

Retrofit yourself into the Halton strategy for creating the ultimate Energy Saving High Performance Kitchen



Upgrade existing ventilation systems and save energy dollars at a fraction of the cost of replacement!

Halton's High Performance Kitchen is available for new construction, and existing kitchens . Halton has a family of retrofit products that can be incorporated into existing infrastructure with minimal interruption achieving energy savings in excess of 30%.

Halton Foodservice specializes in indoor climate solutions for commercial kitchens. Our expertise and technology create memorable experiences and pleasant working conditions for food service operations around the globe.

Utilizing state-of-the-art technologies and extensive expertise, Halton has focused on developing unique systems that provide energy-saving solutions for capturing heat and emissions associated with cooking process in professional kitchens. These systems allow for a more comfortable and productive thermal environment with reduced operational costs.

Halton's HIGH PERFORMANCE KITCHEN Concept

A Professional Kitchen is a very challenging and demanding environment. Ventilation plays an important role in providing comfortable and productive working conditions and in securing contaminant removal.

To benefit from a profitable and successful operation, the ventilation system has first to be considered more globally than the simple fact of exhausting and renewing the air of the kitchen space. If only because it systematically interacts with other spaces or systems... the best example of this interaction being the show kitchen concept. In fact, 4 cornerstones have to be worked all together.

- Energy Efficiency
- Indoor Environment Quality (IEQ)
- Safety
- Air Purification



For a kitchen to reach the status of High Performance Kitchen, it is crucial to combine harmoniously and - of course - at the same time these 4 cornerstones. Every single technology or system developed by Halton is designed to manage one or several of them... allowing us to offer a unique set of solutions combining at the end all of them. These solutions form the Halton High Performance Kitchen (HPK) Concept.

Energy Efficiency

To benefit from an energy efficient kitchen ventilation system, the very first principle is to calculate - before everything - the Capture and Containment efficiency of the canopies, ventilated ceilings, Jet Extraction systems... or any other system specifically designed for show kitchens for example. Combined with a Demand Controlled Ventilation (DCV) system, this can then generate the highest energy savings.

Safety

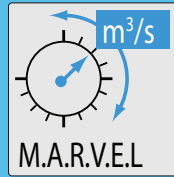
Halton contributes to the global safety of all professional kitchens with both constructive provisions for all its products and specific solutions to directly mitigate hygiene and fire safety risks.

Indoor Environment

Indoor Environment Quality (IEQ) covers fields of specialization include thermal comfort, indoor air quality (IAQ), acoustics, lighting, control systems and architecture. In total, the indoor experience is known as the indoor environmental quality (IEQ).

Air Purification

There is increasing acceptance that, in future, it is likely that legislation will be put into place requiring any business that takes in fresh air, as part of its processes, to return that air to atmosphere in at least as good a condition as when it was taken in.



M.A.R.V.E.L.

Modeled based Automated Regulation Ventilation of Exhaust Level

M.A.R.V.E.L., in combination with Capture Jet® technology, offers the lowest levels of energy consumption currently possible and provides complete comfort for users.

Intelligent, responsive, and completely flexible demand controlled ventilation (DCV) system

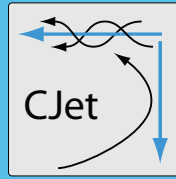
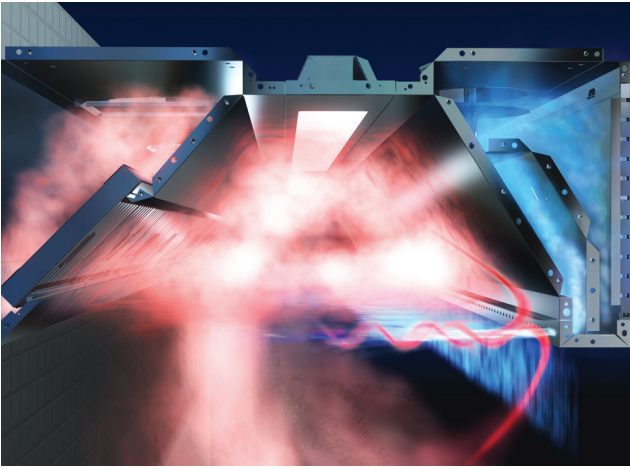
Halton's Modeled based Automated Regulation Ventilation of Exhaust Level (M.A.R.V.E.L.) is the first truly intelligent, responsive, and completely flexible demand controlled ventilation (DCV) system.

