



TECHNICAL SPECIFICATION

Model: Techniclean CM Canopy Mounted UV-c Kit

Purpose: The Techniclean CM UV-c range has been designed specifically for commercial kitchens, for installation inside the extraction canopy. For duct mounted units please refer to the Techniclean Duct-Mounted range.

The units feature high output UV-c lamps which produce ozone. Grease and odours from the cooking process are attacked first by UV-c light in a process known as photolysis. Ozone then continues to act as the exhaust air moves through the ductwork by a process known as ozonolysis.

As a result, airborne grease and odour are removed, which would otherwise be a nuisance to neighbouring properties. This also reduces grease in the ventilation ductwork so saving money on duct work cleaning and the maintenance of any downstream equipment.

Sizing: The system is sized according to the following parameters to ensure maximum exposure to UV-c light inside the canopy and exhaust air. Ozone produced by the UV-c lamps will continue to react with grease and odour in the exhaust duct. For best results, a two second dwell time after the UV-c system is recommended.

Important design parameters:

1. Width of canopy
2. Volume flow rate (m^3/s)
3. Equipment served / proposed cooking
4. Number of spigots (normally 1 spigot per 2460mm section)

Specification: The UV-C system shall consist of:

1. High efficiency primary Grease Filters (not included, please refer to Plasma Clean Coil Filters).
2. Mesh type light guard(s) located between the Grease Filters and the UV-c lamp rack(s). 2 light guards per short rack and 4 light guards per long rack. Nominal size (mm) up to 350H x 440W.
3. Stainless steel lamp rack(s) containing 2, 3, 4, 5, 6 UV-C long or 2, 4, 6 short lamps which shall be located in the extract canopy plenum.
4. A separate ballast box shall be connected to the lamp rack(s) by a cable no more than 2.5m in length; the ballast box shall be located on top of the canopy or in the air intake plenum.
5. Control panel shall incorporate pressure transducers / air flow interlock to ensure that the system switches off when there is no air flow or when one or more Grease Filters are removed. This is to prevent exposure to ozone and to UV-c light.
6. Fan run on is recommended to ensure that ozone does not fall back into the kitchen.
7. The units are supplied with a flying lead to enable fault detection via a current loop located in the control panel. A volt-free signal option is available, please enquire.
8. For high levels of grease and smoke particulate, additional duct mounted equipment may be required. Please enquire.
9. When extracting into sensitive areas, activated carbon shall be used to remove any residual ozone produced by the UV-c lamps.
10. A Class D MCB circuit breaker is required in the electrical supply (by others).

Technical Data:

| Product | Capacity ¹ (m ³ /s) | Supply | Power (W) | Frame Dimensions ² (mm) | Weight (kg) | Pressure drop (Pa) |
|---------------------------------------|----------------------------------------------|--------------------|--------------|------------------------------------|----------------|-----------------------|
| UVC2S | 0.47 - 0.37 | 1ph / 230V / 0.76A | 175 | 350 H x 882.2 W x 79 D | 10 | <50 |
| UVC4S | 0.93 - 0.73 | 1ph / 230V / 1.52A | 350 | 350 H x 882.2 W x 79 D | 10 | <50 |
| UVC6S | 1.40 - 1.10 | 1ph / 230V / 2.27A | 522 | 350 H x 882.2 W x 79 D | 10 | <50 |
| UVC2L | 0.86 - 0.65 | 1ph / 230V / 1.35A | 310 | 350 H x 1601 W x 79 D | 12 | <50 |
| UVC3L | 1.29 - 0.98 | 1ph / 230V / 2.03A | 465 | 350 H x 1601 W x 79 D | 12 | <50 |
| UVC4L | 1.72 - 1.30 | 1ph / 230V / 2.7 A | 620 | 350 H x 1601 W x 79 D | 12 | <50 |
| UVC5L | 2.15 - 1.63 | 1ph / 230V / 3.38A | 775 | 350 H x 1601 W x 79 D | 12 | <50 |
| UVC6L | 2.58 - 1.95 | 1ph / 230V / 4.04A | 930 | 350 H x 1601 W x 79 D | 12 | <50 |
| | | | | | | |
| Light guard | | | | 350 H x 270 / 440 W x 25 D | 1.5 | 50 |
| Ballast box | | 1ph / 230V | | 80 H x 525 W x 322 D | 10 | |
| UV-C Control panel³ | | 1ph / 230V | | 205 H x 248 W x 90 D | 2 | |
| RKPB-01 Emergency Stop | | 1ph / 230V | | | | |

¹Normal - Heavy cooking duty

² Add 200mm to width include lamp ends, connector and umbilical

³Single channel can handle up to 10A

Finish: Lamp frame - 304 Stainless steel. Ballast Box - Zintec / Blue Epoxy Powder Coat

Approvals: Plasma Clean air cleaners comply with current CE requirements and EMC standards. Certificates are available on request.

Warranty: One year manufacturer's warranty for parts and labour. Terms and conditions apply. Optional maintenance packages available, sold separately.

Terms: In accordance with our standard terms of business.

