

Halton - PolluStop

Grease Emissions, Smoke and Odor Control...
Reinvented!





Emissions, Odor and Smoke Control Requirements

One size does not fit all. Conventional offerings for pollution control devices treated emissions the same, whether the primary driver for the design was grease, smoke, odors, or a combination of these. The level of loading wasn't a strong consideration in pollution control design. Odor mitigation was a moving target with many opinions, but little consensus on best practice, until now!

Features

- First of its kind load dependent design with application specific filtration options.
- Explicitly developed for commercial kitchens operating in dense urban locations.
- Allows sidewall discharge for exhaust ductwork.
- Minimize neighborhood restaurant exhausted cooking odors and maintain desired residential air quality standards.
- Electrostatic Precipitator module with washdown available for heavy grease and solid fuel applications.
- Automatic exhaust fan regulation ensures design exhaust volumes are always maintained.
- PolluStop operations can be integrated into one common control panel when Halton hoods and M.A.R.V.E.L. DCV solutions are selected to support High Performance Kitchen designs.
- Integrated BMS monitoring and remote factory monitoring/control communication capabilities.
- Construction includes double wall heavy gauge shell construction with acoustic insulation for reduced sound levels.



The first of its kind load dependent design Pollution Control System for Commercial Kitchens

PolluStop modules are designed to be incorporated into commercial kitchen ventilation systems where the control of airborne pollutants at the discharge point is a requirement. There are 10 standard capacities ranging in size from 3000 cfm to 24,000 cfm. Sizes up to 40,000 CFM are available, consult factory.

The PolluStop was developed to complement the Capture Jet™ kitchen exhaust hoods or Ventilated Ceilings Systems.

Applications

- Supermarkets
- Food Courts
- Bakeries
- Restaurants
- Colleges and Universities
- Steakhouse
- Asian Cooking
- Mixed Use Retail/Residential



You have the ability to determine the appropriate technology for your application.

Halton's modular pollution control system can be designed based on the projected grease loading and the critical nature of odor mitigation. Whether an ELF (Extended Life Filter) unit is appropriate up to a Double Pass Electrostatic Precipitator with HEPA filters and UV Double Carbon filters, for odor and smoke critical applications, the selection is yours.

Halton has developed a first of its kind module selection software based on user input. Design selection is driven by particulate loading, maintenance frequency, and odor mitigation requirements.



PST software can allow you to manually select modules or allow Chef Mikko to ask a few questions to provide recommended configurations.

- ELF Filter Module or Electrostatic Precipitator Module. First cost versus ongoing maintenance.
 - Single or Double pass ESP

Odor Mitigation Modules.

- UV/Single Pass Coconut Shell 2" Carbon Panels with Odor Sensor
- UV/Double Pass Coconut Shell 2" Carbon Panels with Odor Sensor

