

UV-C, HEPA & Ozone Solutions



SPECIALISED FILTRATION SOLUTIONS (HEPA, UV-C, OZONE)



SME offers a comprehensive portfolio of specialised filtration solutions for a variety of industries and applications. The three primary methods of specialised filtration accepted for use in industry is:

- ▶ High efficiency particulate air (HEPA) filtration.
- ▶ UV-C filtration.
- ▶ Ozone filtration.

Careful consideration and care should be exercised when choosing the appropriate method of filtration. Each method has its own associated limitations and benefits as described herein to ensure a better understanding of the selection process.

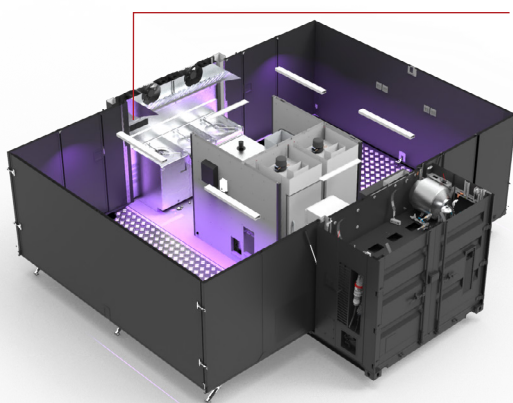
All three of the above specialised filtration methods have been around for many years and have proven records to demonstrate features and benefits for various applications. Where cleaner environments are provided and harmful micro-organisms such as moulds, bacteria, viruses, and spores are dramatically reduced. The correct filtration solution offers an array of benefits to not only human health, but also the shelf life of produce for human consumption.

These specialised filtration solutions are easily integrated for any application and the large variety of solutions offered by SME enables the client to select the unit which best matches their requirements.



5 - Vehicle / Cabin unit, OR

7 - Low capacity modular unit



6 - Recessed ceiling unit (surface), OR

7 - Low capacity modular unit

A



B



C



D



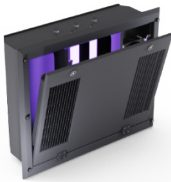
SPECIALISED FILTRATION APPLICATIONS

SME offers a variety of UV-C / HEPA specialised filtration solutions for various applications from air to surface filtration. The proposed applications for each of the following units are provided in the table below:

1 – HVAC / ON-COIL UNIT



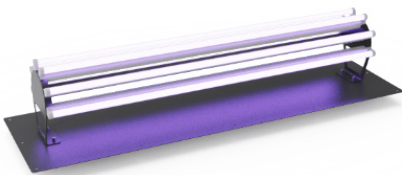
2 – RECESSED CEILING UNIT (AIR)



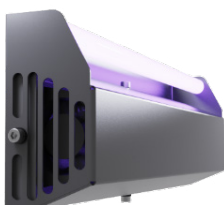
3 – HIGH CAPACITY MODULAR UNIT



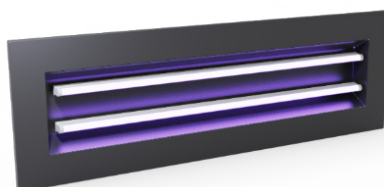
4 – IN-DUCT UNIT



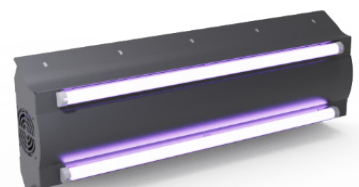
5 – VEHICLE / CABIN UNIT



6 – RECESSED CEILING UNIT (SURFACE)



