

















Halton MobiChef is a mobile recirculating station designed for electrical cooking appliances. It allows cooking anything, anytime and anywhere it is of most value, without the need of connection to a ventilation ductwork.

Main technologies and options

 <p>Capture Jet™ technology Better smoke capture and reduction of the recirculation airflow</p>	 <p>Side Capture Jets Better protection against smoke spillage on the sides</p>	 <p>Front Capture Jets Slows the building up of a greasy film on the glass front</p>
 <p>KSA aerosol separators combined with MFA mesh filters Up to 99% efficient on 10 microns and above particles</p>	 <p>Electrostatic Precipitator (ESP) Fine particles removal, including grease particles and vapors</p>	 <p>Absolute filtration MERV16 absolute filter (rated 95% DOP for 0.3 microns aerosols)</p>
 <p>Two stages food grade activated carbon filters Greatly reduces the odor emissions</p>	 <p>Airflow "On Demand" (option available early 2022) Automatic start-up and fan speed selection</p>	 <p>Fan intelligent control 3 constant airflow levels whatever the filters state</p>
 <p>Filters monitoring Constant control of the disposable filters' load</p>	 <p>Halton Skyline (HCL) Daylight similar LED based Culinary Light</p>	 <p>Halton Compact Touch Screen Simplified and intuitive LCD user interface</p>
 <p>Halton Connect® IoT platform* Cloud-based control platform with distant monitoring capabilities</p>		

Optional Services

 <p>Halton Care Services* (optional) Smart maintenance & optimization services</p>

* The access to Halton Connect® web portal is included in the 1-year warranty period. After this period, it is subjected to one of the Halton Care service offer.

Description and main technologies



Halton MobiChef is a mobile recirculating Station. It allows cooking anything, anytime and anywhere it is of most value, without the need of connection to a ventilation ductwork.

Simply plug it and it drastically removes the grease and smoke released by the cooking appliances while greatly reducing the odor emissions.

Halton MobiChef enables creating display cooking hubs right in the middle of traditional restaurants or in shopping malls and food courts, as well as in hotels's banquet or breakfast areas. It can also be used to place mobile catering points at strategical locations within a venue, as for exhibition grounds for instance. It also enables extending the cooking capacity of an existing kitchen or establishing a catering activity on premium locations without worrying about ventilation.

Halton MobiChef is designed for electrical cooking appliances. It is equally suitable for table-top light-duty equipment or modular equipment (up to 5 of 400 mm width).

Halton MobiChef's New Design is more compact while providing a larger view over what your guests are going to savor. Its operation is now fully automatic and its sides are foldable to make its handling easier. Last but not least, with Halton Connect® & Care services, its maintenance has never been so easy and predictive. You keep an eye on your station operation. So do we, in order to manage everything for you.

- HACCP certified (Hazard Analysis Critical Control Point).
- No need for a connection to the exhaust ductwork.
- Compatible with all electric and modular cooking appliances of 700 or 800 mm depth.
- The productivity and ergonomics are comparable to a cooking block covered with a hood.
- The Capture Jet™ technology on the front and sides enables a negative overhang while reducing the exhaust airflow rates required. It makes the unit compact and quiet in operation considering its treatment capacity.

- An additional set of Capture Jets slows the building up of a greasy film on the front glass and reduces the time required to clean it.
- Its foldable sides and lateral handle make its handling and doors passing easier.
- Totally plug and play with a user friendly integrated LCD touch screen.
- The control system maintains constant the recirculation airflow at the three available speeds, whatever the filter's plugging (and pressure loss).
- Option / With the "airflow On Demand" technology, the unit selects automatically and real time the operation speed which suits the best to the cooking operations on progress.
- KSA cyclonic aerosol separator combined with MFA mesh filters as the first of the 6 filtration stages. Up to 99% efficient on 10 microns and above particles.
- High efficient filtration process removes drastically the grease and smoke particles released by the cooking appliances while greatly reducing the odor emissions.
- Equipped with Halton Connect® IoT (Internet of Things) platform with advanced 24/7 distant monitoring capabilities.
- Access to Halton Connect web portal included in the 1-year warranty period.
- Option / Highest value of ownership thanks to Halton Connect & Care offering for predictive maintenance and smart services.
- Halton Skyline LED culinary light provides the best visual comfort while respecting the food color and texture render.
- Front and sides glass screens made of thermally-toughened safety glass, complying with EN 12150-1:2015. If one of them is accidentally broken, the glass fragments are small and blunt-edged. The injury risk is then considerably reduced.
- Fan module right or left handed. Working surface on top of it made of quartz.