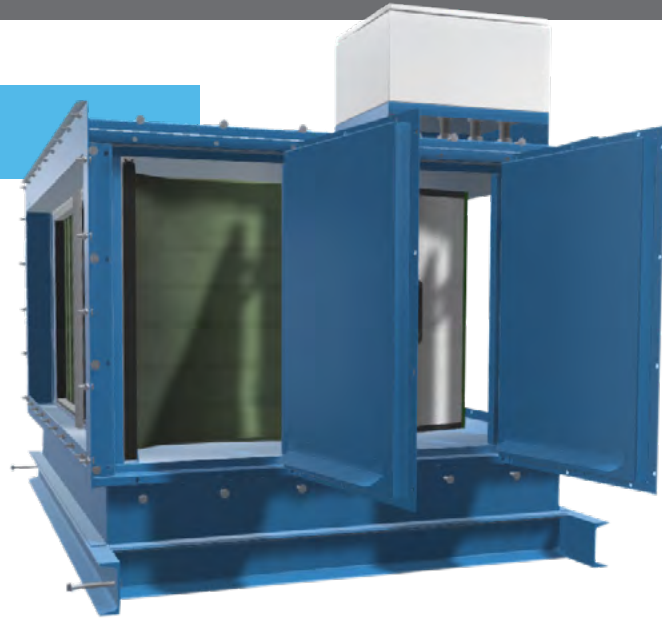


FILTRATION MODULES AVAILABLE

FILTER MODULES

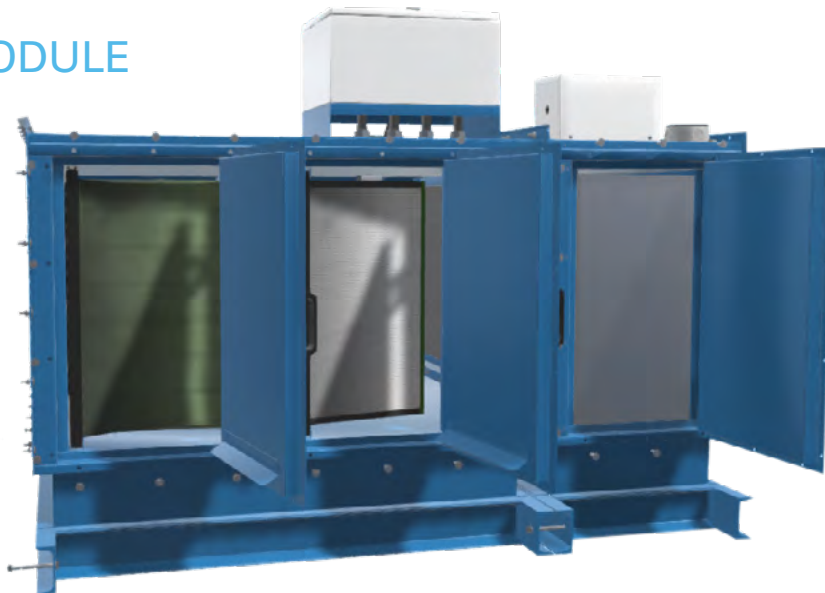
ELF & ABSOLUTE FILTER MODULE

- Halton's ELF (Extended Life Filter) is rated MERV 14 per ASHRAE 52.2 and uniquely designed and tested to filter cooking aerosol.
- A single ELF life-cycle provides the equivalent filtration performance protection and life-cycle loading capacity of the combination of 8 – MERV 8 prefilters and 1.5 - MERV 14 bag filters.
- The ELF reduces service frequency by up to 8 times while reducing disposal costs.
- The ELF runs at lower pressure drop during loading as compared to a similar physical size bag filter which reduces fan motor belt and drive stresses and in turn contributes to lowering the electrical demand charges of the building.



ELF, ABSOLUTE & HEPA FILTER MODULE

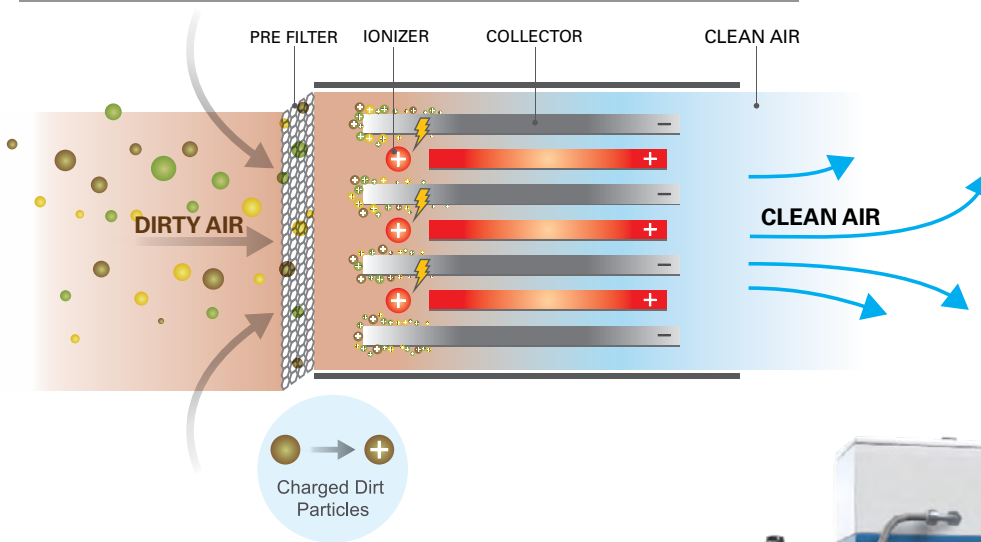
- HEPA required when used in conjunction with UV/2" Carbon modules.
- The Absolute filter is rated MERV 16 (Minimum Efficiency Reporting Value) and is a high efficiency, high capacity, energy saving, mini-pleated v-bank box style filter.
- Halton's ELF is rated MERV 14 per ASHRAE 52.2 and uniquely designed and tested to filter cooking aerosol.
- A single ELF life-cycle provides the equivalent filtration performance protection and life-cycle loading capacity of the combination of 8 – MERV 8 prefilters and 1.5 - MERV 14 bag filters.
- The ELF reduces service frequency by up to 8 times while reducing disposal costs.
- The ELF runs at a lower pressure drop during loading as compared to a similar physical size bag filter which reduces fan motor belt and drive stresses and in turn, contributes to lowering the electrical demand charges of the building.



