A•smoke\textsuperscript{20} Oil Smoke Filter

The Absolent type A•smoke\textsuperscript{20} oil smoke filter features one of the most effective systems in the world for cleaning oil mist and oil smoke. The filter unit is being placed adjacent to one or several machines. The A•smoke\textsuperscript{20} filter unit is designed for handling tough applications with air flows up to 2000m\textsuperscript{3}/h.

**The highest possible collecting efficiency.**
The filtered air becomes so clean that it usually can be returned to the premises. This means less loss of energy and a more balanced ventilation.

**Designed for oil smoke.**
Oil smoke particles are very small, smaller than 1.0\,µm. Other filter types, as for example centrifugal filters, have difficulties with small particles. The Absolent filter unit is designed just for this purpose.

**Extremely low maintenance.**
Absolent filter units can usually run for at least one year without requiring a filter change. This results in a low total cost of ownership.

**A very reliable filter unit.**
The fan, as the only moving component, is placed at the clean-side to minimize ware & tear.

**Extremely low noise level** for agreeable working conditions.

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**Sound attenuated centrifugal fan**

**HEPA filter with 99.97% collecting efficiency**

**Filter stage 2**
Self-draining Absolent filter

**Filter stage 1**
Self-draining Absolent filter

**Inlet duct ø 200**

**Return oil tank**
Return oil pipe for drained liquid (not shown)

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**Operation**
The filtering process occurs in three stages. The process air passes first through a self-draining Absolent filter cassette. Here, the bigger part of the oil mist and smoke is arrested. When the filter is saturated, the liquid drops into the return oil tank. The air continues through another Absolent filter, where the rest of the bigger particles is arrested. The third stage consists of a HEPA filter, which has a guaranteed and consistent collecting efficiency of 99.97% arresting 0.3\,µm dia. particles. Every filter stage has a pressure gauge that indicates when a filter change is necessary. Thanks to the continuous draining of the filter cassettes, the unit can be operated without interruptions. The return oil is collected at the bottom of the filter for recycling.

**Range of Application**
The Absolent A•smoke\textsuperscript{20} is well suited for use in applications such as:
- Rotary transfer machines (Hydromats)
- Grinding (high-speed)
- Minimal lubrication
- Hardening
- Milling and CNC-turning involving neat oil lubrication
- Gear cutting

**Design**
The A•smoke\textsuperscript{20} contains an electronic manometer, which shows the filter unit’s time of operation as well as the state of the filter cassettes. The unit has a spacious door for safe and easy service.

Ongoing product development may subject our specifications to alteration without notice.
Unique filter cassettes
Absolent is one of few companies in this line of business that has specialized in the filtration of air containing wet particles. This has given us the opportunity to develop a filter cassette that offers a long useful life with consistently high separation efficiency.

Sound level, dB(A)¹

<table>
<thead>
<tr>
<th>Distance (m)</th>
<th>64</th>
<th>59</th>
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<th>64</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>3</td>
<td>57</td>
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<td>64</td>
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</table>

Technical Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Max permissible air volume (m³/h)</td>
<td>2000</td>
</tr>
<tr>
<td>Sound level, 1m in front of filter unit (dB(A))</td>
<td>64</td>
</tr>
<tr>
<td>Weight (dry filters) (kg)</td>
<td>300</td>
</tr>
<tr>
<td>Available dim. ext. pressure drop (Pa)</td>
<td>430</td>
</tr>
<tr>
<td>Filter area, filter 1 (Absolent filter) (m²)</td>
<td>11,4</td>
</tr>
<tr>
<td>Filter area, filter 2 (Absolent filter) (m²)</td>
<td>13,6</td>
</tr>
<tr>
<td>Filter area, filter 3 (HEPA filter) (m²)</td>
<td>20,4</td>
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</tbody>
</table>

Fan Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Motor output (kW)</td>
<td>2,2</td>
</tr>
<tr>
<td>Power supply (V)</td>
<td>380-420</td>
</tr>
<tr>
<td>Rated current (3-Phase, 400V) (A)</td>
<td>4,6</td>
</tr>
<tr>
<td>Speed (rpm)</td>
<td>2900</td>
</tr>
</tbody>
</table>

¹ Sound absorption in premises=200m², Hemispherical sound propagation.

For sound calculation concerning a specific room, contact us at Absolent or any of our dealers.

Standard Equipment

- RAL 7035 fine structure SK3
- Electronic manometer with the following features:
  - Pressure drop and operation hour meters
  - Optical indication of filter alarm (LED).
  - Digital output signal for remote supervision.

Accessories

- Motor starter for fan. Either a manual or protective motor contactor (for automatic or external starting)
- Outlet hood
- Carbon filter
- Duct connections for steel or plastic ductwork
- Extension legs, standard height 400 mm
- Water trap for various connections of the return oil pipe
- Pump unit for pumping the return oil from the filter.
- Sound insulation (-3 dB)
- Extra outlet silencers (-2 dB)
- Special colours

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