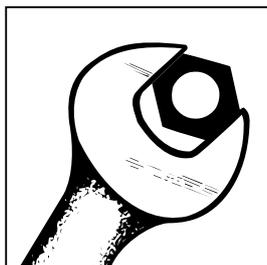


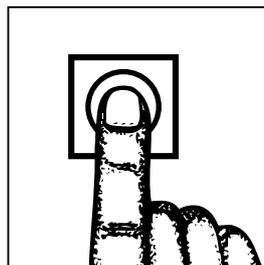


## Convection Steam Ovens CSM Series

INSTALLATION



OPERATION



# Instructions for Installation and Operation of CSM Series Hobart Convection Steam Ovens

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**Machine noise level is  $\leq 70$  dB (A)**

## Important Instructions for Use

### ● Use in Accordance with Regulations

Hobart Convection Steam Ovens are only intended for baking, roasting, gratinating, steaming and stewing food products intended for consumption.

### ● Safety

Do not wash down with a hose or a high pressure cleaner from outside. The "**danger**" symbol is shown beside instructions that are essential for the **safe operation** of the machine. Please read these passages with particular care.



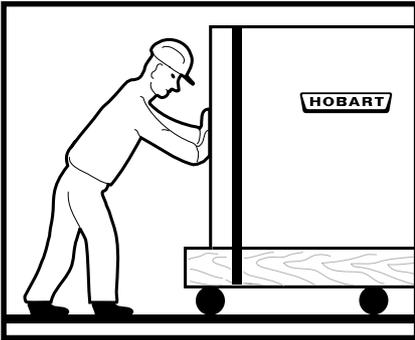
### ● Liability

Incorrect installation and repairs not carried out by **Hobart Engineers** or their Authorised Service Agent and any **technical modification** to the machine not authorised by the manufacturers may **cancel the manufacturers guarantee**.

All examples given in these instructions with reference to cooking methods, times and temperatures are dependant on the quality of the foodstuffs being cooked and may therefore vary.

# 1 INSTALLATION

## 1.1 Installation

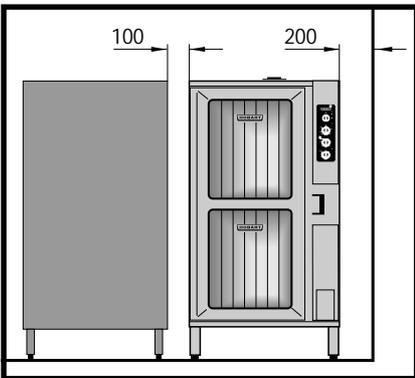


### 1.1.1 Transportation to Installation Site

- This should, if possible, be done while the appliance is still packaged and on the pallet, using rollers or a mechanical handling device.

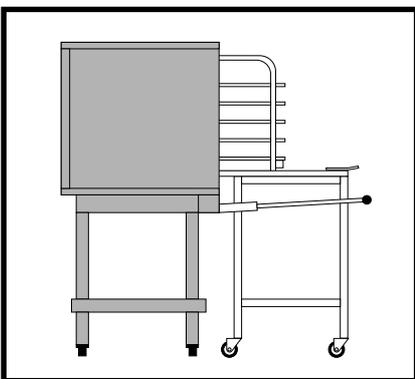
### 1.1.2 Remove Packaging

- Snip off steel bands.
- Lift off outer carton.



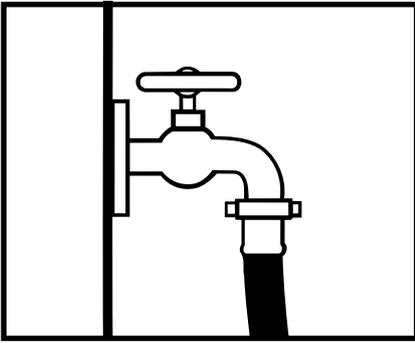
### 1.1.3 Alignment on Installation Site

- If installing a CSM 0611 / 1011 / 1021 on a stand it is necessary to remove the legs. The legs are only required if you are installing the unit on an existing bench.
- Check to ensure machine specification complies with order requirements and that it is the correct voltage.
- Do not install with the sides close to hot equipment.
- Align using a spirit level.
- The appliance must be positioned at least 100 mm from other objects and at least 200 mm from the wall.
- A gap of at least 200 mm must also be left above the appliance in order to ensure optimal functioning of the ventilation system.
- For 20 level models it may be necessary to install the fixing plates provided to fix the oven to the floor.



#### Using the roll in / roll out trolley (optional on 6 and 10 level models)

- Ensure that the oven insert and/or tray trolley can easily be slid into the cooking compartment.
- If the appliance has to cross a grating, flat metal strips should be fitted to the floor for the wheels to run on.
- The site on which the oven sits and the surrounding floor area should be perfectly level to facilitate the roll-in roll-out trolley and the ability to level the oven during installation.
- Re-adjust the oven after it has heated up.



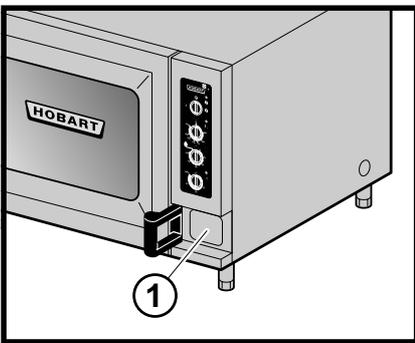
## 1.2 Water Connection

- Make the cold water connection to a supply of potable softened water.
- Maximum permissible static pressure: 6 bar - Minimum 0.5 bar.
- Provide a suitable pressure hose 1/2", B.S.P. union nut 3/4", stopcock, line strainer and a WRAS approved double check valve.
- If water hardness is greater than 6 Deg Clark, a water softener must be provided by the customer.



**During breaks in operation (eg. overnight), close the stopcock.**

- WRAS approved double check valve p/n 143450



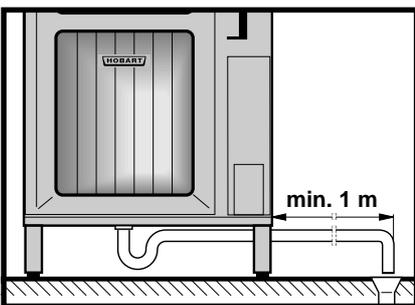
### 1.2.1 Adjustment of incoming water pressure

On first operation and at maintenance intervals water pressure must be checked.

- Put oven into steam mode.
- Open the cover ①.
- Manometer dial should indicate 0.3 to 0.5 bar.

If necessary adjust by pulling the adjustment knob outwards and turning it to increase or decrease pressure to right level.

- Push knob back into place and close cover.

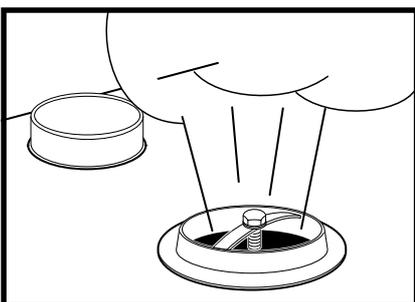


### 1.2.2 Condensate / Discharge

- Connection:  
B.S.P. 1 1/2" external thread. Do not use reduction.

**The oven must be installed with the trap provided.**

- Provide a tundish within 1 m maximum distance from outlet.
- Drain must fall towards discharge end and must be supported to prevent sagging.
- Drain material must be suitable for water at a temperature of 100 Deg. C., terminate the drain above the tundish. Do not locate the tundish underneath the machine.



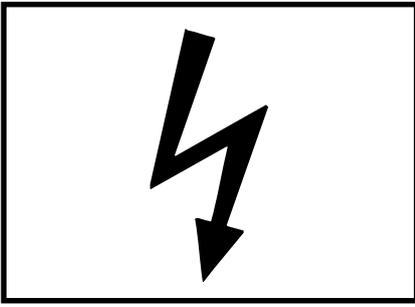
### 1.2.3 Exhaust Air

- Exhaust air must be able to gain free access to a canopy.
- Do not cover up the exhaust air opening.



**Danger of injury:**

**The exhaust air temperature can be as high as that in the cooking compartment.**



## 1.3 Electrical Connection



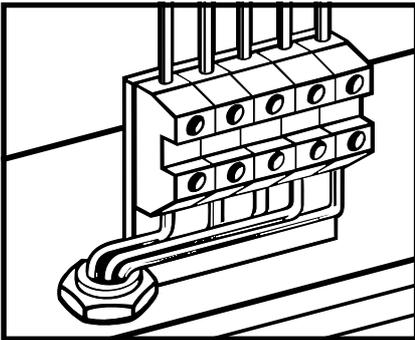
This should only be made by Hobart Engineers or other authorised Service Agents and must be in accordance with the installation requirements and all relevant regulations.

- Place the main isolator close to the machine (provided by customer). During prolonged breaks in operation, eg. overnight, the main switch must be put in the off position.



### 1.3.1 Checking

- Compare the data given on the data plate with that for the building's power supply and the circuit diagram.
- Check that fuse protection and cables are adequate for the current load.



### 1.3.2 Connection

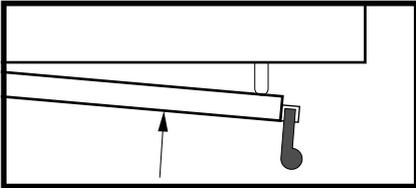
- Draw cable (suitable for current capacity of the oven) through the entry bush joint on the underside.
- Connect cable to the terminal block.
- Tighten all screws in the control box (they may have loosened off during transportation).
- Tighten the entry bush compression nuts.
- The appliance must be earthed. The terminal screw is located directly beside the terminal block.
- This appliance is provided with a terminal for the connection of an external equipotential conductor. This terminal is located under the bottom of the oven close to the electrical grommet.

## 2 OPERATION

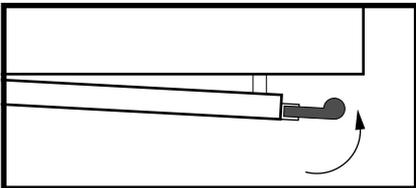
### 2.1 Getting Acquainted with your Hobart Convection Steam Oven

#### 2.1.1 Door opening / closure

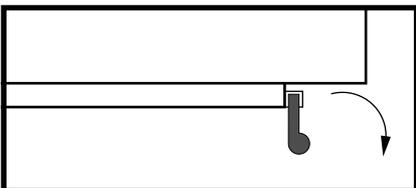
- The door of the appliance is fitted with an electrically powered lock.
- The appliance is delivered with the door unlocked and can be opened by firmly pulling the door handle.



- Push the door until it connects with the latch. This is the safety position which should be used when the oven is not in use, and also when the door is opened after cooking to allow excess steam to safely escape before fully opening the oven door.



- Push the handle until it is in line with the oven door. If the power has been connected, the door will now lock automatically, hermetically sealing the oven cavity.



- To release the door, pull the handle towards you, until it clicks into the open position. The oven door will then automatically be released to the safety position. Allow a few seconds for the excess steam to escape before pulling the door fully open.

#### 2.1.2 Initial Operation

**Only to be done by a Hobart Service Technician or an Authorised Hobart Service Agent.**

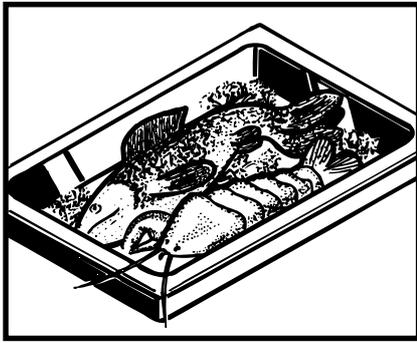


**Before the appliance is used it must first be preheated for at least one hour at a temperature of 250 Deg C. (see Chapter 2.4, convection mode).**

**The aroma and smoke that are then developed are normal as the oven is burning off oils and grease used in production.**

- Allow appliance to cool down and then clean it thoroughly.
- Check the door and re-adjust if necessary.

**Cooking programme can only be started with door closed.**



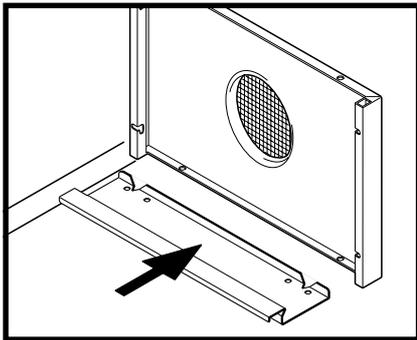
### 2.1.3 Loading the oven

- **Maximum load:**

CSM 0611 iE = 30 kg	CSM 2011 iE = 100 kg
CSM 1011 iE = 50 kg	CSM 2021 iE = 200 kg
CSM 1021 iE = 100 kg	

- Place the cooking load in appropriate container or on grid in accordance with the instructions for use and slide them into the insert.
- **Loading of 6 and 10 level ovens:**  
The insert may be left in the oven or can be used in conjunction with the optional roll in / roll out trolley.

