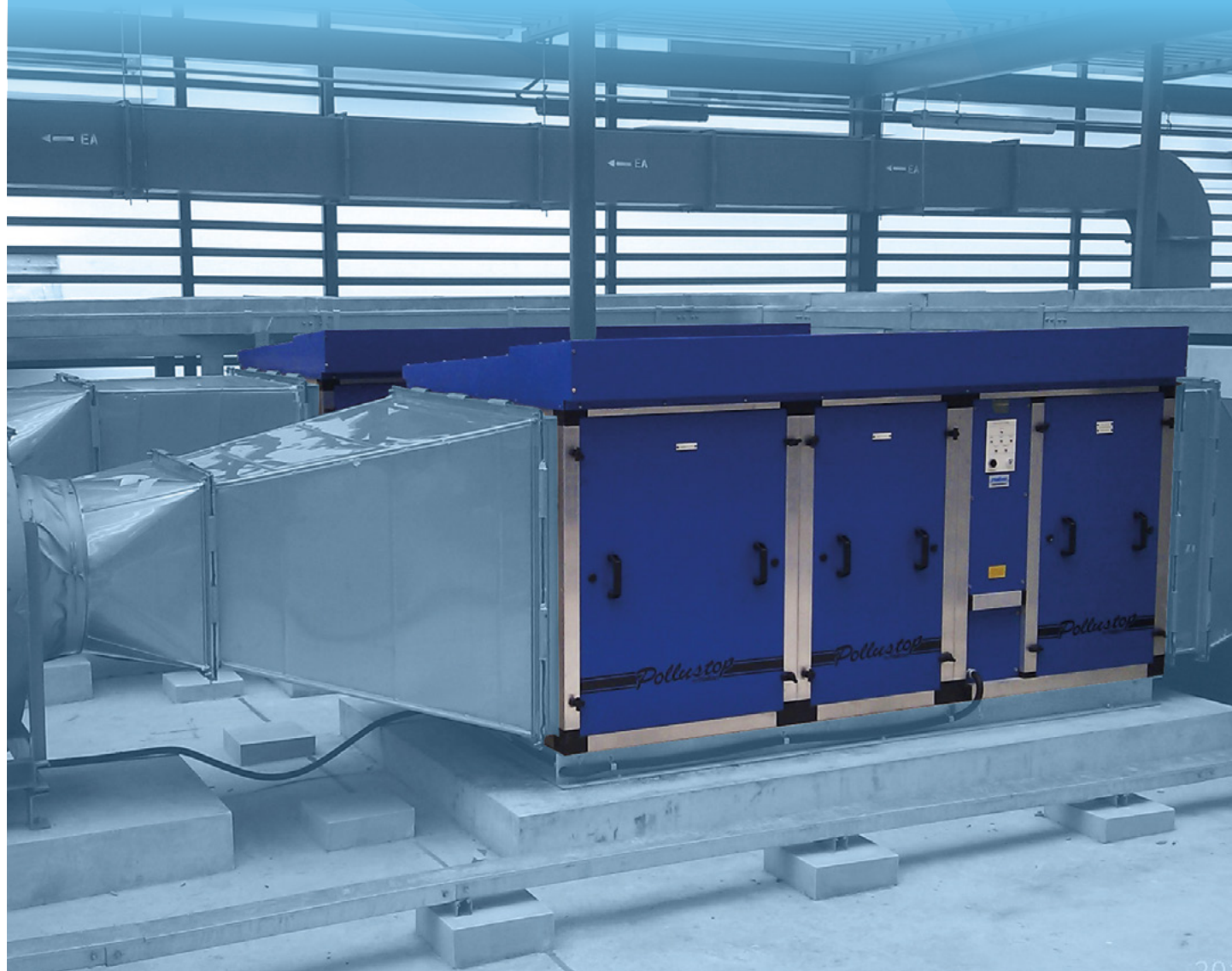


Halton – Eliminate neighbourhood and safety concerns and establish your restaurant wherever you choose with Pollustop!



The time when kitchen exhaust air can be discharged without treatment is over.



Any professional kitchen generates a lot of pollutants among which grease- in every shape and form- and odours generate the highest concerns in terms of safety and consideration for the neighbourhood, especially in dense urban sites or for large catering establishments such as foodcourts or central production kitchens.

There is increasing acceptance that, in a near future, it is likely that legislation will be put in 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.

Halton High Performance Kitchen offer includes solutions to control efficiently the kitchen emissions.

