cleanair

UV COMMERCIAL KITCHEN SYSTEMS

Ultra Violet System for Commercial Kitchen Cleaning and Filtration

hoodclean system

UK DESIGNED

UV-C ENERGY FOR KITCHEN HOODS

Exhaust hoods are fundamental part of any commercial kitchen, yet they are frequently poorly maintained. Cleaning a hood system is a dirty and difficult task and cleaning the exhaust ducts is even more difficult - this often means that maintenance is ‘put on the back-burner’.

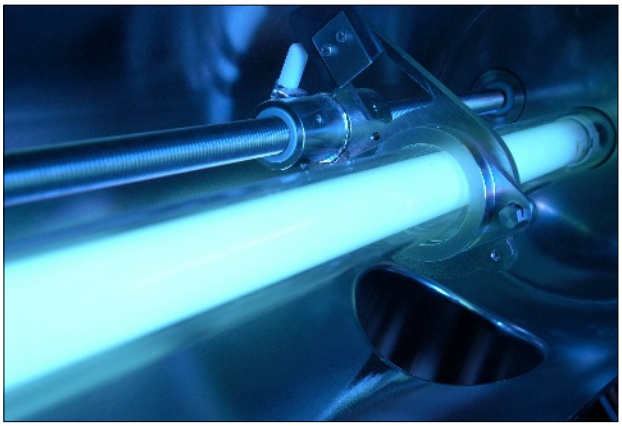
Unfortunately, this can have severe and far reaching consequences ranging from infection caused by decomposing grease falling into food to smoke blowbacks which can engulf a kitchen in acrid smoke causing closure and even fire which will ravage a kitchen and spread through the ductwork of a building.

Increasingly, multi-national hotels and caterers require as a Standard Operating Procedure that UV-C filters are installed to reduce the maintenance and risks.

These systems break down the grease reducing the maintenance requirement and fire risks.

HOW DOES THE UV SYSTEM WORK?

UV-C is a light-beam which creates a process called ‘Photolysis’. This is a chemical process by which molecules are broken down into smaller units through the absorption of light. In effect the thick grease molecules are separated from each other.



The UV-C light tube also creates Ozone and the resulting ‘Ozonlysis’ breaks down hydrocarbons forming water vapour and leaving inert carbon based powder.

The two processes together destroy grease and any hydrocarbons passing through the light beam.

Ozone gas is also sucked through the exhaust ducts breaking down any grease that has collected deeper inside the ductwork. Another benefit is that the Ozonolysis process has the effect of deodorizing the exhaust air- an increasing requirement in many countries.

What this means for a kitchen exhaust system is that grease sucked into the hood is destroyed by the dual effects of Photolysis and Ozonolysis leaving a powder that is exhausted out of the ducting, any residual can be easily wiped away with a cloth.

Unlike most UV-C systems, Clean Air’s HoodClean incorporates combination UV-C / Ozone tubes to boost the effectiveness.

HOODCLEAN CONTROL PANEL

The HoodClean UV Filtration System includes a user-friendly control panel which allows any kitchen staff member to easily control the system and evaluate when replacement tubes or regular maintenance is required.

BENEFITS OF UV IN COMMERCIAL KITCHENS

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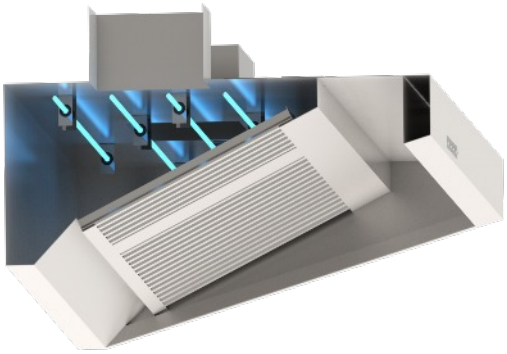


- Clears oil and grease from the exhaust hood and ductwork
- No more hood and duct cleaning
- Protects against fire
- Eradicates odour from effluent air
- Easily retro-fitted into existing exhaust equipment
- Improved airflow and reduced operating costs
- Full service plan and call-out program

Laboratory Testing

Recent testing of the HoodClean UV System was conducted by Star Laboratory PTE in Singapore, an NEA-approved testing facility.

Testing was conducted on two aspects of the HoodClean systems performance: Odour Reduction and Oil Mist Reduction. The results were as follows:-