- **Loading of 20 level ovens:**  
With the door in fully open position – insert the tray trolley until the levers connect with the oven cavity fascia. Lift the trolley handle until it stops.  
This will lower the tray insert into the oven chamber. Now withdraw the trolley. The insert is now held in place by two brackets fitted to the baffle at the rear of the oven.



- **NB**  
Anytime the roll in / roll out facility in the 10 level oven is not in use, you must ensure the insert retainer (delivered with the oven) is fitted under the fan baffle in order to prevent the insert from tilting when pans are being removed.

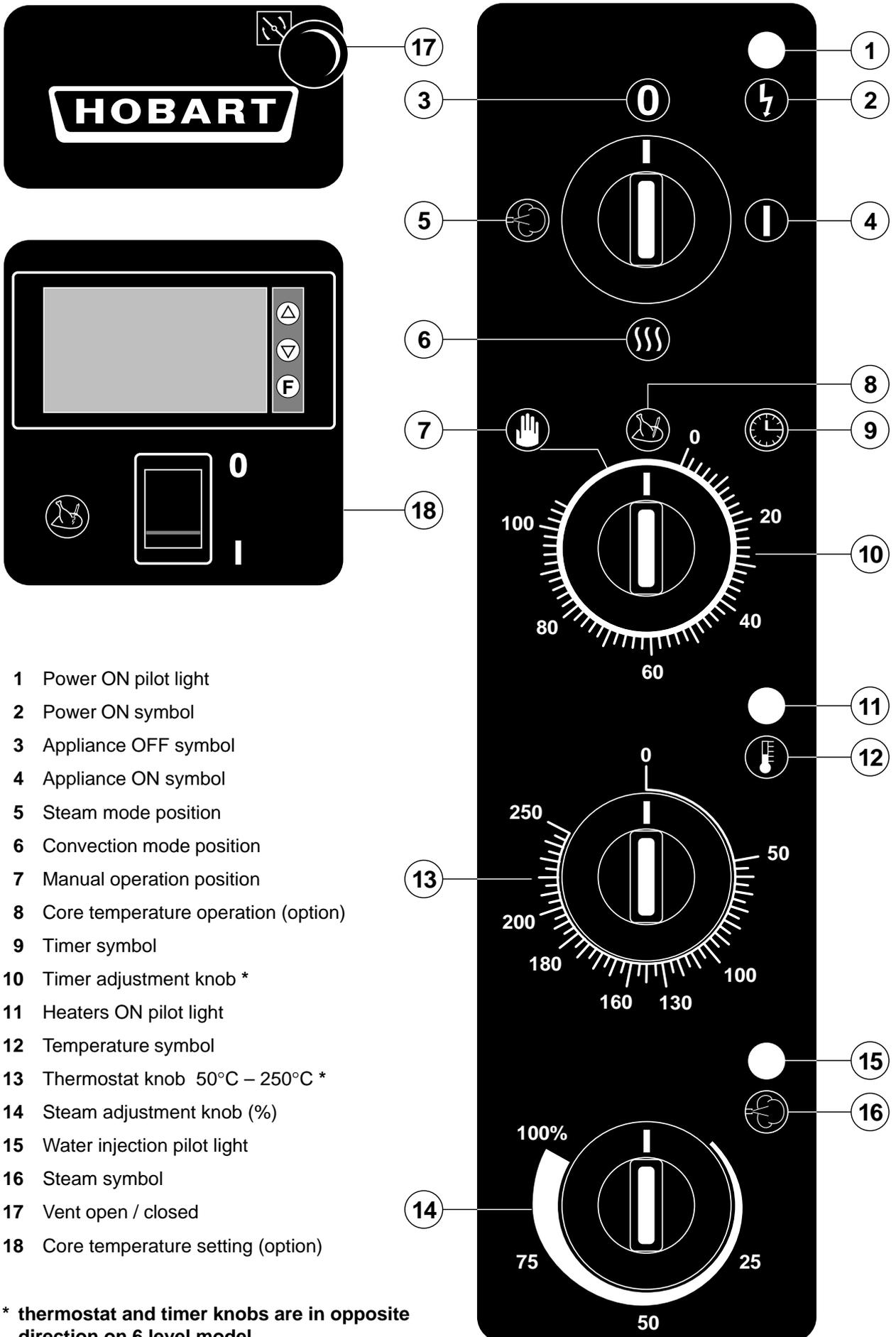
### 2.1.4 Unloading the oven



**DANGER – beware of excess steam and heat escaping from the oven chamber when the door is opened.**

- Always allow the door to remain in the safety position for a few seconds to allow excess hot air/steam to escape. Always stand behind the door when fully opening it after the excess steam has escaped from the oven chamber.
- Always wear protective clothing when attending the oven during a cooking operation.
- **Unloading of 6 and 10 level ovens:**  
Product can be removed either directly from the oven leaving the insert in place or can be used in conjunction the optional roll in / roll out trolley.
- **Unloading of 20 level ovens:**  
With the door in the fully open position – insert the tray trolley until the levers connect with the oven cavity fascia and the two hooks have connected with the tray insert. Lower the trolley handle until it stops. This will lift the tray insert from its retainer, securing it to the trolley.  
The trolley may now be removed from the oven with the tray insert securely held in place.

## 2.2 Control Panel Symbols



## 2.3 Control Panel Operation

### 2.3.1 ON / OFF



#### Appliance ON position of knob

The appliance is ready for use as soon as the ON pilot light illuminates and the oven chamber light is on.



#### ATTENTION:

water cock must be open.



#### Appliance OFF position of knob

At the end of the day turn selection knob to this position. Lights come off.

### 2.3.2 Cooking Modes



#### Convection mode

Temperature pilot light illuminates and fan comes on, elements are heating. Select vent open or closed.

Temperature can be adjusted from 50 to 250°C.



#### Steam mode

The white indicator light illuminates.