MAINTENANCE

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

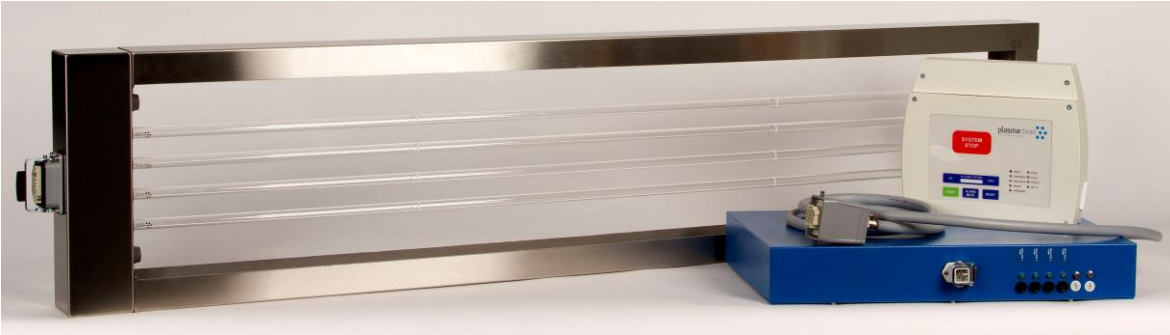
- Servicing is normally confined to the regular cleaning of the UV-c lamps as part of a maintenance programme managed by Plasma Clean or a Plasma Clean approved contractor
- For maximum efficiency establish a regular cleaning cycle based on routine checks of the UV lamps during the first few months of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



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CANOPY MOUNTED UV-c KIT WITH CONTROL PANEL

LONG RACK KIT



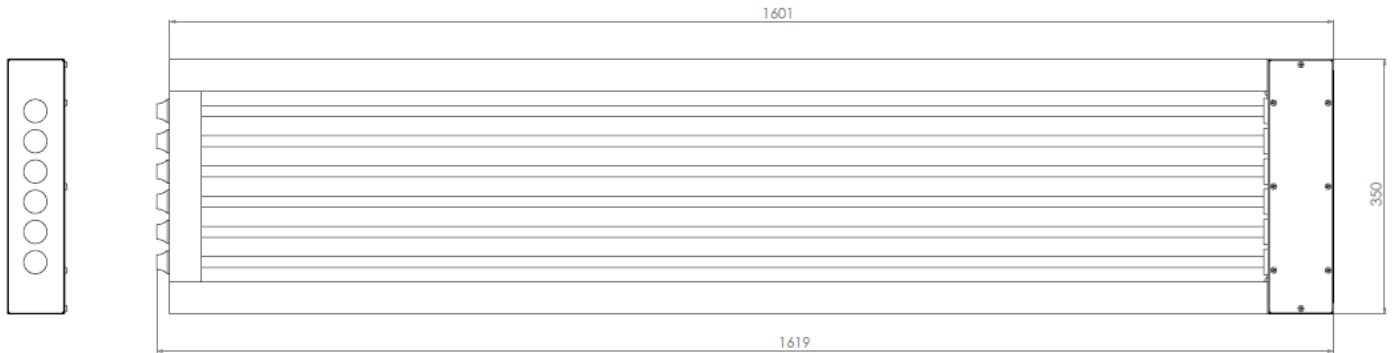
SHORT RACK KIT



Technical Drawing: Techniclean Mounted UV-c Kit

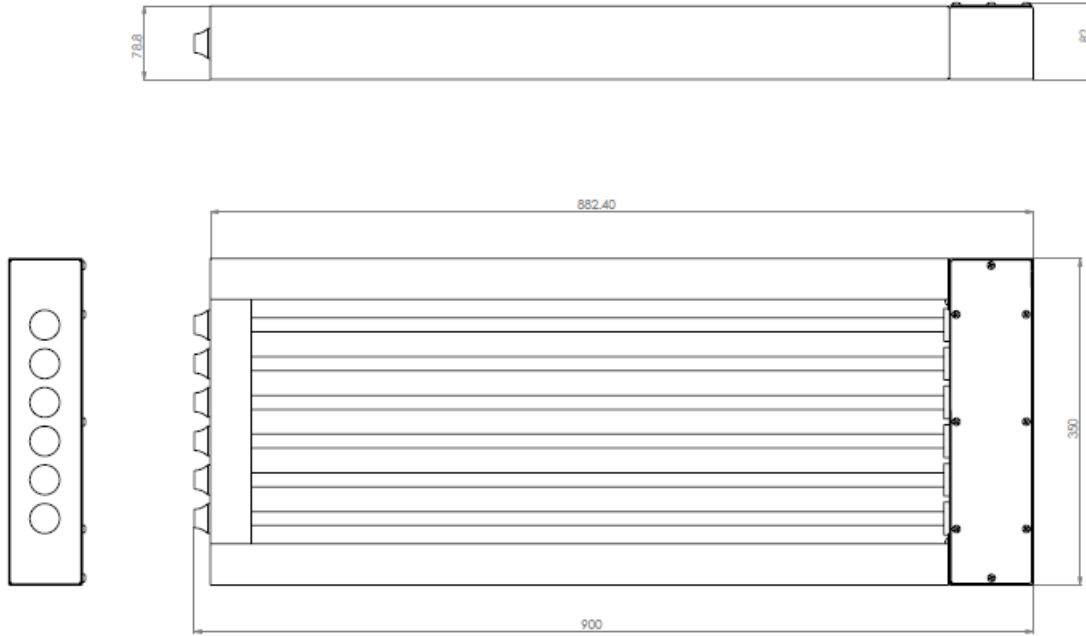
Please contact our Technical Helpdesk if a CAD drawing is required.

Long rack:



Short rack:

TECHNICAL SPECIFICATION



Ballast box:

