply with local water regulations.

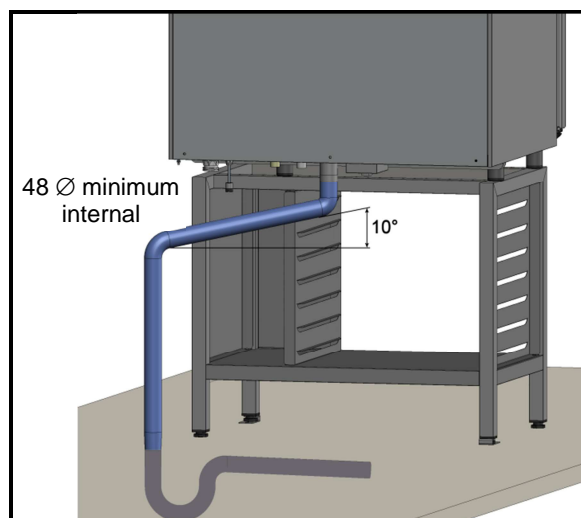


4.4 DRAIN CONNECTION

The water discharged could be condensate and at very high temperature (98°C). Only use materials suitable for these temperatures.

The oven is equipped with a trap which connects the appliance directly to the external drainage system to comply with pollution control standards.

It is vital that there is a trap between the unit and the drainage system to prevent back odours



HOBART

HOBART GmbH
Registered office:
Robert Bosch Str. 17,
77656 Offenburg - Germany

4.5 CONNECTION OF CLEANING PRODUCTS (OPTION)

The oven has an automatic cleaning system to wash the cooking cavity.



Never use descaling product in the automatic cleaning system. This could seriously damage the ovens hydraulic circuits.

Product sample is supplied with the oven in 1 litre tins.

Except for the UK market: No detergent product is recommended or supplied. Any detergent used with this appliance must have been verified to represent no greater risk than Fluid Category 3. If the detergent used represents a Fluid Category risk greater than Fluid Category 3 alternative backflow protection to the double check valve supplied with the appliance will be required immediately upstream of the appliance. The backflow protection used must be appropriate to the risk posed by the detergent.

- Detach the hoses from the rear of the oven and unroll them length: 1.50 meters for each model.
Attention: The nature and length of the detergent hose should not be altered in any way

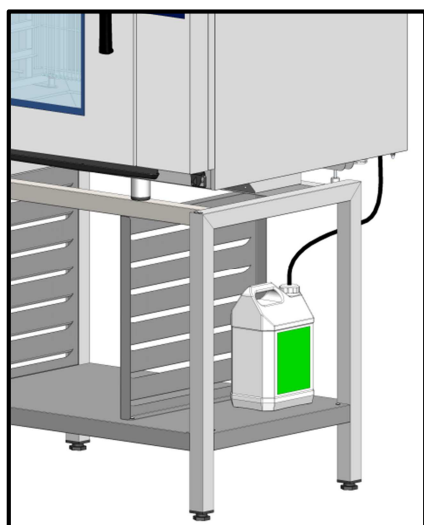
The detergent inlet hose is identified by a label and a coloured plug to ensure it is placed in the correct container:



Note: Refer to the “Installation: Recommendations section” chapter when handling or using these chemicals, if in any doubt refer to the products safety sheet

Oven on stand

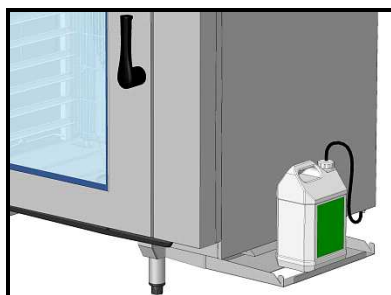
- Place the container on the stand
- Insert the corresponding hose into to the chemical.



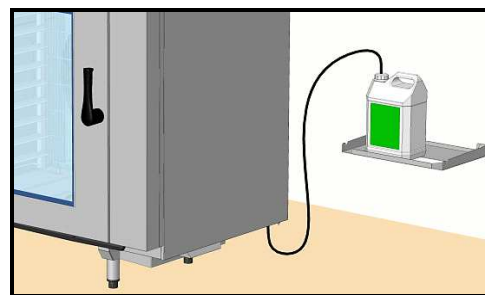
Double cavity and 20 level ovens

- Fit the container shelf supplied with the oven, either on the right hand side of the oven (2 inserts provided on the crossbars below the oven, use the screws provided) or fit it to the wall (fixings not supplied).
- Place the container on the shelf
- Insert the corresponding hose into the chemical.

