

Halton - Meeting the Kitchen Ventilation challenges of multiple venues in Hotels, Casinos and Resorts



Halton



Halton Foodservice specializes in indoor climate solutions for commercial kitchens and restaurants.

Our expertise, flexibility and proprietary technology, enable us to create memorable customer experiences and pleasant working environments increasing the profitability and productivity of food service operations around the world.



Meeting the Kitchen Ventilation challenges of multiple venues in Hotels, Casinos and Resorts

The Hotel, Casino and Resorts segment are characterized by unique culinary experiences that lend themselves to uniquely designed display and theater-style cooking venues. These venues add a significant “wow factor” to the dining experience while simultaneously creating ventilation challenges not found in traditional cooking applications. In addition, the “back of the house” requirements differ widely for venues with catering and convention facilities. Depending on whether the owner/operators site preference is a City-center, outlying neighborhood or environmentally sensitive property, the choice may require emission control mitigation. An overriding consideration is the impact of first cost and running costs that have a direct impact on the bottom line. Halton has the solutions to address these myriad of challenges.





Display Cooking Environment

Aesthetics play a role in the exhaust system design for display cooking and Halton has numerous unique hood configurations that can be a focal point or made to blend in. Whether an island style, round, oval or traditional, painted or other decorative element, Halton has a range of solutions to fit any interior décor. Factors that influence the proper performance of the exhaust system include proper placement of supply air diffusers, space balance requirements and properly designed exhaust rates. Halton systems address all of these elements and create an energy efficient design that ensures a memorable dining experience.

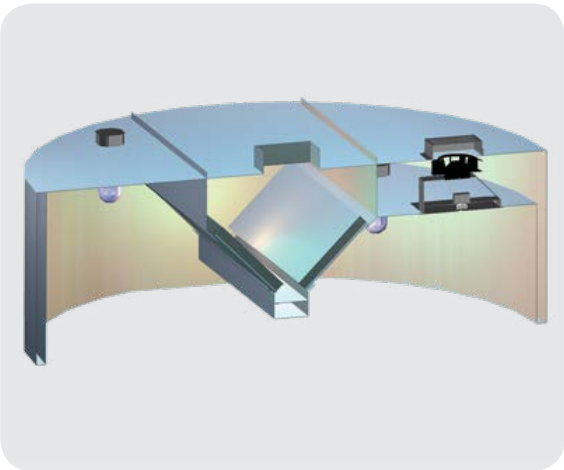


JES

Jet Extraction System

Halton's Jet Extraction System (JES) has been specifically designed for display cooking areas or architectural cooking concepts integrating electric appliances with medium input power. The JES is highly effective providing full capture and containment thanks to the synergy of several features:

- Capture close to the cooking appliances without obstructing sight lines.
- One or more inlets generating a powerful aspiration cyclone.
- A glass plate that is suspended over the cooking surface increasing the capture efficiency of the cyclone(s).



KVO (Oval) & KVR (Round)

Capture Jet® Hoods

The KVO Oval Island Capture Jet® hood and the KVR Round Capture Jet® hood with Perimeter Jets are highly efficient kitchen ventilation hood that removes contaminated air and excess heat emitted by cooking equipment, helping to provide a comfortable and clean environment.

These models are specially designed for island applications.



