Piloted Unloader Check Valve
Model: NSG-Series

Operating Specifications:
Unload Set Pressure Range: 40 to 250 psig
Set Pressure Differential Range: 10 to 50 psid
Operating Temperature Range: -65°F to 400°F
Max Flow Capacity: 20 SCFM @ 100 psig

Available Connections:
Connection Sizes: 1/8” to 3/4” (-2 to -12)
Connection Types: NPT, BSPT, Compression, SAE Flare, JIC Flare

Materials of Construction:
Body/Fittings: Brass
O-Rings: Silicone/Viton
Poppets: Reinforced PTFE
Springs: Stainless Steel

*Dimensions will vary with different connections and configurations.
### Ordering Information

<table>
<thead>
<tr>
<th>Configuration Number</th>
<th>Unloader Outlet</th>
<th>Additional Inlet Port</th>
<th>Hand Unloader Options</th>
<th>Start Unloader</th>
<th>PilotTamper Seal</th>
<th>Thread Sealant</th>
<th>Pressure Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG</td>
<td>Option Code</td>
<td>Option Code</td>
<td>Option Code</td>
<td>Option Code</td>
<td>Option Code</td>
<td>Option Code</td>
<td>Options</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td>(Blank)</td>
<td>Aluminum (Standard)</td>
<td>None</td>
<td>None (Blank)</td>
<td>None (Blank)</td>
<td>Option Code</td>
</tr>
<tr>
<td>D</td>
<td>1/8” NPT</td>
<td>P1</td>
<td>Red Cap</td>
<td>SU3</td>
<td>SU3</td>
<td>Sealed</td>
<td>Option Code</td>
</tr>
<tr>
<td></td>
<td>1/4” NPT</td>
<td>P2</td>
<td>Black Knob</td>
<td>SU4</td>
<td>SU4</td>
<td>White</td>
<td>SST</td>
</tr>
</tbody>
</table>

### Options

1. **Configuration:** Available configurations are listed on the following pages. If the configuration needed is not listed please contact us at orders@conrader.com

2. **Unloader Outlet**
   a. **Muffler:** The muffler comes standard and reduces the noise from the unloader.
   b. **Diffuser:** The diffuser restricts the flow less than the muffler but creates more noise.

3. **Additional Inlet Port**
   a. **None:** No additional port added.
   b. **1/8” NPT:** An 1/8” female NPT port installed on the opposite inlet port.
   c. **1/4” NPT:** An 1/4” female NPT port installed on the opposite inlet port.

4. **Hand Unloader Options**
   a. **Aluminum:** Standard aluminum hand unloader on all valves.
   b. **Red Cap:** A red vinyl cap installed on the aluminum hand unloader.
   c. **Black Knob:** A plastic black knob in place of the aluminum hand unloader.

5. **Start Unloader:** A valve that installs on the opposite inlet port and unloads the compressor during start up.
   a. **None:** Start unloader will not be installed.
   b. **SU3:** Start unloader with a Viton seal.
   c. **SU4:** Start unloader with a brass seal.

6. **Pilot Tamper Seal:**
   a. **None:** A seal will not be applied to the pilot adjustments.
   b. **Sealed:** A blue tamper seal will be applied across the pilot adjustments.