Pollustop is working towards being at the vanguard of control emissions technologies.

The Pollustop units have been specifically designed to efficiently control the emissions of professional kitchens. The air treatment is based on a 3 step process:

- The KSA primary, high-efficiency, mechanical filter based on multi-cyclone technology integrated in Halton's Capture Jet™ hoods or ventilated ceilings (95% efficiency on 10 µm particles);
- The neutralization of the remaining grease particles, the grease vapours and the odours by Halton's UV-C Capture Ray™ technology whether it is integrated in the Pollustop unit itself or in Halton's hoods or ventilated ceilings;
- A final high efficient filtration which removes the excess of ozone generated by the UV-C lamps and the smoke (very small carbonated particles).

The Pollustop technology lets you play with the scents and flavours...



While preventing safety and neighbourhood concerns...



Exhaust ductwork from one kitchen without air treatment and with no consideration for safety or their neighbours.

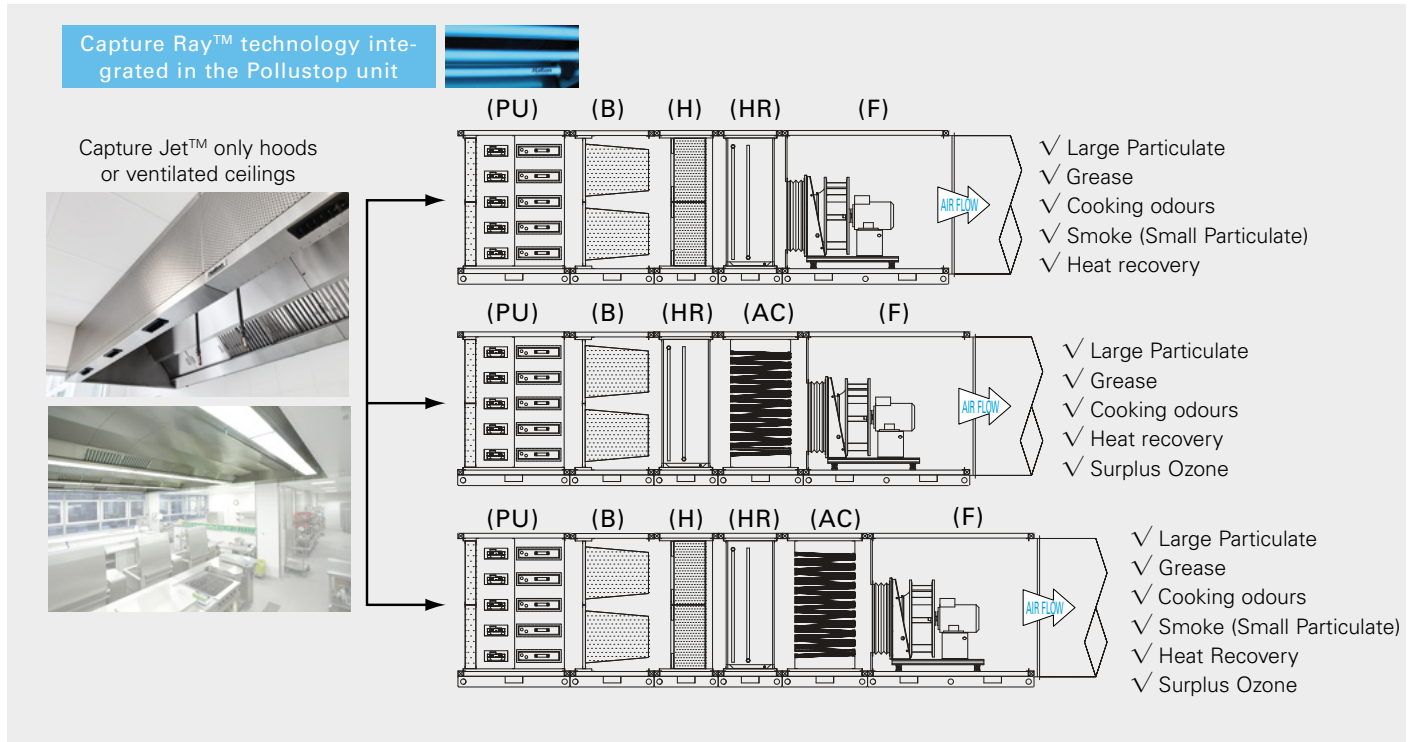
Until safely establishing your kitchen where you want?



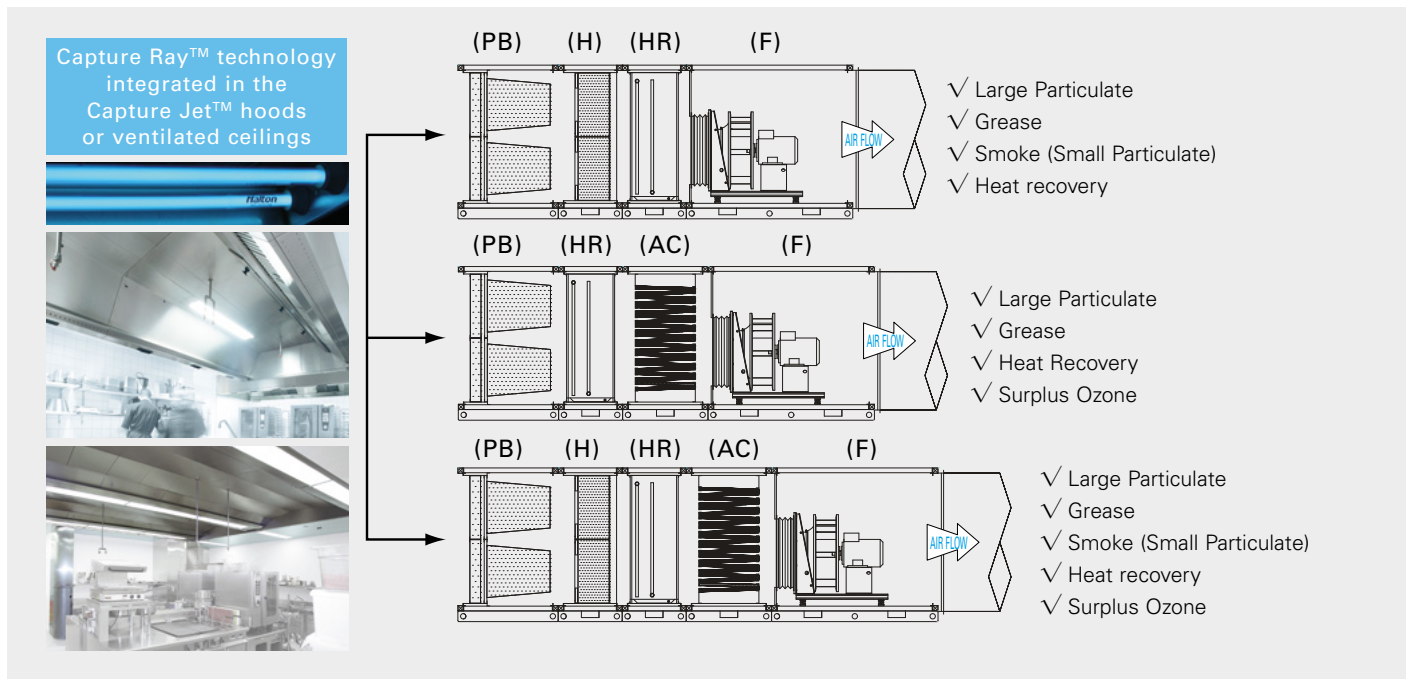
Discharge point of one restaurant, at street level, under an archway, after an air treatment of Pollustop type.

Build your Pollustop configuration "à la carte" thanks to its modular design.

Typical Pollustop configurations (when UV Capture Ray™ technology is integrated in the PST unit)



Typical Pollustop configurations (when UV Capture Ray technology is integrated in the hoods or ventilated ceilings)



PB Panel & Bag Filter Module

H HEPA Filter Module

AC Activated Carbon Filter Module

PU Panel & UV-C Module

B Bag Module

HR Heat Recovery Module

F Extract Fan Module

A Access Module

The Capture Ray™ technology neutralizes the grease and odours generated by cooking operations.



It is now widely accepted that certain ultraviolet lamps, will remove airborne grease - in every shape and form - that is not removed by the primary mechanical grease filters used on hoods or ventilated ceilings. This neutralization prevents the grease deposit built-up, suppressing at the same time the "passive" odourization of the exhaust air during its course in the ductwork.

It is also the case that, by increasing the UV lampage to a carefully-selected level, airborne cooking odours will be so minimal that it can negate the need to discharge the vitiated air at a high level from the building. Expensive kitchen exhaust riser ducts can then be dispensed with.

Save money and establish your restaurant anywhere, even in dense urban sites with the highest level of fire safety and hygiene.