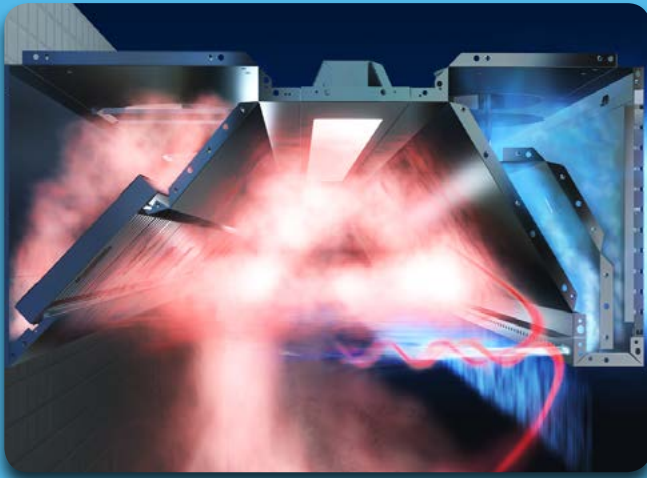
The background image shows a professional kitchen environment. In the foreground, there's a stainless steel countertop with a built-in sink and a large metal pot. In the middle ground, two chefs in white uniforms and tall hats are working at a counter. The background features more kitchen equipment, including shelves with various items and a large ventilation hood system with multiple lights. The overall scene is brightly lit and organized.

Production Cooking Environment

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 the production cooking process in professional kitchens. These systems allow for a more comfortable and productive thermal environment with reduced operational costs.



Capture Jet® Hoods



Halton Capture Jet® technology can reduce a commercial kitchen's energy bill with no compromise to the air quality of the food service environment. 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 both running and installation cost while also increasing worker productivity by improving indoor climate conditions. With a shortage of skilled kitchen staff and an increasing demand for sustainable and environmentally sound operations, efficient food service environment solutions have never been more important.

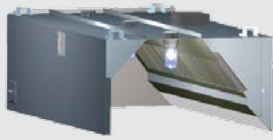
Halton Capture Jet® hoods are equipped with:

- Patented Capture Jet® technology perimeter air jets for improved capture and containment of heat and grease emissions.
- High-efficiency KSA multi-cyclone grease extractors.
- Testing and Balancing (T.A.B.) ports which allow accurate measurement of the air flow rates and easy commissioning of the ventilation systems.
- L.E.D. imbedded light emitter with aluminum heat sink guaranteeing 50 EC. at the cooking surface.
- Stainless steel welded construction.
- Optional automatic water wash system and Capture Ray™ UV-C technology for grease destruction.



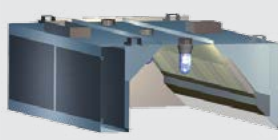
CAPTURE JET® HOODS

Capture Jet Hood



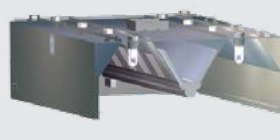
KVE

Capture Jet with Supply Air



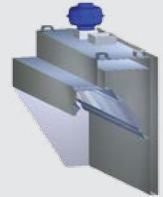
KVC

Capture Jet for Single Island



KVW

Low Profile with Plate Shelf



KVL-P

Low Profile with Underhang



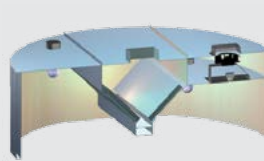
KVL-U

Hybrid Backshelf



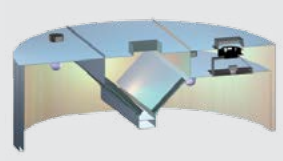
KVM

Oval



KVO

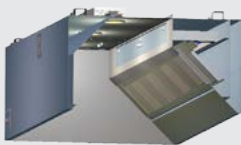
Round



KVR

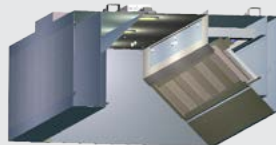
CAPTURE RAY HOODS

UV Technology



KVE-UV

Supply Air with UV Technology



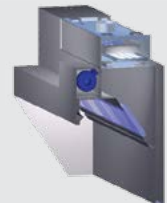
KVC-UV

Single Island with UV Technology



KVW-UV

Back Shelf with UV Technology



KVL-UV

WATER WASH HOODS

Capture Jet with Water Wash



KVE-WW

Supply Air and Water Wash



KVC-WW

UV Technology and Water Wash



KVE-WW-UV

UV Technology Supply Air and Water Wash



KVC-WW-UV

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

Demand Control Kitchen Ventilation



Integrating The Ventilation Design for Optimal Energy Savings

For a kitchen ventilation system to be truly efficient, the introduction and control of supply air must be an integral part of the design. Whether using constant volume or M.A.R.V.E.L.* Demand Control Kitchen Ventilation (DCKV), appropriate air volumes and velocities must be maintained to ensure proper space balance and comfortable working conditions.

