

# Would you like a technical seminar on kitchen ventilation design at your offices?

Kitchen ventilation design can sometimes be confusing. Should you use conventional extract canopies or a ventilated ceiling, and if so should it be a plenum ceiling or cassette type?

There are also many important publications that relate to our industry.

Why not take advantage of our free CIBSE approved CPD seminar on kitchen ventilation design, at your offices. The seminar is free of charge and it covers the latest regulations and innovations.



## Subjects covered include:

Current Standards  
Gas Interlocks BS 6173  
The Induction Principal  
Canopy Design Rules  
UV Filtration Systems  
Volume Calculations  
Recirculation Canopies  
Ventilated Ceilings  
Fire Suppression Systems  
**and much more...**



*Feedback from recent delegates:*

*“Very informative and well structured, providing a valuable source of reference”*

*“The seminar was brilliant!”*

*“The seminar was certainly one of the better ones”*

*“...Well worth attending, very informative and pitched at the right level”*



To book a seminar at your offices, simply email us at [sales@kitchen-ventilation.co.uk](mailto:sales@kitchen-ventilation.co.uk) and we will do the rest!

**Britannia**  
kitchen ventilation

Britannia Kitchen Ventilation Ltd

10 Highdown Road, Sydenham Industrial Estate, Leamington Spa, Warwickshire CV31 1XT  
Phone: 08450 760390 Fax: 08450 760391 E-mail: [sales@kitchen-ventilation.co.uk](mailto:sales@kitchen-ventilation.co.uk) Web: [www.kitchen-ventilation.co.uk](http://www.kitchen-ventilation.co.uk)

Our policy is one of continuous improvement and we reserve the right to change specifications at any time and without notice

February 2009

  
ultrastream  
UV Filtration System



*Reducing fire risk and odour nuisance from commercial catering installations*

**Britannia**  
kitchen ventilation



# Ultra Violet filtration system providing secondary grease removal and odour destruction

- Drastically reduces airborne grease particulate
- Destroys cooking odours
- Reduced fire risk in extract ductwork
- Works automatically
- Helps protect downstream plant, filtration and heat exchangers
- Allows potential for low level discharge
- Lower operating costs compared with carbon based systems
- Significantly reduces ductwork cleaning



## Principal of operation

A common problem with kitchen extract systems is that grease inevitably gets carried over into the extract ductwork. If this grease builds up it provides fuel for a fire and represents a significant fire risk within the building.

Also the odours from kitchen ventilation systems can be a major nuisance, depending on the location, cuisine and point of extract.

Both of these problems can be designed out, by using Ultrastream canopies from Britannia. Ultrastream canopies incorporate Ultra Violet UVC light to provide secondary grease removal and odour destruction.

The canopies have high efficiency baffle filters which provide the first stage of grease removal, and also acts as a physical barrier to restrict the spread of flames. The extracted air then passes through the UV reaction chamber, located deep inside the canopy, well away from prying eyes, and protected with safety interlocks.

Intense UVC light breaks down the remaining organic material using a combination of photolysis and ozonolysis, leaving a final discharge of cleaned air with a trace of ozone, which is quickly dissipated in the atmosphere.

If the discharge point is at low level then the excess ozone in the treated kitchen extract may cause a nuisance and an ozone destruction unit may be required. Please contact Britannia if your extract system discharges at low level or in an enclosed area.

Ultrastream automatically and continuously destroys organic material in the airstream and helps keep the extract ductwork grease free, significantly extending the period between ductwork cleaning intervals and reducing the fire risk at the same time.

UV filtration destroys odours more efficiently and cost effectively than conventional filtration systems, but can be used to even greater effect when combined with additional treatments such as HEPA filters, Electrostatic precipitators or you could consider installing an Eco stream unit from Britannia which provides a complete filtration solution in one compact unit.



One of the 84 Ultrastream canopies at DFSS Worthy Down

Operation of Ultrastream is automatic with the UV lamps operating only when the extract fan is running. Safety interlocks prevent the lamps functioning without airflow, or during unauthorised opening of the lamp housing.

## Cleaning & Maintenance

The maintenance of a UV system is much lower than conventional systems.