Note: Images are for reference purposes only. Unit will differ depending on size of unit.

ESP (ELECTRO-STATIC PRECIPITATOR) MODULES

How Electronic Air Cleaning Works



Particulate carried in the exhaust air enters the cell and is charged by the ionizing blades. The charged contaminants then travel into the collector stage where similarly charged plates repel them, and they adhere to the ground plates, where the collected effluent drains off or is washed by the auto wash system periodically.

SINGLE ESP WITH ELF FILTER

This module includes an ionizer-collector cell(s), mist eliminators, wash system and, water wash drain pan.

- For use with medium load cooking
- Automatic wash down system

Single ESP module is recommended for medium duty cooking.



SINGLE ESP WITH ELF & HEPA FILTER

• This module includes an ionizer-collector cell(s), mist eliminators, oscillating wash system, and water wash drain pan.

- HEPA for use when Smoke Control is important
- For use with medium to heavy load cooking
- Automatic wash down system



Note: Images are for reference purposes only. Unit will differ depending on size of unit.

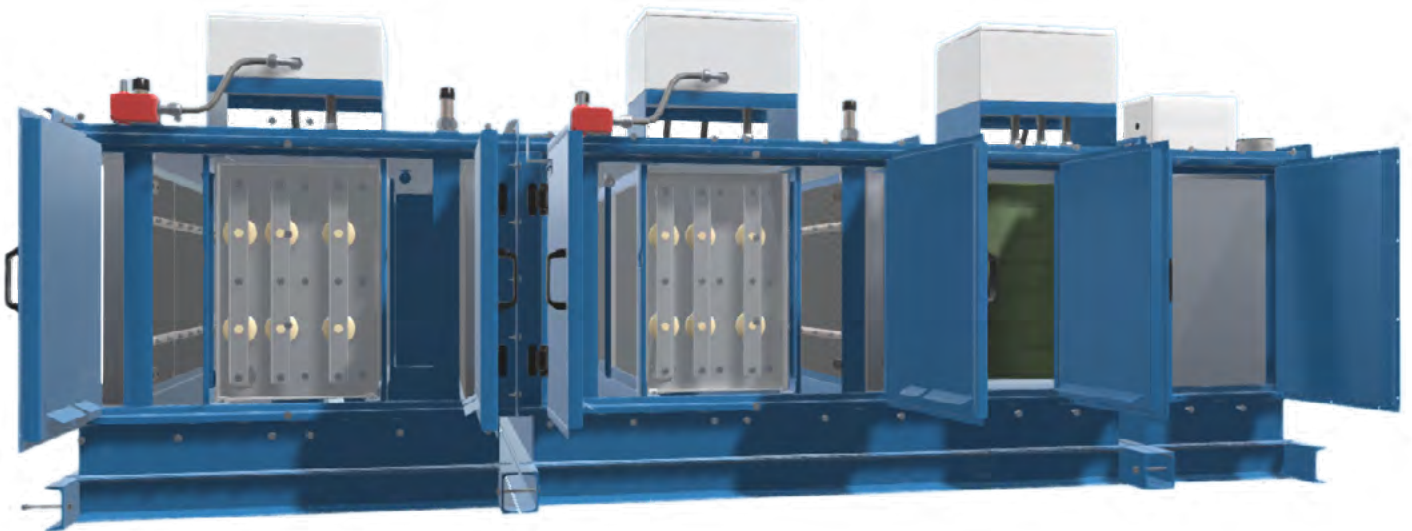
DOUBLE PASS ESP WITH ELF FILTER

- This module includes ELF (Extended Life Filter) and an ionizer-collector cell(s), mist eliminators, oscillating wash system, and wash water drain pan.
- Double Pass ESP Modules are recommended for extra heavy duty applications such as solid fuel cooking and Odor Critical.



DOUBLE PASS ESP WITH ELF FILTER & HEPA FILTER

- This module includes ELF (Extended Life Filter) and an ionizer-collector cell(s), mist eliminators, oscillating wash system, and wash water drain pan.
- Double Pass ESP Modules are recommended for extra heavy duty applications such as solid fuel cooking and Odor Critical.



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MATCH ODOR MITIGATION REQUIREMENTS WITH THE FILTRATION MODULES

ODOR MITIGATION MODULES AVAILABLE

UV WITH 2" CARBON PANEL MODULE

This module with UV- C bulbs in conjunction with Carbon panels with galvanized steel perimeter frame, covered on both sides with a perforated plate and enamel painted. Carbon is composed of virgin coconut shell granular activated carbon with a minimum carbon tetrachloride activity.

- UV with Coconut shell carbon panels

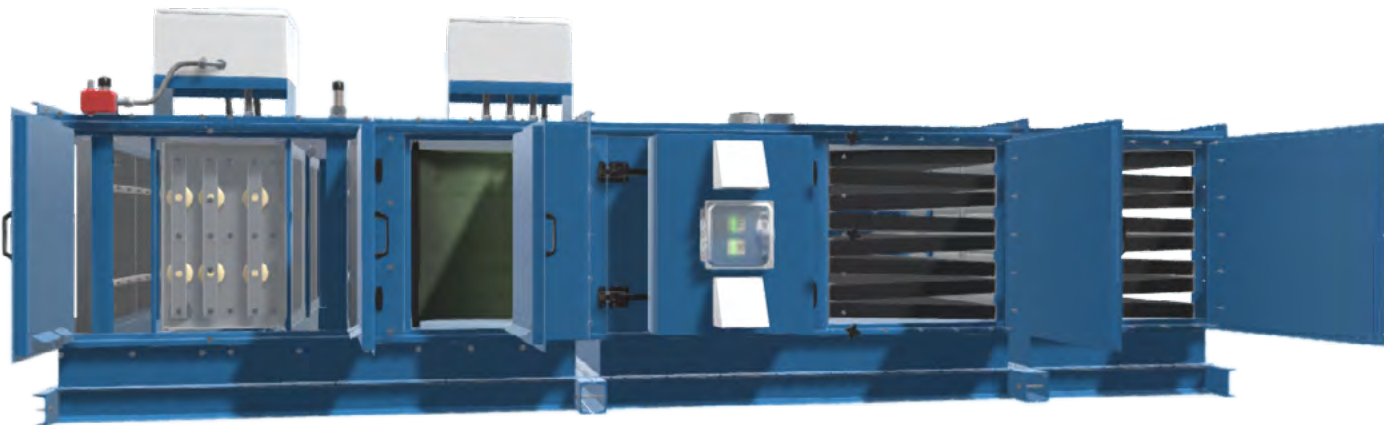


Note: UV Module available in 4,000 cfm cabinet size and larger.

UV WITH DOUBLE PASS 2" CARBON PANEL MODULE

- This module with UV- C bulbs in conjunction with Carbon panels with galvanized steel perimeter frame, covered on both sides with perforated plate and enamel painted. Carbon is composed of virgin coconut shell granular activated carbon with a minimum carbon tetrachloride activity.
- UV with Coconut shell carbon panels

For use with Pollustop filtration modules, heavy odor, the highest level of odor mitigation.