Halton provides a total solution for exhaust and supply air distribution and control. The KCD supply air diffusers were specifically developed to introduce large volumes of air in a small footprint while staying within the ASHRAE 90.1 guidelines that your mechanical engineer will be adhering to. In addition, when deploying M.A.R.V.E.L., supply air volumes can be zoned, providing a higher degree of design flexibility when it comes to choosing Supply Air Systems. Zoning of supply air allows for the appropriate volume of air to be introduced in proximity to the hoods that are exhausting during variable volume operation in the correct volume.

* Modeled based Automated Regulation Ventilation of Exhaust Level

Association of M.A.R.V.E.L. system &
Capture Jet technology



**approx. 64% reduction
exhaust airflow rates**

Halton

Air Purification Systems

Putting a Kitchen virtually anywhere!

Ventilation discharge is the critical factor to consider when investigating the feasibility of a new commercial kitchen site. New projects, new designs to existing buildings and non-traditional sites often require uncommon solutions for kitchen ventilation problems.

Halton's line of Pollution Control System can meet the challenges of any cooking duty or type. From the Ecology Filter unit, to the Ecology E, Electrostatic Precipitator addresses the myriad of cooking applications that effectively open up sites that may otherwise be discounted.

Ecology Filter Systems Medium Duty Cooking

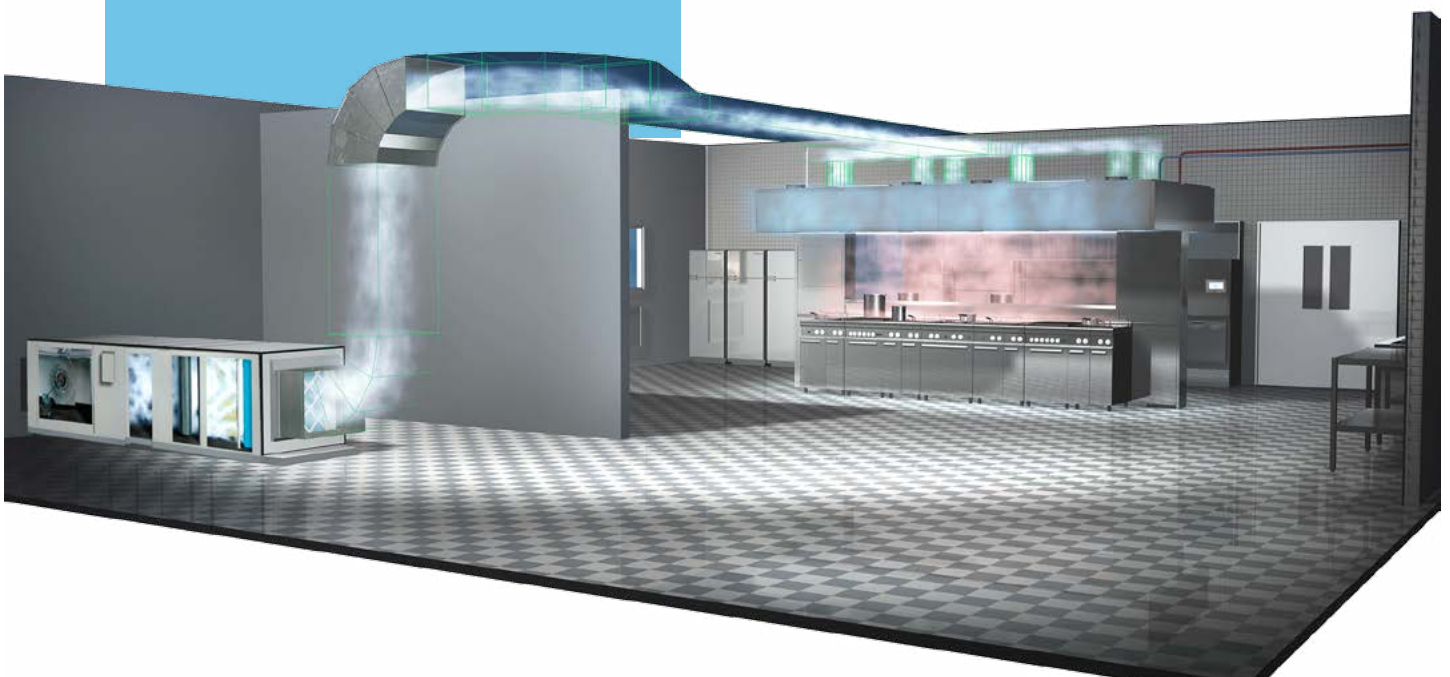


EcoloAir - ECOLO

Electrostatic Precipitator Heavy Duty Cooking



ESP





System Enhancements

Each ventilation design presents its own unique challenges, for that reason Halton offers a line of hood accessories to address any specific project issues.

KCD - Kitchen Ceiling Diffuser provides for high volume, low velocity discharge of supply air without disrupting hood performance. Tested performance of supply air discharge ensures proper application of even air distribution in proximity to the hood to achieve optimum results. Part of the M.A.R.V.E.L.+ system, the KCD diffuser is a key component of the total air balancing solution for commercial kitchen ventilation.

KVV-R & KVV-S VAV Units - Energy efficient variable air volume (VAV) boxes are used in conjunction with the M.A.R.V.E.L.+ Self Balancing Kitchen system. A special sensor in each VAV box measures four quadrant centre average airflow ensuring accurate zone control. M.A.R.V.E.L.+ provides the appropriate supply air signal by measuring exhaust airflow from each hood.