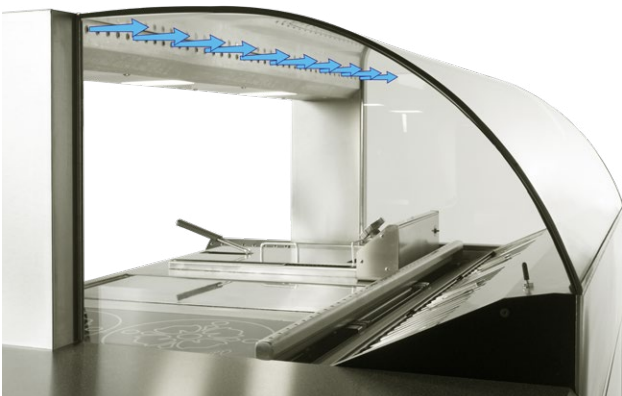
Capture Jet™ technology with side Jets



The Capture Jet™ technology ensures the grease, smoke and the other pollutants released by the cooking appliances are captured with the lowest possible airflow rate. This is a key point for recirculation systems in order to optimize its size and efficiency.

Benefits

- Reduces the unit's maximum airflow rate to the lowest possible level, without compromise on smoke and grease capture.
- Reduces the filters' and fan's size. The unit is more compact, the noise level is lower and the fan's energy consumption is reduced.
- The Capture Jets are also used to reduce the cleaning time of the glass front screen



Capture Jets used to contribute protecting the glass front from cooking emissions



Capture Jets used to contribute protecting the glass front from cooking emissions

How does it work?

The Capture Jet™ technology is based on the use of one or several sets of single or double aerodynamic nozzles, supplied with an extremely low airflow. These nozzles form one or several air curtains which, carefully located and oriented, increase the capture efficiency on the grease, steam, smoke and heat released by the cooking appliances. In other words, they greatly reduce the airflow to remove them.

Halton MobiChef is equipped with 3 sets of single Capture Jet™ nozzles.

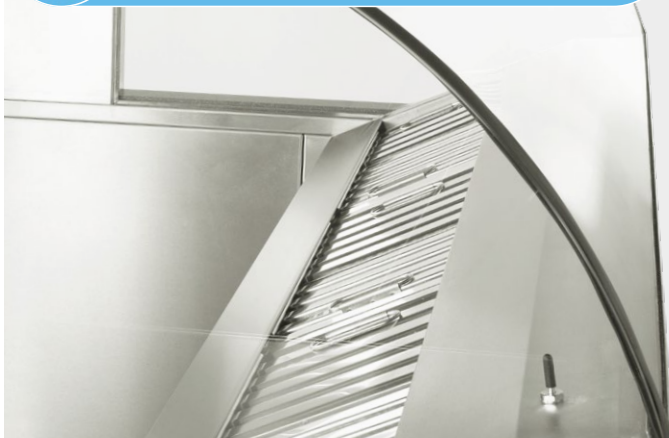
The first two sets of nozzles on the front and sides allows for a large opening on the cooking appliances. The chef then benefits from good work ergonomics, without having him and their guests being inconvenienced by cooking emissions escaping from the unit. Halton MobiChef unit's capture efficiency reaches the highest level with the lowest airflows.

An additional set of Capture Jet™ nozzles is integrated on top of the front glass screen. It contributes directing the cooking emissions to the primary filters and slowing the building up of a greasy film on the glass. Halton MobiChef affords a clear view of the chef's work whilst minimising the cleaning time of the glass screen.



KSA cyclonic filters

Combined with MFA mesh filters



Primary mechanical filtration is key for any recirculation system. Combined with the MFA mesh filters, the KSA cyclonic filters reduce the cleaning frequency of the disposable pre-filter and optimize the efficiency of the recycling treatment.

Benefits

- KSA cyclonic aerosol separators constructed of stainless steel in compliance with EN 16282-6. Up to 95% efficient on 10 microns particles or larger. Also certified UL 1046, NSF and LPS 1263.
- KSA separators combined with MFA mesh filters. Resulting efficiency of up to 99% on 10 microns particles or larger, and 94% on 5 microns particles.



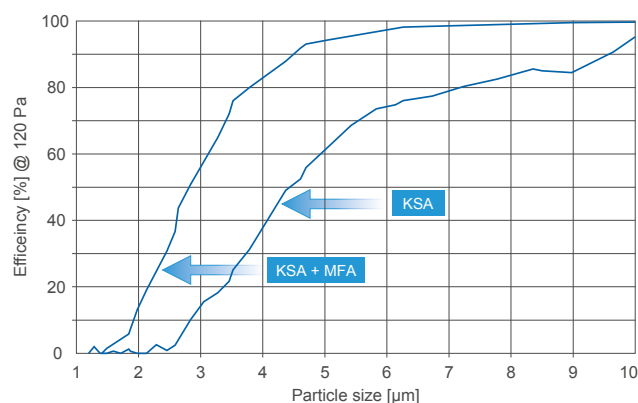
View on the cyclonic effect inside a KSA filter (Schlieren view)

- Lower maintenance costs due to lower replacement frequency for the disposable pre-filter.
- Optimizes the efficiency of the recycling system downstream.
- Noise levels and fan's energy consumption noticeably reduced thanks to the low pressure loss.

How does they work?

