



# ULTRASTAR REPLACEABLE TERMINAL MODULE RTM-03 SPECIFICATION

## 1.0 Scope

This specification covers filters for use for cleanroom or similar applications.

## 2.0 Performance characteristics

- 2.1 Filters shall be Ultrastar Replaceable Terminal Module manufactured by Filtration Group. The size of the filter shall be \_\_\_\_ x \_\_\_\_ x 6.87". Overall dimensions shall be correct to within +0", - 1/8".
- 2.2 Each filter shall be tested and certified to have an efficiency of not less than
  - for HEPA filter 99.99% at 0.3  $\mu\text{m}$ .
  - for ULPA filter 99.9995% at 0.1 – 0.2  $\mu\text{m}$ .
- 2.3 Each filter shall be scan tested at the factory and certified in accordance with IES-RP-CC-001.3.
- 2.4 The clean filter static pressure drop shall be no greater than:
  - for HEPA filter efficiency 99.99% at 0.3  $\mu\text{m}$ , 0.46" w.g.
  - for ULPA filter efficiency 99.9995% at 0.1 – 0.2  $\mu\text{m}$ , 0.68" w.g.When tested on a volumetric basis of 100 cfm per square foot of active filter face area.
- 2.5 The filters shall be approved and listed by Underwriters Laboratories Inc Class 2 when tested according to UL Standard 900.

## 3.0 Physical characteristics

- 3.1 The filter frame shall be manufactured in anodized extruded aluminum and the sides of the frame shall be joined together so that any contamination of the filter by metal shavings is prevented (frame corners are secured with corner clips). Sharp edges where the edges are joined together will not be accepted
- 3.2 The media pack shall be 2.5" (63 mm) high with 6.5 pleats per inch.
- 3.3 Each filter shall have a white epoxy powder coated downstream screen.
- 3.4 The filter frame shall be equipped with provision for attachment of seismic restraints or wire hangers at each corner.
- 3.5 The hood and collar assembly shall be galvanized steel with a 10" or 12" diameter collar.
- 3.6 Center divider shall have one access port for monitoring upstream concentrations or airflow balancing.



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- 3.7 The filter is shall be kept securely in place with support strips in anodized extruded aluminum. The filter shall be changeable without the use of tools
- 3.8 The filter shall have an upstream gel track that is being sealed up into a knife-edge in the filter housing.
- 3.9 The diffusion disc shall be made in 0.50" perforated aluminum and by using a screwdriver adjustable to 90 FPM ( $\pm 20\%$ )<sup>2</sup>
- 3.10 Filter media shall be micro glass fiber type minipleated into closely spaced pleats with string adhesive separators.
- 3.11 The media pack shall be sealed on all sides with a solid UL-classified polyurethane sealant and form a completely leak proof seal with the frame.
- 3.12 Gasket seal filters shall be provided with a 1/4" x 3/4" closed cell urethane gasket. Gasket joints to be dovetailed and filled with adhesive to assure a positive seal.
- 3.13 Filter labels shall have the following information:
  - Tested efficiency
  - Tested airflow
  - Initial resistance at tested air flow
  - Serial number
  - Part number
  - Filter type according to IES-RP-CC-001.3

### 4.0 Quality System

- 4.1 The manufacturer shall have implemented, or be in process of implementing, an approved international quality system based on ISO 9000 at the facility manufacturing this product
- 4.2 If requested manufacturer shall make available a copy of their Corporate Quality Manual.
- 4.3 If requested the manufacturer shall make available printed performance test results (letter of compliance).