Halton's M.A.R.V.E.L. is able to identify the current status of the cooking equipment (switched off, heating to cooking temperature, or cooking in progress). It has the unique ability to adjust the exhaust flow rate to match these three statuses and, above all, exhaust hood by exhaust hood and in a totally independent manner. If only one of the cooking ranges in the kitchen is operating, the flow rate of that particular exhaust hood will be automatically adjusted to that requirement. The other exhaust hoods or individual hood cavities will continue operation but at a low flow rate.

M.A.R.V.E.L. is capable of continuously regulating the flow rate achieved with the extraction fans but also, and most importantly, their pressure. By operating at a variable pressure and flow rate, the system enables you to fine tune the equipment to the exact area and overall requirements, while power consumption kept to the absolute minimum. The associated supply fans are also controlled so as to guarantee the balance of the kitchen.

M.A.R.V.E.L. is a totally flexible system. It can be reprogrammed at any time in response to changes in kitchen layout.





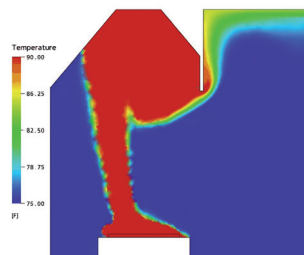
Capture Jet

By improving the total efficiency of the ventilation system, it is possible to gain savings in operational cost, while also increasing worker productivity by improving indoor climate conditions.

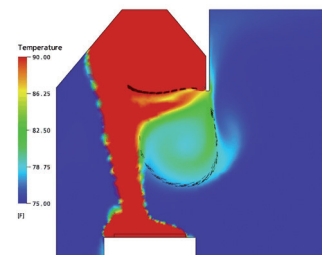
Your Solution, Halton's Capture Jet® Technology – High Efficiency Kitchen Ventilation Solutions

In every business venture, the initial investment and subsequent operating costs are the critical factors determining viability. By improving the total efficiency of the ventilation system, it is possible to gain savings in operational cost, while also increasing worker productivity by improving indoor climate conditions. With an increased demand for sustainable and environmentally sound operations, efficient food service environment solutions have never been more important. Achieving energy efficiency has never been easier or more cost effective for existing facilities by utilization of Halton's line of retrofit products. From Ventilation to lighting, Halton has the solution!

WITHOUT Capture Jets



WITH Capture Jets



Numeric simulation of the effect of double Capture Jets and peripherals on capture efficiency

Halton Capture Jet® technology is the only system that can reduce a commercial kitchen's energy bill by 30% or more with no compromise on the air quality of the food service environment. Compared to conventional exhaust (suction only) hoods, Capture Jet® technology can reduce existing exhaust rates on conventional hoods 20% to 40% while removing heat and contaminants. This yields direct savings to the bottom line by reducing ventilation operating costs. The Capture Jet® add on plenum provides superior performance with minimal investment and disruption to operations. There is no need to change duct work or fan capacity to achieve lower exhaust rates and reduced operating costs.





F.O.R.M. Facility Optimization & Resource Management

F.O.R.M. is a fully integrated energy and operational management system utilizes web-based technology that allows you to monitor and regulate your facility's energy usage from anywhere in the world.

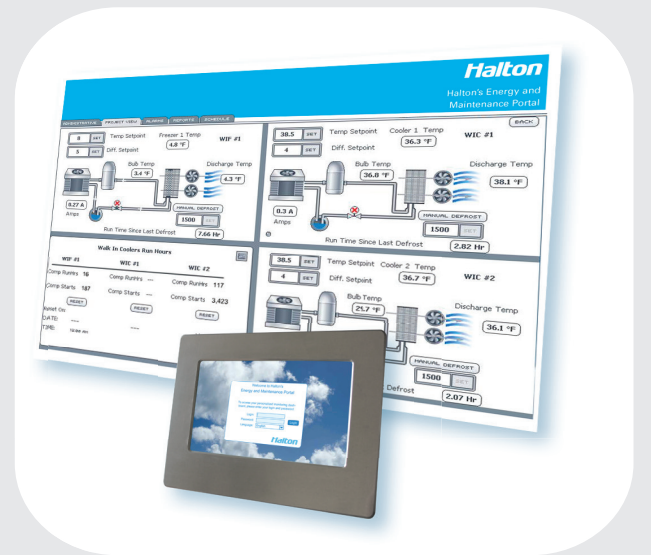
Monitoring & controlling your facility can reduce energy consumption, improve Indoor Environmental Quality and safety of your facility

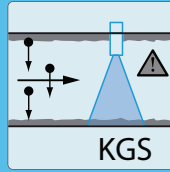
Systems featuring unique configuration and algorithms tailored for your specific needs!