KSA cyclonic filters are composed of vertical honeycomb sections. Opening only at the top and bottom, they are designed to force the air to swirl inside. The centrifugal effect is impactful, and continuous – a mechanism that traditional baffle filters do not have. Particles are thus pushed against the honeycomb walls, resulting in better performance.

KSA filters are accredited by the UL (Underwriter Laboratories) as flame-resistant and have NSF (National Sanitation Foundation) Hygienic and safe approval.



Tests on KSA filters efficiency carried out on a Halton hood exhaust plenum by VTT laboratory, according to VDI 2052 (part 1). Efficiency tests on the combination KSA+MFA carried out in a Halton R&D laboratory in similar conditions.



Airflow on demand (Option)



Option Available early 2022

Halton MobiChef has a fully automatic mode that lets you focussing on what is going to be cooked for the guests. Just switch on the unit and once the starting up routine is finished, the unit is ready to operate with the right recirculation airflow, at the right time.

How does it work for what benefits?

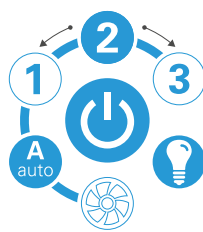
Halton has developed an intelligent Infrared sensor called IRIS that is used to scan the surface of the cooking appliances to determine its status. In other words, it is able to determine

whether the appliances are off, on but without cooking activity or in cooking mode.

IRIS sensors are in the heart of Halton's "On Demand" technologies whose objective is to place sustainability to the forefront of Halton's solutions. The sensors are used to save energy or water, depending on the technology it is combined with, but also to reduce the maintenance costs.

For Halton MobiChef recirculation unit, IRIS sensors are used to save electricity but above all to make it fully plug and play. No need any longer to worry about the speed used while cooking, which often means that the units are at the end used all the time at the maximum speed.

Thanks to IRIS sensors, switch the unit, wait the starting-up routine is finished, and the speed selection is managed automatically depending on the cooking activity. It saves electricity and reduces also the average noise level to the lowest level, the maximum being used only during the activity peak.



Halton compact Touch Screen makes it simple. In automatic mode, the operation speed is selected depending on the cooking activity. The active speed is clearly displayed.

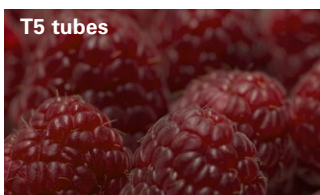


A manual mode is still available. In that case, the recommended speed is also clearly displayed to invite the user changing the speed or coming back to the automatic mode.



Halton Skyline

culinary light



T5 tubes



Halton Skyline

It is not because it is a recirculating station that the lighting shall be neglected. Halton MobiChef is equipped with Halton Skyline LED lighting technology to improve chef's visual comfort and also place its work under the spotlights for the guests.

Halton Skyline is the first LED based lighting technology specifically developed for the needs of commercial kitchens. It combines the benefits of a Culinary Light and a Human

Centric Light that respect the natural food color and texture, while contributing to people's Wellbeing and safety.

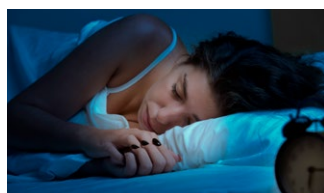
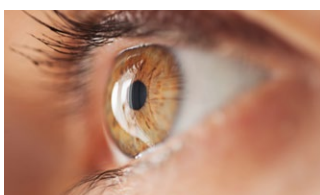
The significant energy savings may almost be viewed as secondary, but Halton's Skyline is a highly efficient LED design which contributes to impressive energy savings.

Fitted in Capture Jet™ ventilated ceilings and hoods, as well as in show cooking solutions, it can be extended to the other kitchen areas with additional standalone modules, and benefits.

Benefits for Halton MobiChef

- Remarkably respects the natural food color and texture.
- Color Rendering Index (CRI) of 83 @4000K.
- Very good lighting levels on the cooking surfaces.
- Lower maintenance costs thanks to the 50,000 hours lifetime for both the LEDs and the drivers.
- Energy savings on the unit's electricity consumption.

When extended to a whole kitchen, Halton Skyline means a full package of other benefits



Halton Skyline provides the best visual comfort, without alteration over time and without dazzling the staff, thus also playing an active role in the kitchen safety. Among others, Halton Skyline's shielding angle is up to two times higher than DIN EN 12464-1⁽¹⁾ demand.

Halton Skyline's Human Centric version is a biodynamic lighting centered on users needs. It creates daylight-similar sequences depending on the kitchen activity, further improving their working conditions and Wellbeing. You would think you were outside!

A state of the art lighting technology that, at its core, saves significantly on energy and maintenance. With a luminous efficacy of 120 lm/W, Halton Skyline consumes up to 2,8 times less than fluorescent tubes.



