UVI
Capture Ray™ hood

◦ Capture Jet™ technology ◦ KSA aerosol separators ◦ UV-C Capture Ray™ technology ◦ Halton Skyline culinary & Human Centric Lighting

Declaration(s) and certification(s)

Components certification(s)

EPD declarations

Main technologies and options

Capture Jet™ technology
Up to 40% reduction in exhaust airflow thanks to a better capture efficiency

KSA aerosol separators + MFA mesh filters
Up to 99% efficient on 10 microns particles

UV-C Capture Ray™
Neutralises grease vapors and particles

UV On Demand (Option)
Saves up to one in two sets of UV-C lamps

Halton FireWatch (option)
Detects a fire risk before it occurs

Halton Skyline
Daylight similar Culinary and Human Centric lighting

Halton Touch Screen
Intuitive LCD user interface (5 or 10")

Halton Connect™
Cloud-based control platform with distant monitoring capabilities (1)

M.A.R.V.E.L. ready (option)
Pre-equipment options for easier future retrofit

Option for decarbonized stainless steel
An ecological and sustainable choice

(1) 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.

Recommended combinations

Further increase the energy savings and improve staff's comfort <> Go for M.A.R.V.E.L. airflow and energy optimization technology

Establish restaurants in premium locations and increase profitability <> Go for PolluStop pollution control units and reassure neighborhood

Don't risk bankrupt or business downtimes because of a cooking fire <> Go for FSS Fire Suppression System pre-installed from factory

Optimize the ductwork cleaning costs and further improve your safety <> Go for KGS grease deposition level monitoring system for ductwork

Applications

Halton Capture Jet™ hoods and ventilated ceilings are suitable for projects that are subject to LEED (1), BREEAM (2), DGNB (3), RE2020 (4), or other similar programs or certifications - particularly when combined with M.A.R.V.E.L. airflow and energy optimization technology. They can be used in all types of kitchens - closed, opened, or show kitchens - and in general, all food-production environments.

In addition to the ***Capture Jets***, UVI hoods are also equipped with the ***Capture Ray™*** technology.

Capture Ray™ technology is used to reduce ductwork cleaning costs, enhance fire safety, and prevent the risk of legal actions from neighboring residents due to cooking odors discharged by commercial kitchens located in densely populated areas. It becomes essential when ductwork is difficult to access for cleaning or in heritage or classified buildings with strict fire safety requirements.

Description

The **Capture Jet™** technology enables significant reductions in airflow rates leading to savings on construction costs, mainly due to the reduced size of ducts and HVAC equipment.

It typically pays for itself upon the startup of the kitchen or within few months. The energy savings it generates then directly contribute to an increase in profitability, while the staff benefits from improved working conditions.

The **Capture Ray™** technology neutralizes fine grease particles, grease vapors and a significant portion of the VOCs that cannot be removed by any primary mechanical filtration.

It offers a unique combination of benefits, including reduced cleaning costs, enhanced hygiene, improved fire safety, and a lower environmental impact on the surrounding neighborhood.

Considerable energy savings

- The **Capture Jet™ technology** allows for up to a 40% reduction in exhaust airflow rates.
- The combination with **M.A.R.V.E.L.** airflow and energy optimization technology allows for drastically reducing the exhaust volumes on top of that achieved by the Capture Jets. This results in up to a **64%+ total reduction**.
- The energy savings on heating/cooling the makeup air then become massive (less air out, less air in!).
- The reduction of the draft risk and noise levels also improves the working conditions for the staff.

Improved safety, maintenance savings and respect for the neighborhood

- **KSA** cyclonic aerosol separators are constructed of stainless steel in compliance with EN 16282-6. They are up to 95% efficient at capturing particles of 10 microns or larger.
- **KSA** separators also have a good efficiency-to-pressure loss ratio and are certified UL 1046, NSF, and LPS 1263.
- On UVI hoods, **MFA** mesh filters are used as as second filtration level to bring the total efficiency to up to 94% on 5 microns particles.
- The filtration level achieved efficiently slows down the build-up of grease deposits in the exhaust plenums and ductwork that could otherwise constitute a serious hygiene and fire safety hazard.
- This filtration level is also a prerequisite for the **Capture Ray™** neutralization technology. It indeed achieves optimal efficiency on medium to small grease particles, grease vapors, and VOCs.
- The **Capture Ray™** technology keeps the exhaust plenums and downstream ductwork virtualy free of grease deposits. The ductwork cleaning operations are cut down to the minimum legal frequency (if applicable) or to the strict minimum.
- The savings on the ductwork cleaning costs can't be higher.
- The hygiene and fire safety levels of the extract circuit are optimized to their highest standards.
- The **Capture Ray™** technology also significantly reduces the odors discharged outdoor and thus lowers the kitchens' environmental impact on the neighborhood and the risk of complaints or legal action.
- The **UV On Demand** option activates the lamps only when cooking appliances are actually used. It saves up to one lamps-set where other UV systems require two.
- Advanced 24/7 distant monitoring capabilities thanks to **Halton Connect** IoT (Internet of Things) platform.
- Highest value of ownership thanks to **Halton Connect & Care** smart services available as an option from kitchens commissioning.

Other benefits and features

- Construction compliant with NF EN 16282-2 (5).

- HACCP (6) International certified.
- Integrated fan to supply air to the Capture Jets. No connection to the supply ductwork is required.
- The Capture Jets are automatically switched off when the ventilation system is turned off or operates at minimum airflow.
- Total access security to UV-C lamps. Includes a presence check for each filter and verification of the correct closing of the access hatch to the UV lamps.
- **Halton Skyline** (HCL) LED culinary light provides the best visual comfort while contributing to further improve safety and energy savings.
- When extended to the whole kitchen and surrounding areas, the Human Centric version of **Halton Skyline** (HCL) directly contributes to chefs' and their teams wellbeing.
- Exhaust airflow rates are determined using an EN 16282-1 based calculation method, which takes into account the loads of the cooking or dishwashing equipment, the makeup air strategy, the configuration of the hoods or ventilated ceilings, and their capture and containment efficiency.
- Capture and containment efficiency tested in accordance with the ASTM 1704 standard.
- Quick and easy commissioning. Hoods delivered "ready to install", with all accessories included, such as light fitting, T.A.B.™ airflow measurement taps, and dampers for quick balancing on-site.
- Sturdier and easier to clean (less parts and fewer joints). Stainless steel construction.