Halton's F.O.R.M (Facility Optimization & Resource Management) system monitors and controls the lighting and equipment within your facility reducing the utilization of gas, water and electricity while improving operational efficiency.

F.O.R.M. is a fully integrated energy and operational management system utilizes web-based technology that allows you to monitor and regulate your facility's energy usage from anywhere in the world. You can create custom reports to validate your savings. Our Network Operating Center (NOC) monitors your facility to resolve issues faster and mitigate the need for major repairs. By utilizing our state-of-the-art automation and controls technologies, you can achieve energy and operational efficiency while reducing your environmental impact.

F.O.R.M. achieves target level of IEQ (Indoor Environmental Quality) and safety with minimum energy consumption and is open for cooperation with customers' vendors of choice for the benefit of the facility owner and operator.





KGS Duct Safety System

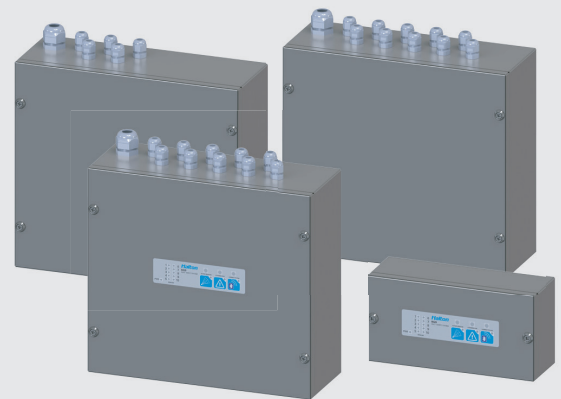
Duct Safety System is an innovative signalling device that monitors the duct work grease deposition levels

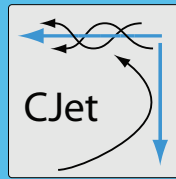
An ounce of prevention toward preventing a pound of grease from igniting!

Halton's Kitchen Grease Sensor (KGS) Duct Safety System is an innovative signaling device that monitors the duct work grease deposition levels. Once the level exceeds the programmed threshold, an alarm is displayed on the system, alerting the operator and the Building Management System that the ductwork needs to be cleaned. The KGS system also advises if the cleaning was done to a satisfactory level.

An ideal combination of fire safety, food safety and financial savings for existing kitchens.

Constant monitoring of the internal surfaces of the kitchen exhaust ducts mitigates the risk of the fire and assists with food safety and hygiene. The KGS system ensures that expensive duct cleaning takes place only when it is needed and not by a pre-determined schedule. Therefore providing minimum maintenance costs for the highest safety level.



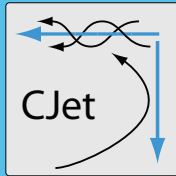


Capture Plenum Capture Jet Plenum

Capture Jet® plenums help convert your existing exhaust only hoods to Halton's patented Capture Jet® technology.

Save energy and capital dollars by updating your existing hood with Capture Jet® technology!

Halton's Capture Jet® plenums help convert your existing exhaust only hoods to Halton's patented Capture Jet® technology. Capture Jet® plenums are used to correct troublesome capture problems or reduce existing design air volumes to save energy. Halton Capture Jet® fans are mounted within the plenum on the face of the hood and can be sized to your existing hood length

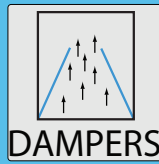
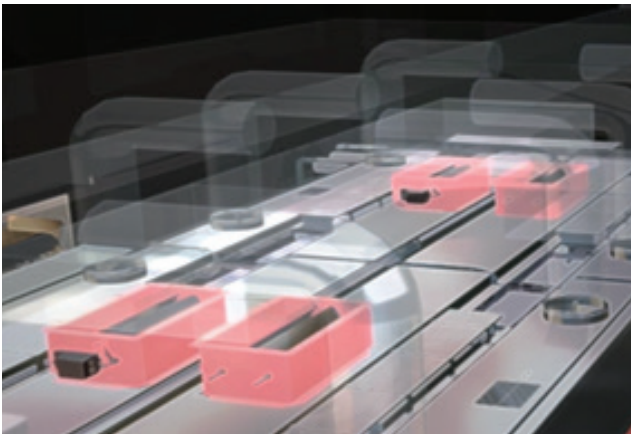


Capture Bar

Capture Bar can be integrated as surface-mounted air curtains at the appliance level

Capture Bar® technology can now be used to aid in capture at the appliance level

Island cooking applications are the most challenging to provide full capture and containment of the convective plume and effluent. Typically these applications are display type where full capture and noise reductions are paramount. Influencing capture are cross drafts that can cause smoke plume to exit the hood cavity and enter into dining spaces. Halton's Capture Bar can be integrated as surface-mounted air curtains at the appliance level. The Capture Bar® is an invisible air wall created to straighten and direct the smoke plume, transport it into the hood cavity and provide resistance to cross-drafts. This effect typically allows for reduction in exhaust air flow rates which acts to reduce the replacement air required. In addition to increasing efficiency, sound levels can be reduced – all essential elements in a comfortable display/ open kitchen configuration.