ODOUR REDUCTION : 98.4% success
OIL MIST REDUCTION : 98.2% success

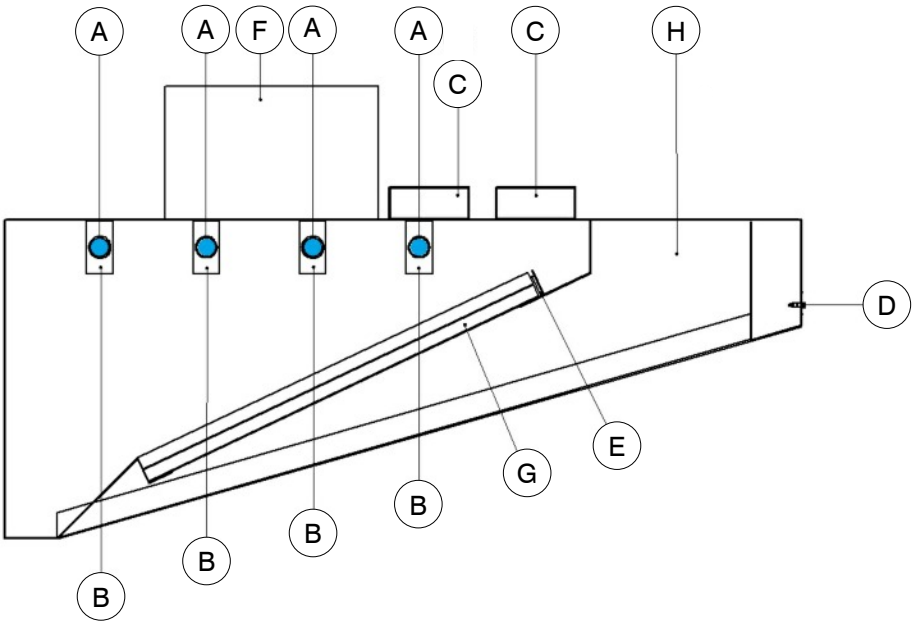
RETRO FITTING THE HOODCLEAN SYSTEM

The simple and effective design of the HoodClean UV Filtration System affords kitchen designers the opportunity to easily retro-fit the equipment into their existing kitchen hood equipment.

Installation takes only around 2 hours thereby not affecting kitchen operations in any way. Installation does not impact on the extraction performance of any kitchen hood.

Power requirement for the HoodClean System is simply access to a permanent 220/240V supply.

HOODCLEAN SYSTEM CONSTRUCTION



LEGEND

A - UV Lamps

B - UV Lamp Brackets

C - Ballast Boxes

D - LED Indicator Lights

E - Magnetic Safety Switch

F - Exhaust Duct

G - Primary Filter (Baffle)

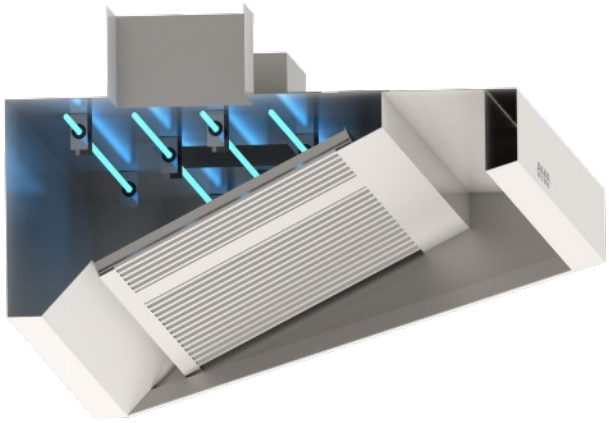
H - Kitchen Hood

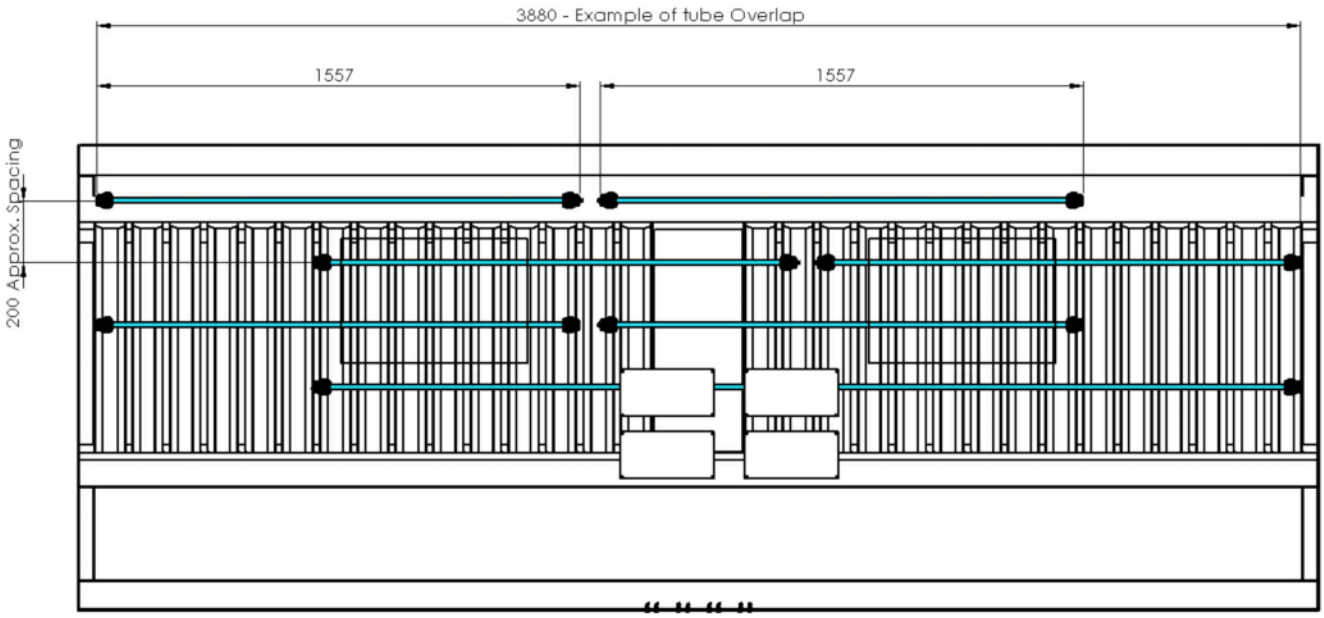
TOP-DOWN VIEW OF SUGGESTED TUBE PLACEMENT

The HoodClean UV Filtration System comes in two (2) tube-lengths: 846mm and 1,554mm. Tube life, under normal use, is 9,000 hours. Systems are delivered in packs of two (2) tubes and multiples of this can be purchased to ensure total coverage inside the plenum of any exhaust hood - new or existing (retro-fit).

Please see the graphic below for the Top-Down view of a typical 3.8 metre width exhaust hood and the relevant placement of the UV tubes.

A hood of this size would require purchasing four (4) HoodClean Systems.





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