



Our **TechniKlean UVGI** units are the perfect solution for introducing UVGI technology into new and existing ductwork, within a vast range of sectors.

Designed for continuous operation with minimal maintenance, TechniKlean UVGI are high efficiency in-duct UVGI units. Their high output, non-ozonating UV lamps produce high intensity UVC light at 254nm and boast an operating life of up to 10,000hrs.

The TechniKlean UVGI comes in three variations; 2 lamps, 6 lamps and 8 lamps. Starting with 100 x 555 x 120 (HWL mm)*, this features the option of connecting multiple units for increased volume or efficiency. Finished in Grade 304 stainless steel and weighing just 3kg, the compact unit can be installed into ductwork via an access panel or into a purpose built unit or AHU accordingly.

Moving up to the corrosion resistant, Zintech finished units; the six and the eight lamp UV-C variants measure in at 525 X 1055 X 80. For high volume installations, these 12 and 14kg units can also be joined together for even greater efficiency.

Combining the very latest long-life lamps with perfectly matched power supplies, TechniKlean UVGI delivers superior performance and enhanced lifetime.

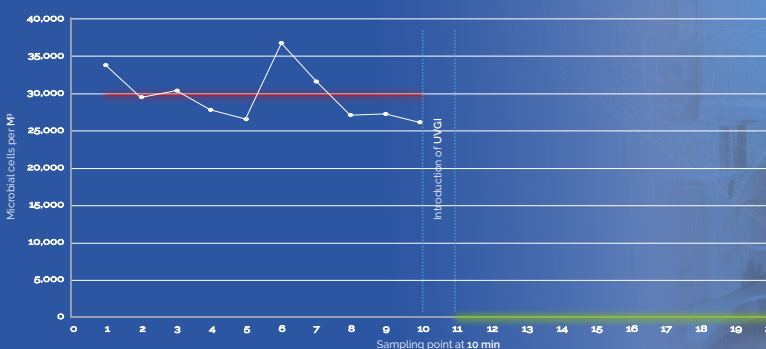
PRODUCT SPECIFICATION

Model	TechniKlean UVGI 2 lamps	TechniKlean UVGI 6 lamps	TechniKlean UVGI 8 lamps
Dimensions (HxWxLmm)	100 x 555 x 120	525 x 1055 x 80	525 x 1055 x 80
Air Volume	Up to 0.24m ³ /s	Up to 2.1 m ³ /s	Up to 2.8 m ³ /s
Power	200W	525W	700W
Weight	3kg	12kg	14kg
Supply	230Vac / 1 phase / 50-60Hz		
Min/Max working temperature	4 / 60°C		
Max relative humidity	75%		
Pressure	<50Pa		

*Plasma Clean is continuously improving its products and services and reserves the right to alter designs without prior notice

99+% DISINFECTION RATE

UVC light at 254nm is known as 'germicidal irradiation' due to its lethal effect on micro-organisms. Independent testing conducted at the University of Leeds, showed a reduction of over **99%** of viruses, bacteria, spores and fungi when exposed to our UVGI products. Tests were conducted using a range of biological indicators designed for the pharmaceutical, food and medical device industries.



Read the full findings via Plasma-Clean.com/leeds

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Introduction to UVGI • Ultraviolet Germicidal Irradiation

Ultraviolet light in the c-band range (225–302 nm) is lethal to micro-organisms and is referred to as ultraviolet germicidal irradiation (UVGI). UVGI works by cross linking nucleic acids (DNA & RNA) to prevent replication and proliferation of micro-organisms such as viruses, bacteria, spores, moulds, yeast and fungi. It is important to use the correct UV-C dosage in order to achieve high kill rates. Low intensity UVC can be used for surface treatment as there is a long UVC exposure time whereas high intensity UV-C is required for air treatment as the exposure time is short. Plasma Clean UVGI systems are sized to achieve up to 99% microbial kill rate for common microbes based on UV-C dosage tables in the scientific literature as well as independent testing carried out by Plasma Clean.

Plasma Clean's UVGI **in-duct range** consists of the CoilKlean UVGI for surface treatment of heat exchange coils, plus our TechniKlean UVGI series designed to treat air in building ventilation systems. Our **standalone units** include the 'plug and play' AirKlean UVGI, the RoomKlean UVGI for upper room disinfection, and the MobiKlean UVGI for safety and quickly disinfecting entire rooms.

Air Treatment using TechniKlean UVGI

The TechniKlean UVGI range has 2, 6 & 8 lamp options and designed to fit inside an Air Handling Unit where the linear velocity is approximately 2.5m/s. The design duty for this range is as follows:

Products	Maximum duty for 90% kill (m ³ /s)	Maximum duty for 99% kill (m ³ /s)*
TechniKlean UVGI 2L	0.24	0.12
TechniKlean UVGI 6L	2.1	1.2
TechniKlean UVGI 8L	2.8	1.6

*In a duct measuring up to 600mm H x 1200mm W x 600mm length of 'kill zone' with linear velocity no greater than 2.5m/s

Sizing of Equipment – TechniKlean UVGI

To accurately specify the correct equipment to ensure optimum germicidal performance, the following information is required:

- Volume flow rate – m³/s
- Height x Width and Length of the AHU compartment where the UVGI equipment is to be installed
- Temperature
- % recirculating or fresh air?*
- Type of micro-organism that is being treated**

Installation

For best results, TechniKlean UVGI 2L systems are to be installed with the UVC lamps parallel with air flow known as 'axial flow' configuration and UVGI 6 & 8L systems are to be installed with the UVC lamps perpendicular to air flow known as 'crossflow' configuration. This can be achieved by installing runners into the air handling unit (not supplied). It is important to ensure that the UVC light intensity throughout the kill zone is maintained and systems must be designed so that the maximum distance from the lamp to the edge of the effective kill zone is no more than 300mm from the lamp. This will create an effective kill zone of 600mm for the TechniKlean UVGI 6L and 8L units. For surge protection purposes it is recommended to install a Class D MCB circuit breaker in the electrical supply.

Kit Contents

TechniKlean UVGI lamp rack with built in ballast box
Mains power cable – 2m

Accessories

Control panel with air flow interlock and fault relay with BMS connectivity. Other control panels are available, please enquire.
UV light guards

Safety

For UV-C safety, an internal safety switch is located in the 6L and 8L lamp frame which requires a door mounted actuator to activate, please enquire.

Maintenance

A Plasma Clean service contract is available (please enquire) and in any case Plasma Clean would recommend:

- Servicing is normally confined to the regular cleaning of the UV-C lamps as part of a maintenance programme managed by Plasma Clean or a Plasma Clean approved contractor
- For maximum efficiency establish a regular cleaning cycle based on routine checks of the UV lamps during the first few months of use.
- The UV lamps have a normal operating life of 10,000 hrs after which time they should be replaced

Technical Drawing

Please contact our Technical Helpdesk if a CAD drawing is required.

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