Shelf fitted to the oven



Shelf fitted to the wall



5 PARAMETER ADJUSTMENT

5.1 FACIA

- Press the « Cleaning/Tool » button.
- Scroll through the parameters until you get to installation: « inSt » using the coder of the ▼/▲ buttons.
- Select the « inSt » parameter button
- Enter the PIN code for the installer « inSb »:
 - * The first digit appears in cyan and flashes. Using the coder or the ▼/▲ buttons allows you to change the value of the first digit.
 - * Once the value is correct pressing the coder or the « PROG/VALID » button moves you on to the next digit which can be altered in the same way
 - * When all the code has been entered and it is correct access the menu or start on the PIN number again.



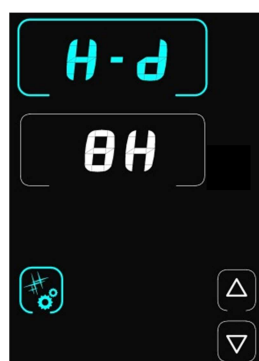
Frequency of maintenance and level of use per day

- Enter the number of hours before the next service visit (1500 hours by default): « HSr ». Adjustable from 100 to 5000 hours. Allow at least one service per year.
 - * Select the value to be modified
 - * Adjust the setting using the coder or the ▼/▲ buttons.
 - * Once adjusted press the coder or the “PROG/VALID” button allows you to pass to the next parameter.
- Enter the average hours per day that the unit is likely to operate for: « H-d ». Adjustable from 1 to 24 hours.
 - * Select the value to be modified
 - * Adjust the value using the coder or the ▼/▲ buttons.
 - * Once adjusted press the coder or the “PROG/VALID” button allows you to pass to the next parameter.

Frequency of maintenance



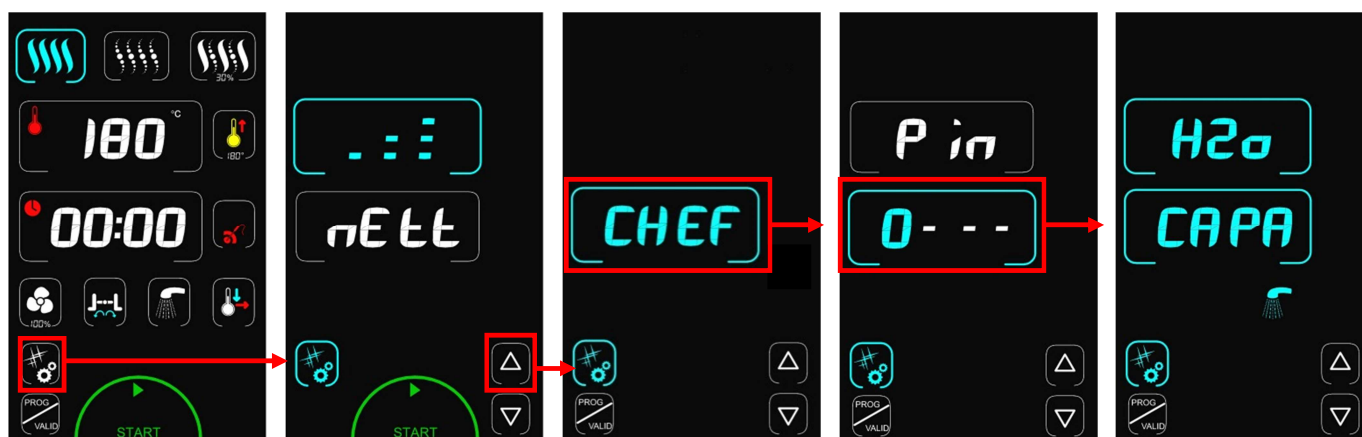
Level of use per day



5.2 WATER TREATMENT COUNTER

This only functions if there are 2 separate supplies to the oven.