(1) LEED - Leadership in Energy and Environmental Design (2) BREEAM - Building Research Establishment Environmental Assessment Method (3) DGNB - German Sustainable Building Council (4) RE2020 - French Environmental Regulation 2020 (5) EN 16282-2 Equipment for commercial kitchens - Components for ventilation in commercial kitchens - Part 2 : kitchen ventilation hoods - Design and safety requirements (6) HACCP - Hazard Analysis Critical Control Point

Capture Jet™ technology

◦ High capture efficiency ◦ Energy savings

The **Capture Jet™** technology enables significant reductions in airflow rates leading to savings on construction costs, mainly due to the reduced size of ducts and HVAC equipment.

It typically pays for itself upon the startup of the kitchen or within few months. The energy savings it generates then directly contribute to an increase in profitability, while the staff benefits from improved working conditions.

Benefits

- The **Capture Jet™ technology** allows for up to a 40% reduction in exhaust airflow rates.
- No specific duct required for the Capture Jets. In addition to the reduction of the ducts and HVAC systems size, it reduces installation cost and the CapEx.
- It generates important energy savings on cooling/heating the makeup air (less air out, less air in!).
- The reduction of the draft risk and noise levels also improves the working conditions for the staff.

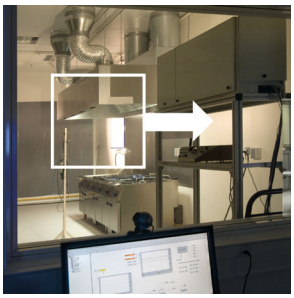
How does it work?

The Capture Jet™ technology is based on the use of one or several sets of aerodynamic nozzles, supplied with an extremely low airflow.

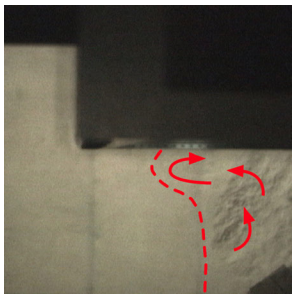
These nozzles form one or several air curtains. Carefully located and oriented, they prevent the grease, steam, smoke and heat etc. released by the cooking appliances from escaping and orient them toward the filters. It is this capture efficiency improvement that enables reducing the ventilation volumes.

> UVI hoods are equipped with two sets of nozzles (one vertical and one horizontal), on the front and sides of the hood.

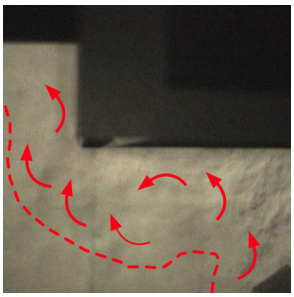
Schlieren tests on a Halton hood with the Capture Jets ON and OFF



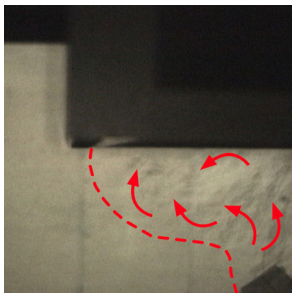
The Schlieren system shows the convective flows of cooking appliances so that the hoods' capture efficiency can be reliably and objectively measured.



Capture Jets ON @3600 m^3/h.
The convective flows do not escape on the hood front. They are efficiently extracted.



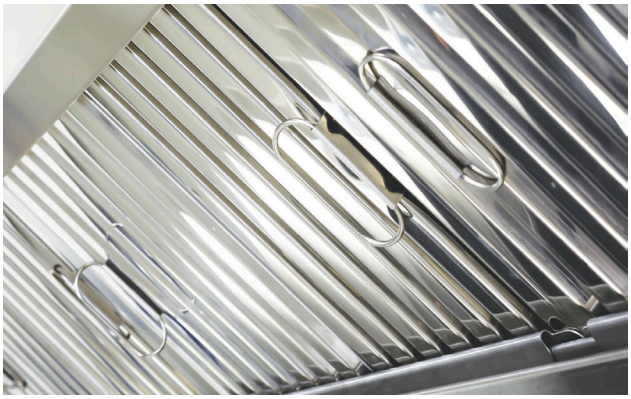
Capture Jets OFF @3600 m^3/h.
With a traditional hood, a significant part of the convective flows escapes.



Capture Jets OFF @6000 m^3/h.
With 2400 m^3/h more airflow, a traditonal hood captures again all convective flows.

KSA aerosol separator

◦ Cyclonic effect ◦ Reduced cleaning costs ◦ Improved hygiene and safety



KSA cyclonic aerosol separators efficiently limit grease and particles deposition inside the exhaust plenums of Halton's hoods and ventilated ceilings and in the ductwork.

They are a cost-effective solution to reduce the duct cleaning costs while directly contributing to a better hygiene and fire safety.

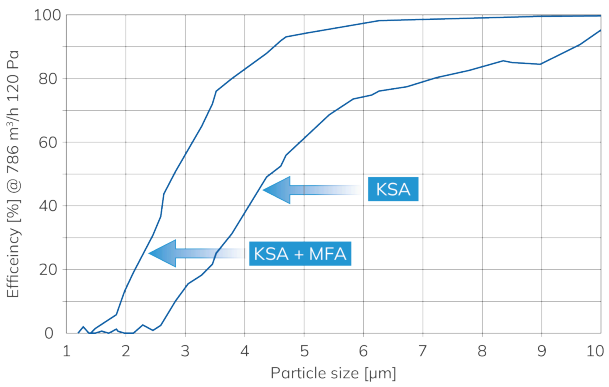
Benefits

- **KSA** cyclonic aerosol separators are constructed of stainless steel in compliance with EN 16282-6. They are up to 95% efficient at capturing particles of 10 microns or larger.
- **KSA** separators also have a good efficiency-to-pressure loss ratio and are certified UL 1046, NSF, and LPS 1263.
- On UVI hoods, **MFA** mesh filters are used as as second filtration level to bring the total efficiency to up to 94% on 5 microns particles.
- The filtration level achieved efficiently slows down the build-up of grease deposits in the exhaust plenums and ductwork that could otherwise constitute a serious hygiene and fire safety hazard.
- The cleaning frequency of the ducts is reduced, resulting in maintenance savings.
- This filtration level is also a prerequisite for the **Capture Ray™** neutralization technology. It indeed achieves optimal efficiency on medium to small grease particles, grease vapors, and VOCs.
- Reduced noise levels and fan energy consumption thanks to the favorable efficiency-to-pressure loss ratio.

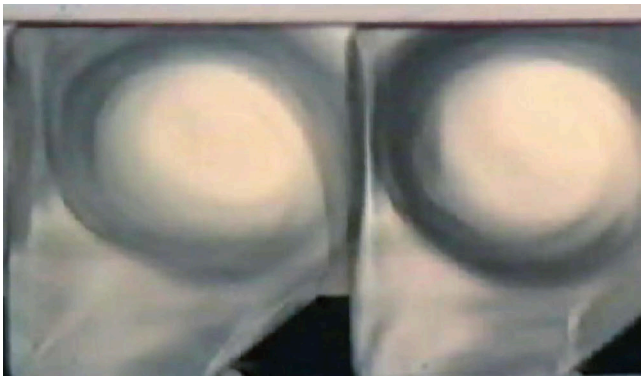
How does it work?