A set of high efficient filters completes the action of the UV-C Capture Ray™ technology.

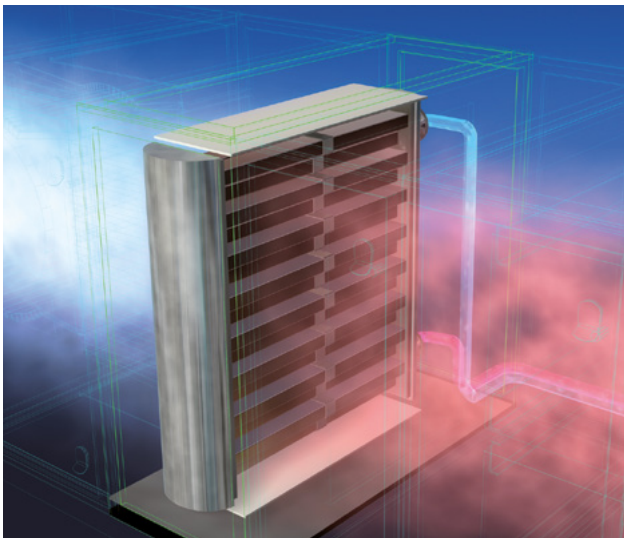


The UV-C neutralization is followed by a set of high efficient filters, the most important one being the NF-X graded carbon filters. The Neutralization process of the cooking grease by the Capture Ray™ technology is not only based on the UV light itself but also on the Ozone produced at the same time by the lamps. The special activated carbon filters used in the Pollustop units reduce the level of airborne Ozone to below the World Health Organization recommendation of 0.06 ppm.

The final filtration step, provided by ultra high efficient filters of HEPA type, reduces smoke down to 0,3 microns. It is essential that airborne particulate (smoke) is removed from the airstream prior to low-level discharge, not least of all, because it conveys also cooking odours.

Emissions control is now at such a level that Heat Recovery becomes a viable option. Recovery can be at last implemented without hesitation.

Save energy at the same time: Pollustop units recover heat efficiently and safely with limited maintenance!



Heat Recovery for commercial kitchens has, in the past, been fairly unsuccessful due to problems of airborne grease clogging the coil or other transfer devices. The combination of UV-C and Pollustop has now reversed this trend.

As an option, all units can be equipped with a heat recovery coil to pre-heat fresh air or water without fearing grease buildup on its fins. The recovery efficiency is then kept to its maximum level whilst simultaneously reducing the coil's cleaning costs down to the lowest possible level.

The Pollustop technology combines the highest emission control with considerable money savings when equipped with a heat recovery coil.

Thanks to extended component lifetimes, Pollustop maintenance won't cost you an arm or a leg!



The Pollustop units have been also designed to reduce the maintenance costs as much as possible. The lifetime of the UV lamps has been recently increased to reach 13,000 hours. It means almost 2 years of continuous operation. **The average lifetime of the UV lamps depends on the kitchen activity but can be reasonably assessed to 4 to 5 years.**

There's another advantage to the fact that the activated carbon used in Pollustop units deal with the excess of ozone and not directly with odours as already explained. Ozone keeps the carbon clean and greatly extends the lifetime of the filters thereby reducing operating costs. **The average lifetime of the carbon filters depends also on the kitchen activity but can be reasonably assessed to 104 weeks for light duty cooking appliances.**

Just forget your Pollustop units: Halton controls take care of everything!



PST units controls are part of the Halton Foodservice Control Platform (FCP). It has been developed to handle and manage all the solutions of Halton's High Performance Kitchen offer. Whatever the type and number of technologies installed in one kitchen, they can all be managed at the same time by means of one unique interface: Halton's Touch Screen.

It constitutes also a powerful communication gateway for optional GSM functions, the communication with the BMS or remote control of the ventilation system (by duly authorised personnel).

The Pollustop units are equipped with 3 control systems:

- The UV control system checks the correct operation of the UV lamps and warns the user when they have to be replaced;
- The filter control system which measures the filter pressure losses and warns users or a remote maintenance operator that the filters need to be replaced;
- The fan control system, whether built into the Pollustop unit or not, regulates its rotation speed to keep the airflow constant, regardless of the filter pressure loss. It gradually increases the fan's speed as the filter pressure loss increases.

Halton's controls manage everything and warn you or your maintenance operator when components have to be checked or replaced. That's it!



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The company 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. To find it:
www.halton.com/locations