Vegetables are cooked at 100°C.

For low temperature cooking, adjustment is possible between 50° and 100°C.



#### Combination mode (steam / convection)

Turn selection knob to convection position and select steam percentage with steam adjustment knob.

Adjust time and temperature.



**Oven will only operate with door closed.**

### 2.3.3 Cooking Time Adjustment



#### Manual operation

Oven operates continuously until stopped.



#### Timed operation

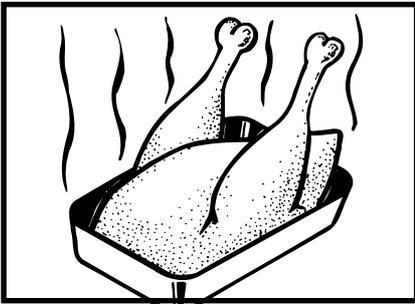
Oven will stop after selected time has elapsed.

Graduations of 2 minutes (max. time 1h 45min).



#### Core temperature probe operation

Oven will stop once the set core temperature is achieved in the product.



## 2.4 Convection Mode

For roasting, gratinating, baking and browning.

Hot air is made to circulate by the fan, without the addition of moisture. In this way, browning is effected.



- Turn knob to convection position, the green ON light comes on. Select position of the vent.
- You should always preheat the oven to at least 30°C above the required cooking temperature.
- Insert product.
- Adjust time.
- Select temperature. To help with this, a temperature of 150°C is pre-programmed.
- Start the oven by closing the door.

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### Tips & Notes:

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#### Browning

- Browning can be done in the appliance for any dishes requiring this as part of the recipe.
- To carry out browning, raise the temperature to 250°C.
- GN shelf or 20 mm GN tin can be used.

#### Grilling

- When portions are to be grilled intensely and fast, the appliance must be heated to 250°C.
- For grilling, shelves only are used. They should already be inside the appliance during the pre-heating phase.

#### CAUTION:

These shelves will be extremely hot and the operator should take extreme care when loading the oven and use suitable protective clothing.

- The grilling is effected by placing food directly onto the hot shelves.
- Before being cooked, products for grilling should be lightly brushed with oil or a mixture of oil, spices, herbs, condiments, etc.

#### Toasting

- Pre-heat the appliance to 250°C.
- Lay the slices of bread on the shelves.

## Tips & Notes:

### Browning

- Pastries that do not require moisture at the beginning of the baking process can be baked in the appliance using convection.
- If moisture is required, the baking process must begin with the setting Convection/Steam. The setting may be changed to convection again at any time.
- Before baking, pre-heat the appliance to the desired baking temperature.
- Care should be taken while baking with convection to ensure that the baking temperature is approx. 20°C lower than in traditional baking ovens. If the temperature is not lowered the products may be unevenly baked.
- Bake small pastries with a reduced fan speed. Only in this way can an optimal bake be achieved.
- Shape the dough and place it on the shelves.
- The grease filter is not required for baking.
- Slightly reduced baking times as compared with traditional baking ovens are the rule.

**Note:** Rotation of the product will ensure an even colouration of the product and an even bake.

### Roasting

- When roasting is to be intense and fast, pre-heat the appliance to 250°C.
- Fast, intense roasting can be carried out on 20 mm GN or on GN shelves. This applies also to all breaded products.
- Any traditional or separately prepared breadcrumbs can be used for the panade.
- The surface of breaded products must always be dry before they are greased.
- Lightly oil (with a spray-gun) all breaded products before roasting.
- When breaded foods are being cooked intensely and fast on shelves, the under-side must also be coated with oil.
- In the case of breaded products it is recommended that some paprika be mixed into the breadcrumbs.
- To improve the browning effect in fast, intense cooking, browning enhancing grease may also be used.

## Range of Applications: Convection

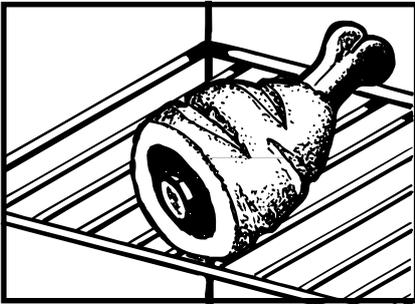
FISH	Processing Guide	Approx. Temp. Display (°C)	Approx. Time (Min)	Shelves / Tins
Roast fresh fish, cod & mullet	Season Oil	Pre-heat to 200 Roasting Temp. 180	10 - 12	20 mm GN Tins / Shelves
Sea-frozen fish fillet	Thoroughly oil plate bottom and upper side of fish fillet	Pre-heat to 250 Roasting Temp. 180	10 - 12	20 mm GN Tins
	After baking, leave dish to stand approx. 2 min in order to avoid clinging by the panade, this will make portioning easier			
Fresh trout	Season Oil	Pre-heat to 220 Roasting Temp. 180	10 - 12	20 mm GN Tins / Shelves
	Roasting time is extended by 5/10 mins for frozen trout			
Fresh breaded trout	Panade = flour / egg / breadcrumbs Grease thoroughly	Pre-heat to 250 Roasting Temp. 220/230	15 - 20	Shelves or 20 mm Plates
Fresh sole	Season Oil	Preheat to 220 Roasting Temp. 180	10 - 12	20 mm GN Tins / Shelves

