

## **O & M INSTRUCTION**

### **PRODUCT GROUP 1513 - HEPA FILTER CASSETTES**

#### **Safety**

It is recommended that industrial gloves, overalls, eye protection and nuisance dust masks are utilised when changing filters which have been subjected to natural air, as opposed to air drawn from processes, where full risk assessments should be performed prior to changing. For some filters, an assessment regarding manual handling will need to be made.

Changing of filters should be carried out by experienced or trained personnel, in accordance with safety requirements as defined by the "Control of Substances Hazardous to Health" (COSHH) Regulations.

#### **General**

The design of the HEPA Filter Cassette Module positively prevents any unfiltered air from entering the pressurised Clean Room, and this fact assists in the changing compared to any other method.

It is not necessary to close down the clean room facility whilst a cassette is being changed, as the quality of the air within the room is maintained. However it is desirable for operations immediately below the filter to be suspended and for any benches/equipment to be covered.

Depending upon the design of the facility, the whole change operation can be performed from above the ceiling as detailed below.

#### **Procedure**

1. Perform a DOP Test on the new HEPA cassette filter, using a portable test bench, which ensures the integrity of the filter following transportation from the factory, where the filter had last been tested.
2. Arrange the new cassette in a location adjacent to the cassette to be changed, ensuring that free access from this position to the new position and visa - versa is available.
3. Turn off the airflow to the old cassette via the balancing damper within the solid ductwork (if not fitted then continue as detailed )
4. Disconnect the flexible duct from the old cassette and reconnect it to the new cassette.
5. Turn on the airflow to the new cassette and allow it to purge for a period of 10 minutes, whilst this is occurring the room pressure is maintained by the other

cassettes, but you will find a reverse airflow is occurring through the old cassette. Purge at rated airflow.

6. Disconnect any clamps/fittings/ties from the old cassette.
7. Lift the old cassette vertically to ensure clearance of any grilles/light fittings/ceiling supports, and move to a convenient location away from the new cassette.
8. Lift the new cassette into its new location.
9. Refit the clamps or ties.
10. Adjust airflow to desired level.
11. Check the performance of the new HEPA filter cassette using a particle analyser.

#### **Disposal of Air Filters Including Personal Protective Equipment**

- Filters and PPE have been damaged prior to use can be disposed of as normal industrial waste.
- Filters and PPE soiled with exterior air can be disposed of as normal industrial waste.
- Filters and PPE soiled by process air, bacterial, toxic and/or radioactive matter must be disposed of as Hazardous Waste in accordance with local regulations of the site and Environmental Health. Legislation prohibits removal of this waste from the site location.

For further information please contact Airclean Ltd-