

À la carte

<< So as not to inconvenience the guests and spoil the unique surrounding landscape, waterways, beach and pools with cooking odours, particular attention has been paid to the design of the kitchen ventilation system. Furthermore, considering the number of kitchens and the variety of cooking styles (Asian, Western, Arabic, ...) consultants were looking for a specialist who was able to provide the best technology available in the market with an excellent design support.



Foodservice consultants (Berkeley Projects, UK) and Mechanical consultants (RPW consulting engineers, Dubai) did a great job by working closely together in order to provide the best of their expertise. Halton Foodservice, who already had several prestigious references in the region, has been selected to work on this wonderful resort. Halton UVC technology, combined with the high efficiency of the Capture Jets and the superior grease filtration of the cyclonic KSA filter was the answer to consultant requirements: odours and grease emission control, energy savings thanks to Capture Jet efficiency, and excellent indoor climate conditions in the kitchens due to low velocity make-up the air supply. All these functions in one single product : UVF.

Since the design has been completed, it has been successfully implemented by Trans Gulf Electro-Mechanical who installed more than 100 Halton UVF hoods in the different kitchens. Finally, with the help of the local Halton agent (Energy International) the commissioning of all the kitchens went smoothly.

Georges Gaspar
Halton Foodservice Malaysia

New

The 2 edition of the Halton Foodservice CD is out

Comfortable and productive indoor climate with economical life cycle - all on one CD-ROM! The Halton Foodservice CD is a complete package for foodservice professionals, containing tools and material for easy yet sophisticated designs for the kitchen climate.

Find out more about the CD and benefits of good indoor air from your local Halton office or by contacting: marketing@halton.fr.

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Quick, relevant and useful information on Kitchen Ventilation Design !

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Customer's Voice

Madinat Jumeirah Resort: A Unique Arabic Experience !

The construction of the Madinat Jumeirah resort, located in Dubai, commenced in 2002 and the last phase recently opened in August 2004.

The Resort is a recreation of old Arabia and a place where historic beauty meets new-fashioned luxury. The numbers are really impressive and are setting the ultimate standards for the hotel industry in the region.

- Five Stars Grand Boutique Hotels of 300 rooms each
- Traditional Courtyard Summer Houses
- 40 hectares of landscaping and gardens
- 1 km of private beach
- 3.7 km of working waterways with fully operational abras (traditional water taxis) which transport guests from their rooms to the restaurants and beach
- A bustling retail souk with 75 shops and 23 bars, cafes and restaurants
- Six Senses Spa providing the ultimate in Asian and European relaxation therapies
- A Theatre with 432 seats
- A Multi Purpose Venue for up to 4550 people

To accommodate all these facilities, the developer Jumeirah International (Burj Al Arab, Jumeirah Beach, Emirates Towers, ...) wanted to offer a very large number of F&B concepts.

No other resort in the world can offer such a culinary variety with more than 45 different restaurants, which means that guests can enjoy 3 weeks away without eating at the same place twice!

Inside this Issue :

- Madinat Jumeirah Resort : A Unique Arabic Experience
- Inspectors in the duct : UV really makes the grease disappear
- The exhaust air rejected above the restaurant entrance – and the discharge grille is white!

From The President's Desk

Capture Ray UV technology successful!

When the new Capture Ray UV technology was launched on the marketplace there were many kitchen professionals who wanted to try the new technology immediately and enjoy the benefits of the clean ducts! Now there are increasing numbers of customers all over the world that are seeing the benefits and have confidence in the Capture Ray UV technology.

The installations have been working well. The customers that have been using the technology for the first time to try it are coming back and are keen to have it in their next projects as well, that is the best proof of its performance and benefits. We at Halton have been following the performance of the systems and field studies suggest that the system is exceeding our expectations. Capture Ray eliminates the grease accumulation in the ductwork and reduces odours which make it a really attractive alternative to old greasy, smelly, unhygienic, fire hazardous and high maintenance exhaust systems.

Let's dispose of the grease and fat in preparation for the summer season!