## Range of Applications: Convection

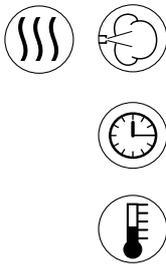
<b>FAST, INTENSE COOKING</b>	Processing guide	Approx. Temp. Display (°C)	Approx. time (Min)	Shelves / Tins
Pork cutlet, fresh	Panade = egg, breadcrumbs, thoroughly oil the breaded surface of the cutlets, avoid leaving dry spots, lightly oil plate bottom	Pre-heat to 250 Roasting Temp. 220	10 - 12	20 mm GN Tins/ Shelves
Pork cutlet, fresh, breaded approx. 150 g	Oil both sides	Pre-heat to 220 Roasting Temp. 180 auf	10 - 12	Shelves
Frying sausage fresh, coarse filling, not blanched	Oil lightly	Pre-heat to 250 Roasting Temp. 220	8 - 10	Shelves or 20 mm GN Tins
Filet steak, fresh approx. 180 g medium	Season Oil lightly	Pre-heat to 250 Roasting Temp. 250	7	Shelves
Fillet steak, frozen approx. 180 g medium	Oil Season after roasting process	Pre-heat to 250 Roasting Temp. 220	10 - 12	Shelves
Rissoles, fresh approx. 150 g	Grease plate and upper surface of meat lightly	Pre-heat to 250 Roasting Temp. 220	10 - 15	40 mm GN Tins
Pork loin cutlet, fresh approx. 2 mm high, approx. 130 g	Do not season	Preheat to 250 Roasting Temp. 220	6 - 8	Shelves or 20 mm Tins
Liver	Oil Season after roasting process	Preheat to 250 Roasting Temp. 220	4 - 6	20 mm GN Tin each insertion or Shelves
Rump steak, fresh approx. 180 g medium	Season Oil lightly	Pre-heat to 250 Roasting Temp. 180	6 - 10	Shelves
Pork chop, fresh sauteed 150 g	Season Oil lightly	Pre-heat to 250 Roasting Temp. 180	10 - 12	Shelves
Pork chop, frozen sauteed 150 g	Oil lightly Season after roasting process	Pre-heat to 250 Roasting Temp. 220	15	Grating
Pork liver	Oil Season after roasting process	Pre-heat to 250 Roasting Temp. 220	4 - 6	Shelves
Pork medallion approx. 100 g	Season Oil lightly	Pre-heat to 220 Roasting Temp. 180	5 - 6	Shelves
Pork cutlet approx. 130 g	Season Oil lightly	Pre-heat to 250 Roasting Temp. 220	6 - 7	Shelves

<b>Goods for baking</b> Pre-Heat appliance	Approx. Temp. Display (°C)	Approx. Time (Min)
Puff pastry	170	18 - 20
Danish pastry	180	18 - 20
Flaky pastry	170 - 180	16 - 18
Savarin	190	12 - 14
Cake	180	8
(Christmas) Fruit Loaf	160	55 - 65

<b>Goods for baking</b> Pre-Heat appliance	Approx. Temp. Display (°C)	Approx. Time (Min)
Yeast rolls with milk	200	10 - 12
Plaited Load / 500 g	180	30 - 35
Almond Pastry Case	180	10 - 12
Nut Pastry Case	180	10 - 12
Chocolate Pastry Case	180	10 - 12
Biscuit Pastry Case	180	10 - 12



## 2.5 Combination Mode (convection / vapeur)



- Insert product.
- Turn knob to convection position, and select steam percentage.
- Adjust cooking time.
- Adjust temperature.
- Close the door to start oven.

---

### Tips & Notes:

Depending on the food stuffs being cooked, steaming may be carried out first, followed by browning with convection.

The amount of steam and convection can be varied depending on the product being cooked.

- First steam, then convection for browning.  
For browned fruit products, fennel, leek, tomatoes, chicory.
- First steam, then convection/steam.  
For stuffed cabbage leaf, peppers, pot roasts, joints, belly of pork.
- First steam, then convection/steam, then convection.  
For beef olive, goulash, roast beef, braised beef.

## Tips & Notes:

### Baking

- Any pastries that require moisture at the beginning of or during the baking process can be baked.

### Roasting

- The convection/steam combination is particularly suitable for prolonged roasting (pork, beef, veal, lamb, poultry, fish, pies, puddings).
- GN shelves should be used for cooking the products. This eliminates any need to turn them during the cooking process.
- In order to catch meat juices, an unperforated GN dish should be inserted into the lower part of the compartment.
- More than one GN dish may be used in larger ovens.
- Before roasting begins, season the pieces of meat and grease them lightly, using an oil spray gun.
- The use of the core temperature probe substantially simplifies checking on the stage the cooking has reached.
- Preferred roasting temperatures lie between 140°C

and 160°C in this range, the minimum roasting loss is achieved.

- If the browning required is insufficient after the end of the roasting period, use convection only, at a high temperature.
- Stand unfilled pies on GN shelves.
- Tureens can be cooked without the use of a water bath in the convection steam mode at 100°C. Tureens having sealable lids are advantageous.
- GN dishes 65 mm deep are the most suitable for puddings.

### Braising

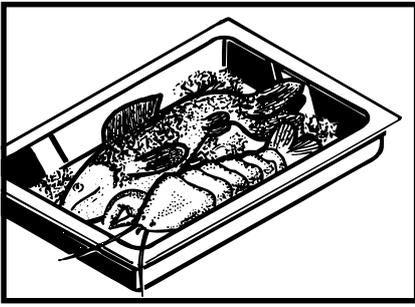
- For roast beef, fish and roulades, use GN shelves or GN tins.
- If the cooked products are prepared in GN tins, meat juices can be poured over them.
- When beef is being braised, the temperature should not exceed 130°C.
- The reduced fan speed also has beneficial effects, less drying out of meat juices.

## Range of Applications: Convection with Added Steam

BEEF	Processing Guide	Operation 1	Operation 2	Operation 3	Approx. Total Time (Min)	Shelves/Tins/Containers
Boned & rolled roast beef	Season, oil add carrots, leaks and onions, pour on some red wine	90 min. steam	120 / 140°C hotair with steam 60 min.	–	150	65 mm unperforated Shelf
Roast beef	Season & oil lightly	5 min. hot air with steam	140 / 160°C hot air 15 min	–	20	Shelves
Roulades	Season, oil, pour on some red wine	30 min. steam	140 / 160°C hot air with steam 40 min	–	70	40 mm / 65 mm Tins
Braised beef		90 min. steam	160°C hot air with steam 60 - 70 min.	–	150 - 160	Shelves
<b>VEAL</b>						
Stuffed brisket of veal	Season, oil lightly	15 - 20 min. steam	140°C hot air with steam 60 - 70 min.	–	75 - 90	Shelf

## Range of Applications: Convection with Added Steam

VEAL	Processing Guide	Operation 1	Operation 2	Operation 3	Approx. Total Time (Min)	Shelves/Tins/ Containers
Roast loin of veal	Season, oil lightly. Add vegetables as basis of sauce	20 min. steam	140 / 160°C hot air with steam 70 - 80 min.	–	90 - 100	Shelf
Knuckle of veal	Season, oil. Add vegetables as basis of sauce	30 min. steam	140 / 160°C hot air with steam 60 min.	–	90	Shelf
Collar of veal	Season, oil	20 min. steam	140 / 160°C hot air with steam 70 - 80 min.	–	90 - 100	Shelf
<b>PORK</b>						
Stuffed belly of pork	Season	20 min. steam	140 / 160°C hot air with steam 70 - 80 min.	–	90 - 100	Shelf
Pork collar (grilled)	Season	10 min. steam	140 / 160°C hot air with steam 70 - 80 min.	–	80 - 90	Shelf
Pork loin without bones	Pour on some red wine	10 min. steam	140°C hot air with steam 30 - 40 min.	–	40 - 50	Shelf
Stuffed peppers	Place with its opening on the plate bottom	40 - 45 min. steam	170°C hot air with steam 15 min.	–	55 - 60	65 mm Tin
Pie or meatloaf	Filling weight approx. 2 kg per dish (aluminium)	10 min. steam	120°C hot air with steam 60 - 70 min.	–	70 - 80	Shelf
<b>SAUSAGE</b>						
Frying sausage coarse not blanched		5 - 6 min. steam	180°C hot air with steam 5 - 6 min.	–	10 - 12	Shelf
Frying sausage fine		5 min. steam	200°C hot air with steam 5 - 7 min.	–	10 - 12	Shelf
<b>POULTRY</b>						
Goose	Season	10 min. steam	140 / 160°C hot air with steam 100 - 110 min.	–	110 - 120	Shelf
Turkey or chicken	Season	10 min. steam	140 / 160°C hot air with steam 90 - 100 min.	–	100 - 110	Shelf
<b>MINCE DISHES</b>						
Meat Loaf	Oil lightly in baking tin	10 min. steam	160 / 180°C hot air with steam 50 - 60 min.	–	60 - 70	40 mm 65 mm Tin
Stuffed cabbage leaf fresh	Season sprinkle with caraway and browned onions	40 - 45 min. steam	180°C hot air with steam 10 min.	–	60-65	65 mm Tin



## 2.6 Steam Mode

**For stewing, blanching, poaching and regeneration.**

Steam flows without pressure into the cooking compartment and permits the gentle cooking of fish, meat, vegetables, potatoes and all products that otherwise are cooked in water.

The action of the fan distributes the steam evenly within the oven cavity.



- Turn knob to steam position. Green light comes on
- Heat the appliance up (approx. 4 to 5 min from cold).
- Slide the product in (only after the set cooking temperature has been reached).



- Adjust time.



- Adjust desired temperature (max. 100°C).

- The programme is started by closing the door.

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### Tips & Notes:

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#### Stewing / Steaming

- Unperforated GN containers are used for stewing.
- Liquid, seasoning or fat is added to the product.
- When cooking rice, 1.5 times the quantity of liquid is required.
- When setting the time, remember that stewed products display a stronger after cooking effect.
- Vegetable products that are to undergo further processing should be refreshed with iced water after the steaming operation.

#### Defrosting

- Defrosting times for deep-frozen products are substantially shortened by the use of steam.

#### Regeneration

- The basic rule, all products that have been cooked with steam can be re-heated with steam.
- Warming-up periods depend on the depth to which containers are filled.
- We recommend that regeneration be carried out in un-perforated 65 mm high GN containers.

#### Cooking - Pulses & Rice

- The products are placed into GN containers and covered with liquid.

#### Conserves

- Jars or tins should be used for making conserves.
- Meat and sausage conserves are placed in GN shelves.

## Tips & Notes:

### Blanching

- Because of the immediate inflow of steam, the blanching of products in this appliance is very time saving.
- Use perforated GN containers, 65/100 mm deep.
- All products that are required for further cooking processes, eg. vegetables for salads and giblets such as brain, liver, kidney, meat and fish, can be blanched.

### Steaming

- All products can be steamed that were previously cooked in water in a saucepan.
- Additional liquid is not required.
- For the optimal use of the appliance, different products can be steamed at the same time.
- No transfer of flavour occurs.
- Products can be removed or added at any time during the cooking process.
- The cooking can be checked up on at any time.
- The cooking time is always the same, independant of the quantity being cooked.

### Use:

- Perforated GN containers, 20 mm deep, for dumplings, meatballs, portions of fish.
- Perforated GN containers, 65 mm deep, for vegetables of all kinds, eggs, potatoes.
- Perforated GN containers, 65/100 mm deep, for potatoes.
- Un-perforated GN containers for vegetables, meat (fricassee), meat-balls whole fish.
- During the steaming process, a condensate forms in unperforated containers that can be used as a juice for making sauce.
- Use GN shelves for larger pieces of meat (boiled fillet of beef, joints, ham) and for whole cabbages (cauliflower, red cabbage, white cabbage).
- For making sauce, an un-perforated GN dish is placed low in the appliance.
- Perforated GN containers shorten cooking times 10/15%.

### Seasoning recommendations when steaming

Before steaming, sprinkle the products with a mixture of seasoning and distribute it.

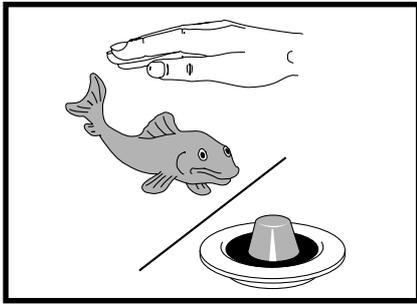
Potatoes must be seasoned before being steamed. A mixture of butter/seasoning is put onto the products after steaming.

## Range of Applications: Steaming

VEGETABLES	Processing Guide	Container	Container Contents	Approx. Time (Min)
Aubergines		65 mm perforated	2 kg	10
Cauliflower, brussel sprouts, fresh, frozen	Season after the cooking process	65 mm perforated	2 kg	15-18
Cauliflower head fresh	Sprinkle with lemon drops before the cooking process	Shelves	4-6 pieces	18-20
Broccoli fresh	Season after the cooking process	65 mm perforated	2-3 kg	15-18
Peas frozen	Season after the cooking process	65 mm perforated	2-3 kg	12-15
Green beans frozen/fresh	Season after the cooking process	65 mm perforated	2-3 kg	18-20
Mushrooms, halved, quartered, in slices	Sprinkle with lemon drops before the cooking process	65 mm perforated	2 kg	18-10
Brussel sprouts frozen/fresh		65 mm perforated	2-3 kg	15-18
Celery in slices, diced	Sprinkle with lemon drops before the cooking process	65 mm perforated	2-3 kg	18-20