7. **Thread Sealant:**
   a. **None**
   b. **White colored thread sealant.**

8. **Pressure Setting:** The desired pilot load and unload pressure settings.
<table>
<thead>
<tr>
<th>Model</th>
<th>Top Inlet Connection</th>
<th>Side Inlet Connection</th>
<th>Outlet Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG-1</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-2</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-3</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-4</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-5</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-6</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-7</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-8</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-9</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-10</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-11</td>
<td>3/8&quot; (-6) COMPRESSION 9/16-24 UNEF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-12</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) COMPRESSION 9/16-24 UNEF-2A</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-13</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-14</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-15</td>
<td>3/8&quot; (-6) COMPRESSION 9/16-24 UNEF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-16</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) COMPRESSION 9/16-24 UNEF-2A</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-17</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-18</td>
<td>1/2&quot; TUBELOK</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-19</td>
<td>1/2&quot; (-8) SAE 45 DEG FLARE 3/4-16 UNF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-20</td>
<td>1/2&quot; (-8) INVERTED SAE FLARE 3/4-18 UNS-2B</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-21</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>P/N 4566</td>
</tr>
<tr>
<td>NSG-22</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>3/4&quot; (-12) MALE NPT 3/4-14 NPT</td>
</tr>
<tr>
<td>Model</td>
<td>Top Inlet Connection</td>
<td>Side Inlet Connection</td>
<td>Outlet Connection</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>NSG-23</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-24</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/4&quot; (-4) MALE NPT 1/4-18 NPT</td>
</tr>
<tr>
<td>NSG-25</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
</tr>
<tr>
<td>NSG-26</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-27</td>
<td>3/4&quot; (-12) COMPRESSION 1-18 UNS-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-28</td>
<td>3/4&quot; (-12) COMPRESSION 1-18 UNS-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-29</td>
<td>5/8&quot; (-10) INVERTED SAE FLARE 7/8-18 UNS-2B</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-30</td>
<td>5/8&quot; (-10) INVERTED SAE FLARE 7/8-18 UNS-2B</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-31</td>
<td>1/2&quot; (-8) INVERTED SAE FLARE 3/4-18 UNS-2B</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-32</td>
<td>1/2&quot; (-8) INVERTED SAE FLARE 3/4-18 UNS-2B</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-33</td>
<td>1/2&quot; (-8) JIC 37 DEG FLARE 3/4-16 UNF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-34</td>
<td>1/2&quot; (-8) JIC 37 DEG FLARE 3/4-16 UNF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-35</td>
<td>1/2&quot; (-8) JIC 37 DEG FLARE 3/4-16 UNF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-36</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-37</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-38</td>
<td>3/8&quot; (-6) COMPRESSION 9/16-24 UNEF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-40</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-41</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
</tr>
<tr>
<td>NSG-42</td>
<td>NONE OR P1/P2 OPTION</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>3/8&quot; (-6) FEMALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-43</td>
<td>NONE OR P1/P2 OPTION</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-44</td>
<td>NONE OR P1/P2 OPTION</td>
<td>5/8&quot; (-10) INVERTED SAE FLARE 7/8-18 UNS-2B</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>Model</td>
<td>Top Inlet Connection</td>
<td>Side Inlet Connection</td>
<td>Outlet Connection</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>NSG-45</td>
<td>NONE OR P1/P2 OPTION</td>
<td>5/8&quot; (-10) COMPRESSION 13/16-18 UN-2A</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-46</td>
<td>OPEN, FITTING NOT INSTALLED</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-47</td>
<td>OPEN, FITTING NOT INSTALLED</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-48</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/8&quot; (-6) MALE NPT 3/8-18 NPT</td>
</tr>
<tr>
<td>NSG-49</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/4&quot; (-4) MALE NPT 1/4-18 NPT</td>
</tr>
<tr>
<td>NSG-51</td>
<td>1/2&quot; (-8) SAE 45 DEG FLARE 3/4-16 UNF-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) FEMALE NPT 1/2-14 NPT</td>
</tr>
<tr>
<td>NSG-52</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
<td>1/4&quot; (-4) FEMALE NPT 1/4-18 NPT</td>
</tr>
<tr>
<td>NSG-53</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
</tr>
<tr>
<td>NSG-54</td>
<td>1/2&quot; (-8) FEMALE BSPT Rc 1/2-14 (BSPT)</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
</tr>
<tr>
<td>NSG-55</td>
<td>3/4&quot; (-12) COMPRESSION 1-18 UNS-2A</td>
<td>NONE OR P1/P2 OPTION</td>
<td>3/4&quot; (-12) MALE NPT 3/4-14 NPT</td>
</tr>
<tr>
<td>NSG-56</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
</tr>
<tr>
<td>NSG-57</td>
<td>3/8&quot; (-6) FEMALE BSPT Rc 3/8-19 (BSPT)</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
</tr>
<tr>
<td>NSG-58</td>
<td>NONE OR P1/P2 OPTION</td>
<td>1/2&quot; (-8) COMPRESSION 11/16-20 UN-2A</td>
<td>1/2&quot; (-8) MALE BSPT R 1/2-14 (BSPT)</td>
</tr>
</tbody>
</table>