Assembly and Maintenance manual  
according to regulation DIN 82079

FILLERPIPE

Version 3.16

Part 1  Information to the manufacturer

Giebel FilTec GmbH  
Carl-Zeiss-Str. 5  
DE-74626 Bretzfeld-Schwabbach

Tel. +49 (0) 7946 944401-0  
Fax +49 (0) 7946 944401-29  
Email info@giebel-adsorber.de

Part 2  Overview

F-LK 73-MA_FILL  
F-LK 73-ME_FILL  
AS-MA-FILL

Used materials:
Aluminum, Stainless steel, Acrylonitrile butadiene rubber (NBR), fluororubber (FKM),  
Ethylene propylene diene rubber (EPDM)

REACH note:  
No disclosure requirement according to Regulation (EC) No. 1907/2006.
### Part 3  Build up and materials

**Flange fillerpipe**

<table>
<thead>
<tr>
<th></th>
<th>Flange fillerpipe-MA F-LK 73-MA_FILL</th>
<th>Flange fillerpipe-ME F-LK 73-ME_FILL</th>
<th>Connection fillerpipe-MA AS-MA_FILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing material</td>
<td>Aluminum</td>
<td>Stainless steel</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Filter</td>
<td>Stainless steel filter sieve</td>
<td>Without</td>
<td></td>
</tr>
<tr>
<td>Connection system</td>
<td>Bolt circle 73mm</td>
<td>Inch</td>
<td></td>
</tr>
<tr>
<td>Sealing</td>
<td>NBR / FKM / EPDM</td>
<td>Inch</td>
<td></td>
</tr>
<tr>
<td>Connection adsorber</td>
<td>Inch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temp.</td>
<td></td>
<td>-40°C - +80°C</td>
<td></td>
</tr>
</tbody>
</table>

### Part 4  Technical data

**Fillerpipe MA & ME**

<table>
<thead>
<tr>
<th></th>
<th>F-LK 73-MA_FILL</th>
<th>F-LK 73-ME_FILL</th>
<th>AS-MA_FILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weight [kg]</td>
<td>0.7</td>
<td>1.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Bolt circle [mm]</td>
<td>73</td>
<td>73</td>
<td>-</td>
</tr>
<tr>
<td>Screwing</td>
<td>6x M5</td>
<td>6x M5</td>
<td>Zoll</td>
</tr>
<tr>
<td>Height [mm]</td>
<td>76</td>
<td>76</td>
<td>68.5</td>
</tr>
<tr>
<td>Housing diameter [mm]</td>
<td>143</td>
<td>143</td>
<td>115</td>
</tr>
</tbody>
</table>

### Part 5  Assembly and comissioning

Proceed to assemble the entire accessories as follows:

1. Turn off the system.
2. Check the sealing is seated correctly.
3. Screw the fillerpipe on the system.

### Part 6  Maintenance

**Procedure**

1. Turn off the system.
2. Remove the adsorber.
3. Remove the fillerpipe by unscrewing.
4. Check the sealing and filter sieve for damage.
   - If necessary, replace it with a new one.
5. Clean the filter sieve.
6. Screw the fillerpipe back to the system.
Part 7  Risk and hazard analysis

1 Moist air flows into the system

1.1 Porous sealings
Moist air may flow into the system on porous areas.
→ See Maintenance Schedule Item 1

2 Fillerpipe housing is damaged

2.1 Filter sieve damaged
If the filter sieve is damaged contaminants can enter the system.
→ See Maintenance Schedule Item 2

2.2 Material resistance
When selecting a fillerpipe the ambient and operating conditions should be respected.
→ See Maintenance Schedule Item 2

2.3 Vibrations of the system
Excessive vibration of the system may damage the fillerpipe.
→ See Maintenance Schedule Item 2

2.4 Temperature range
The ambient and operating temperatures should not exceed or fall below the specified range, otherwise the fillerpipe can be damaged.
→ See Maintenance Schedule Item 2

2.5 Improper handling
For the selection of material of the fillerpipe operating conditions (environmental factors and handling) should be considered.
→ See Maintenance Schedule Item 2

3 Overpressure resp. vacuum builds up inside the system

3.1 Filter sieve contaminated
The filter sieve may be clogged by dirt particles.
→ See Maintenance Schedule Item 4

3.2 Too high air flow
At an excessively high air flow, overpressure resp. vacuum can be build up inside the system.
## Part 8 Maintenance schedule

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annually</strong></td>
<td>1. <strong>Check sealings for wearing</strong>&lt;br&gt;&lt;br&gt;Inspect:&lt;br&gt;Sealings built in inside the fillerpipe seal has to be checked for their perfect condition. The sealings between the fillerpipe and the system should be examined for brittleness.&lt;br&gt;&lt;br&gt;Measure:&lt;br&gt;For existing damage the sealings should be replaced. Proceed as described in &quot;Part 6 Maintenance&quot;.</td>
</tr>
<tr>
<td><strong>Half-yearly</strong></td>
<td>2. <strong>Visual inspection of the fillerpipe</strong>&lt;br&gt;&lt;br&gt;Inspect:&lt;br&gt;The fillerpipe has to be checked visually damage. Damage may occur due to different environmental or operating conditions.&lt;br&gt;&lt;br&gt;Measure:&lt;br&gt;If the fillerpipe is damaged, the fillerpipe should be replaced to ensure full functionality.</td>
</tr>
<tr>
<td><strong>Two-yearly</strong></td>
<td>3. <strong>Replacement of the wearing parts</strong>&lt;br&gt;&lt;br&gt;Inspect:&lt;br&gt;The wearing parts of the fillerpipe has to be verified regarding their condition.&lt;br&gt;&lt;br&gt;Measure:&lt;br&gt;Regardless of the result of the examination, it is recommended to replace the wear parts to ensure smooth operation.</td>
</tr>
<tr>
<td><strong>Half-yearly</strong></td>
<td>4. <strong>Inspect Filter sieve regarding contamination</strong>&lt;br&gt;&lt;br&gt;Inspect:&lt;br&gt;To clean the filter sieve it should be removed off the system. The filter sieve should be free from dirt for smooth operation.&lt;br&gt;&lt;br&gt;Measure:&lt;br&gt;The filter sieve has to be totally cleaned with compressed air and / or a suitable cleaning agent.</td>
</tr>
</tbody>
</table>