

# MARINE



## ADVANTAGES

Destroys grease particles in the extract air stream

Prevents grease entering the ductwork

Reduces the risk of fire

Reduces cooking odour

Jetstream technology reduces spillage of exhaust fumes into the galley area

Reduces draught in the galley

Comfortable working climate

FECON®UV filters - UL and NSF certified

FECON®UV filters - TNO tested and approved flame retardant

Reduces maintenance costs

**UV-C HOOD**  
**GB**



## DESCRIPTION

The Vianen UV-C system can be used in any Vianen hood and is suitable for all types of cooking equipment especially those that create high grease loads. The UV-C system generates ozone which breaks down grease particles reducing the build-up of grease deposits in the ductwork also helps to reduce the risk of fire and some cooking odours that would otherwise be released into the surrounding area at the galley extract discharge point.

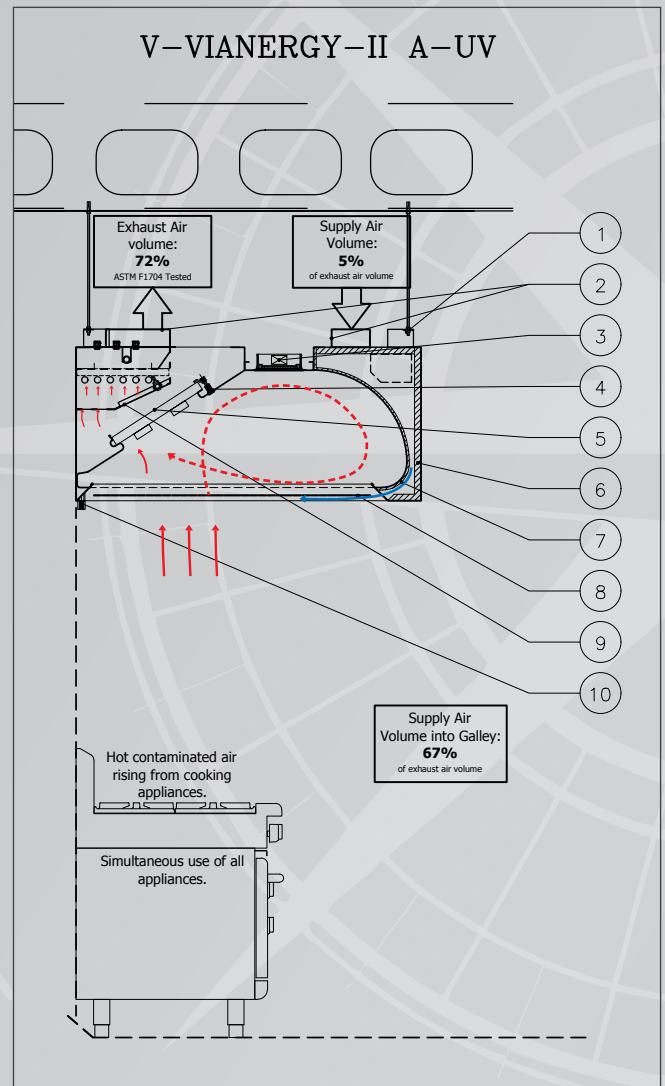
Additionally, grease, moisture and smoke building up over time are definitely a fire hazard. The FECON®UV flame retardant filter prevents flames from entering the ductwork and stops leakage of harmful UV-C light from the inside of the hoods extraction plenum.

Please note that the UV-C system is not a deodoriser. All Vianen UV-C hoods are supplied with a dedicated Control Unit to ensure safe and simple operation of the system which requires very little maintenance and service. Vianen UV-C hoods are fitted with specially developed FECON®UV filters to prevent any leakage of UV light from within the hoods extract plenum.

## CONSTRUCTION

The Vianen UV-C system uses special UV-C light tubes for grease destruction, the breakdown of bacteria and can reduce some odours. The tubes are mounted in a stainless steel patented enclosure with a hinged access door. This UV-C module is located behind the FECON®UV grease filters within the extract plenum. The safety design features ensure the safety of the galley staff and operatives are not exposed to UV-C light. The UV-C Control Panel supplied with every UV system is a fully welded type 304 stainless steel unit, ultra-fine grain polished (320 grit) standard measurement 400 x 300 x 155mm with a sloping top and hinged access door which can only be opened with a security key.

A digital display provides information relating to the status of the system and any alarm condition. Using the UV-C system the hood has an extra exhaust pressure drop of 60 Pa.