## Range of Applications: Steaming

VEGETABLES	Processing Guide	Container	Container Contents	Approx. Time (Min)
Spinach fresh		100 mm perforated 65 mm perforated	2 kg	12-4
Potatoes	Place in a 10% salt solution for 15 min before the cooking process, or salt dry	100 mm perforated 65 mm perforated	6-8 kg	30-35
Jacket potatoes	Can be sprinkled with caraway before the cooking process	100 mm perforated 65 mm perforated	6-8 kg	35-40
Carrots, small fresh or frozen	Season after the cooking process	65 mm perforated	2-3 kg	18-20
Carrots, diced fresh		65 mm perforated	2-3 kg	15-18
Corn cobs fresh	Sprinkle with lemon drops before the cooking process	Shelves	8-12 pieces	15-18
Asparagus fresh	Sprinkle with lemon drops before the cooking process	40 mm perforated 65 mm perforated	3 kg	12-15
White cabbage, sliced, fresh		100 mm perforated 65 mm perforated	3 kg	15-18
<b>SIDE DISHES</b>				
Pasta	Before cooking, cover pasta with hot water and add some oil. It is advisable to mix the pasta once thoroughly during the steaming process.	65 mm unperforated	2,5 kg	20-25
Dumplings, meatballs	Dumplings and meatballs are steamed without additional water.	20 mm unperforated	20 pieces	15-20
Rice	Fill up the rice with 1 1/2 time the quantity of water	65 mm unperforated	2,5 kg	20-25
<b>EGGS</b>	At room temperature	65 mm unperforated		Soft 8 Hard 10
<b>MEAT</b>				
Fricassee of veal	Add seasoning and vegetables to the meat	65 mm unperforated	2 kg	45-50
Brisket	Add seasoning and vegetables to the meat	65 mm perforated Shelves	4 kg	90-120
Ox tongue		Shelves	4 pieces	60-80
Pig's knuckle, pickled		Shelves	6 pieces	60-80
Calf's brains	Blanch	40 mm unperforated	2 kg	14-6
Calf's sweetbread	Season with onions, bay leaf, juniper berries and vinegar	40 mm unperforated	2 kg	16-18
<b>FISH &amp; CRUSTACEANS</b>				
Cod, halibut, fresh or frozen	In helpings	40 mm unperforated	12 helpings	10-12
Carp, fresh	Halved	40 mm unperforated	Halved 4 pieces	12-14
Carp, fresh	In helpings	40 mm unperforated	12 helpings	10-12
Crayfish tails, frozen	Sprinkle with lemon drops and if possible cover with fresh dill	40 mm unperforated	3 kg	12-15
Salmon, fresh	Season helpings with lemon	40 mm unperforated	10 pieces	10-12
Mussels	Add some wine	40 mm unperforated	3 kg	18-10
Sole rolls, frais	Season and add wine	40 mm unperforated	20 pieces	18-10



## 2.7 Low Temperature Cooking

For steaming, regenerating, blanching and pouch cooking.

Particularly sensitive dishes require temperatures below 100°C. Here you have the ability to select the resultant temperature between 30°C and 99°C.



- Turn knob to steam position.
- Heat the appliance up (approx. 4 to 5 min from cold).



- Adjust desired time.



- Adjust the desired temperature (maximum 99°C).
- Introduce product and close the door to start programme.

### NOTE:

#### Pouch Cooking (Sous-Vide)

This allows vacuum packed products to be cooked gently at **low** temperatures.

Afterwards, shock cool and store the product immediately.

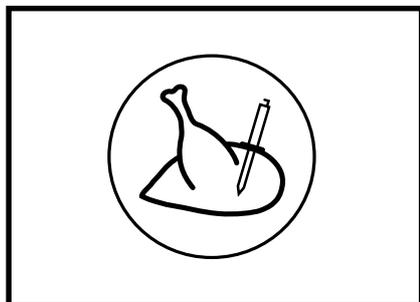
When required, the product can also be "awakened" at **low** temperatures in the Convection/Steam Cooker.



- Low temperature cooking is also possible in convection and combination mode (30°C – 99°C) .  
NB: lower cooking temperatures will require a longer cooking time than conventional cooking.

#### Advantages

- Reduction in weight loss.
- Higher nutritional content in the cooked products.

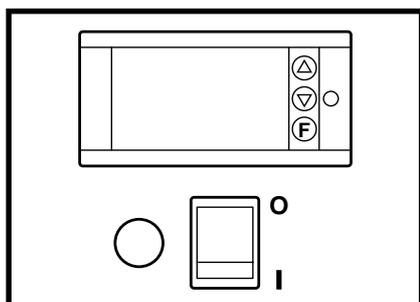


## 2.8 Core Temperature cooking

- Stick probe into product, so that tip is in its centre.  
Probe must be cold. Do not strain or overstretch the probe cable.
- Select cooking mode.
- Select oven temperature.
- Make sure timer knob is on position core temperature.

### Note:

The core temperature probe replaces the timer function, the cooking time is determined by the core temperature to be reached.



- Push core temperature switch to ON ("I"). The buzzer sounds and the indicator blinks.
- **Core Temperature adjustment:**
  - Push "F", "OUT 1" blinks; pre-set temperature of 100°C appears on the indicator. In case of error repeat operation.
  - Adjust desired temperature with up and down arrow buttons.

If no adjustment is made "OUT 2" blinks on indicator. This function has no influence. Start operation again by pressing "F".

- **Selection of temperature:**
  - 50 to 250°C in convection and combination mode.
  - 50 to 100°C in steam mode.

The accuracy of the oven thermostat allows lower temperature cooking in steam and combination mode.  
See chart for guidance.

Minor variations will occur due to meat quality and variance in eating preferences.

