**Automatic fuel oil de-aerator comparison**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalogue page</td>
<td>See page 140.</td>
<td>See page 141.</td>
<td>See page 145.</td>
<td>See page 142.</td>
<td>See page 144.</td>
</tr>
<tr>
<td>Application area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td>Fuel oil EL</td>
<td>Fuel oil EL</td>
<td>Fuel oil EL</td>
<td>Fuel oil EL</td>
<td>Fuel oil EL</td>
</tr>
<tr>
<td></td>
<td>Diesel fuel</td>
<td>Diesel fuel</td>
<td>Diesel fuel</td>
<td>Diesel fuel</td>
<td>Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Biofuel or biodiesel with up to 20 % FAME</td>
<td>Biofuel or biodiesel with up to 100 % FAME</td>
<td>Biofuel or biodiesel with up to 20 % FAME</td>
<td>Biofuel or biodiesel with up to 20 % FAME</td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Continuous de-aeration</td>
<td>Continuous de-aeration and oil filtration</td>
<td>Continuous de-aeration and multiple oil filtration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filters</td>
<td>-</td>
<td>-</td>
<td>Sintered plastic filter</td>
<td>Sintered plastic filter</td>
<td>Opticlean ultra-fine filters</td>
</tr>
<tr>
<td>Vacuum gauge</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-0.7/+0.9 bar</td>
</tr>
<tr>
<td>Approval for construction products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Conformity certificate (ÜHP) as per EN 12514-2</td>
</tr>
</tbody>
</table>

**Our tip**

Only installation by expert companies certified according to the applicable regulations ensures optimum operation of the automatic de-aerators. For optimum combustion, longer nozzle and filter service life and reliable function, the expert determines the following prior to installation and compares the values with the nomograph:

- Oil throughput per hour at burner nozzle
- Inside diameter of the (installed) oil suction line
- Vacuum (overpressure) in the oil carrying pipe upstream of the burner

The oil suction line is often too large. The flow rates of 0.2/0.5 m/s, required according to DIN 4755-2, are often not reached in systems converted from dual-line to single-line mode. The nomograph shows the proper values for sizing the suction line.

---

**Nomograph for determining the internal pipe diameter (NW) of the fuel oil suction line in order to keep gas from accumulating in higher pipe sections and sections with downward gradients, or gas formation resulting from excessively high flow speeds.**

Example: A pipe with Ø 8 x 1 mm (NW 6) is required for a volume of 20 l/h and an average flow rate of approx. 0.23 m/s.
Automatic fuel oil de-aerator
Flow-Control 3/K TÜV-tested

- Trouble-free operation due to automatic de-aeration
- Dual float safety system keeps oil foam from escaping
- Considerably increased fuel oil filter service life – the amount of oil drawn from the tank corresponds exactly to the oil actually burnt
- The suction line can usually have a smaller cross section

Application
For single-line systems with return line in oil fired systems for continuous de-aeration. Suitable for the following media: fuel oil EL (DIN 51603-1) and diesel fuel (EN 590) as well as biofuel and biodiesel with max. 20 % FAME. Also for use in flood hazard areas. The risk of a leak in the return line going unnoticed is removed with Flow-Control. It is no longer necessary to regularly check the return line for leaks.

Description
Automatic fuel oil de-aerator consisting of a diecast zinc housing with female G¼ connection thread at the tank end and male G 3/8 connection threads with 60° cone at the burner end for connection of the burner hoses. De-aerator hood made of transparent plastic. Flow-Control 3/K features two separate float chambers. The lower float chamber contains the operating float; the upper float chamber contains the safety float. The upper float chamber keeps oil foam from escaping via the vent opening (e.g. during commissioning/filter exchange) and indicates malfunctions of the vent valve. An oil hose with ball-shaped sealing for 60° cone and a G¾ union nut is supplied for connection to the fuel oil filter. Watertight up to 10 m water column. All Flow-Control versions are TÜV-tested.

Flow-Control 3/K (G¼) with G¼ female thread instead of G¾ male thread.

Technical specifications
- **Burner connection**
  - G¾ male with 60° cone for burner hose or G¼ female (part no. 69978)
- **Tank connection**
  - G¼ female or oil hose G¾ male x G¾ union nut for connection to filter
- **Nozzle capacity**
  - Max. 100 l/h
- **Return flow**
  - Max. 120 l/h
- **Separating capacity air/gas**
  - Approx. 4 l/h
- **Mounting position**
  - Float housing vertical to the top
- **Operating temperature range**
  - Medium: Max. 60 °C
  - Ambient: Max. 60 °C

- **Operating overpressure**
  - Max. 0.7 bar
  - corresponds to static oil column of approx. 8 m
- **Test pressure**
  - 6 bar
- **Dimensions**
  - W x H x D: 95 x 147 x 95 mm
- **Approval**
  - TÜV-tested (S 133 2013 E2)
- **Approval for construction products**
  - Conformity certificate (ÜHP) as per EN 12514-2

<table>
<thead>
<tr>
<th>DG: G, PG: 1</th>
<th>Part no.</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow-Control 3/K</td>
<td>1</td>
<td>69930</td>
</tr>
<tr>
<td>Flow-Control 3/K (G¼)</td>
<td>1</td>
<td>69978</td>
</tr>
</tbody>
</table>

The devices must not be subjected to undiluted additives, alcohol and acids.