KSA cyclonic filters are composed of vertical honeycomb profiles, opened only at top and bottom part. This design forces the air to swirl in a similar way as a cyclone when the air goes up and down inside to escape.

The centrifugal effect is both powerful and continuous – a mechanism that traditional separators lack. As a result, particles are projected onto the surface of the profiles, leading to improved separation performance.



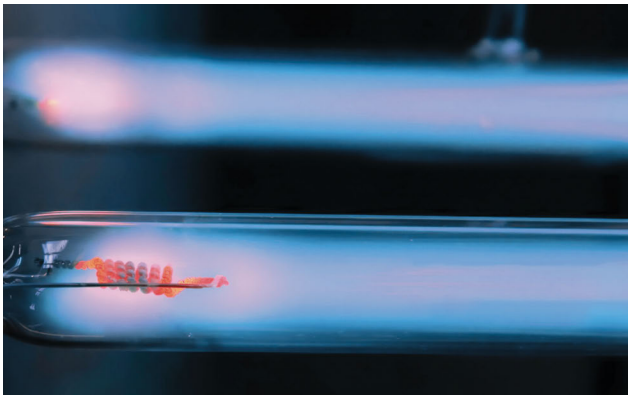
Tests on KSA aerosol separators' efficiency carried out on a Halton hood exhaust plenum by VTT laboratory, according to VDI 2052 (part 1). Efficiency tests on the combination KSA+MFA made in a Halton R&D laboratory with similar conditions.



Visualization of the cyclonic effect inside the KSA aerosol separator's profiles (Schlieren test)

Capture Ray™ technology

◦ UV-C grease and odors neutralization



The **Capture Ray™** technology neutralizes fine grease particles, grease vapors and a significant portion of the VOCs that cannot be removed by any primary mechanical filtration.

It offers a unique combination of benefits, including reduced cleaning costs, enhanced hygiene, improved fire safety, and a lower environmental impact on the surrounding neighborhood.

Benefits

- The **Capture Ray™** technology keeps the exhaust plenums and downstream ductwork virtualy free of grease deposits. The ductwork cleaning operations are cut down to the minimum legal frequency (if applicable) or to the strict minimum.
- The hygiene and fire safety levels of the extract circuit are optimized to their highest standards.
- The **Capture Ray™** technology also significantly reduces the odors discharged outdoor and thus lowers the kitchens' environmental impact on the neighborhood and the risk of complaints or legal action.
- An asset to establish a restaurant in dense urban sites i.e. in previously unfeasible locations or where they represent the highest turnover potential.
- When combined with PolluStop, airborne cooking odours will be minimized to a point that the ductwork can then follow the most direct and cost-effective route to outside, even at street level.
- It allows for the elimination of unsightly external or bulky internal vertical duct risers. It reduces the installation costs and increases the leasable space and corresponding revenues.
- The Capture Ray™ technology also allows for efficient heat recovery, sustainable over time.

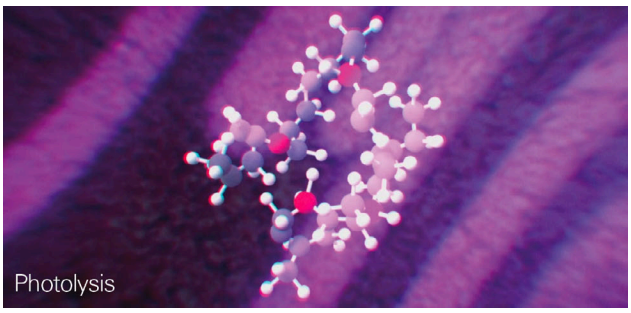
How does it work?

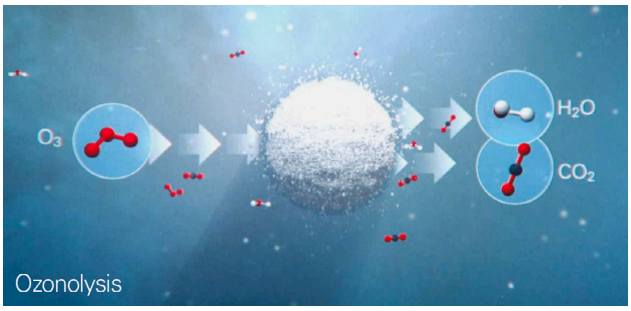
Capture Ray™ technology is based on the use of UV-C lamps. The Neutralisation of grease particles and vapors depend on two simultaneous reactions.

Photolysis is the direct effect of UV-C radiation. It works by photodecomposition whereby grease molecules are broken down by photons.

Ozonolysis is the oxidation of the molecule fragments by the ozone generated by the lamps. The final products of this reaction are water, carbon dioxide, and an inert residue from a polymerization-like reaction. Since ozone is a gas, it is carried with the airflow, allowing oxidation to continue in the extract ductwork.

The UV-C lamps also neutralizes a portion of the VOCs, the second odor propagation vehicle with grease.





View inside an exhaust plenum fitted with UV-C lamps after several weeks of use

UV on demand technology (option)

◦ UV Lamps life time increase

Halton developed a technology that monitors, in real time, the cooking appliances activity, thus activating the UV lamps only when it is strictly required.

Benefits

- The **UV On Demand** option activates the lamps only when cooking appliances are actually used. It saves up to one lamps-set where other UV systems require two.
- Saves on both the maintenance costs and the energy consumption.

How does it work?

Halton has developed an advanced Thermal Imaging sensor (HTI) to scan the surface of the cooking appliances, to determine whether the appliances are off, on but idling or in cooking mode.

In the heart of **M.A.R.V.E.L.** airflow and energy optimization technology, HTI sensor is also in the heart of Halton's "On Demand" technology whose objective is to place sustainability to the forefront. They are then generally used to save energy, water and also on maintenance costs.

The "UV On Demand" technology enables activating the UV lamps only in cooking mode and not continuously, as soon as the fan is switched on. This is a safe and responsible approach that enables delaying the UV-C lamps replacement. It signifcantly reduces the maintenance costs while also saving energy.

> When UV hoods or ventilated ceilings are also equipped with M.A.R.V.E.L., the "On Demand" option becomes standard.

One in two sets of UV-C lamps saved and 635€ electricity savings a year on only two hoods installed in a restaurant, central London.

- The restaurant is equipped with two UV Capture Ray™ hoods (6 UV lamps each) and a PolluStop exhaust air handling unit. It opens 88 hours a week.
- The cooking block comprises two griddles, 2 fryers and a fry scuttle for a total electric power of 50 kW. The cooking appliances operate 92 hours a week. The UV lamps of a traditional system are on while the main fan is running – 92 hours per week too.
- Over 4 weeks monitoring, the UV on Demand technology reduced the number of operational hours of the lamps by an average of 44% (up to 50% depending on cooking appliances use). In other words, and compared to the maintenance cost of the traditional systems, it saves up to one UV lamps replacement out of two.
- The electricity consumption of the lamps was reduced by 47 kWh per week which represents 635 € a year (0,26€/kWh).

Halton Skyline

◦ Culinary and Human Centric light

Halton Skyline is the first LED lighting technology specifically developed for food production environments and, by extension, any other environments with strong visual comfort and quality control requirements.

The light it provides is the closest possible to natural light, offering many tangible benefits for the staff or space occupants.

How does it work?

Halton Skyline is based on the use of two types of light sources, both equipped with highly efficient LEDs.

A wide beam spot (4000K - CRI of 83) - It is designed to provide a uniform and bright general lighting.

A focussed beam spot (2800K - CRI of 95) - It is used to further improve lighting levels and color rendering in strategic locations. It can be placed above sensitive equipment, such as cutting machines, to enhance safety, above griddles to check meat doneness, above plating areas, or in any other non-food production or work area that requires higher quality light.

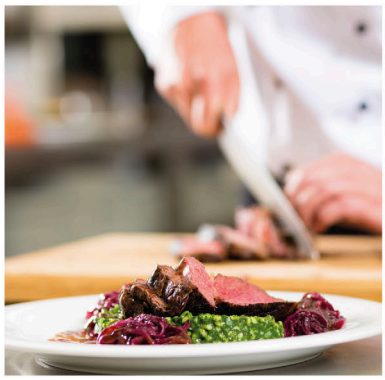
As an option, the wide beam spots can be equipped with two sets of LEDs to make the color temperature varying from 2200 to 6500K. This enables creating daylight-similar sequences to offer lighting conditions that are Circadian rhythm-friendly, with recognized biological and psychological benefits for the staff.

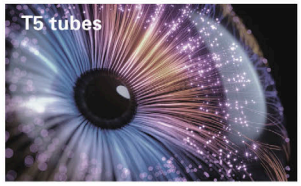
> Halton Capture Jet™ hoods' light fittings are equipped with Halton Skyline wide beam spots (4000K colour temperature).

Benefits

- Very good illuminance levels and uniform light, with a good balance between the direct and diffuse components.
- Remarkably respects the natural food color and texture.
- Improved safety and best visual comfort, with a very limited alteration over time.
- Consumes up to 2,8 times less than fluorescent tubes while having a luminous efficacy of 120 lm/W.
- 50,000 hours lifetime for both the LEDs and the drivers.
- Saves the replacement of up to 125% of the fluorescent tubes, adding significant maintenance savings to the energy savings.

Integrated in Halton's suspended metal ceilings or thanks to standalone modules, **Halton Skyline can be extended to the whole kitchen and beyond. It then opens the way to the most advanced and Human Centric lighting global solution.**





Halton FireWatch

◦ Enhanced fire prevention ◦ Part of Halton SafeGuard

Halton FireWatch adds a prevention level to Fire Suppression Systems by detecting conditions favorable to a cooking fire before extinguishing system is triggered. Get peace of mind on your fire safety.

How does it work?

Halton Fire Watch is based on **Halton's Thermal Imaging Sensor** that continuously monitor the surface temperature of cooking appliances to detect anomalies that may indicate a potential fire hazard.

When a risk is detected, Halton's touchscreen (combined with optional visual or audible alarm) alerts the kitchen staff to conditions that increase the likelihood of a fire. It recommends the actions before it breaks out and the fire suppression system triggers. The system can go till switching off the cooking appliances' power supply.

Benefits

- Mitigates false fire system trips.
- Allows for intervention to reduce risk of fire starting.
- Avoid costly shut down and revenue loss from fire system discharge.
- Potential for insurance premium reduction.
- Cloud based data for insurance companies.
- Monitoring and data back-up services, free for the 1st year of use.
- Fully remotely customizable system to fit your needs when paired with Halton Connect.

> Halton FireWatch is part of M.A.R.V.E.L., UV On Demand and Cold Mist On Demand technologies. It is also available as a standalone solution and can be installed in existing kitchens.

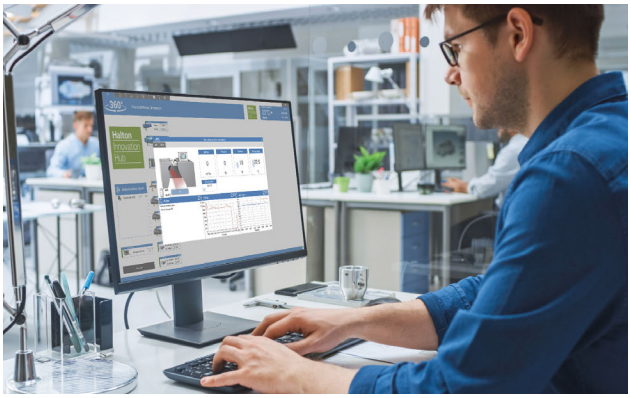
Halton FireWatch is part of **Halton SafeGuard**, the only holistic system that combines Energy Optimization, Indoor Environmental Quality (IEQ), and Safety, all together under one control platform.

Stage 1 alarm - A warning is displayed on Halton Touch Screen. It is relayed with light signal and buzzer fiited on the front of the hoods.

Stage 2 alarm - If the warning is not acted upon, an alarm is displayed on the Touch Screen and its buzzer activates in addition to the one fitted on the hood. The fuel source can be automatically shut off.