BEEF	Cooked Condition	Intended purpose	Core Temp. (°C)
Roast beef	Pink	For Roasting	52
Pot Roasts	Fully Cooked	For Pot Roasting	78
Fillet Steak	Pink	For Roasting	55
<b>PORK</b>			
Pork Loin Cutlet	Fully Cooked	For Roasting or Simmering	50-55
Leg	Fully Cooked	For Roasting for the various types of Joints of Pork	75
Saddle Cutlet	Slightly Pink	For Roasting	70-75
Shoulder	Fully Cooked	For Roasting, mostly as Collar or Blades	75
Neck Piece	Fully Cooked	For Roasting	75
Spare Ribs	Fully Cooked	For Roasting	75
Saddle	Slightly Pink	For Roasting or Simmering	70
Knuckles	Fully Cooked	For Roasting or Simmering	75-80
Ham	Very Juicy	For Simmering for making Boiled Ham	80-8
Shoulder Ham	Very Juicy	For Simmering for Boiled Ham	80-85
Belly	Fully Cooked	For Simmering	75
<b>MUTTON</b>			
Saddle	Fully Cooked	For Roasting	80
Saddle	Slightly Pink	For Roasting	60-65
Leg	Fully Cooked	For Roasting	85
Leg	English Medium	For Roasting	55-60
Shoulder	Fully Cooked	For Roasting, mostly as Collar	80
Breast	Fully Cooked	For Simmering	85

## 2.9 Faults

### 2.9.1 Oven does not start

#### Fan(s) do not run:

- Check operating procedures (temperature and time settings etc.)
- Check if door is closed.

#### If door is properly closed:

- Check the reed switch located behind the latching system.
- Check power supply.
- Check oven fuse.

### 2.9.2 Heaters do not heat

- Check safety thermostat behind cover at bottom of control panel. Rearm it.
- Check operating procedures (temperature and time settings etc.)
- Check wiring to heaters and contactor.
- Check heating elements.

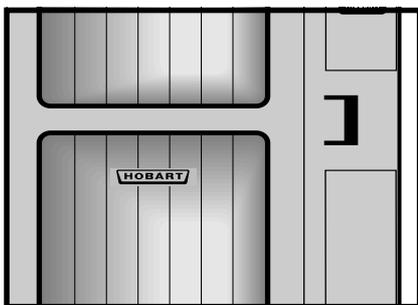
### 2.9.3 Oven does not heat up quickly enough

In 400/3 and 230/3 heating elements should have same intensity reading.

- Check if site voltage concurs with data plate.
- Check if each individual heater is properly connected.
- Check amps on each element.

### 2.9.4 Water supply does not shut off

- Check proper operation of fill valve.
- Check power supply to valve.



### 2.9.5 Door cannot be unlocked electrically

**In the event of a prolonged power failure or a fault when cooking foods are located within the appliance, the door may be opened manually.**

- Switch off the main switch.
- Pull the door handle firmly towards you while firmly pressing against the oven facia with the other hand to stabilise the oven.

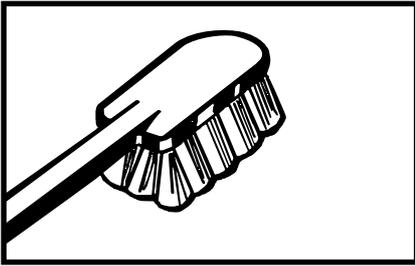
**This procedure is only to be used in the case of an emergency and not during normal operations.**

- **In case of trouble at the door lock, please call your HOBART Service desk.**

## 3 CLEANING / MAINTENANCE

### 3.1 Care & Cleaning

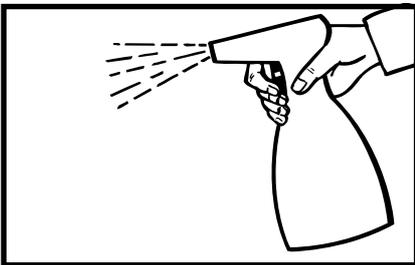
#### 3.1.1 Daily Cleaning



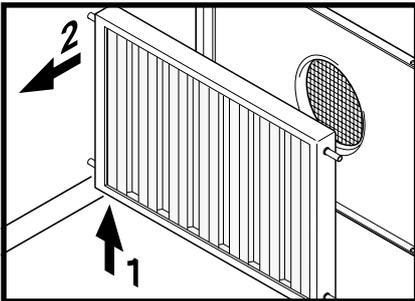
**Greasy deposits can ignite. It is very important to keep the cooking compartment and tray frame clean.**

- Wipe off solids from the base of the machine.
- Heat the cooking compartment to approx. 50°C and spray with cleaning fluid. Leave to act for approx. 10 minutes.  
**Take note of precautions noted in the cleaning product instructions.**
- Run steam mode for approx. 15 minutes.
- Rinse the oven with clean fresh water and wipe dry.

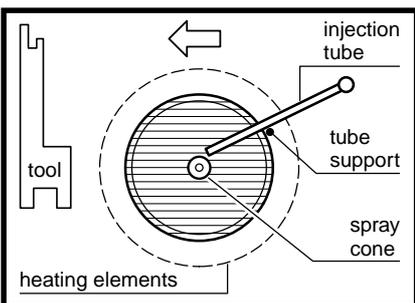
#### 3.1.2 Thorough Cleaning (whenever required)



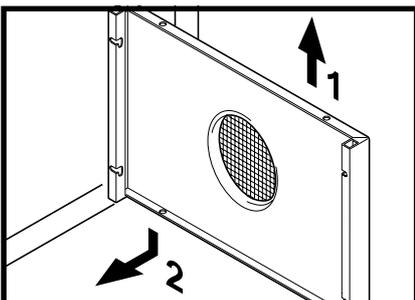
- **Switch off at the main switch / disconnect the power supply.**
- Withdraw the tray frame and / or tray trolley.



- Remove grease filter.



- Unscrew the injection tube with the supplied tool..



- Remove fan plate.
- Clean core temperature probe.
- Clean all parts and the cooking compartment.
- Replace the parts when dry.



- **Use no scouring substances.**
- **Clean the casing with mild detergent and a damp cloth.**
- **Do not wash the appliance down from outside with a hose or a high pressure cleaner.**

## 3.2 Maintenance

This appliance has been constructed using modern technology. In order to ensure secure and trouble-free operation, we recommend that a Maintenance Contract be arranged, with regular maintenance by Hobart Service Engineers.



### 3.2.1 Descaling



**Descaling should be carried out only by a trained Service Engineer and in accordance with regulations for safety and ventilation during work with acids. Protective clothing must be worn.**

- Open the door.
- Turn upper knob to "0" position.
- Spray descaling liquid on all parts of oven interior. Leave to act according to manufacturer's instructions.
- Rinse thoroughly.

HOBART reserve the right to make alterations and improvements to all products without prior notice.