(1) Light and lighting- Lighting of work places- Part 1: Indoor work places



Halton Connect & Care



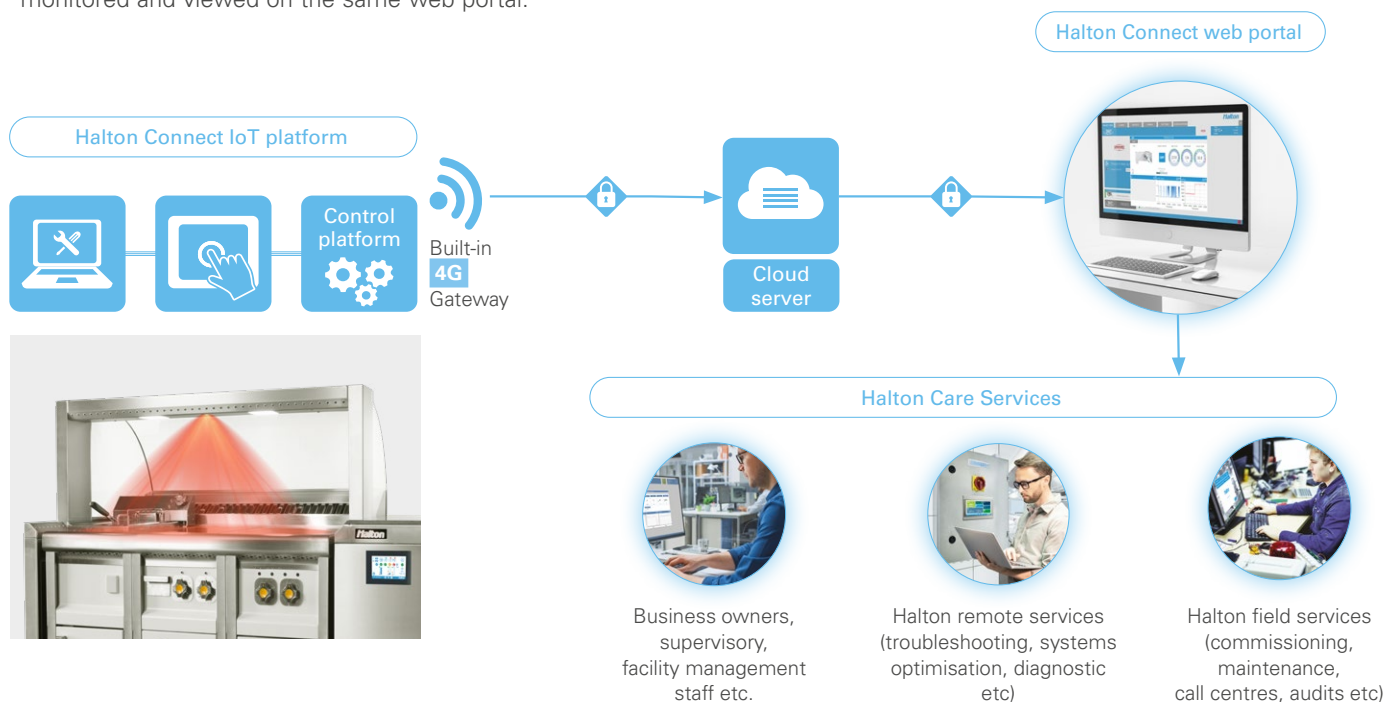
- Automatic systems' faults notification and editing of simplified automated analytics reports.
- Option for advanced automated data analytics reports (energy savings, water savings, cooking appliances usage depending on the connected technologies etc.).
- Allows deeper analysis by our engineers in order to optimize set points or adjust the equipment utilization, in order to keep the systems efficiency at design level or even improve it during the entire kitchen(s) life cycle.
- Secure as designed to operate as a fully independent system in your building.
- Predictive maintenance based on the data analytics of the systems. Visits are planned depending on the real needs and replacement parts use is optimized.
- Lowest risk of ventilation down time due to a wrong manipulation or equipment fault.
- Better view on the competitiveness through predictive costing.
- Option for automatic adjustment of the maintenance contracts duration.
- Option for Software maintenance and update of Halton Connect.

Halton Connect is a state-of-the-art IoT (Internet of Things) platform whose core is an advanced cloud-based portal. It enables 24/7 remote monitoring of the solutions designed by Halton, allowing access to useful information along with powerful data analytics.

