1. Introduction

The GR series reverse flow, wet gas coalescer removes compressor oil, trace hydrocarbons and water. It is not intended to remove particles or large amounts of water. This coalescer contains a large bottom sump area for the collected liquids, as well as a standard upper chamber sump.

GR series housings are configured vertically regardless of flow rate to utilize gravitational liquid removal benefits. These housings can be customized to customer specs including automation which is available for monitoring and dumping of collected liquids.

The standard cartridge used with the this filter housing is the high efficiency, Nowata NFF series, 0.3 micron or 0.1 micron, absolute rated, filter cartridge. These NFF series cartridges are designed to coalesce extremely fine liquid aerosols, including lubricating oil downstream of a compressor, in reverse flow (inside out) applications. Extremely durable, these cartridges can withstand over 75 psi differential pressure in either direction.

Features

- All units are built to ASME Code. Optional U code stamp is available
- Pressure to 275 psi at 140 °F
- Higher psi vessels are available upon request
- 1/8 inch corrosion allowance
- Uses the absolute rated, Nowata NFF series, 0.3 micron or 0.1 micron, vapor phase cartridge elements
- Includes two-stage construction with cartridge filtration
- Carbon steel construction, other materials are available
- Housings can be designed to customer specifications
- Can be customized with instrumentation and automation
## 2. Dimensional Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Cartridge Qty &amp; Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Inlet/Outlet Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAC1C27F2CAN</td>
<td>(1) NFF12R</td>
<td>48-3/4</td>
<td>19</td>
<td>41</td>
<td>23-5/8</td>
<td>6-7/16</td>
<td>18-5/8</td>
<td>6-5/8</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>GRAC1C27F2CCN</td>
<td>(1) NFF24R</td>
<td>60-3/4</td>
<td>19</td>
<td>53</td>
<td>23-5/8</td>
<td>6-7/16</td>
<td>18-5/8</td>
<td>6-5/8</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>GRAC1C27F2CDN</td>
<td>(1) NFF36R</td>
<td>72-3/4</td>
<td>19</td>
<td>65</td>
<td>23-5/8</td>
<td>6-7/16</td>
<td>18-5/8</td>
<td>6-5/8</td>
<td>38</td>
<td>2</td>
</tr>
</tbody>
</table>

Dimensions shown in inches unless otherwise noted. Dimensions are approximate values and not intended for piping specifications.

Due to our continuing program of product improvement, specifications are for reference only and subject to change without notice.

**NOTES:**
- **G** = Outside diameter of housing
- **H** = Required clearance for cartridge removal
- **Inlet/Outlet size** = Raised face 150# flange (inches)
- **J** = 12 inches
- **K** = 3 inches
- **L** = 2 inches
- **M** = 3-1/2 inches
- **P** = Vent 1/4 inch FNPT
- **R** = 4 Bolt holes, 7/8” diameter on E bolt center
- **S** = Vent 1 inch FNPT (far side)
- **T** = Drain 1 inch FNPT (far side)
- **W** = Liquid level gauge 1/2 inch FNPT
- **X** = High level shut down 1 inch FNPT
- **Z** = Differential pressure gauge 1/4 inch FNPT

Housings can be customized to meet customer specification. Contact factory for details.

## 3. Typical Model Number

<table>
<thead>
<tr>
<th>G</th>
<th>R</th>
<th>A</th>
<th>C</th>
<th>1</th>
<th>C</th>
<th>27</th>
<th>F</th>
<th>2</th>
<th>C</th>
<th>A</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Series</td>
<td>Process Configuration</td>
<td>Closure Style*</td>
<td>Housing Material*</td>
<td>Qty of Elements</td>
<td>Code</td>
<td>Pressure Rating*</td>
<td>Inlet/Outlet Style*</td>
<td>Inlet/Outlet Size*</td>
<td>Internal Material</td>
<td>Internal Cart. Size*</td>
<td>O-Ring Material*</td>
</tr>
<tr>
<td>Gas Housings</td>
<td>Reverse Flow Wet Gas</td>
<td>A = Flat top CS</td>
<td>C = Carbon steel</td>
<td>Number of cartridge elements</td>
<td>ASME</td>
<td>15 = 150 psi</td>
<td>RFSO</td>
<td>2 = 2”</td>
<td>Carbon steel</td>
<td>3.5”</td>
<td>OD by length</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B = Domed bar flange top</td>
<td>U = 316 Stainless steel wetted</td>
<td></td>
<td></td>
<td>27 = 275 psi</td>
<td>RFLWN</td>
<td>3 = 3”</td>
<td></td>
<td></td>
<td>Buna-N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D = RFWN flange top</td>
<td></td>
<td></td>
<td>30 = 300 psi</td>
<td>FNPT</td>
<td>4 = 4”</td>
<td></td>
<td></td>
<td></td>
<td>EPDM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>74 = 1440 psi</td>
<td>RFWN</td>
<td>8 = 8”</td>
<td></td>
<td></td>
<td></td>
<td>Viton</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>More sizes avail.</td>
<td></td>
<td></td>
<td></td>
<td>T = TEV</td>
</tr>
</tbody>
</table>

* = More options available

MAHLE Industrial Filtration USA, Inc.
428 N. Elm, PO. Box 678, Nowata, OK 74048 USA
Phone +1 (800) 259-2204, Fax +1 (918) 273-2101
industrialfiltration@us.mahle.com, www.mahle-industrialfiltration.com 10/2011