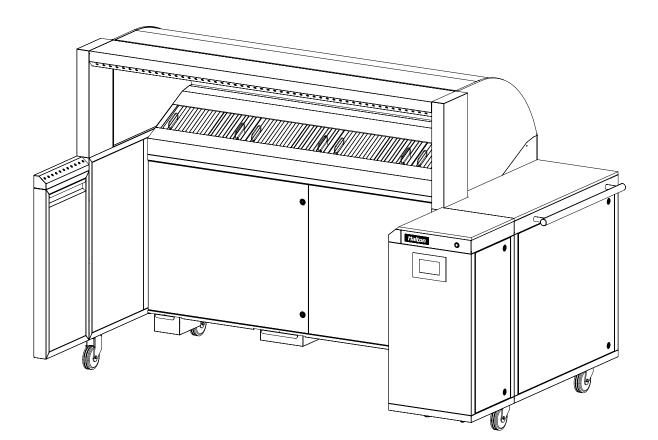
Halton MobiChef (KMC)

Mobile recirculating station

UserGuide







1	User Quick Start
	1.1 References, notices, cautions, warnings and
	dangers3
	1.2 Manufacturer Information
	1.3 Starting up of the unit / Use of the Touch Screen 3
	1.4 Dimensions
	1.5 Operation5
2	Installation6
	2.1 General warranties, liability
	2.2 Provisions of Use8
	2.3 Power requirements8
	2.4 Unpacking9
	2.5 Unfolding of the unit's sides (option)
	2.6 Access to filters and removal of the doors $aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$
	2.7 Installation of the carbon filters
3	Maintenance14
5	3.1 General
	3.2 Cleaning and maintenance operations
	frequency
	3.2.1 Mechanical filters, disposable filters and
	Electrostatic Precipitator
	3.2.2 Other maintenance or cleaning
	operations16
	3.3 Precautions to take with stainless steel (applicable
	to aluminium)16
	3.4 External cleaning of the unit

3.5 Cleaning of the primary mechanical filters and
grease collectors18
3.5.1 Removal of the filters18
3.5.2 Cleaning of the KSA filters19
3.5.3 Cleaning of the MFA filters19
3.5.4 Cleaning of the grease trap and the unit's exhaust plenums19
3.5.5 Reinstallation of the filters20
3.6 Access to the disposable filters and ESP21
3.7 Replacement of the disposable filters21
3.7.1 Important warnings about the filters and the
calibration of unit21
3.7.2 Removal and replacement of the HEPA
filters
3.7.3 Removal and replacement of the Carbon
filters23
3.8 Cleaning and maintenance of the electrostatic
precipitator (ESP)24
3.8.1 General24
3.8.2 Access to the grease trap for cleaning /
Removal of the ESP and its mesh pre-
filter24
3.8.3 Important warning about the detergent24
3.8.4 Manual cleaning of the ESP25
3.8.5 Inspecting and cleaning ionizer wires25
3.9 Maintenance and other functions of the Touch
Screen25



1 User Quick Start

1.1 References, notices, cautions, warnings and dangers

alerts you to the risk of material damage and tells you how to avoid the problem.

\land Warning:

indicates a risk of material damage or personal injury.

/ Danger:

indicates a risk of material damage, personal injury, or even of deceased.

1.2 Manufacturer Information

Halton FoodService Béthune

Reference:

indicates a reference to an existing guide or documentation.

(i) Notice:

indicates important information that can help you make better use of your product.

Zone Technoparc Futura CS80102 62402 Béthune Cedex, France

: +33 (0)1.80.51.64.00

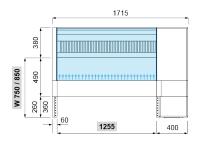
1.3 Starting up of the unit / Use of the Touch Screen

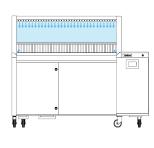
Reference:

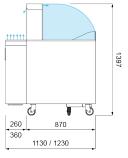
See the dedicated User guide of the Halton Touch Screen mini for the MobiChef

1.4 Dimensions

S70 (W750) - S80 (W850) - 277 kg



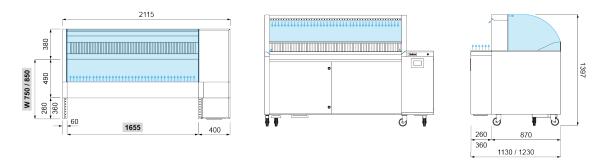




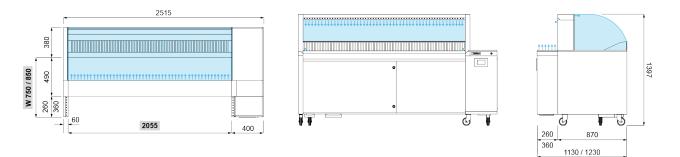


Halton MobiChef (KMC)Mobile recirculating station UserGuide

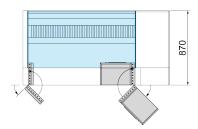
M70 (W750) - M80 (W850) - 297 kg



L70 (W750) - L80 (W850) - 317 kg



Foldable sides

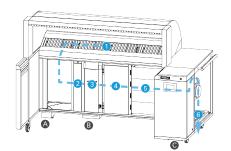








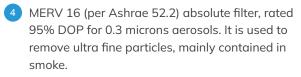
1.5 Operation



Halton's MobiChef integrates a highly efficient recycling unit based on a process composed of not less than 6 steps. It has been designed to drastically remove the grease and smoke particles released by the cooking appliances while greatly reducing the odor emissions.