- ① Hanging bracket
- ② Duct spigots - exhaust and supply
- ③ V-LEL integrated light fitting
- ④ Filter lock
- ⑤ FECON®UV filter
- ⑥ Insulation
- ⑦ Vianergy II ® energy saving curve
- ⑧ Jet Stream Technology
- ⑨ UV-C filtration system
- ⑩ Grease Drain

The UV-C system incorporates:

- Three safety features;
- Has been subjected to extensive testing to ensure reliability;
- Components CE certified;
- Compact installation;
- Low maintenance costs.

#### **Design considerations:**

- The size and number of UV-C modules is dictated by the extract airflow rate (m<sup>3</sup>/h) through the hood and the overall size of the hood.
- The maximum temperature of the air passing over the modules is typically 45°C.
- To ensure complete oxidation a minimum reaction time of 2 seconds is required between the duct connection to the UV-C module and the extract system discharge point.
- Power requirement is 230/240 V 1 phase for a typical module with 6 UV-C tubes.
- The exhaust airstream pressure drop over a Vianen hood incorporating UV-C modules and FECON®UV filters is only 160 Pa.

#### **THE SAFETY FEATURES OF THE UV-C SYSTEM.**

- It is only possible to remove the FECON®UV filters from one set position of the filter housing which is marked with an arrow. At this position a pressure sensor is mounted to register whether the filter is properly installed. Should the filter be disturbed or removed from this position the Control Unit will immediately shut down the system.
- If any other filter is missing or has been in any way incorrectly installed a separate pressure sensor mounted within the hood extract plenum will detect a fall in pressure differential and shut down the system.
- The UV Control Unit will in all cases be linked to the ventilation extract fan to ensure the system only operates when the extract fan is running. Should the extract fan fail or stop the Control Unit will again immediately shut down the UV-C system.

#### **Maintenance**

The system requires very little maintenance or service. The UV-C lamps should be checked on a weekly basis and cleaned with a soft cloth and white spirit. Any lamp failure will be indicated at the Control Unit. The UV-C lamps have good efficiency for minimal 8,000 operating hours and the Control Unit features a lamp life countdown readout.

#### **Warning**

- Only suitably qualified personnel is allowed to work on the UV-C system.
- Direct and indirect exposure to UV light can impair eyesight and exposure to excessive quantities of Ozone can cause damage to the human respiratory organs.
- Ozone present in the extract air stream can cause damage to aluminum and any rubber seals that may be exposed to the exhaust air system.

## FECON®UV GREASE EXTRACTION FILTER

The FECON®UV filters are specially designed for Vianen UV-C hoods to remove grease particles from the extract air in combination with the UV system. The interlocking semi-circular blades of the filter create multiple centrifugal forces as the air passes through the filter which ensure efficiency rates of 98% by 8 micron are achieved. The filters are mounted in the hood at an inclined angle of 45° and the non-clogging nature of the baffle filters allow the grease to run off the filters into integral drainage channels within the canopy or ceiling system. Each filter features two integral handles to make removal and refitting of the filters an easy operation.

The filters are slotted into place in the filter bank to prevent them falling out during high seas. The FECON®UV filter has been tested and is certified as an effective flame barrier i.e. no flame penetration through the filter in the event of a galley fire.

- Proven and certified fire barrier (DIN 4102 & TNO)
- Excellent levels of hygiene – NSF approved
- Solid and durable construction – stainless steel
- High efficiency rates of 98% by 8 micron
- Locked in to for the most demanding environments
- Easy maintenance in any commercial dishwasher

Vianen FECON®UV filters are constructed from stainless steel type 304 (DIN 1.4031 grit 320) 1.2 mm thick. The 40 mm thick filter is constructed without rivets and is provided with two integrated handles for ease of handling. The top and bottom of the filter frame features slots providing a 10% free area which allows moisture and grease to drain away. The FECON®UV filters are designed to fit in any commercial dishwasher for cleaning.

## VIANEN UV-C GALLEY HOOD SPECIFICATIONS

Standard	Optional
Material: AISI 304; Thickness 1.0 - 1.2mm	Material: AISI 316L
FECON® UV filters, UL, NSF, TNO	
V-LEL integrated IP65 LED lights	V-ITL lights or LED spots
Crush folded edges	
UL, CE and SOLAS design requirements	USPH-S, NORSOK, DNV-GL or NFPA 96
Duct spigots	Duct flanges ISO 15138
Mounting brackets	
	MUAP – Make-up Supply Air
	Water Wash (+ Misty)
	VéTEC® - Demand Control Ventilation System
	Maestro - Galley Management System
	Victoria – Intelligent Monitoring System
	Powder coated in any RAL colour
	Fire suppression system

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