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FAN MODULES AVAILABLE

FAN MODULE *STANDARD*

Allows for multiple filtration arrangements in a smaller footprint

The exhaust fan is double width, double inlet Class 2 type with backward inclined blades. It features non-overloading horsepower characteristics, smooth airflow design

- The motor is enclosed type Class B/F insulation, rated for a temperature rise of 175°F (65°C) with a service factor of 1.0.
- V.F.D. includes a fused disconnect switch is mounted on the access side of the Fan Module and factory pre-wired to the motor or shipped loose for remote installation.
- Inlet cones are designed for a smooth acceleration of airflow into the wheel with clearances designed to maintain efficiency and reduce noise.



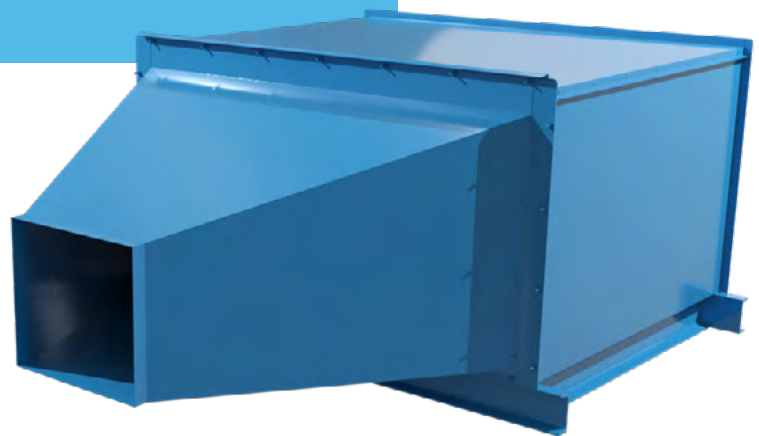
SILENCER MODULES AVAILABLE

SILENCER MODULE

The Silencer Module will include acoustic grade glass fiber and utilize acoustical splitters (size dependent). Perforated metal is filmed lined, and this protects the glass fiber. The nominal width and height of the silencer modules match the nominal height and width of the other PolluStop modules and are available in 2 lengths.

The silencer is designed to be installed after the Fan Module of the Pollustop units. Pressure drops and sound data are measured in an accredited ASTM E477 laboratory.

Available in two lengths.



Note: Images are for reference purposes only. Unit will differ depending on size of unit.



Did you know that if you are using a conventional pollution control unit, you may be wasting about 20% of energy used by a kitchen ventilation system?

Product Options

Demand Control Ventilation – M.A.R.V.E.L.

When a common controls platform that integrates all aspects of your kitchen ventilation system is required, M.A.R.V.E.L. is the answer. From one control system, you can optimize your Capture Jet™ hood systems and any option variation that is available, Water wash, UV, etc. in a variable volume environment. Total control of exhaust and supply, zoned or not, along with the other features of the hood system.

Common features of both controls:

Pressure Transducers – Monitor the pressure drop across each filter as well as overall pressure. Also, providing the status of each filter and notify the operator when the filters need to be replaced.

- On startup, the main pressure transducer is calibrated with the Capture Jet™ Testing and Balancing Ports to design airflow. This setting is stored in the system memory and acts as the reference point for design exhaust.
- Microprocessor – Reads signal from the pressure transducer and controls the VFD to maintain constant or variable volume (M.A.R.V.E.L.) airflow in the system regardless of the filter conditions.
- V.F.D. (Variable Frequency Drive) – Controls the RPM of the fan module based on the signal received from the microprocessor to maintain the appropriate exhaust in the system regardless of the filters condition.



PolluStop Popular Configurations

POLLUSTOP WITH ELF FILTER, ABSOLUTE FILTER AND HEPA FILTER

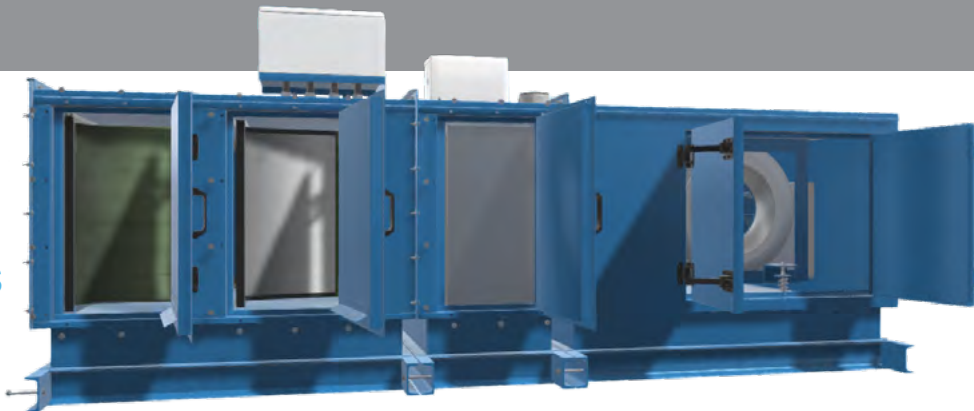
Emission Control

ADVANTAGES

- Lower first cost
- Non critical odor mitigation

RECOMMENDED APPLICATIONS

Supermarkets, Food Courts,
Restaurants with Griddles



POLLUSTOP WITH ESP, ELF FILTER AND UV 2" CARBON

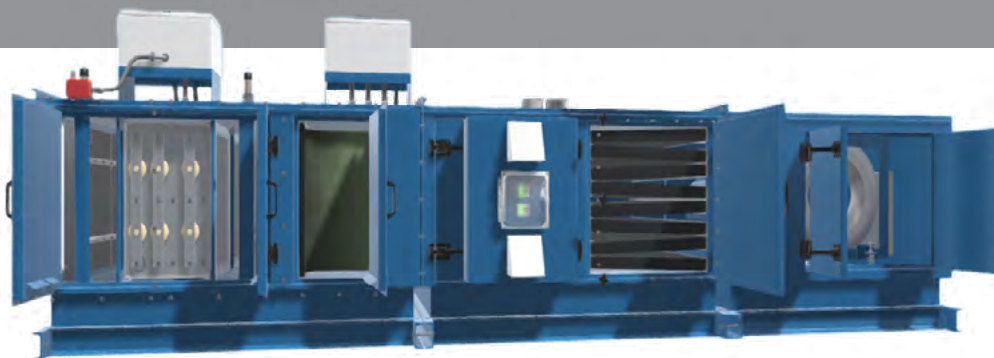
Odor Management

ADVANTAGES

- Broiler and/or Wok cooking
- Increased odor mitigation

RECOMMENDED APPLICATIONS

Steakhouse, Asian Cooking,
Mixed Use Retail/Residential



Note: UV/Carbon Module available in 4,000 cfm unit size and larger.