The air can then be freely discharged back into the dining area where the cooking station is installed. As a matter of fact, Halton's MobiChef does not require any connection to a ventilation duct.

- Mechanical double stage pre-filtration comprising Halton's KSA cyclonic aerosol separators and MFA mesh filters. This combination removes very efficiently large and medium sized particles. Both are cleanable in a dishwashing machine.
- 2 Additional disposable pre-filter rated M5 (per EN779).
- ³ The three pre-filtration steps allow the ESP (Electrostatic Precipitator) to work at maximum efficiency. ESPs induce an electrostatic charge on the particles which pass through it, in order to then collect them on plates which generate a magnetic field. Halton MobiChef's ESP is very efficient on fine particles, including grease particles and vapor; and it is cleanable.

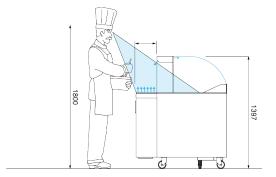


- 5 Part of the odors are carried by the grease particles and vapors, as well as by the smoke. They are drastically removed by the previous filtration steps.
- 6 A terminal synthetic filter impregnated with carbon finalizes the treatment in order to reduce the odors emissions at its lowest possible level.
- A Grease tray for the mechanical pre-filtration.

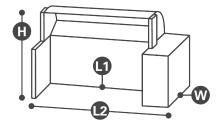
Ġ

0 [m³/h] (1)

- B Grease tray for the ESP.
- C Filter for the integrated Capture Jet™ fan.



Quick selection data



					```	$\mathbf{Q}_{R}$ (113/11) (1)		
	L1	L2	W	Н	Ð	2	છ	<b>4</b>
S70	1255	1715	1130	1397	560	675	810	1650 W
S80	1255	1715	1230	1397	650	780	940	1650 W
M70	1655	2115	1130	1397	740	890	1070	1650 W
M80	1655	2115	1230	1397	860	1030	1240	1650 W
L70	2055	2515	1130	1397	920	1110	1330	1650 W
L80	2055	2515	1230	1397	1070	1280	1540	1650 W

(1) Indicative recirculation airflows which can be adjusted depending on the cooking appliances technical specifications



1700

230V/50Hz

# 2 Installation

# 2.1 General warranties, liability

Warranties and liability apply to Installation, Commissioning and Maintenance (ICM) of the Products and Services object of this guide.

- Halton warrants that Products and Services are provided in conformity with standards and specifications prevailing in the country of origin at the time of production or servicing and are free from defects. This warranty stands for one (1) year after date of commissioning for Products and stands for a period duly specified in the case of service contracts. Such warranties are solely limited to the repair or replacement of the defective Products or Services and do not apply to minor defects.
- These warranties are given in lieu of any statutory warranty being implied or expressed, or any warranty as regards the adequacy of Products or Services to the purpose for which the Client or its own customers are acquiring the same, or as to any implied or express representations made to the Client in the course of negotiations or performance of any order.
- 3. Defects caused by the Client, their agents or representatives which are the result of any fault or wilful damage, negligence, improper warehousing or storage, improper use, alteration or modification of any Product or Service without prior approval of Halton, installation or assembly of Products, to the exception of works made by Halton's servants or agents, or defects due to normal wear and tear, are excluded from the terms of this warranty.
- 4. When Defects are found in Products or Services which are designed by third parties, incorporated to, added to or mixed with Halton's Products or Services in order to give a particular feature, technicality, functionality or treatment to the Client's products or to Halton's processes, Halton shall not be liable. Nor will Halton replace any defective Product as a consequence of using or handling the Products or Services in a manner or circumstances or for purposes other than those specified in any order.
- Also, Halton is not liable concerning any recommendations it may give as to the use of the Products or Services in respect of the infringement of patents or other Intellectual property rights held by third parties.

 In no case should Halton be liable for any indirect costs or losses under any circumstances. If found liable on direct losses by a judge or an arbitrator, Halton shall be liable only up to the maximum sum paid by the Client.

#### Preliminary recommendations

- It is the responsibility of the contractor to inform Halton about potential specific requirements or specific official local codes. If questions or complications should arise during the installation, commissioning or use of the product on which this guide is based, that cannot be solved using the accompanying instructions, please contact our offices or local representatives.
- The product on which this guide is based, is intended for professional kitchens or food industries. Any other use is to be considered improper.
- If this product is not installed directly by a Halton team, it has to be positioned, installed, wired, commissioned, used and maintained according to Halton recommendations. Specific attention has to be provided to installation height when applicable, service access and other dimension limitation or recommendations coming from the cooking appliances or other systems. Whatever the product(s) installed, it is the responsibility of the ordering party to check if there has been any modification of the layout of the kitchen, ductwork, or of the cooking appliances properties compared to the information transmitted to Halton and used to dimension the system(s).

