



# **Terminal Filter Modules (Mini Pleat Series)**

#### Feature:

High Quality Construction in a Highly Versatile Design. Terminal Filter Modules are designed for standard T- bar ceiling grids or Gel seal ceiling grid system use. It's easy and simple to install and maintain these thin and lightweight units.

The module can be flexibly designed to meet customer spec's demand. By selecting among pack depth, media efficiency, air capacity and inlet size, the clean room designer can configure the unit to meet spec requirements and operating cost.

Depending on the number of units used in the ceiling, the rate of air recirculation and clean room overall design, Airrex Terminal Filter Modules is able to provide cleanliness levels from Class 1 to Class 100,000.

#### The unique Benefits:

- ※ To eliminate the concern of air blockage is better than Deep Pleat Type Air Filer.
- With Anticorrosive and Anodized Extruded Aluminum Housing Construction.
- ※ Four (4) suspending holes to provide seismic protection and reduce the stress load ofgrid.
- ※ Dimpled inlet collars help to secure the HVAC ductwork and prevent slippage.
- ※ 100% quality control- every unit is tested and certified to meet efficiency and pressure drop requirements.

#### **Factory Testing**

Airrex tests all terminal filter modules to be in accordance with the International Environmental Science recommended particles standard. Test result including of penetration value (%) and pressure drop (inch/w.g.) will be recorded on filter label and carton label.

# **Capacity vs Pressure Drop**

The EN 1822 Test Machine examines each filter's Capacity vs Pressure Drop. Capacity test is according to volumetric parameters, i. e., 100 CFM per square foot of filter face area, which is an expression of the volume of air moving through the filter.

# Scan Test

In addition to the efficiency test and penetration test, by using a laser particle counter to scan each filter surface and edge to examine any pinhole leakage. Readings greater than 0.01% of the upstream concentration are determined as unacceptable; the filter must be rejected or repaired and retested.

### **Efficiency:**

According to European Standard EN1822, by testing the particle concentration of upstream & downstream area, efficiency is from 99.99% to 99.999% @0.3 micron (H13-14) size particles HEPA filter; and 99.999% - 99.99999% @ 0.1-0.2 micron (U15-U17) size particles ULPA filter.

#### Media:

Media is made from ultra fine glass fiber formed with high density papers. Each pleat is spaced by hot-melt adhesive to allow air flow through the filter with minimum resistance.

### **Housing Material:**

Anodized Extruded Aluminum construction. Inlet size is available for 8"-14". Total Height is 150 mm excluding of the height of Inlet. Height of Inlet is 80mm. Material of upper casing is 1.0mm thickness Painted Steel.



# **Performance Data – Terminal Filter Modules (Mini Pleat Series)**

| Efficiency       | Nominal<br>Size | Actual Size  | Rated<br>Capacity | Initial<br>Resistance | Particle<br>size |  |
|------------------|-----------------|--------------|-------------------|-----------------------|------------------|--|
|                  | (W*H*D)         | (W*H*D)      |                   |                       |                  |  |
| (%)              | (inch)          | ( mm )       | (CMH)             | (Pa)                  | ( um )           |  |
| 99.97<br>99.99   | 24*24           | 570*570*140  | 450               | 103                   | 0.3              |  |
|                  |                 | 600*600*140  | 430               | 92                    |                  |  |
|                  | 24*40           | 570*1170*140 | 000               | 97                    |                  |  |
|                  | 24**40          | 600*1210*140 | 900               | 87                    |                  |  |
| 99.9995<br>(5N5) | 24*24           | 570*570*140  | 450               | 108                   |                  |  |
|                  |                 | 600*600*140  | 450               | 96                    | 0103             |  |
|                  | 24*48           | 570*1170*140 | 000               | 101                   | 0.1~0.2          |  |
|                  |                 | 600*1210*140 | 900               | 93                    |                  |  |

\* Special Sizes are available upon request.

# **Material and Service Conditions**

| Туре                  |  |                                     | Description                  |           |                                     |    |
|-----------------------|--|-------------------------------------|------------------------------|-----------|-------------------------------------|----|
| Construction          | Media                                  | Ultra-Fine Glass Fiber Filter Paper |                              |           |                                     |    |
|                       | Support Grid                           |                                     | Hot Melt Adhesive            |           |                                     |    |
|                       | Sealant                                | PU BASE                             |                              |           |                                     |    |
|                       | Gasket Material                        | Neoprene Rubber                     |                              |           |                                     |    |
|                       | Gasket Location                        | Non D                               |                              | ownstream |                                     |    |
|                       | Housing Type                           | Gasket Type                         |                              |           |                                     |    |
|                       | Housing Material                       | Anodized Extruded Aluminum          |                              |           |                                     |    |
|                       | Face Guard Materia                     | Expanded Painted<br>Steel Metal     |                              | Anoo      | Anodized Extruded<br>Aluminum Metal |    |
|                       | Face Guard Location                    | Downstream                          |                              |           |                                     |    |
|                       | Inlet Size (inch)                      |                                     | 8                            | 10        | 12                                  | 14 |
|                       | Inlet Height (mm)                      |                                     | 70                           |           |                                     |    |
|                       | Insulation Material                    |                                     | PE                           |           |                                     |    |
|                       | Insulation Thickness (mm)              |                                     | None<br>無                    |           | 10                                  | 25 |
| Service<br>Conditions | The maximum continuous use temperature | °C                                  | 60                           |           |                                     |    |
|                       | Instant Highest Humidity               | % RH                                | 100 ( No condensation state) |           |                                     |    |