

UNIT SPECIFICATON

The product is an air filtration device which draws indoor air through ePM1, ePM10 and HEPA14 filters in a 2-stage filtration process to remove harmful bacteria, viruses, and airborne particles. The products can offer this level of filtration over a range of airflows, which cover a range of floor areas. The largest floor area the units can cover is 182m². Multiple units can be used to cover larger areas. 99% of viruses and bacteria can be reduced using the HEPA filter on all models. These filters are housed in a durable steel housing. The product consists of an inlet and outlet grille, a motor, silencers, and filters. The product is recommended to be used in areas that cannot be ventilated or cannot increase the ventilation extract rates. Power to the unit is provided by a plug, and all control options are built into the unit. Once the product is installed, all that is required is to set the operating airflow using the speed dial. The recommended air change rate of the space the unit is to be installed in will be provided as a service by airflow developments. However, the speed can be freely adjusted up or down by the user. Once installed, the occupants need only check the filter change LEDs and refer to the maintenance document to maintain the air quality.

CONTROL OPTIONS

The units are controlled through a potentiometer/speed controller device, which is located on the front of the M650 and M850 units, and on the side of the T1750 and T2200. This can be pushed in to power the unit and acts as a speed controller for setting desired airflow rates. No other control is necessary. Electrical connection is made through a standard UK kettle plug. 230V.

INSTALLATION

The M650 and M850 units are mobile lightweight units with wheels on the bottom of the unit for easy movement. The larger T1750 and T2200 require movement by forklift or crane. Once installed in location they will last for the lifetime of the product. Feet are installed on the larger units, and they come with wall attachment devices to prevent movement. The units should be installed in a location with clearances of between 1200mm and 4000mm for free airflow on the outlet grille. Do not seal the unit in place, do not concrete it or install into a wall, floor, or ceiling, do not seal the T1750 and T2200 product door and allow easy access for the potentiometer device. Consider how the units will be maintained in a space. The M650 and M850 can be easily turned around for access to the back panel and the T1750 and T2200 only require free access to the front product door.

TRANSPORTATION

The product comes fully boxed and contains a full instruction manual with maintenance schedule. The packaged weight of the products is 42kg for the M650, 48kg for the M850, 240kg for the T1750, 290kg for the T2200. Transport will require forklift, crane or another device.

OPERATION

The unit is intended to filter out harmful bacteria, viruses, pollution, and other contaminants out of the indoor air, using HEPA and EPM filters. The unit is not intended to supply or extract air, it recirculates and purifies the existing air inside the space. The device is primarily an air filtration device, and the 2-stage filtration is very effective at removing 99.99% of particles sizes 0.3-1µm. It is intended to reduce the airborne virus load for viruses such as SARS-CoV-2 and others. The indoor air is drawn through the EPM filters and then through a HEPA filter. This process filters or "purifies" the indoor space. It is intended for schools, restaurants, offices, and commercial spaces but can also be used in residential settings. Air purifiers are a recommended alternative for unventilated spaces that cannot increase extract or supply air rates but must increase the indoor air quality.

KEY FEATURES

The features and benefits of the unit are:

- High airflow rates for a wide range of applications both commercial and residential.
- One product capable of covering a maximum area of 183m² so large spaces are easily covered with complete protection.
- Easy user control system, once set up no further interaction required
- Low maintenance unit with filter change indication.
- Highly efficient HEPA and EPM filters with 99.99% virus reduction efficiency.

COMMISSIONING

The unit has a set range of speeds which offer a fixed airflow rate through the filters. Once the required airflow rate is calculated for the room, the most appropriate setting must be selected by turning the speed dial on the units. This can also be adjusted for user comfort.

MAINTENANCE

Maintenance schedules are covered in the instruction manual. The filters will require semi-annual replacement and regular checks for full effectiveness. When a filter needs to be replaced it will be displayed on the LED display on the units. Replacement filters are only available from airflow. Maintenance of the other units.

FILTER EFFICIENCY

The units contain a mix of EPM1 and EPM10 filters with between 70 and 80% efficiency and all contain a HEPA 14 filter. These are all individually tested and verified to EN 1822-1:2009, from which ISO 29463 originates. These standards are for measuring the effectiveness of air filters.

- M650: ePM 10 (70%), HEPA 14
- M850: ePM 10 (70%), HEPA 14
- T1750: ePM 10 (70%), ePM1 (80%), HEPA 14
- T2200: ePM 10 (70%), ePM1 (80%), HEPA 14