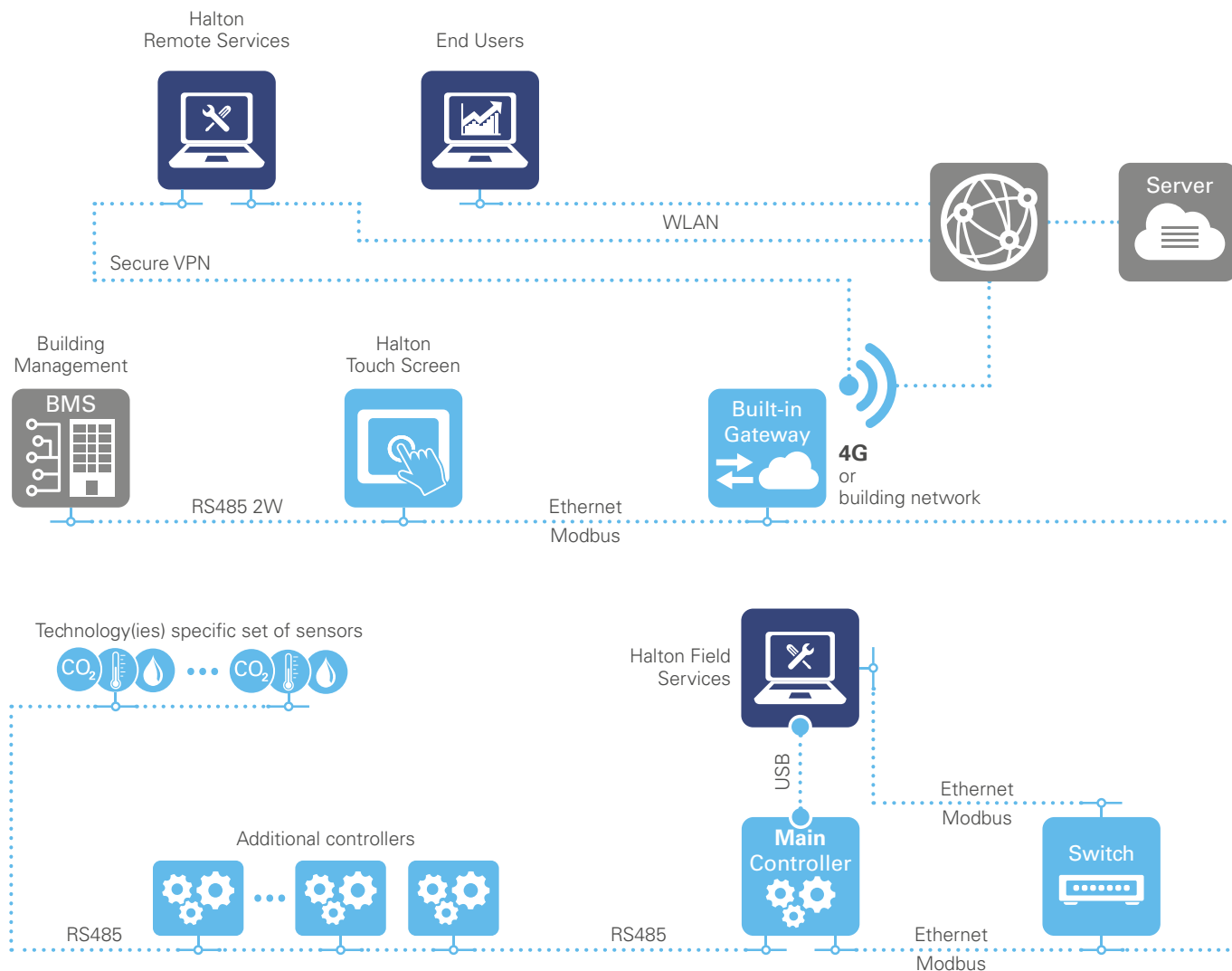
Halton Connect enables Halton Care smart services. They directly contribute to the Highest value of ownership and peace of mind for the business owners.

Benefits

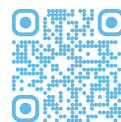
- 24/7 monitoring of Halton MobiChef unit.
- Access to Halton Connect cloud-based and intuitive web portal. It provides detailed information about the Halton MobiChef operation. The other Halton solutions can be monitored and viewed on the same web portal.



Halton Connect Principles & Halton Touch Screen



The built-in 4G gateway of Halton Connect is designed to operate as a fully independent system in your building. The data traffic toward the cloud is secured by a VPN (Virtual Private Network) and with SSL encryption protocol (Secure Sockets Layer). Halton Connect also has the ability to send information to the BMS (Building Management System).



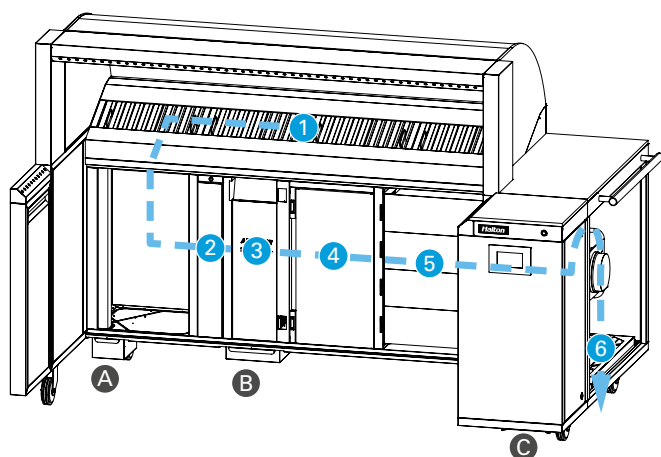
Read our white paper about Halton Connect Secure



The Halton compact Touch Screen enables the end users to have anytime a quick overview of Halton MobiChef unit operation. These information are also available on Halton Connect® web portal, in the same manner as those of the Halton solutions that may equip the other building areas.