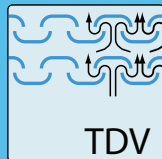
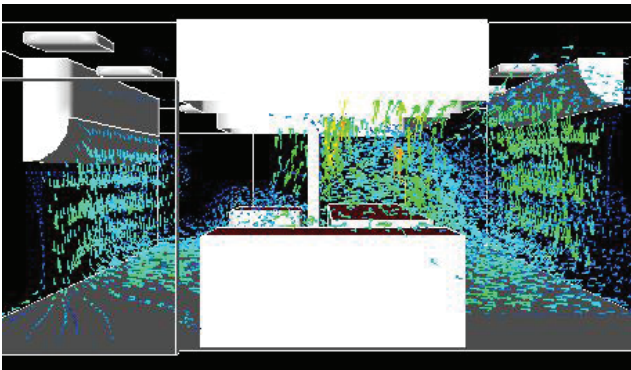
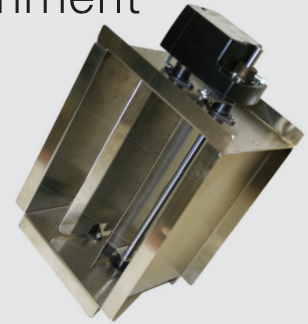


Balancing Dampers

U.L. listed exhaust balancing dampers, model ABD, MBD and KBD can provide the solution.

Better business from a healthier indoor environment

Halton's exhaust hood balancing dampers can help solve one of the most common problems faced in commercial kitchen, balancing multiple exhaust hoods on a common duct. Halton's U.L. listed exhaust balancing dampers, model ABD and MBD can provide the solution. These dampers are also available with slide in mount design.



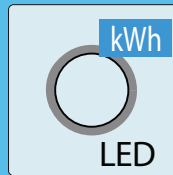
Thermal Displacement Ventilation

U.L. listed exhaust balancing dampers, model ABD, MBD and KBD can provide the solution.

Thermal Displacement Ventilation provides a comfortable draft free environment

Halton's low velocity displacement ventilation system includes a diffuser line for both exposed and integrated applications. Our units can be covered with a decorative panel for customized solutions. Halton's displacement product provides excellent indoor climate, air quality, thermal and acoustic conditions; especially in high spaces and spaces with high containment loads and high ceilings. In many instances reductions in air conditioning tonnage is achieved by cooling the occupied zone and allowing heat and impurities to be naturally stratified and exhausted.



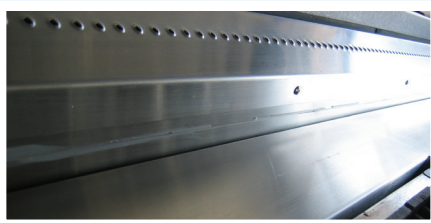


LED Lighting

LED's are a bright idea that saves energy!
Operating costs for hood lighting is reduced by 80%

Halton's LED fixtures a bright idea that saves energy!

Halton's Patent Pending LED light fixture provides 50 foot candles at the cooking surface when hood is mounted 84" A.F.F. Power consumption is a mere 20 watts per fixture compared to conventional incandescent at 100 watts. Halton's LED has a life expectancy of 50,000 to 75,000 hours compared to an incandescent that typically lasts 1000 hours. This saves on bulb replacement cost and labor. Operating costs for hood lighting is reduced by 80%! The LED is easily retrofitted where globe type lights are used with Halton's supplied adapter plate.



Halton Americas is at your service



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Halton, Intelligent Innovation

Halton is a family-owned company specialising in indoor climate and indoor environment products, services, and solutions. Applications range from public and commercial buildings to industry, commercial kitchen, and restaurant applications. Halton is also one of the most recognised names in indoor climate solutions for marine and offshore applications. The company's areas of expertise and product ranges cover air diffusion, air-flow management, fire safety, kitchen ventilation, air purification, and indoor environmental management.

Halton has operations in 26 countries, all over the world. Regional headquarters are located in Finland, the USA, and Malaysia.

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