7 – LOW CAPACITY MODULAR UNIT

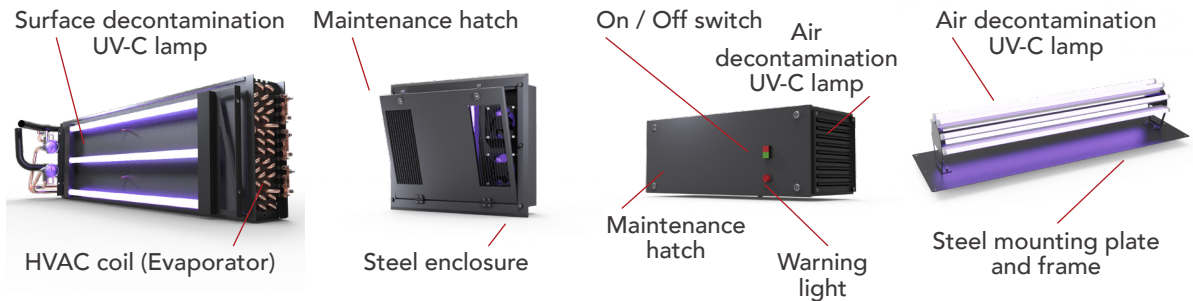


| SPECIALISED FILTRATION | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------|---|---|---|---|---|---|---|
| Public transport: | | | | | | | |
| Trains / Coaches | • | | | • | | • | |
| Buses | | | | | | • | • |
| Shuttles | | | | | • | | • |
| Mining & industrial: | | | | | | | |
| LDV's to HDV's | | | | | • | | |
| Cabins | | | | | • | | |
| Control rooms | | • | • | | | • | • |
| Agriculture: | | | | | | | |
| Food processing | • | | | • | | • | • |
| Packaging | | | | | | • | • |
| Commercial & health care: | | | | | | | |
| Office spaces | • | • | | • | | • | • |
| Boardrooms | | • | | | | • | |
| Waiting areas | | • | | | | • | |
| Operating rooms | | • | | | | • | |
| Intensive care | | • | | | | • | |
| Military: | | | | | | | |
| Transport vehicles | | | | | • | | |
| Base camps | | • | • | | | • | • |

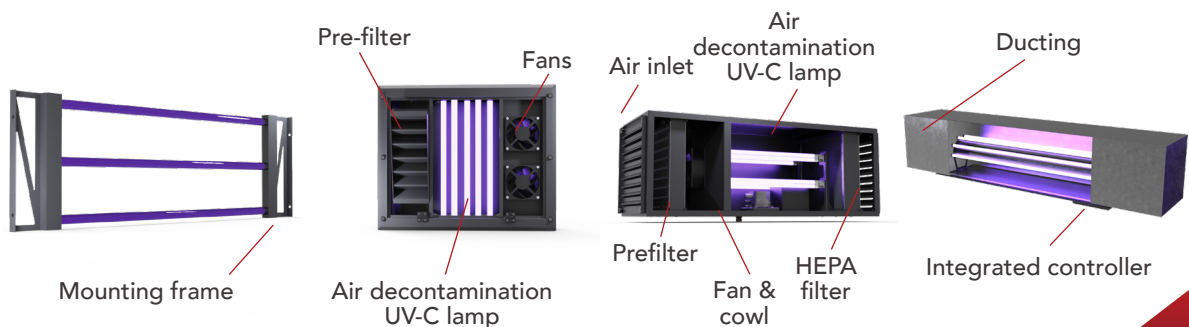
* Ozone solutions to be quoted for on special request.

SPECIALISED FILTRATION UNIT SPECIFICATIONS

| Name: | HVAC/On-coil Unit | Recessed ceiling unit - Air | High capacity modular unit | In-duct Unit |
|---------|-------------------|-----------------------------|----------------------------|--------------|
| Number: | 1 | 2 | 3 | 4 |

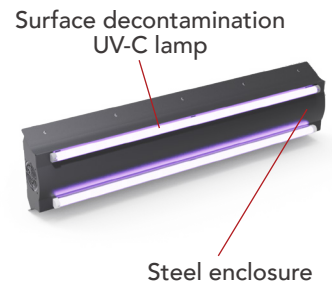
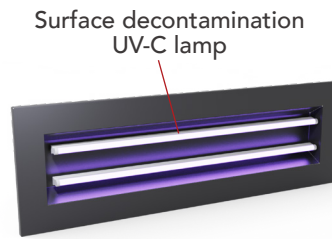
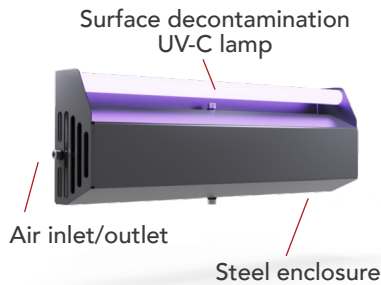