Halton Connect™

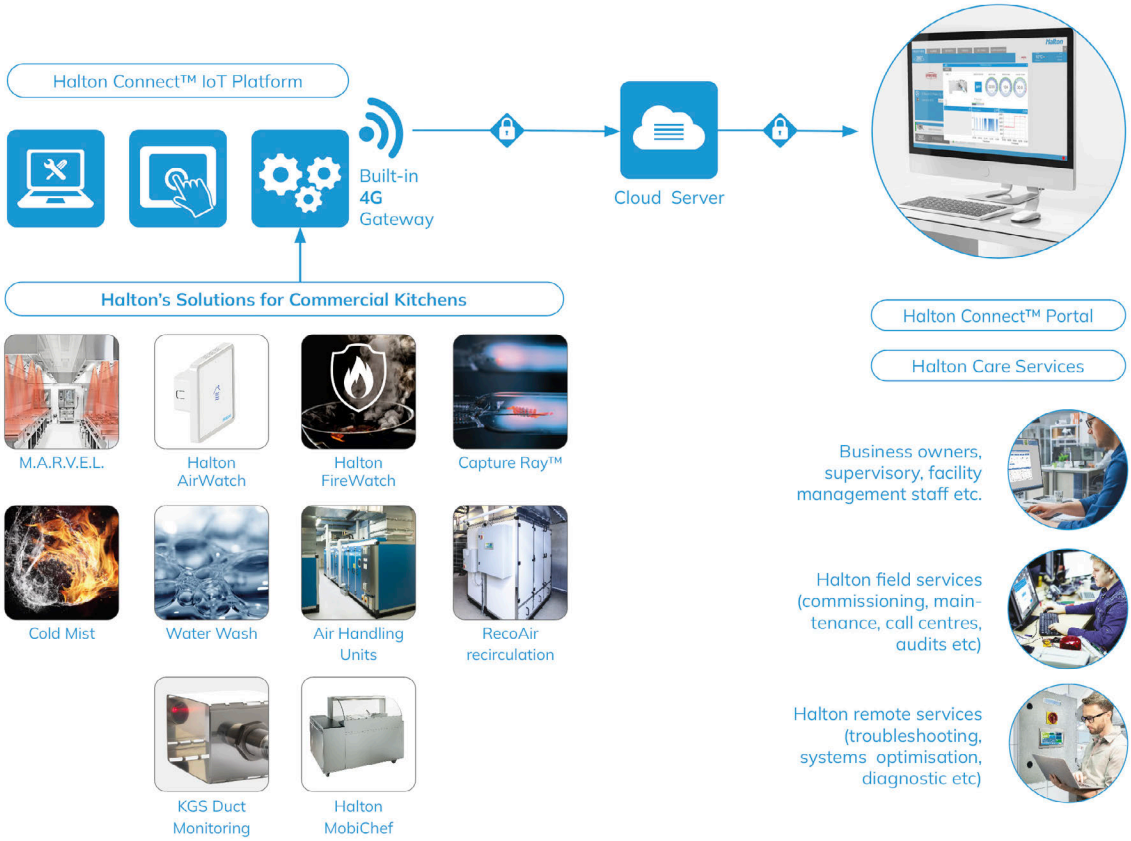
◦ Real time monitoring ◦ Insightful data & reports ◦ Enables predictive maintenance



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.

- 24/7 Monitoring of Halton Technologies and Solutions.
- Access to Halton Connect™ cloud-based portal included during the warranty period, with detailed data on connected solutions.
- Automatic fault notifications and simplified analytics reports.
- Optional advanced reports (energy/water savings, equipment usage, etc.).
- Enables expert analysis to optimize settings and maintain performance at design level or improve it throughout the life cycle.
- Secure, fully independent operation within the building.
- Supports Halton Care predictive maintenance based on real-time analytics. Visits and parts usage are optimized.
- Minimizes downtime from misuse or equipment failure.
- Optional software updates and maintenance for Halton Connect™.

Benefits



Halton Care (option)

◦ Smart services for commercial kitchens

Halton Care is a premium service offer supported by Halton's qualified field teams and trusted partners, with Halton Connect™ at its core. It is designed to help maintain peak system performance, reduce operating costs, and provide long-term peace of mind.

Why choose Halton Care Smart Services?

Services are often seen as a cost. But when ventilation and Indoor Environmental Quality (IEQ) technologies are poorly maintained, operational issues escalate—often resulting in higher expenses and disruptions, especially in demanding environments like commercial kitchens.

With Halton Care Smart Services, Halton systems are properly maintained, which translates into tangible savings and greater reliability:

- Reduced energy use and spare part needs.
- Lower cleaning and maintenance costs.
- Prevention of hidden or irreversible equipment damage.
- Fewer staff absences due to better working conditions.
- No revenue loss from unexpected downtime.
- Elimination of nuisance complaints from the surroundings.
- Enhanced hygiene and fire safety etc.

The Halton Connect™ web portal provides valuable, real-time data to Halton engineers and service teams. This enables predictive maintenance and continuous optimization:

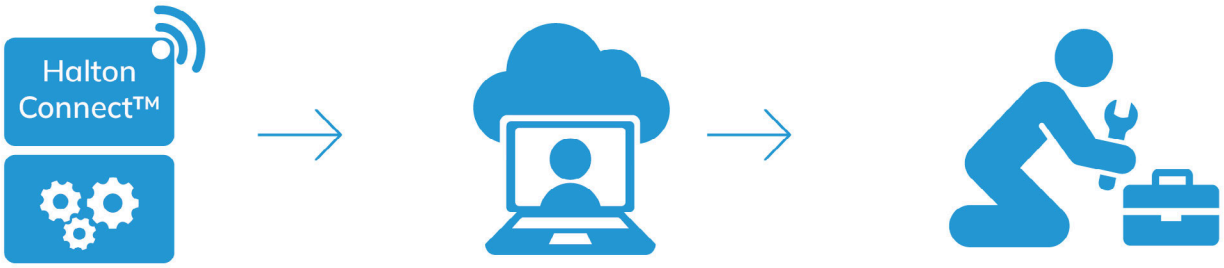
- Remote diagnostics and fine-tuning of system settings.
- Visits planned based on actual system needs.
- Optimized spare parts usage and maintenance scheduling.
- Recommendations for operational efficiency and staff wellbeing.
- Insights for better kitchen performance and cost control.

Who better than Halton for Halton products?

Halton's service teams work closely with end users, R&D, manufacturing, and installation teams. This unique synergy allows us to improve our solutions continuously—not only in terms of performance, but also in usability and ease of maintenance.

Remote-first, streamlined maintenance

Thanks to Halton Connect™, most system issues can be resolved remotely—either through guided support to on-site staff or direct software/configuration updates. On-site visits are limited to essential tasks like consumables replacement and periodic general maintenance.