Operation

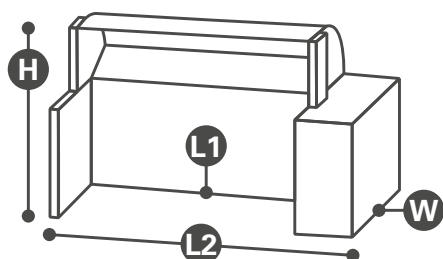


Halton's MobiChef integrates a highly efficient recycling unit based on a process composed of not less than 6 steps. It has been designed to drastically remove the grease and smoke particles released by the cooking appliances while greatly reducing the odor emissions.

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.

- 1 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.
 - 4 MERV 16 (per Ashrae 52.2) absolute filter, rated 95% DOP for 0.3 microns aerosols. It is used to remove ultra fine particles, mainly contained in smoke.
 - 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.
- B Grease tray for the ESP.
- B Filter for the integrated Capture Jet™ fan..

Quick selection data

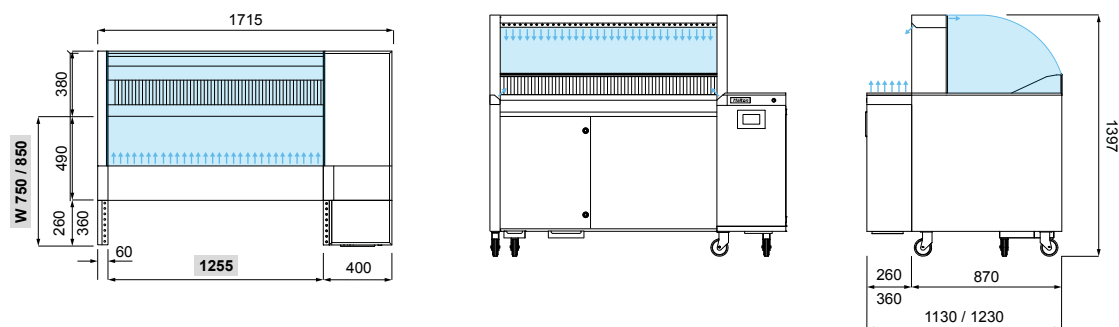


					Q_R [m³/h] (1)			230V/50Hz
	L1	L2	W	H	1	2	3	⚡
S70	1255	1715	1130	1397	560	675	810	1650 W
S80	1255	1715	1230	1397	650	780	940	1650 W
M70	1655	2115	1130	1397	740	890	1070	1650 W
M80	1655	2115	1230	1397	860	1030	1240	1650 W
L70	2055	2515	1130	1397	920	1110	1330	1650 W
L80	2055	2515	1230	1397	1070	1280	1540	1650 W

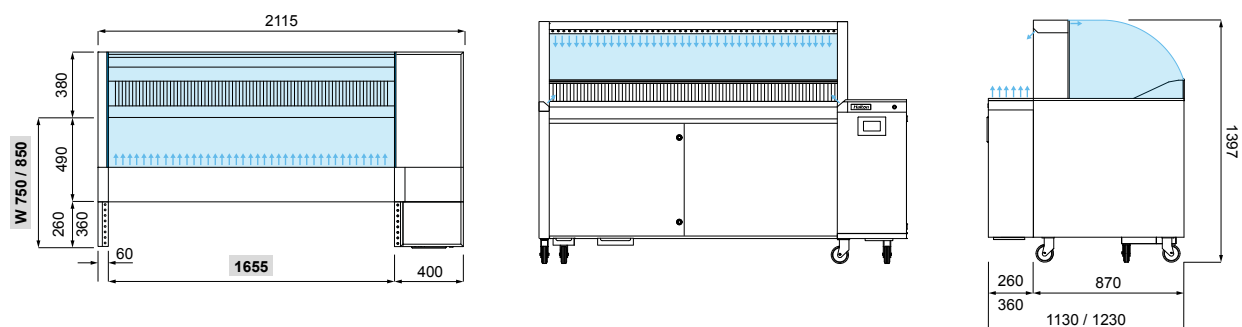
(1) Indicative recirculation airflows which can be adjusted depending on the cooking appliances technical specifications