Capture Ray (UV) - Halton Capture Ray™ UV-C grease destruction technology takes emission control and filtration efficiency to entirely new levels. Capture Jet® hoods can incorporate UV-C features resulting in clean ducts, improved hygiene and fire safety.

Water Wash – Automatic wash-down systems combine the Capture Jet® hood efficiency with filter and exhaust plenum cleaning. The optional wash feature cleans the grease extractors daily and keeps the entire system running at peak performance. With our advanced design the filters do not have to be removed from the hood, reducing labor costs.

ABD – Automated Balancing Damper – works with Halton's M.A.R.V.E.L. system for multiple hoods connected to a common exhaust system.

MBD – Manual Balancing Dampers – for easy balancing of exhaust airflow for multiple hoods connected to a common exhaust system.

KGS - Kitchen Grease Sensor system assesses the level of grease deposits in a kitchen's entire exhaust duct network. As soon as this level exceeds the threshold defined in standard NFPA-96 (or local equivalent), an alarm is triggered and a signal can be sent to the Building Management System. It is necessary to clean the network.

Pollution Control - Halton Ecology units meet the increasingly stringent environmental demands and building regulations that have placed considerable limitations on the location of commercial kitchens.

Electrostatic Precipitator - Halton's Ecology-E is an electrostatic precipitator used to extract cooking effluents and odors from commercial kitchen exhaust. Ecology-E is a reliable solution for minimizing the restaurants impact on the surrounding environment. It's available in side access units for use with central air handlers or as a stand alone fan powered unit.

TKHVAC™ - Total Kitchen HVAC® reduces energy consumption and greenhouse gases while improving comfort through temperature and humidity control.

Fire Suppression - Fire Suppression system can be designed to economically fit particular sizes of kitchen equipment and canopy arrangements.

Halton Intelligent Innovation

Halton is a family-owned company specializing 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 recognized 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 34 countries worldwide. Regional headquarters are located in Finland, the USA, and Malaysia.

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