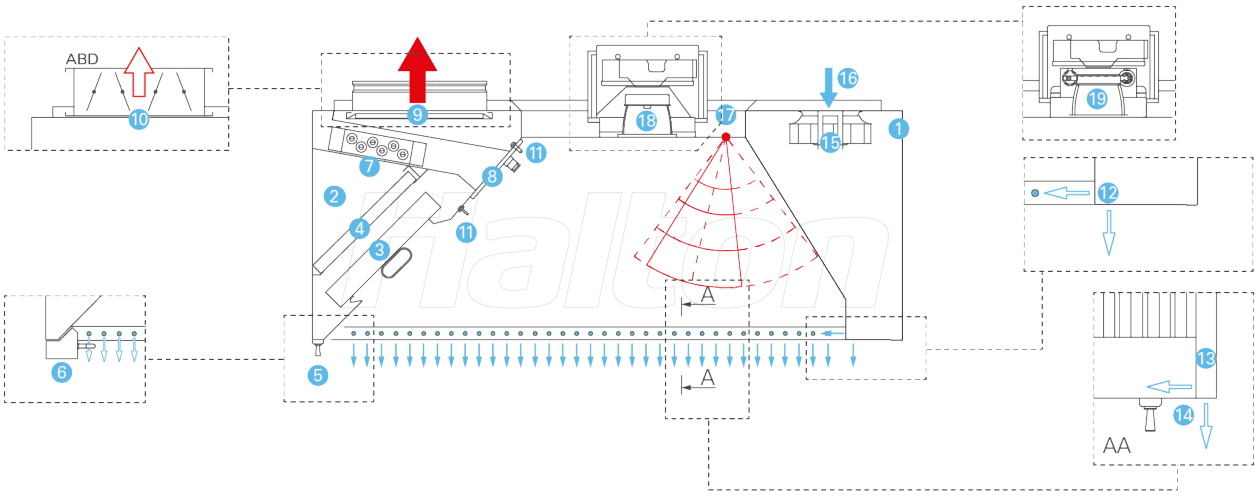


Real-time system data collected

Remote diagnostics and optimization by Halton experts

Targeted on-site maintenance only when necessary

Construction

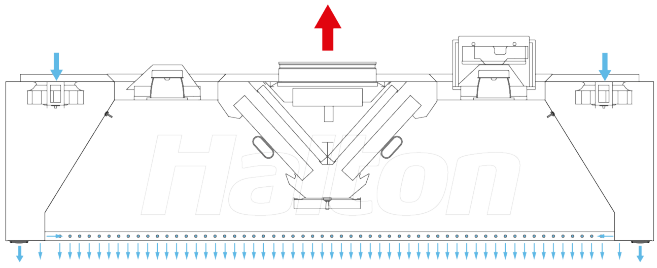


1. Exhaust plenum construted from stainless steel AISI 304 (1 mm thick) and galvanized steel (top).
2. KSA aerosol separator.
3. MFA filters as second filtration stage.
4. Condensates drain.
5. Collection tray as an option.
6. UV-C lamps cassette mounted on runners for an easy removal.
7. UV access hatch for a quick access to the UV lamps for cleaning.
8. Exhaust connection(s) and sliding damper(s).
9. When the kitchen is equipped with M.A.R.V.E.L. airflow and energy optimization technology (MRV), the sliding damper is replaced by ABD automated balancing damper.
10. T.A.B.™ (Testing And Balancing) pressure port(s) for quick airflow calculation during ductwork balancing operations.
11. Front Capture Jet™ nozzles.
12. Double skin sides.
13. Side Capture Jet™ nozzles.
14. Integrated Capture Jet™ fan.
15. Capture Jet™ fan air inlet.
16. Halton Thermal Imaging sensor (used for the optional M.A.R.V.E.L., UV on Demand or FireWatch technologies).
17. Halton Skyline LED culinary LED light fitting integrated on a flush-mounted access hatch. Systems' control module installed on top of the light fitting.
18. [Option] Halton Skyline LED spots integrated on a full length and flush-mounted.

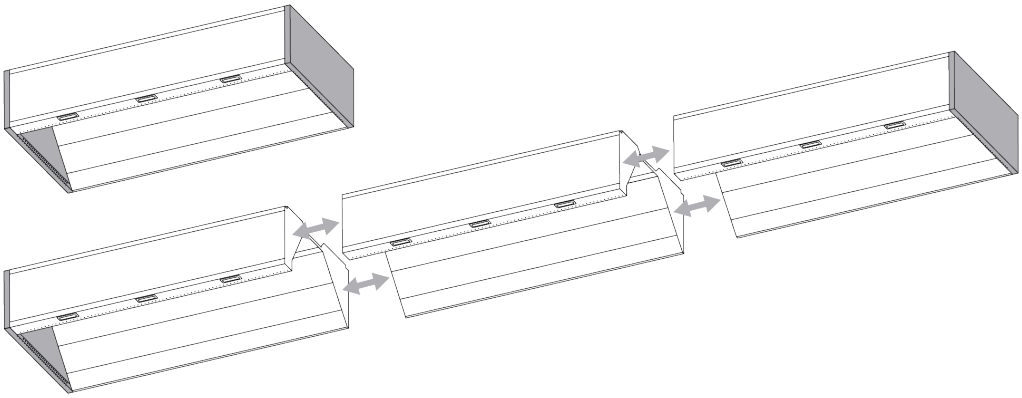
M.A.R.V.E.L. ready option: To allow for later installation of M.A.R.V.E.L. airflow and energy optimization, each hood can be equipped only with its ABD slim automated balancing damper, which is typically very difficult to install afterward.

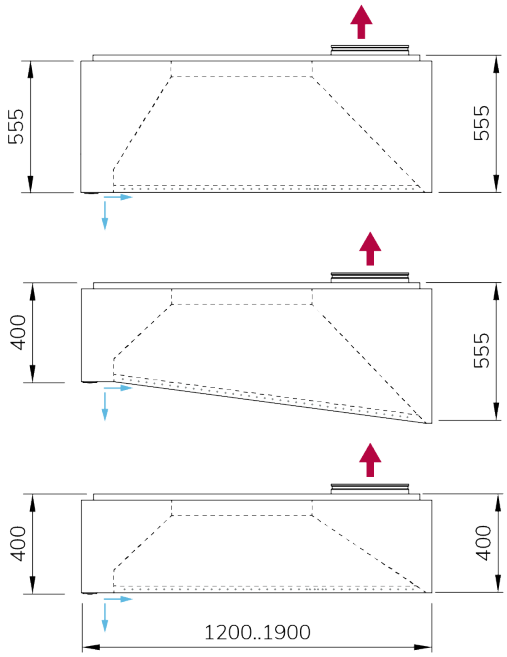
[UVI-M]

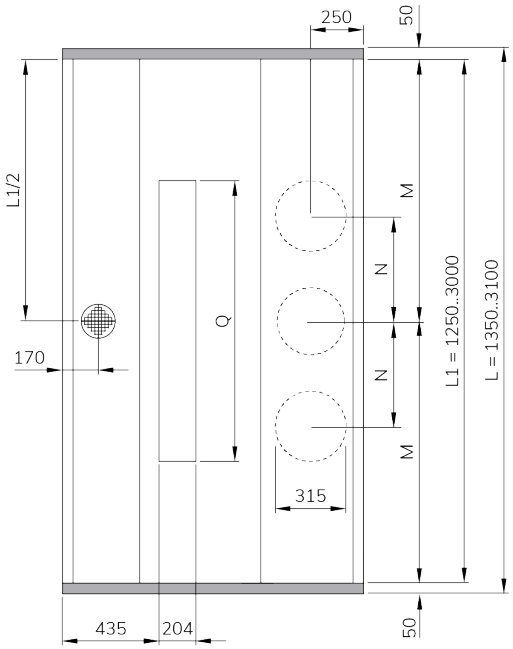
Instead of two hoods mounted back to back, UVI hood is also available as in a monobloc version for island cooking blocks.