Olli Sipilä
Director
Halton Foodservice

Events

« Joining Forces »

The next European FCSI conference will be taking place from 5th-8th May in Berlin, Germany with the theme of Joining Forces. Halton Foodservice will be attending as a bronze sponsor. See you in Berlin!

Next Issue

- High Performance Kitchen
- New technologies and design



Did you know that with UV... ?

The exhaust air rejected above the restaurant entrance – and the discharge grille is white!

Halton Foodservice has been delivering ventilation systems with Capture Ray UV-technology for several years now.

Many restaurant concepts specialising in fresh Asian food prepared in front of the customers are interested in Halton Capture Jet technology due to the energy savings coming from the lower exhaust rates and consequently from the HVAC system as far as the supply air is concerned. In a show kitchen, it's very important to work with optimum exhaust rates in order to avoid wasting the heating or air conditioning used for the comfort of the guests in the dining room.

Most of these restaurants are located in busy areas and often in buildings that were not originally designed to accommodate a restaurant. Space is always a concern, especially for extract kitchen ducts. Logically, the Halton Capture Ray system seems the ideal solution to this challenge; air can be discharged at street level, without permeating the building, and most of the cooking odour problems are addressed.

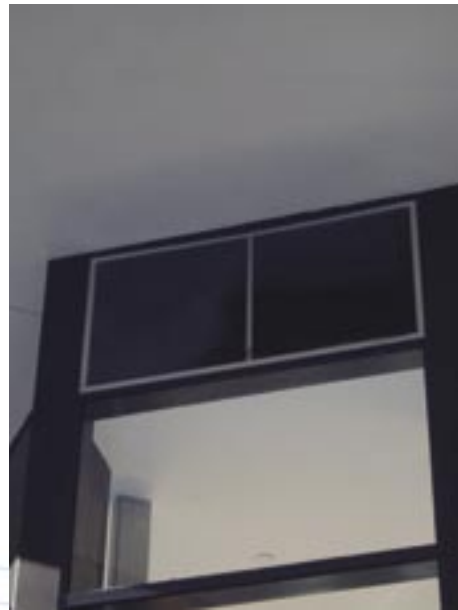
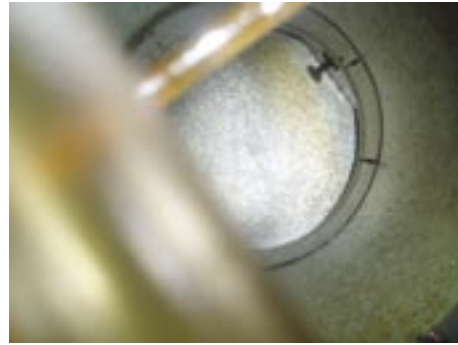
"Halton delivered Capture Ray systems in July 2003 to one of these centrally located

restaurants. After 6 months use I carried out a personal inspection. I was first disappointed that our requirements for cleaning the UV tubes were clearly not followed by the kitchen staff in this particular restaurant. The UV tubes above the heavy duty equipment were full of grease! Nevertheless, the exhaust duct work just behind the UV tubes was very clean despite the obvious lack of regular cleaning of the UV tubes, and this was good news!"

"After almost 2 years now this installation is performing perfectly, and the kitchen exhaust air is rejected at street level above the entrance door. The white slab close to the discharge grille is still white!"

In order to efficiently enhance the odour emissions this project was designed with additional active carbon filters. They are changed every 6 months only. The Capture Ray system generates grease free air which does not clog the carbon filter, and the ozone generated by the UVC tubes keeps the carbon molecules active for much longer.

Halton Manufacturing
General Manager
Georges Gaspar



Clean Operation – Clean Benefits

The most efficient Ultra-Violet system is a combination of :

- Halton Capture Jet
- Advanced KSA filters
- Halton Capture Ray UV-technology
- T.A.B. testing and balancing system

Scientifically proven results give added value in fire safety, running costs and the environment :

- Clean exhaust ducts and plenum
- Improved hygiene and fire safety
- Savings in operation and maintenance costs
- Environmentally friendly operation
- Comfortable working conditions

The Halton Capture Ray system exposes the cooking effluent to UV light, which breaks down grease molecules into smaller harmless compounds of carbon dioxide and water vapour. The compounds are carried out with the exhaust



airflow, leaving grease-free ducts and reducing odours at the fan discharge. Efficient mechanical KSA filters add to the clean operation.