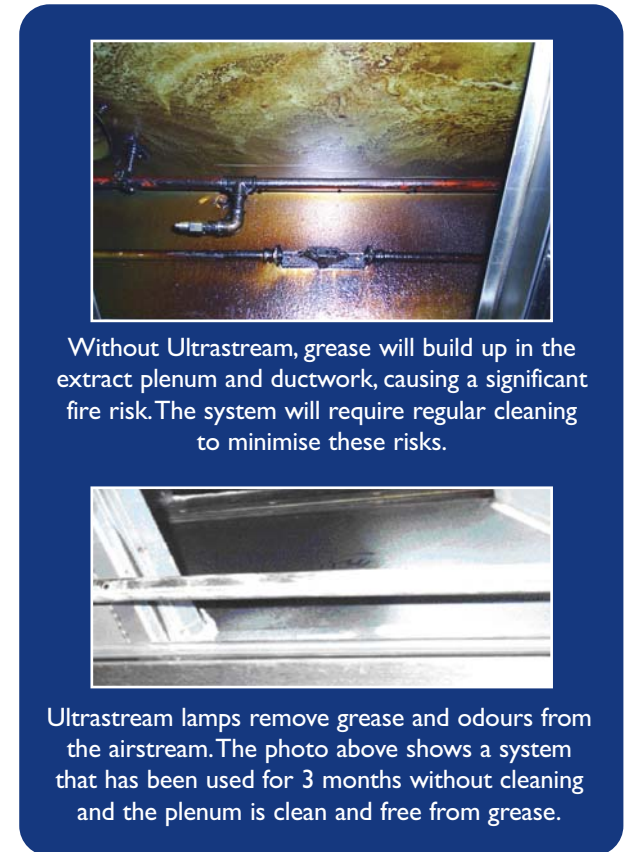
When the grease is exposed to UV light it breaks down and turns to a fine ash which adheres to the UV lamps and needs to be removed approximately every two months. The ash deposits are removed by means of a cloth, with water and detergent, followed up by a liquid solvent cleaner.

Longer term the lamp elements will need replacing, they have a lifespan of approx 10,000 hours which relates to two years of normal use.

## Projects Using Ultrastream Filtration:

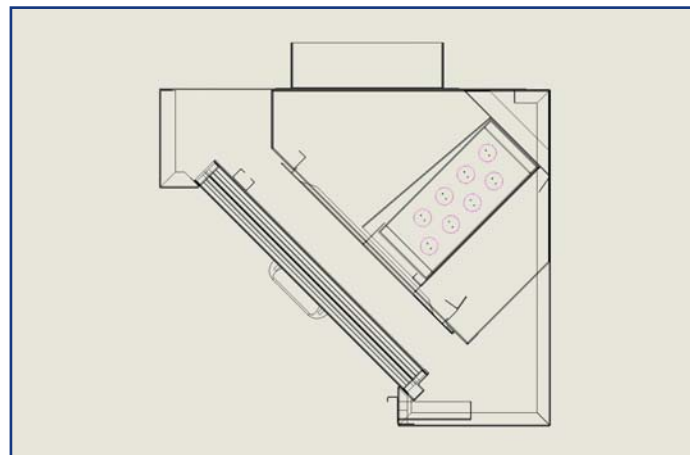
- Defence Food Services School – Winchester
- Daniels Chilled Foods – Peterborough
- Conrans – Canary Wharf
- Marks & Spencer – Dublin
- Cafe Rouge – Canary Wharf
- ASDA – Various sites
- De La Warr Pavillion – Bexhill
- Shanghai Blues – Holborn
- Esure – Reigate
- Exeter College – Oxford
- Carluccio's – London
- Wadham College – Oxford
- Tapa Tapa – O2 London
- Tower Hotel – Dublin
- Water Margin – London
- Ramsey Swimming Pool – Isle of Man
- Ellington Hotel – Leeds
- NSAI Santry Kitchen – Dublin
- Swansea Leisure Centre – Swansea
- HMP Garth – Lancashire

and many more...



Without Ultrastream, grease will build up in the extract plenum and ductwork, causing a significant fire risk. The system will require regular cleaning to minimise these risks.

Ultrastream lamps remove grease and odours from the airstream. The photo above shows a system that has been used for 3 months without cleaning and the plenum is clean and free from grease.



Cross section through filter housing, showing **Ultrastream** high efficiency primary grease filters and high intensity UV light tubes located in locked reaction chamber.



Ultrastream at Merton College – Oxford



Ultrastream at Frankie & Bennys at O2 London



Ultrastream at De la Warr Pavillion – Bexhill