Pressure Vacuum Vent Test Procedure
NV4000, NV4000E, NV4000C

Product Description
Civacon’s NV4000 Series Pressure Vacuum Vent has a design that reduces part count by 45% for easier and quicker maintenance. The NV4000 is installed on the bottom of the manlid poppet via a 15/16” hex nut and has been built to withstand the extreme shocks, high G-forces, excessive surge forces and vibrations that can occur when petroleum products are being transported.
Test Procedure:

**Pressure Test (See Illustration “A”)**

1. Install vent (Item# 5) in the hole in the cover plate (Item# 3) of the vent test tank (Item# 2). Screw vacuum test cap (Item# 1) on to the threaded portion of the vent (Item# 5).
2. Install cover plate (Item# 3) and vent (Item#5) onto test tank (Item# 2), with vent (Item# 5) pointing downward as shown in the illustration. Use wing nuts (Item# 4) to fasten the cover plate (Item# 3) to the test tank (Item#2).
3. Attach a short length of hose to the vacuum test cap (Item#1) and run it to a small container of water. Keep the end of the hose 1/4" below the surface of the water.
4. Slowly apply pressure, and take note at what pressure the bubbles start coming out of the hose. Note the pressure reading on the gauge or the manometer.
5. The measured pressure level should fall in the range found in Table 1 for the specific vent model being tested. If the vent does not pass the test, it must be cleaned, repaired or replaced.

**Vacuum Test (See Illustration “B”)**

1. Install vent (Item# 5) in the hole in the cover plate (Item# 3) of the vent test tank (Item# 2). Screw vacuum test cap (Item# 1) on to the threaded portion of the vent (Item# 5).
2. Install cover plate (Item# 3) and vent (Item#5) onto test tank (Item# 2), with cap inside the tank as shown in the illustration. Use wing nuts (Item# 4) to fasten the cover plate (Item# 3) to the test tank (Item#2).
3. Spray water/soap solution around the two black poppets on the side of the vent.
4. Slowly apply pressure, with the vent in the orientation shown in the illustration. Take note at what pressure the bubbles start being produced from the sealing surface. Note the pressure reading on the gauge or the manometer.
5. The measured vacuum level should fall in the range found in Table 1 for the specific vent model being tested. If the vent does not pass the test, it must be cleaned, repaired or replaced.

**TABLE 1**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>PRESSURE</th>
<th>MIN.</th>
<th>MAX.</th>
<th>VACUUM</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NV4000</td>
<td>1.0 PSI (27.7&quot; H₂O)</td>
<td>1.5 PSI (41.5&quot; H₂O)</td>
<td>.25 PSI (7.0&quot; H₂O)</td>
<td>.375 PSI (10.4&quot; H₂O)</td>
<td></td>
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<tr>
<td>NV4000C</td>
<td>.87 PSI (6 kPa)</td>
<td>1.16 PSI (8 kPa)</td>
<td>.29 PSI (2 kPa)</td>
<td>.43 PSI (3 kPa)</td>
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<td></td>
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<tr>
<td>NV4000E</td>
<td>1.0 PSI (69 mbar)</td>
<td>1.74 PSI (120 mbar)</td>
<td>.25 PSI (17 mbar)</td>
<td>.29 PSI (25 mbar)</td>
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<td></td>
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</tbody>
</table>