#### Delivery and receipt of the products

All Halton products are thoroughly inspected before shipment. Upon receipt, inspect the products immediately for any visible signs of shipping damage and notify the carrier. A claim should be immediately filed with the carrier if appropriate. When unpacking the products or components, be careful not to dent or scratch the outer surfaces. Halton cannot and will not accept responsibility for any shipping or handling damage.



#### Unpacking of the products

Halton uses different types of packaging. Whatever the type, special care must be given to the unpacking. Without being limitative:

- Remove cautiously the general protections made of wood or cardboard as well as specific protections such as cardboard angles.
- When applicable, remove the external protective film or thermo-retractable film taking care not to scratch the outer surfaces (use scissors or a blade if necessary).
- De-palettise the products carefully.
- When protection films are used on non visible sides, they have to be removed before installation. The films on the other protected surfaces have to be removed after all installation and commissioning operations of the products, just before the final handover.
  Packaging materials that can be recycled must be disposed of in conformity with current local safety regulations.

#### Disassembly, storage and waste

#### \land Caution:

The disassembly operations must be carried out by qualified personnel.

The specific requirements enforced by the legislation and local authorities of each country where the products have to be disassembled must be observed. Temporary storage of special waste is permitted, but only if the final purpose is the definitive disposal by treatment and/or final collection.

# Disposal of plastics:

Recycling or disposal of plastic waste must be carried out in accordance with the law or regulations of each country.

### Recycling of wood:

Recycling of wood waste must be carried out in accordance with the law or regulations of each country.

### Recycling of cardboard:

Recycling of cardboard waste must be carried out in accordance with the law or regulations of each country.

### 🕅 Disposal of electronic and other components:

Any electronic and other components of our products and systems should be assessed for the most suitable recycling route in accordance with WEEE provisions.

Keep Environment Clean!



# 2.2 Provisions of Use

#### Cooking appliances

Halton MobiChef can be used with electric cooking appliances, from light-duty table top equipment to traditional 700 – 800 mm deep modular equipment. Codes and safety regulations do not allow the use of recirculating systems with gas cooking appliances (the combustion gases have indeed to be exhausted and discharged directly outside).

The cooking suite, whether the cooking appliances are combined or not with a working plan, has to "fill" the entire available space inside the unit. Large gaps or empty spaces between the items of cooking equipment and the back/sides of the unit would cause air "bypass". This leads to a reduction of the front face velocity and at the same time to a significant reduction of capture efficiency.

To keep the highest efficiency of Halton MobiChef, "Mind the gap!". Once the unit is in its definitive position, cooking appliances have to be correctly placed close to the back and sides of the unit. Eventual open areas have to be filled with working tables for instance and remaining gaps have to be closed with infill panels. Disposal of electronic and other components Any electronic and other components of our products and systems should be assessed for the most suitable recycling route in accordance with WEEE provisions.

#### Heat loads

Since Halton MobiChef is a recirculating system the heat loads of the cooking appliances (radiant and convective) have to be added to the other heat loads in the space where it is installed. The capacity of the

# 2.3 Power requirements

Halton MobiChef is equipped with a male plug that fulfils the requirements relayed to our customer services before delivery. If ever a modification has to be done, it must be carried out by a professional, according to the local regulations. general ventilation system has to be calculated accordingly or, when the ventilation system is existent, one should check it is able to cover these additional heat loads.

#### General ventilation

Despite of Halton MobiChef being a high efficient recirculating system, a minimum ventilation of the space where the unit is installed is still required and this, to remove the heat loads mentioned before and also to fulfil the local hygiene regulations that determine the minimum amount of fresh air to be introduced inside the space, most of the time depending on the number of occupants.

#### Odour reduction

Halton MobiChef has a double stage odour reduction process based on carbon blend filters.

It is important to note that the odours released by the cooking appliances are efficiently captured and treated only when they are correctly and entirely placed under Halton MobiChef. Once the food is being removed off the cooking appliances out of the unit coverage area or during food preparation, smell and odours from the prepared / actual cooked / processed food will still be released into the space.

Same applies for smell and odours being emitted during the cleaning process once Halton MobiChef is turned off. That is why a minimum general ventilation is required (15 to 20 volumes per hour is a common rate). Local requirements may also be applicable.

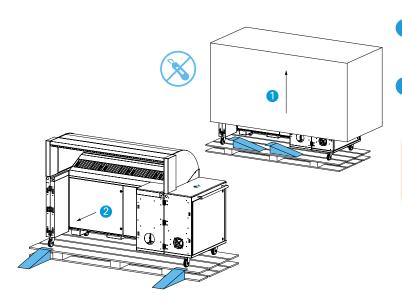
### (i) Notice:

Note that these requirements apply to the unit only. The cooking appliances require their own power supplies.

