Terminal-Housing with Inserted HEPA Filter
Type HT

Overview

The HT Terminal High Efficiency Filter is designed and tested to extract the smallest particles out of the air. Each HT Housing Filter contains a 'Minipleat-Filter' available in different heights with a new application technology of 'Polymeric Spacers' to achieve the lowest pressure drop results.

The filter can be changed from the inside of the room, an option that makes maintenance faster, easier, and therefore, cost-efficient.

FEATURES

- Easy filter installation (change) from inside the clean room
- Efficiencies of 95% up to 99.9995% (@ 0.3 μm)
- High quality micro fibreglass media
- Lowest initial pressure drop
- Adjustable airflow by means of a damper
- Two different damper designs
**FEATURES:**

- Anodized rigid aluminium frame
- High quality standard due to Quality Assurance System
- Tested by laser particle counting system
- High economic through high final pressure drop
- For use in clean rooms up to class 1

**Design**

The filter frame is made from an anodized extruded aluminium profile with two-angled corners, producing a rigid, straight frame. The zinc-coated hood with attached collar is tie-glued onto the top of the housing. On the damper (version A), the aerosol/pressure drop checking-inlet is situated in a special middle bridge and is adjustable from downstream. The fibre-glass media, which is pleated in ‘Minipleat shape’ (available in three (3) different heights (47, 56, and 70 mm)) is cast into the filter frame and middle bridge. This design gives a highly active filter surface and ensures the minimal pressure drop of the HT model.
Testing

Each filter is tested and packed in accordance with American Standard IEST-RP-CC001.3 (HEPA and ULPA Filters), in accordance with the European standard EN 1822-1 4&5 (testing filter elements, HEPA and ULPA efficiency, and scan method), or customer requested testing.

XY - Scan Testing Device

FILT AIR’s XY-scan testing device is able to perform automated filter leak testing of high efficiency air filters using automatic particle counters and a motorized scan table. While the particle counter probe passes over the filter face, the computer compares the counted particles with the given leak tolerance setting. In addition, it calculates the overall efficiency for each checked filter and measures the pressure drop @ nominal airflow.
**Dampers:**

**Version A** of the damper system is a combination of an in-room adjustable damper with an aerosol inlet for efficient checking of the installed filter. This feature allows for easy adjustment of the airflow (filter velocity) during checking with a velocity meter from the clean room side. In addition, for integrity testing (of installed filters), an aerosol entry is provided to allow for easy channelling of the test aerosol to the upstream side of the filter media. Both are covered with a sealed screw to prevent any leaks.

**Version B** of the damper system offers a functional possibility for a simple low-cost adjustment of the entrance air volume. This is achieved by a bridge attached to the collar that holds the damper on a thread pin. In addition, a gasket buffer prevents movement caused by airflow.
Dimensional Drawing:
All dimensions are in mm

Finedust - HEPA / ULPA
## Technical Data

<table>
<thead>
<tr>
<th>Filter Data</th>
<th>E 10</th>
<th>H 13</th>
<th>H 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated face velocity</td>
<td>m/s</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Media pack</td>
<td>mm</td>
<td>47 / 56 / 70</td>
<td>47 / 56 / 70</td>
</tr>
<tr>
<td>Initial pressure drop @ rated airflow</td>
<td>Pa</td>
<td>53 / 48 / 40</td>
<td>120 / 110 / 88</td>
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<td>Filter class as per EN 1822</td>
<td></td>
<td>E 10</td>
<td>H13</td>
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<tr>
<td>Test with MPPS (integral)</td>
<td>%</td>
<td>&gt;85</td>
<td>&gt;99.95</td>
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<tr>
<td>Test with aerosol Ø 0.3 μm</td>
<td>%</td>
<td>&gt;95</td>
<td>&gt;99.995</td>
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<td>Filter class as per DIN 24184</td>
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<td>R</td>
<td>S</td>
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<tr>
<td>Recommended final pressure drop</td>
<td>Pa</td>
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<td>600</td>
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<tr>
<td>Flammability classification to DIN 53438</td>
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<td>K1/F1</td>
<td>K1/F1</td>
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<tr>
<td>Max. relative humidity</td>
<td>%</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Max. continuous temperature</td>
<td>°C</td>
<td>80</td>
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## Housing Sizes

<table>
<thead>
<tr>
<th>Housing Size</th>
<th>Rated Airflow</th>
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<tbody>
<tr>
<td>610 x 610</td>
<td>mm 580 m³/h</td>
</tr>
<tr>
<td>1220 x 610</td>
<td>mm 1200 m³/h</td>
</tr>
<tr>
<td>600 x 600</td>
<td>mm 560 m³/h</td>
</tr>
<tr>
<td>1210 x 600</td>
<td>mm 1170 m³/h</td>
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</table>
Initial Pressure Drop for ‘Minipleat-Media Pack’ in 47 mm Height

Initial Pressure Drop for ‘Minipleat-Media Pack’ in 56 mm Height

Initial Pressure Drop for ‘Minipleat-Media Pack’ in 70 mm Height
**Order Numbers**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
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<tr>
<td>47 mm</td>
<td>4</td>
<td>E 10</td>
<td>10</td>
<td>0</td>
<td>A</td>
<td>B</td>
<td>H</td>
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<tr>
<td>56 mm</td>
<td>5</td>
<td>H 13</td>
<td>13</td>
<td>1</td>
<td>B</td>
<td>C</td>
<td>G7</td>
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<tr>
<td>70 mm</td>
<td>7</td>
<td>H 14</td>
<td>14</td>
<td>2</td>
<td>C</td>
<td>D</td>
<td>G8</td>
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</tbody>
</table>

**Media Pack**
- A
  - E 10
  - H 13
  - H 14

**Efficiency**
- B
  - 10
  - 13
  - 14

**Housing Size Code**
- C
  - 610 x 610
  - 1220 x 610
  - 600 x 600
  - 1210 x 600

**Damper in Filter Insert**
- D
  - Without damper
  - 8’’ damper version A
  - 10’’ damper version A
  - 12’’ damper version A

**Collar Size & Damper**
- E
  - 8’’ without Damper
  - 10’’ without Damper
  - 12’’ without Damper

**Screen Material**
- F
  - Exp. Steel / Powder-Coated
  - Exp. Stainless Steel

**Seal**
- G
  - No Seal
  - 1x Downstream
  - Fluid Seal

**Special Options**
- H
  - Holder 90° great for filter fixing outside position
  - Holder 90° great for filter fixing inside position
  - Side mounted collar, holders outside

**Specifications are subject to change without prior notice**

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**HEPA & ULPA Filters for Industrial Clean Rooms**

FILT AIR Ltd. specializes in the use of advanced technologies to implement a purified air supply for high-tech industry clean rooms, the microelectronics business sectors, and pharmaceutical industries. FILT AIR Ltd. has a broad range of client groups, such as hospitals, industrial plants, commercial buildings, and companies requiring clean air inside gas turbines.

FILT AIR’s range of products is designed and produced in order to achieve the highest possible quality and offers safety and reliability with optimum prices and product availability. Since 2001, FILT AIR Ltd. has been registered and certified for Quality Management according to ISO 9001 (Registration No: IQNet: IL-24203).