Dimensions



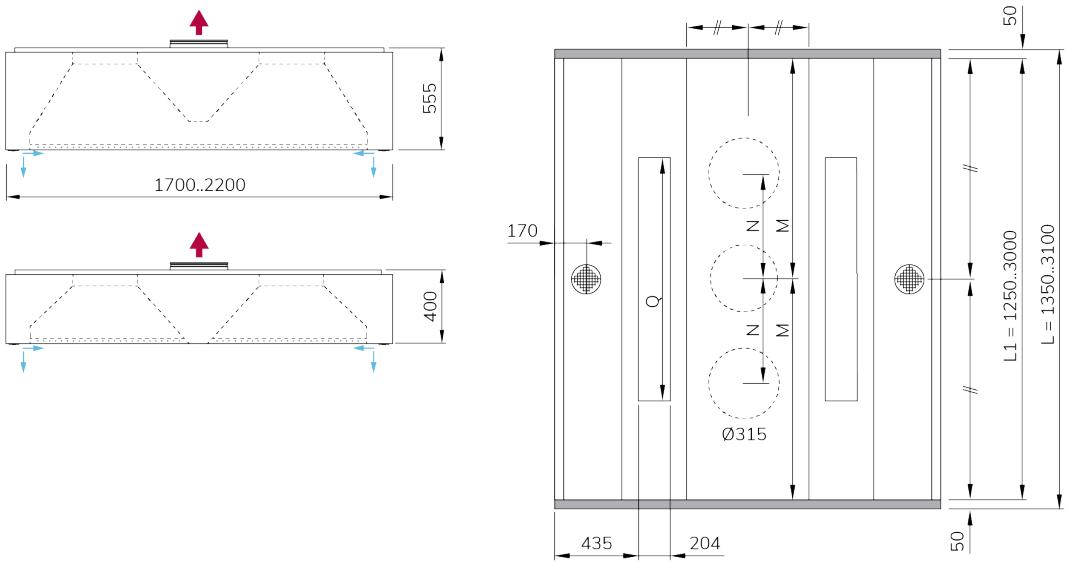




[mm]	1x	2x	3x		
L	M	N	M, N		Q(1)
1350	L1/2	-	-	■■	752
1600	L1/2	275	-	■■■■	1352
2100	L1/2	275	-	■■■■	1352
2600	-	275	L1/2, 550	■■■■	1352
3100	-	275	L1/2, 550	■■■■	1352

- Above 3100 mm, hoods are an assembly of separate sections to make transportation and site handling easier.
- Number of connections to be determined based on the sections length and on the calculation of the airflow rates.
- Rectangular connections on request.

Monobloc island configuration



[mm]	1x	2x	3x		
L	M	N	M, N		Q(1)
1350	L1/2	-	-	■■	752
1600	L1/2	275	-	■■■■	1352
2100	L1/2	275	-	■■■■	1352
2600	-	275	L1/2, 550	■■■■	1352
3100	-	275	L1/2, 550	■■■■	1352

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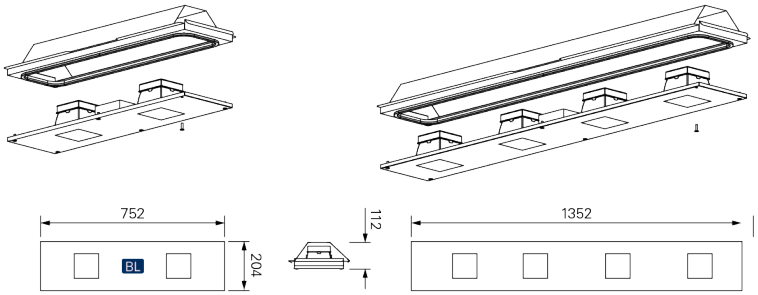
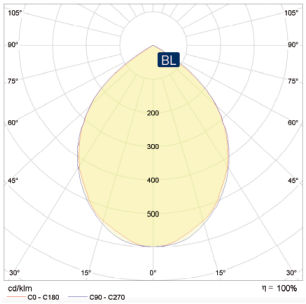
HCL Halton Skyline culinary and human centric light fittings

Specific documentation available





	L [mm]	B [mm]	H [mm]		CRI (1)	[°K]	UGR (2)	[lm]	[W]	[lm/W]
HCL2-827-2	752	204	112	■■	Ra>80	2700	<19	1537	17	96
HCL2-830-2	752	204	112	■■	Ra>80	3000	<19	1653	17	100
HCL2-840-2	752	204	112	■■	Ra>80	4000	<19	1717	17	105
HCL2-930-2	752	204	112	■■	Ra>90	3000	<19	1356	17	82
HCL2-940-2	752	204	112	■■	Ra>90	4000	<19	1431	17	87
HCL2-827-4	1352	204	112	■■■■	Ra>80	2700	<19	3075	33	93
HCL2-830-4	1352	204	112	■■■■	Ra>80	3000	<19	3305	33	100
HCL2-840-4	1352	204	112	■■■■	Ra>80	4000	<19	3434	33	105
HCL2-930-4	1352	204	112	■■■■	Ra>90	3000	<19	2713	33	82
HCL2-940-4	1352	204	112	■■■■	Ra>90	4000	<19	2862	33	87

(1) The Colour Rendering Index (CRI) defines the ability of a light source to respect colours. It is measured on a scale of 1 to 100, 100 being the CRI of natural sun light.
(2) The UGR (Unified Glare Rating) is a unified formula for evaluating glare, defined by the CIE Technical Report 117-1995. A UGR of 19 is the recommended value for offices.

The light fitting enclosures are constructed from stainless steel and galvanized steel. They are mounted flush and are fixed with screws. They are equipped with Halton Skyline wide beam spots protected by a safety glass also mounted flush, ensuring both the highest hygiene and IP54 protection on the front.