Power requirements of the unit: 230 VAC 50/60 Hz, 1650 W, 7.2 A



# 2.4 Unpacking

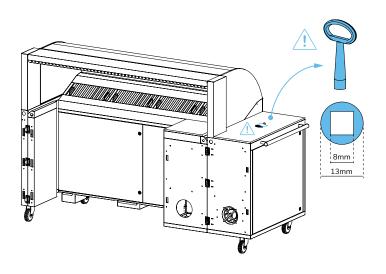


1 Remove the packaging with care. Avoid to use cutting tool that may damage the stainless steel parts.

2 By the mean of the provided ramps, slowly push the MobiChef out of the pallet.

# \land Warning

Mobichef is heavy, 2 persons must operate the unloading procedure



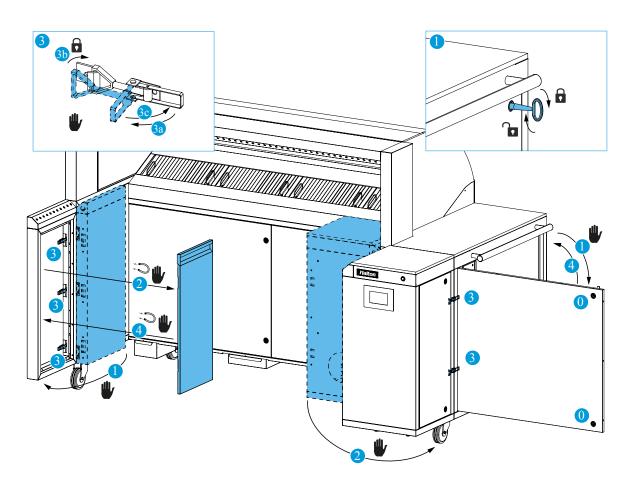
# 🕂 Warning

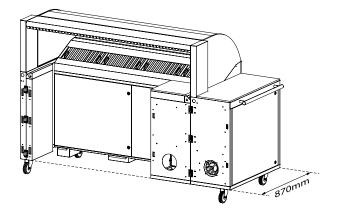
The key is essential for all maintenance operations. Keep it in a secure place to be sure to find it when needed



# 2.5 Unfolding of the unit's sides (option)

As an option, Halton MobiChef can be equipped with foldable sides to improve its handling ability and doors passing. The unit is delivered with the sides folded inside. They have to be unfolded the following way.





Reverse the procedure to fold up the sides

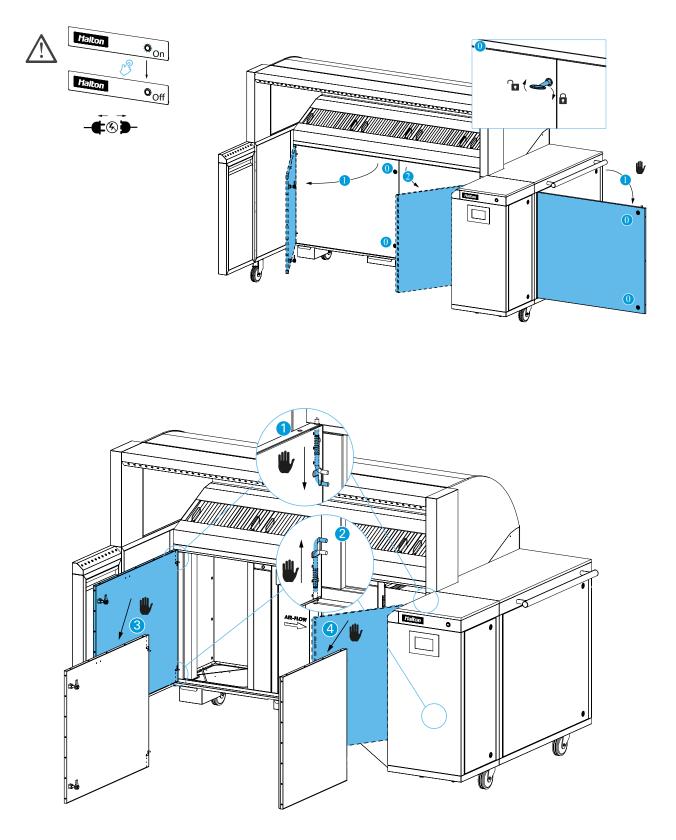
# A Caution:

The foldable part of the sides MUSTN'T be used to move the unit in any way at the risk of deforming them.

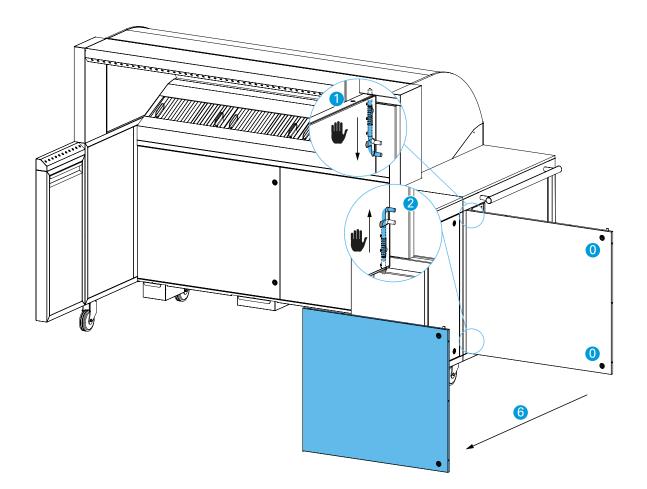


Halton MobiChef (KMC)Mobile recirculating station UserGuide

2.6 Access to filters and removal of the doors





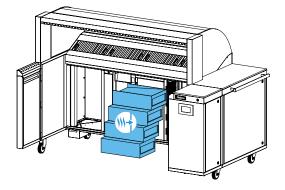




# 2.7 Installation of the carbon filters

The carbon filters are delivered separately, in a sealed vacuum packaging to preserve the carbon filters from abnormal humidity during transport or during a storage

period before first use. In that case, follow the below instructions to install the filters.