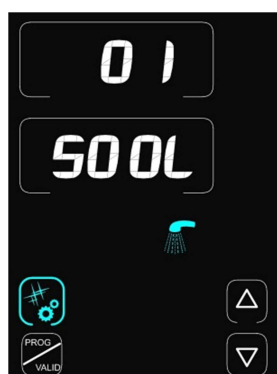
- Press the “Cleaning/Tool” button.
- Scroll through the parameters until Client parameters: « CHEF » using the coder or the ▼/▲ buttons.
- Select the « CHEF » parameter button
- Enter the PIN code for the client « CHEF »:
 - * The first digit appears in cyan and flashes. Using the coder or the ▼/▲ buttons allows you to change the value of the first digit.
 - * Once the value is correct press the coder or the « PROG/VALID » button moves you on to the next digit which can be altered in the same way
 - * When all the code has been entered and it is correct access the menu or start on the PIN number again.
- Scroll through the parameters until the « EAU CAPA » menu, using the coder or the ▼/▲ buttons.
- Select « EAU » to access the water treatment counter sub menu



Water treatment capacity

- Modify or check the water treatment capacity (in litres). Set to zero by default (if there is not a dedicated water treatment system for the oven).
 - * Select the value to be modified
 - * Adjust using the coder or the ▼/▲ buttons.
 - * Once the value is set press the coder or » PROG/VALID » to validate the setting.
- Reset the counter if required.
 - * Move to the next parameter using the coder or the ▼/▲ buttons.
 - * Press « YES » below the « Rst » button

Water treatment counter



Reset water counter



6 CHANGING THE APPLIANCE FROM ONE GAS TO ANOTHER

General:

In the following chapters, the different gases are designated by their international codification:

G 20	NATURAL GAS Group H, (Methane, Lacq gas).
G 25	NATURAL Group L, (Groningue type gas).
G 30	BUTANE
G 31	PROPANE

6.1 LIST OF AUTHORISED GASES/PRESSURES ACCORDING TO CATEGORIES AND COUNTRIES

Country	Categories	Gas	Pressure (mbar)
Austria	I _{2H}	G20	20
	I _{3B/P}	G30 and G31	50
	I _{3P}	G31	50
Finland - Denmark Sweden – Norway	I _{2H}	G20	20
	I _{3B/P}	G30 and G31	30
Czech republic	I _{2H}	G20	20
	I _{3B/P}	G30 and G31	30
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37 and 50
Spain United Kingdom	I _{2H}	G20	20
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37 and 50
Germany Luxembourg	I _{2ELL}	G20	20
		G25	20
	I _{3B/P}	G30 and G31	30
	I _{3P}	G31	50
Switzerland	I _{2H}	G20	20
	I _{3B/P}	G30 and G31	50
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37 et 50
Greece Italy	I _{2H}	G20	20
	I _{3B/P}	G30 and G31	30
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37
Ireland Portugal	I _{2H}	G20	20
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37
The Netherlands	I _{2L}	G25	25
	I _{3B/P}	G30 et G31	30
	I _{3P}	G31	50
France	I _{2Esi}	G20	20
		G25	25
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37 and 50
Belgium	I _{2E(s)B}	G20 / G25	20 / 25
	I ₃₊	G30 / G31	28-30 / 37
	I _{3P}	G31	37



HOBART GmbH
Registered office:
 Robert Bosch Str. 17,
 77656 Offenburg - Germany

6.2 CHANGING FROM ONE GAS TO ANOTHER:

A change of gas that entails a change of category can only be made under the responsibility of our company or local agent. See maintenance manual.

6.3 GAS FLOW RATES AND POWERS

See section 1: Technical characteristics

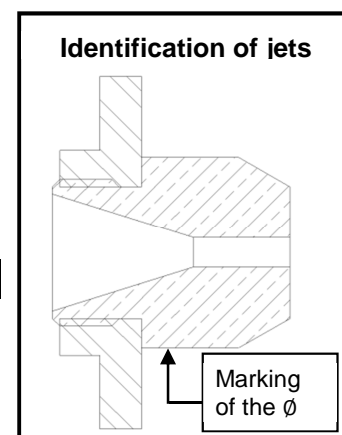
6.4 CHART OF GAS JETS

6 and 10 level ovens

Burner	GAS		Pressure (mbar)	Qty	JETS		
	Designation				Qty	Ø (1/100 th)	Code
	Family	Type					
Natural gas	G20	G20	20	1	500	148 560	
		G25	20 or 25	1	625	148 561	
	L.P.G.	G31	30 or 37 or 50	1	360	148 563	
		G30	30 or 50	1	335	148 562	

20 level ovens

Burner	GAS		Pressure (mbar)	Qty dry	JETS		Code
	Designation				Qty steam	Ø (1/100 th)	
	Family	Type					
Natural gas	G20	G20	20	2	1	500	148 560
		G25	20 or 25	2	1	625	148 561
	L.P.G.	G31	30 or 37 or 50	2	1	360	148 563
		G30	30 or 50	2	1	335	148 562



Positioning of the jets and the air distancing ring