Wide beam spots - The highly efficient mid-power LEDs (4000K by default, CRI > 80) used in the broad beam spots are housed in an aluminum mixing chamber, sealed with specially frosted diffusion glass. The mixing chamber is mounted above a highly reflective silver-coated reflector. This configuration provides excellent glare protection and ensures uniform lighting with a well-balanced combination of direct and diffuse components, minimizing shadows and enhancing the clarity of textures and shapes of objects.

Option(s):
- Other light color temperatures or Color Rendering Indexes (CRI)
- Human Centric version with tunable color temperature and intensity.
- Spots integrated on a full width and flush-mounted light beam.
- Various control interface options with scenario capabilities available.

Product Environmental Impact

Green Steel Label

Manufactured with decarbonized stainless steel (option)

Halton's innovations are recognized for significantly reducing its clients' carbon footprint from the very first day of operation and throughout the product's lifecycle. Our efforts to reduce the environmental impact of our products start from the moment they are manufactured. Solar energy, geothermal energy, optimization of raw material usage, and waste recovery are just some of the measures Halton implements at its production sites.

Halton is taking things even further! Gradually, and in Europe first, Halton is offering the option to manufacture Capture Jet™ hoods using decarbonized stainless steel.

A further 60% reduction in CO_2 emissions! This is the average reduction, with equal mechanical properties, in the environmental impact of manufacturing this green steel. This represents 850 kg less CO_2, or the equivalent of driving 4,595 km in a conventional car, flying 5,600 km on a medium-haul flight, or traveling 423,636 km by the french high-speed train (TGV) (1).

(1) According to the ADEME (The French Agency for Ecological Transition) resource site which popularizes and promotes environmental data.

Environmental Product Declaration (EPD)

An Environmental Product Declaration (EPD) is an evaluation of the **environmental impact** of a product or system throughout its entire life cycle, from the raw materials extraction, through to its production, transport and the 'use phase' to its end of life. It includes the recycling or final disposal of the materials composing it. EPDs are based on scientific grounds and standardized methods, in order to provide **unbiased, reliable, and comparable assessments**.

Halton's EPDs comply with several standards:

- ISO EN 14025, which defines the principles and procedures for Type III declarations, i.e. declarations that are **checked by independent third parties** to guarantee the completeness and conformance to standards. It also establishes the use of the ISO 14040 series in the development of the declarations.
- ISO EN 14040, which defines the principles and framework for **Life Cycle Assessment (LCA)** that enable assessing the environmental impact of a product, process, or service.
- EN 15804, which defines the **Product Category Rules (PCR part A) applicable to construction products** as part of type III declarations.

Complementary Product Category Rules (PCR part B) also apply to the **sub-category of ventilation systems for commercial kitchens**. PCR part B are defined by the European verification organizations, with agreements for mutual recognition.

An EPD consists of two key documents:

- The underlying **LCA report**, a systematic and comprehensive summary of the LCA project to support the third-party verifier when verifying the EPD. This report is not part of the public communication.
- A **Public EPD document** that provides the LCA results.

Halton's EPDs are verified and registered by and on the IBU (Institut Bauen und Umwelt) platform or EPD Hub. They are also available on the ECO Platform.

EPDs are available for the Capture Jet™ hoods KVF, KVI, UVF, UVI, CMW-FMOD and CMW-IMOD, as well as for the steam hoods KVV and KVD.

An additional EPD is also available for the UVF or UVI hood equipped with the M.A.R.V.E.L. Demand-Controlled Ventilation (DCV) system. It allows for the assessment of M.A.R.V.E.L.'s additional environmental impact on the KVF, KVI, CMW-FMOD, and CMW-IMOD models.

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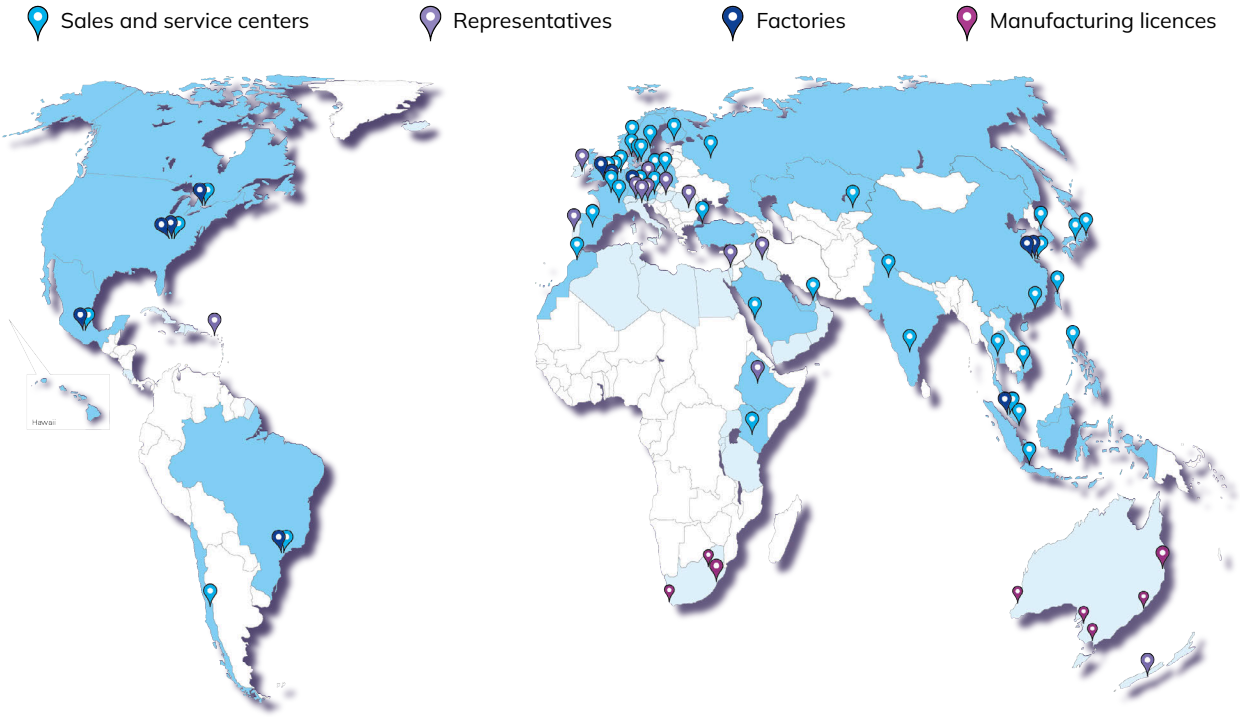
Halton Manufacturing and Sales Facilities in the world



Halton Foodservice partnerships

ALLIED MEMBER FCSI FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL

Halton