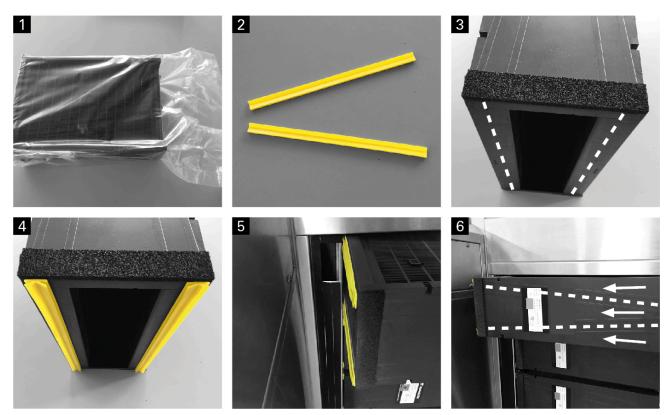


The main carbon filters are located in the filtration module.

### Installation of the main carbon filters:

To avoid any air bypass around the carbon filters (1), they are delivered with joints (2) that have to be installed on the outlet side (3). Once installed (4), slide The terminal carbon filter is integrated in the fan module.

them into the unit (5). Check the joints and the top of the V shape formed by the carbon cells are always placed on fan module side (6).





# 3 Maintenance

# 3.1 General

# (i) Notice:

Halton MobiChef is an advanced technology that requires a regular maintenance by trained personnel Some interventions have to be made by a Halton technician or an authorized partner.

# (i) Notice:

It is highly recommended to establish a maintenance contract to cover all maintenance requirements. Please contact your nearest Halton unit.

# \land Warning:

In all cases, before any maintenance operation, all cooking appliances have to be turned off.

Ensure they have sufficiently cooled down before removing them from inside the unit to start the intervention.



# 3.2 Cleaning and maintenance operations frequency

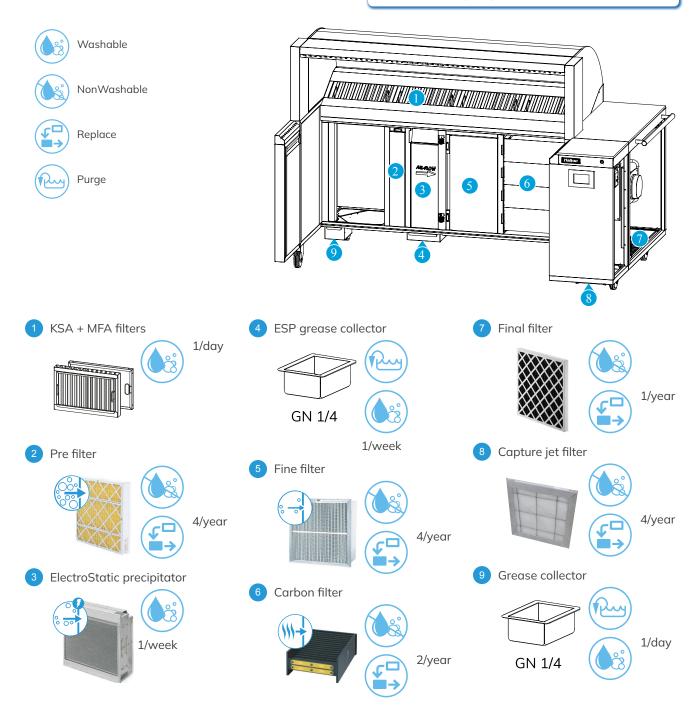
# 3.2.1 Mechanical filters, disposable filters and Electrostatic Precipitator

# (i) Notice:

The table below is a guide only. Conditions can vary from site to site depending on the cooking equipment type, their use and the type of food prepared.

# i Notice:

Effective lifetimes of the HEPA and Carbon filters highly depend on the correct maintenance of the mechanical filters (KSA and MFA), the panel filters and the electrostatic precipitator.





# 3.2.2 Other maintenance or cleaning operations

### External cleaning of the unit:

As often as required, depending on the duty level of the unit. The stainless steel parts should be cleaned at least once a week. It is highly recommended to clean the glass parts every day, as fast as possible after the MobiChef use, to reduce the cleaning times (avoid the grease solidifies).

#### Every day:

Cleaning of the grease collector of the mechanical filters.

### Weekly:

Cleaning of the grease collector of the Electrostatic Precipitator (ESP). Depending on the cooking duty level, it may have to be cleaned twice a week.

# Every month:

Cleaning of the exhaust plenum of the mechanical filters. Every 6 months: - Cleaning of plenum located before the disposable prefilter.

### Once a year:

Global verification of the unit by a Halton technician or a trained partner (pressure ports, pressure transducers, fan etc).

# 3.3 Precautions to take with stainless steel (applicable to aluminium)

Stainless steel is not an indestructible material. There are numerous false ideas about it and a number of users know little of the precautions to take to keep it looking new.

### Reference:

A guide created by Arcelor Mittal is appended at the end of this document. It contains good advice relating to stainless steel in the catering sector.