Dimensions

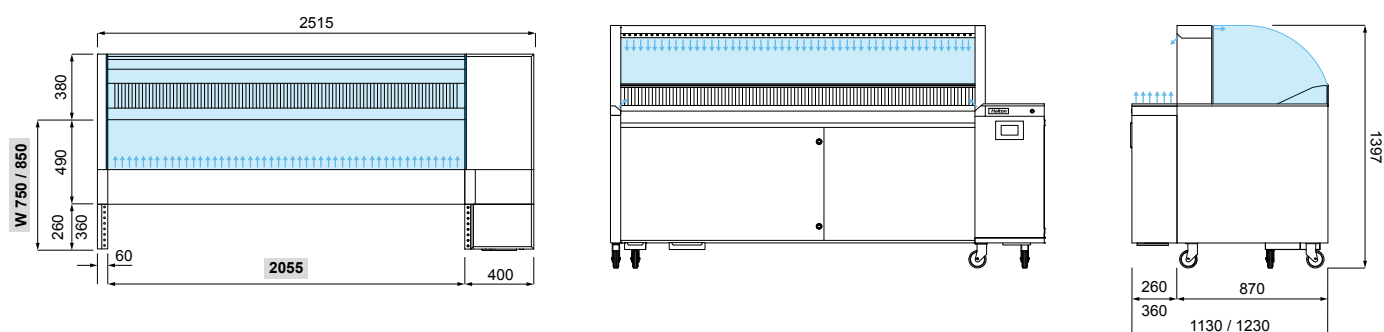
KMC Halton MobiChef S70 (W750) S80 (W850) 277 kg



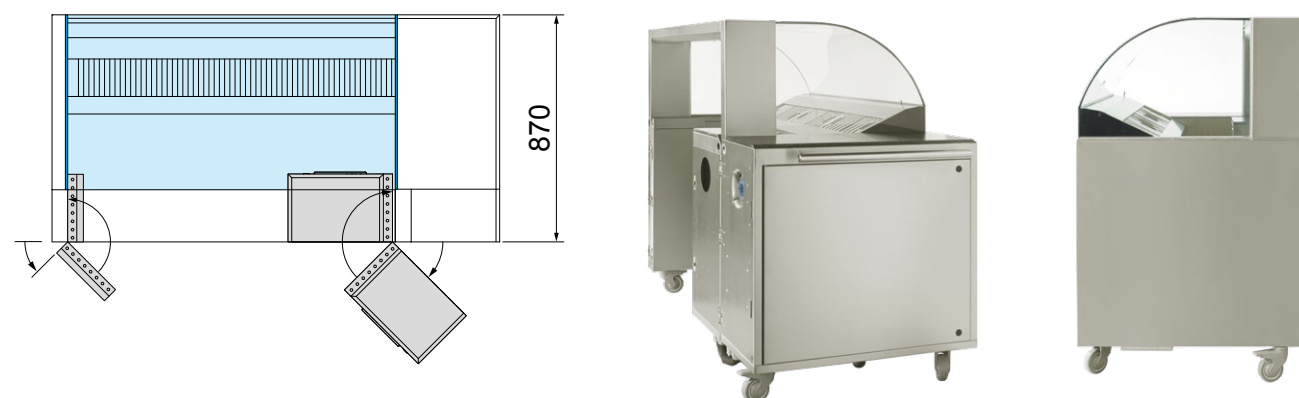
KMC Halton MobiChef M70 (W750) M80 (W850) 297 kg



KMC Halton MobiChef L70 (W750) L80 (W850) 317 kg



Foldable sides



Specifications

The mobile recirculation unit shall be Halton Brand, KMC Halton MobiChef model.

It shall be pre-configured from factory to be plug and play at delivery. The following specifications shall be fully observed.

Unit's outer envelope and structure

- Unit's structure made of stainless-steel profiles and equipped with high load wheels.
- Outer envelope constructed from 1.0 mm AISI 304 stainless-steel in a brushed satin finish. All exposed welds grounded and polished to the metal's original finish.
- Sides of the unit partly foldable to facilitate its move through doors and corridors. Fixed part of the fan side-module equipped with a stainless-steel handle to facilitate its handling.
- Glass screens made of tempered safety glass complying with EN 12150-1:2015.

Capture Jet™ technology

- The Capture Jet™ technology is based on the use of one or several sets of aerodynamic blowing nozzles, single or double. Each set of Capture Jets forms an air curtain and increases the capture and containment on smoke, steam and heat of the products they are integrated in.
- Nozzles designed to get a minimum air speed of 8 m/s at output while not creating draughts that could have an opposite effect to that expected.
- Capture Jets fed with an integrated fan to provide the airflow and static pressure required for an optimal efficiency. A specific ductwork is thus not required. Fan air inlet equipped with a filter, replaceable from outside.
- The recirculation unit shall be equipped with 3 sets of single Capture Jets.
- The front and side Capture Jets reduce the exhaust airflow rates while enabling a large opening of the sides for a better ergonomic.
- Third set of Capture Jets on the top of the front glass screen. It contributes to directing the cooking emissions to the primary filters and to slowing the building up of a greasy film on the glass.

Exhaust plenum

- Exhaust plenum equipped with KSA cyclonic aerosol separators. Constructed from stainless-steel, they shall comply with EN 16282-6. Efficiency of up to 95% on 10 microns particles or larger, as tested by an independent laboratory. Filters also UL 1046, NSF and LPS 1263 classified.
- KSA separators combined with MFA mesh filters. Resulting efficiency of up to 99% on 10 microns particles or larger, and 94% on 5 microns particles.