Scientifically tested and proven, the Halton Capture Ray™ system increases fire safety and promotes

environmental values while decreasing running costs due to the reduction of grease deposit in the ductwork and fan system. In addition, increased productivity and energy savings contribute to a fast payback time for the initial investment.

Inspectors in the duct: UV really makes the grease disappear!

Halton, the world's leading suppliers of marine HVAC systems, supplied one of the most luxurious cruise liners with Halton Capture Ray Ultra-Violet equipment for galley ventilation. A complete duct inspection was organised on board in order to discover the effect of the Ultra-Violet system on the destruction of grease.

Ultra-Violet systems have been used in commercial kitchens on dry land, but this was the first time the technology was used on a cruise ship. Halton Marine supplied a total of 33 KWH hoods equipped with Halton Capture Jet technology, mechanical KSA filter system, Ultra-Violet system and automatic water wash option. Most of the hoods were located in the ship's main galley, and were equipped with a UV system. Crew galley hoods were not equipped with the UV system, which made a comparative study of these two different installations possible.

The hoods and the UV-system have been in operation for 10 months since the inspection was organised in co-operation with the equipment supplier, shipyard and an external research company.

Inspection Method

A visual inspection with a video camera was chosen as the inspection method to evaluate the cleanliness of the ducts. The aim of the inspection was to compare the cleanliness of the hood plenum and the exhaust ductwork after the hoods with and without the UV equipment. A remote-controlled video camera robot was used to film and take photos up to 15 meters along the ductwork.

Results

The following pictures present corresponding locations in the hoods and in the ductwork. Pictures on the left present the situation without the UV-equipment, and on the right with the UV equipment. The UV really made the grease disappear !

Conclusions

When using a standard hood with a mechanical filter system, there was some evidence of grease deposits in the ductwork. This is due to the fact that filtration efficiency of mechanical filters' reduces significantly when the size of the grease particle is 5 microns or smaller. In addition to this, a large proportion of the grease is present as a vapour which passes through the mechanical filter. The UV is the only system that reacts to smaller particles and grease vapours.

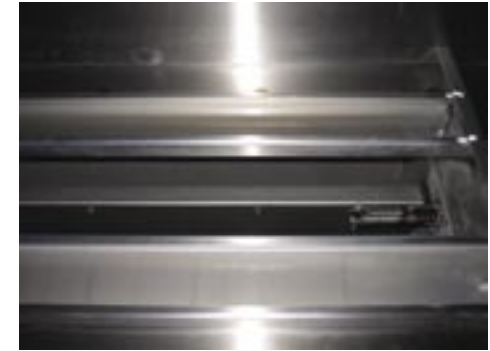
The hoods and the ductwork were substantially cleaner with the UV-installation compared to



Hood fire damper a galley hood with no UV equipment. The damper is clearly covered with grease. The fusible link is completely covered in grease.



Horizontal main (grease) exhaust duct of the system with no UV equipment. Despite the regular stream wash the duct is clearly affected by grease. Grease accumulation existed in duct supports, brackets and fire detectors.



Hood fire damper in a galley hood equipped with UV system. The damper and the fusible link are as clean as new without any signs of grease.



Vertical, white painted, main galley (grease) exhaust duct equipped with UV system. The duct is clean without any evidence of grease.

those without the UV system. The UVC-radiation and ozone generated not only affected inside the hoods, but also several meters along the ductwork providing enough reaction time for the ozone.

Halton's unique three-stage filtration applied in this installation is the best solution for hoods with a high utilisation rate. In the three-stage concept, the majority of medium to large grease particles are

first filtered with the two-stage mechanical filtration and any remaining grease is then eliminated with Halton's Capture Ray ultraviolet-light technology resulting in a clean exhaust ductwork. The cleanliness provides improved hygienic conditions, reduced fire risk and a reduced requirement for ductwork cleaning.