| SPECIFICATIONS: | | | | |
|----------------------------|--|---|--|---|
| Overall dimensions: | Lamp sizes range from 300 mm up to 1200 mm. | 660 x 525 x 250 mm | 900 x 335 x 335 mm | 1400 x 400 x 350 mm |
| Weight: | Dependant on the number of lamps and the mounting method. | 18 kg | 25 kg | 8 kg |
| Power usage: | 220 VAC, 50 Hz Total power consumption is different for each unit and is subject to the final design. | 220 VAC, 50 Hz 300 Watt | 220 VAC, 50 Hz 300 Watt | 220 VAC, 50 Hz 300 Watt |
| Face velocity | | | | Airflow will be provided by the HVAC system. Maximum allowed face velocity of 4 m/s. |
| Airflow rate: | Airflow will be provided by the HVAC system. | 800 m³/h | 800 m³/h | |
| Specified volume: | | 150 m³ to 250 m³ for three to six air changes per hour. | 150 m³ to 250 m³ for three to six air changes per hour. | |
| Lamp replacement: | 15 000 hours | 15 000 hours | 15 000 hours | 15 000 hours |
| Coating: | Unit to be manufactured from stainless steel and will not be coated unless specified otherwise. | Outer lid and frame to be powder coated to the customers' requirements. | Unit to be manufactured from stainless steel unless specified otherwise. | Unit to be manufactured from stainless steel and will not be coated unless specified otherwise. |
| Filtration: | Surface, however, a degree of air filtration can be expected. | Air | Air | Air, however, if installed near coils it could provide additional surface filtration. |



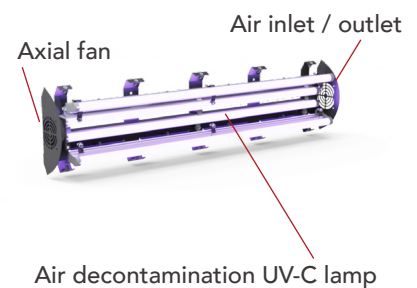
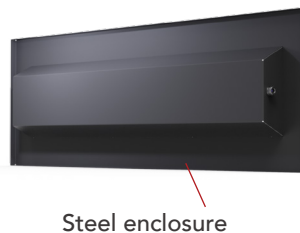
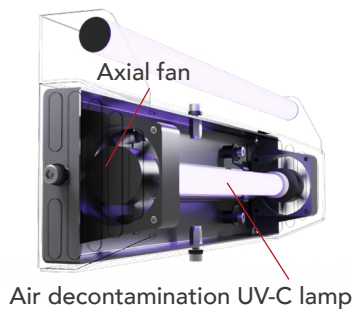
SPECIALISED FILTRATION UNIT SPECIFICATIONS

| Name: | Vehicle / Cabin Unit | Recessed ceiling unit - Surface | Low capacity modular unit |
|---------|----------------------|---------------------------------|---------------------------|
| Number: | 5 | 6 | 7 |



SPECIFICATIONS:

| | | | |
|----------------------------|--|---|--|
| Overall dimensions: | 440 x 120 x 80 mm | 1500mm x 470mm x 90 mm | 1000 x 260 x 125 mm |
| Weight: | 4 kg | 5 kg | 9 kg |
| Power usage: | 220 VAC, 50 Hz 30 Watt For vehicle applications, the unit will require an inverter to convert the 12V battery supply to 220 VAC which is required by the unit. | 220 VAC, 50 Hz 120 Watt | 220 VAC, 50 Hz 220 Watt |
| Airflow rate: | 120 m ³ /h | | 170 m ³ /h |
| Specified volume: | 20 m ³ to 40 m ³ for three to six air changes per hour. | | 30 m ³ to 60 m ³ for three to six air changes per hour. |
| Coverage area: | Approximately 3 m ² at a distance of 1.5 m. | 10 m ² at a distance of 2.5 m. | 9 m ² at a distance of 2.5 m (only applicable for unit with lamps fitted on the outside). |
| Lamp replacement: | 15 000 hours. | 15 000 hours. | 15 000 hours. |
| Coating: | Unit to be manufactured from stainless steel and will not be coated unless specified otherwise. | Unit to be manufactured from stainless steel and will not be coated unless specified otherwise. | Unit to be manufactured from stainless steel and will not be coated unless specified otherwise. |
| Filtration: | Air and / or surface depending on unit selection. | Surface | Air and / or surface depending on unit selection. |



* Option without surface decontamination lamp also available.

** Standard light fitting option also available.