#### (i) Notice:

It is the responsibility of the user to bring knowledge of this guide to all people likely to maintain Halton products.

#### Summary of the precautions...

- 1. Respect the recommended dosage.
- 2. Respect temperatures.
- 3. Respect contact time.
- 4. Rinse well.
- 5. Dry well.

#### But also...

• Use recommended cleaning products.

• Respect the present instructions and the advices given by the cleaning product manufacturers.

### \land Caution:

Perform a trial cleaning first.

Clean regularly. It is easier to eliminate dirt before it has dried or burnt on several times.

# Marning:

Do not use disinfectant or descalant products on hot surfaces.

### ▲ Danger:

Ensure that no electrical equipment is in contact with water.

# The products never to put in contact with stainless steel:

Concentrated or hot bleach.

Concentrated or hot disinfectant products.

Hydrochloric acid (tile cleaners) even diluted and cold.

Metallic brushes or sponges, particularly steel.



# 3.4 External cleaning of the unit

# (i) Notice:

All surfaces of the unit should be cleaned using a cloth and water with the addition of a soft and neutral detergent, adapted to grease removal.

# (i) Notice:

Carefully rinse away all surplus of cleaning products as they do not get on well with the high temperature of the exhaust air. A Caution:

Do not use chlorinated water or bleach.

### \land Caution:

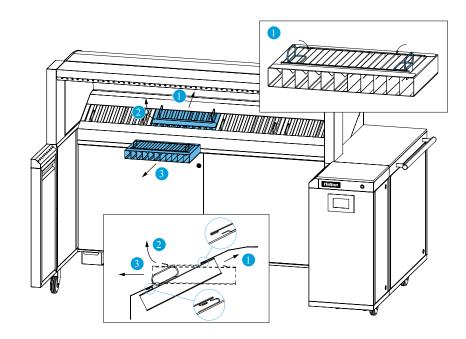
Never use harsh or abrasive detergents on any stainless steel parts.



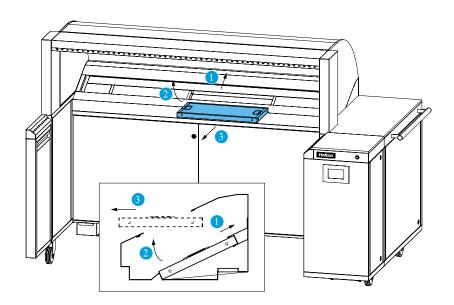
3.5 Cleaning of the primary mechanical filters and grease collectors

# 3.5.1 Removal of the filters

KSA



MFA





# 3.5.2 Cleaning of the KSA filters

The cleaning frequency of the KSA filters depends on the duty level of the cooking appliances. Halton recommends to clean them every day and in any case according to the national or local regulations that may specify a minimum frequency.

KSA Filters can be cleaned manually using a brush and water with the addition of a soft and neutral detergent, adapted to grease removal.

### (i) Notice:

Carefully rinse away all surplus of cleaning products as they do not work well with the high temperature of the exhaust air.

# 3.5.3 Cleaning of the MFA filters

The meshes of MFA filters are made of aluminium.

### (i) Notice:

In order to increase the lifetime of MFA filters, they should be reversed in the exhaust plenum. The UV lamps then clean the facing surface.

MFA filters can then be cleaned manually using a brush and water with the addition of the selected detergent.

### (i) Notice:

Before using the same soft detergent as for the KSA filters (that are entirely made of stainless steel), check that it has no counter-argument of use with aluminium. If there is, carefully select another soft detergent, also adapted to grease removal.

# 1 Caution:

Do not use chlorinated water or bleach.

When cleaned in a steam cleaner or a dishwasher, use a regular alkaline dishwashing detergent.

### Λ Caution:

It is not recommended to clean them in a dishwasher or to use a steam cleaner.

### Caution:

Do not use chlorinated water, bleach or alkaline detergent.

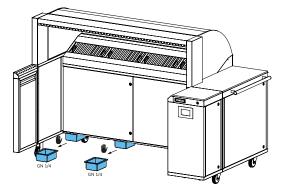
### \land Caution:

Never use acidic based detergents as this will damage the aluminium cells. Any warranties will be rendered void if another such detergent is used.

### (i) Notice:

Carefully rinse away all surplus of cleaning products as they do not work well with the high temperature of the exhaust air.

# 3.5.4 Cleaning of the grease trap and the unit's exhaust plenums



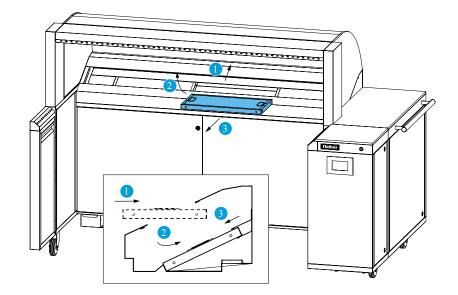
The grease collectors required after the primary mechanical filtration and the ESP are located on the bottom of the filters access door(s). Both can be cleaned in a dishwasher (with the same detergent as for the KSA filters).

The exhaust plenum of the KSA and MFA filters as well as the plenum before the disposable filters can be cleaned the same way as the external parts of the unit.

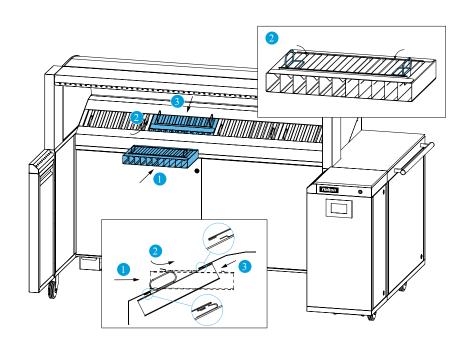


# 3.5.5 Reinstallation of the filters

# MFA

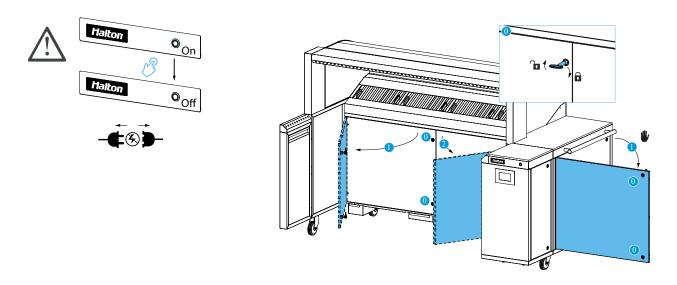


KSA





# 3.6 Access to the disposable filters and ESP



# 3.7 Replacement of the disposable filters

# 3.7.1 Important warnings about the filters and the calibration of unit

The disposable filters have been carefully selected and tested by Halton engineers to be efficiently combined with the Electrostatic Precipitator and fulfil the specific requirements of cooking emissions treatment. The replacement filters have to be ordered through Halton Customer Services.

The use of different filters inevitably leads to one or several of the following dysfunctions:

- Decrease of the filtration efficiency;
- Lifetime decrease of the terminal and more costly filters lifetime (HEPA and carbon filters);
- Decrease of the unit's exhaust airflow and decrease of the smoke capture efficiency;
- Incorrect info about the filter's lifetime;
- Unjustified "filter clogged" alarms.

### \land Caution:

Halton shall not be liable for any dysfunction directly or indirectly linked to the use of non-approved filters.

# \land Caution:

Ensure all replacement filters are stored in a dry room before their use. Filters are sensitive to humidity.

### \land Caution:

Ensure the replacement of the inexpensive prefilters is done regularly and as soon as an alarm is triggered. They preserve the lifetime of the more costly filters (HEPA and carbon filters).

### (i) Notice:

Without contrary notification from Halton, the replacement of all or part of the filters does not require a re-calibration of the unit.

### (i) Notice:

However, Halton reserve the right to use different filters, to improve the global efficiency, depending on the evolution of the filtration technologies. In that case, a recalibration is required to continue efficiently monitoring the filters. It has to be done by a Halton technician or a trained partner.

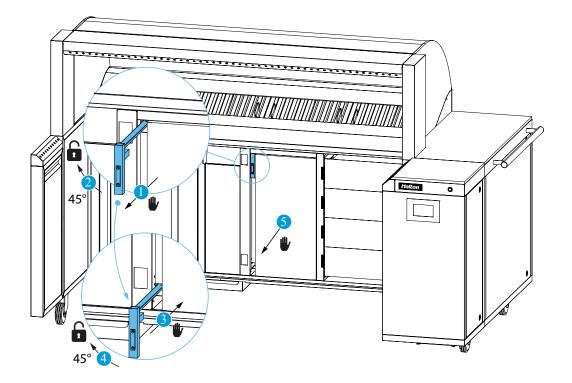
### Recycling:

If applicable, old filters must be disposed of through appropriate channels or sent to specialised and authorised companies in accordance with local regulations.

The pre-filter and carbon filters are removable without tools by just sliding them out of their location. Follow the specific instructions for the HEPA and Carbon filters.



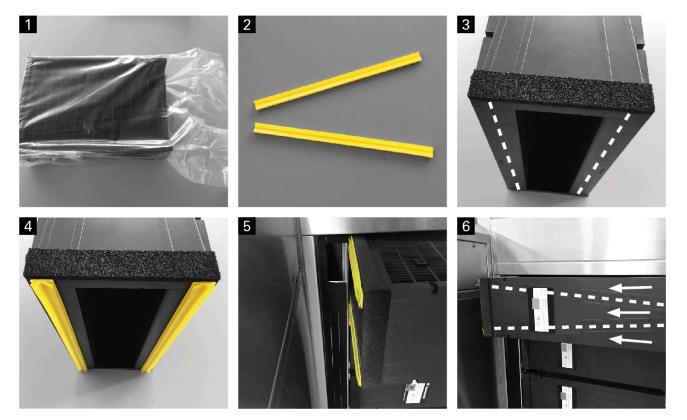
3.7.2 Removal and replacement of the HEPA filters

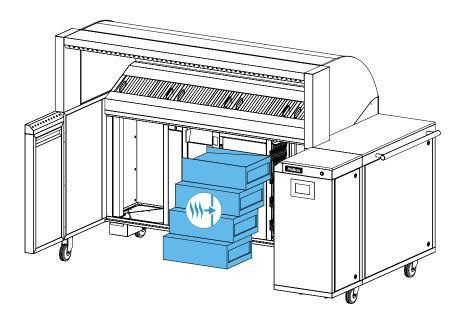




# 3.7.3 Removal and replacement of the Carbon filters

The carbon filters can be removed without tools by just sliding them out from their runners. To preserve the carbon filters from abnormal humidity during transport or during planned storage, the carbon filters are delivered in a sealed vacuum packaging (1). Ensure this packaging is kept and safe during storage. To avoid any air bypass around the Carbon filters, the cartridges are delivered with joints (2) that have to be installed on the outlet side of the filters (3). Once installed (4), slide them into the unit (5). When the fan module is left handed, the joints have to be placed on the left (on the right for the right handed fan modules). In all cases, check the filter direction. The "open side" of the horizontal V shape on the front of the cartridges is always against the side of the unit.







# 3.8 Cleaning and maintenance of the electrostatic precipitator (ESP)

# 3.8.1 General

# (i) Notice:

To keep the optimum performance of the ESP, the cell and its mesh prefilter must be regularly cleaned. The washing frequency depends on the cooking duty level and the daily number of operating hours.

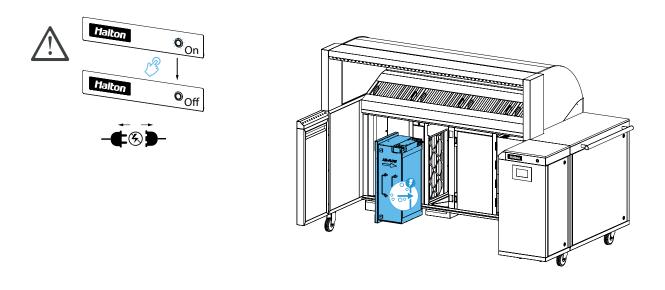
### (i) Notice:

The filter loading is monitored and displayed on the touch screen. An alarm is triggered when the cell and mesh filter must be cleaned. It is also recommended to wash them when the prefilter is replaced.

### (i) Notice:

The mesh filter used in front of the ESP can be cleaned the same way as the MFA filters (referred-to earlier).

# 3.8.2 Access to the grease trap for cleaning / Removal of the ESP and its mesh pre-filter



# 3.8.3 Important warning about the detergent

### ▲ Caution:

The ESP cell and the mesh pre-filter are made of aluminium. Use the same detergent as for the MFA filters after having double checked it has no counterargument of use with aluminium.

### \land Caution:

Do not use chlorinated water or bleach.

#### 🔨 Caution:

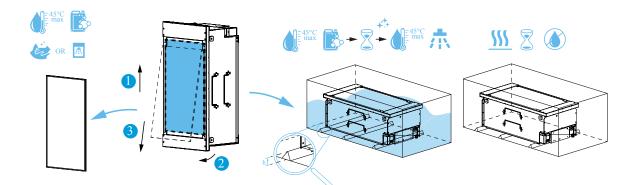
Carefully rinse away all surplus of cleaning products as they does not work well with the high temperature of the exhaust air.

### Reference:

Read carefully the chapter "precautions to take with stainless steel (applicable to aluminium)".



# 3.8.4 Manual cleaning of the ESP



# (i) Notice:

It is highly recommended to manually clean the ESP.

# (i) Notice:

When both the ESP and its prefilter are cleaned manually, always start with the ESP, to prevent the risk of prefilter's dirt to be partly transferred to the ESP cells.

### \land Warning:

Do not splash the detergent solution in eyes.

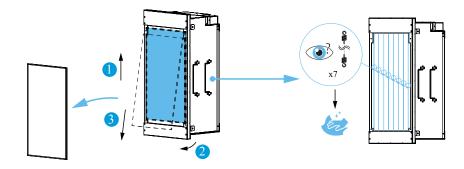
### \land Warning:

Wear rubber gloves to avoid prolonged detergent contact with skin.

### \land Warning:

Keep detergent and solution out of reach of children.

# 3.8.5 Inspecting and cleaning ionizer wires



# \land Warning:

Broken or bent ionizer wires can cause an shortcut to ground, often resulting in electric arcs. Do not use the ESP until broken wires are removed.

# (i) Notice:

The ESP can be used temporarily with one wire missing, but replace the wire as soon as possible. Replacement wires are supplied cut to length with eyelets on both ends for easy installation.

# 3.9 Maintenance and other functions of the Touch Screen

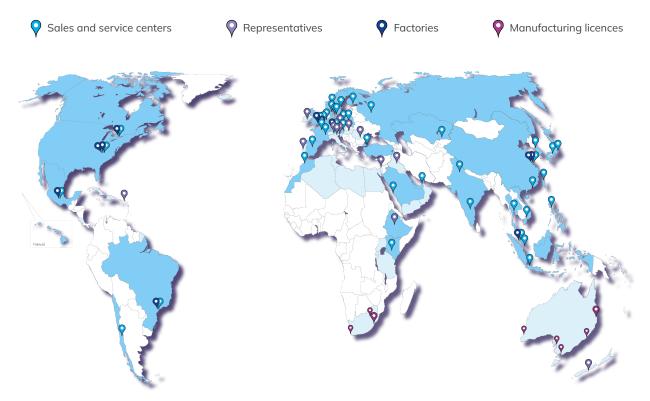
# Reference:

See the dedicated User guide of the Halton Touch Screen mini for the MobiChef





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