POLLUSTOP WITH ESP, ELF SAFETY FILTER & UV DOUBLE PASS 2" CARBON

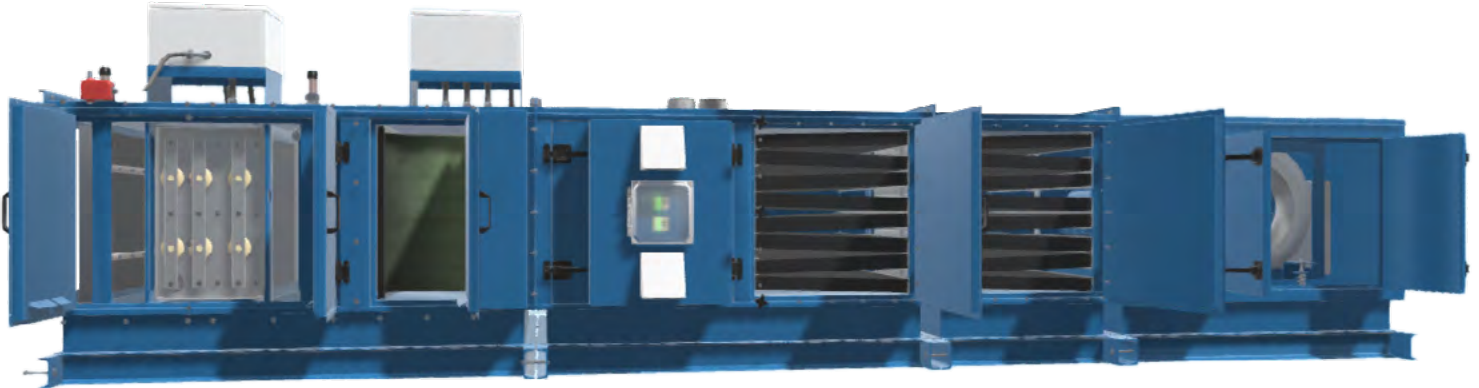
Odor Management Plus

ADVANTAGES

- Increased carbon capacity, reduced change interval

RECOMMENDED APPLICATIONS

Steakhouse, Asian Cooking, Mixed Use Retail Residential



POLLUSTOP WITH DOUBLE PASS ESP, ELF SAFETY FILTER, HEPA, UV DOUBLE PASS 2" CARBON

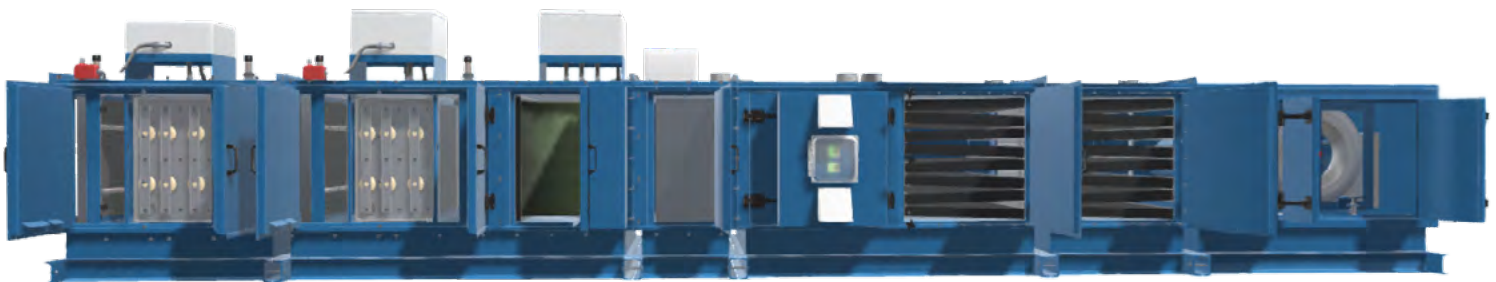
First Choice for Odor Critical Applications

ADVANTAGES

- Highest level of odor mitigation available.
- Carbon life monitor
- Improved air quality

RECOMMENDED APPLICATIONS

Steakhouse, Asian Cooking, Mixed Use Retail/Residential



Configured for Solid Fuel Applications also.

Global leader in designing High Performance Kitchens

A global presence

With 8 of our own factories, a further 3 under license and 5 R&D centers dedicated to ventilation for professional kitchens, Halton Foodservice is the world leader in ventilation solutions for professional open or closed kitchens.

We develop solutions which combine energy efficiency, safety, indoor air quality and respect for the environment. Based on a genuine passion for innovation and simplicity, our know-how and expertise are recognized by professionals. Halton Foodservice operates in all types of professional kitchens all over the world and throughout their entire life cycle: from the initial concept through to solution development, manufacturing, on-site installation, commissioning and maintenance phases.

