The bg filtration gmbh offers a custom range of filter types for separating droplets and emulsions, as encountered in metal processing, drilling, cutting, honing, grinding, etc. With these manufacturing processes, varying quantities of various cooling materials and lubricants are used, which in return create varied spectra of drops. These fluids blend together with the metals that are to be processed a multitude of implementation combinations. For these countless applications, bg filtration gmbh has developed a filter program with demister technology (which can be with or without backwashing) and multi-level storage and dry filters.

**Application in various industrial sectors**

- Machining causing the separation of shavings such as drilling, turning, milling, honing, polishing, etc.
- Shaving-free reshaping such as rolling, deep-drawing, pressing, etc.
- Machine tool manufacturing
- Machining centres
- Rolling mills for metals and mouldings
- Metal machining

**Advantages**

- Maximum filtration capacity even with droplets < 1µm
- Multi-level, modular structure
- Quick clamping device
- Low maintenance operation
- Energy-efficient
Functionality of the filter technology

Filter with demister technology
The single level demister are mainly used for coarser drop spectra. The level can be regenerated, i.e. used with backwashing, depending on the solid matter and the lubricant volume.

Filter with multi-level storage technology
The multi-level storage filters are used in a wide range of drops and are characterised by extremely high and constant separation yields. The special filter cartridges with inserted drainage elements provide a long service life, even with higher quantities of lubricants.

Dry filter with pressure surge-controlled cleaning
Dry filters are used when the droplets deposit onto the solid matter causing no further droplets to reach the filter. These filters are equipped with filter pockets, which can be cleaned off using pressure surges (see AAS series).

Operating Limits

<table>
<thead>
<tr>
<th>Filter type</th>
<th>Crude gas concentration of liquid</th>
<th>Pure gas concentration of liquid</th>
<th>Drop spectrum</th>
<th>Quantity of solid matter</th>
<th>Particle size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demister</td>
<td>&gt; 150 mg/m³</td>
<td>&lt; 20 mg/m³</td>
<td>&gt; 2 µm</td>
<td>&lt; 1 g/m³</td>
<td>&gt; 2 µm</td>
</tr>
<tr>
<td>Storage filters</td>
<td>&lt; 150 mg/m³</td>
<td>&lt; 2 mg/m³</td>
<td>&gt; 0,3 µm</td>
<td>&lt; 1 g/m³</td>
<td>&gt; 0,3 µm</td>
</tr>
<tr>
<td>Dry filters</td>
<td>&lt; 10 mg/m³</td>
<td>&lt; 2 mg/m³</td>
<td>&gt; 0,3 µm</td>
<td>&lt; 100 g/m³</td>
<td>&gt; 0,3 µm</td>
</tr>
</tbody>
</table>

Quick clamping device
bg filtration oil mist separators work with a quick-clamping device on the filter cartridges; when used for multi-level tasks, a device is also used which ensures a safe seal and simplifies and minimises the cost of maintenance and the replacement of the cassettes.

Safety
Precautions such as monitoring the extract air volume, avoiding sources of ignition, monitoring the temperature, having a grounding concept and using level sensors in the pan used to avoid explosive atmospheres. If such an occurrence cannot be excluded, there is the possibility of also supplying pressure-resistant filters with pressure-relief openings.