Recycling module

- The highly efficient air recycling module comprises 5 additional treatment steps.
 - 1- Disposable pre-filter rated M5 (per EN779)
 - 2- ESP, Electrostatic Precipitator cell
 - 3- MERV 16 (per Ashrae 52.2) absolute filter, rated 95% DOP on 0.3 micron particles
 - 4- Activated carbon and chemical pellets odor absorbent filter
 - 5- Terminal synthetic filter impregnated with carbon
- Recycling module equipped with two access doors, secured by a power shut-off feature at doors opening. It offers a large access to the disposable filters and the washable ESP cell.
- After treatment, it shall be possible to discharge the air back into the space, without the need for a connection to a ventilation duct.

Fan module

- Fan module equipped with a centrifugal exhaust fan, sized based on unit length. Motor of ECM type (Electronically Commutated Motor). Access via two independent doors equipped with a power shut-off feature.
- Fan module covered with a quartz plate.

IoT Control platform

- The IoT (Internet of things) control platform shall be Halton Brand, Halton Connect.
- It shall have advanced distant monitoring capabilities to provide detailed information about the system(s) operation and statuses, thanks to a cloud-based and easy to use web portal.
- The IoT platform and web portal shall enable the users benefiting from premium services, including a predictive maintenance of the system(s).
- The platform shall also include a compact Touch Screen providing the users simple information about the unit's operation and its maintenance, without the need to connect the web portal.

[Option] Automatic mode

- Automatic mode activated at the end of the unit's starting up routine. Selection of the operation speed depending on the cooking activity. Possibility to override the automatic selection by switching to the manual mode from the Touch Screen.
- To that purpose, the cooking appliances' surface shall be scanned thanks to one or several integrated IRIS Infrared Radiation Index Sensor(s), in order to instantaneously detect variations in cooking activity and select the appropriate operation speed.

Halton Skyline light fitting

- Light fitting constructed from stainless steel and equipped with the flush-mounted Halton Skyline broad beam spots.
- Minimum illuminance on the working surfaces of 500 lx.
- The spots shall provide a uniform light, with good balance between the direct and diffuse components, making forms and textures clearer and richer in contrast.
- Color temperature of 4000K and Color Rendering Index (CRI) of at least 83, to prevent degrading the colors perception of the food and ingredients.
- Minimum LEDs and drivers lifetime of 50,000 hours. Drivers DALI compatible. Spot's efficiency of at least 105 lm/W.
- Spots closed by a seamlessly glued safety glass plate for a better hygiene and ease of cleaning. A1 fire-rated glass (non-flammable according to EN 13501-1). IP54 protection against water spraying.



www.halton.com

Halton Manufacturing Facilities

France

Halton Foodservice
Zone Technoparc Futura
CS 80102
62402 Béthune Cedex
Tel. +33 (0)1 80 51 64 00
Fax +33 (0)3 21 64 55 10
foodservice@halton.fr
www.halton.fr

Germany

Halton Foodservice
Tiroler Str. 60
83242 Reit im Winkl
Tel. +49 8640 8080
Fax +49 8640 80888
info.de@halton.com
www.halton.de

United Kingdom

Halton Foodservice
11 Laker Road
Airport Industrial Estate
Rochester, Kent ME1 3QX
Tel. +44 1634 666 111
Fax +44 1634 666 333
foodservice.uk@halton.com
www.halton.com

USA

Halton
101 Industrial Drive
Scottsville, KY 42164
Tel. +1 270 2375600
Fax +1 270 2375700
sales.us@halton.com
www.halton.com

Canada

Halton Indoor Climate Systems
1021 Brevik Place
Mississauga, Ontario
L4W 3R7
Tel. +905 624 0301
Fax +905 624 5547
sales.ca@halton.com
www.halton.com

Brazil

Halton Refrin
Rua Antonio de Napoli
539 Parada de Taipas
CEP 02987-030
São Paulo- SP
Tel. +55 11 3942 7090
vendas@haltonrefrin.com.br
www.haltonrefrin.com.br

Asia Pacific

Halton Group Asia Sdn Bhd
PT 26064
Persiaran Teknologi Subang
Subang Hi-Tech Industrial Park
47500 Subang Jaya, Selangor
Tel. +60 3 5622 8800
Fax +60 3 5622 8888
sales@halton.com.my
www.halton.com

China

Halton Ventilation
浩盾通风设备(上海)有限公司
Room 701, No.2277 Longyang Road,
Pudong New District
201204 Shanghai
Tel. +86 (0)21 6887 4388
Fax +86 (0)21 6887 4568
halton.cn@halton.com
www.halton.cn

Halton has a policy of continuous product development, therefore we reserve the right to modify design and specifications without notice. For more information, please contact your nearest Halton agency.

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non commercial uses permitted by copyright law.