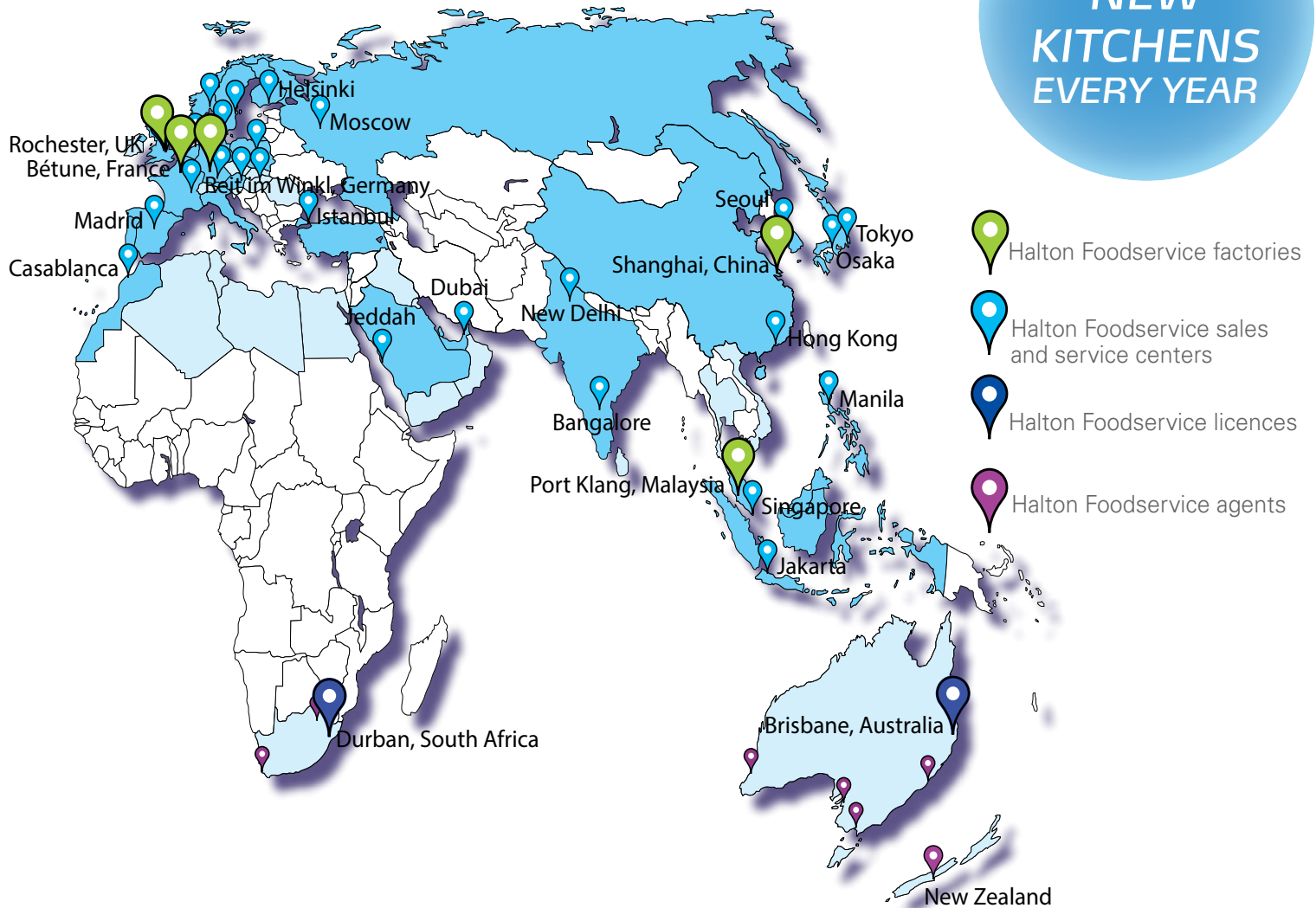
Every year, 5000 new kitchens are equipped with Halton solutions.



760
PEOPLE
DEDICATED TO
FOODSERVICE
PROJECTS



**5,000
NEW
KITCHENS
EVERY YEAR**



Halton's Innovation Hub is at your disposal for design collaboration and product development.

- Assessment of your ventilation design
- Access to Halton's certified laboratories
- Computer Modeling capabilities
- Optimization of the ventilation system

ABOUT US

Halton Group is the global technology leader in indoor air solutions for demanding spaces. The company develops and provides solutions for commercial and public premises, healthcare institutions and laboratories, professional kitchens and restaurants as well as energy production environments and marine vessels. Halton's mission is to provide its end-users with safe, comfortable, and productive indoor environments that are energy-efficient and comply with sustainable principles.

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