1.0 PRODUCT DESCRIPTION

The Series 950 Nitrogen Cylinder and Cylinder Valve Assembly are designed to supply compressed nitrogen gas to Victaulic Vortex systems.

2.0 CERTIFICATION/LISTINGS

CE 0786, EN 12094-4, PI 0589

3.0 SPECIFICATIONS – MATERIAL

**Cylinders:** Chrome-Moly Steel AISI 4130X

**Cylinder Valve:**
- Body: Brass
- Stem: Stainless Steel
- Seat: Polyurethane
- O-Rings: Polyurethane, Nitrile, Silicone
## 4.0 DIMENSIONS

### Cylinders

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
<th>Weight</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal</td>
<td>A (Closed)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>inches</td>
<td>inches</td>
<td>inches</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>49 Liter</td>
<td>63.4</td>
<td>60.5</td>
<td>9.2</td>
</tr>
<tr>
<td></td>
<td>1610</td>
<td>1537</td>
<td>234</td>
</tr>
<tr>
<td>80 Liter</td>
<td>72.4</td>
<td>69.0</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>1839</td>
<td>1753</td>
<td>287</td>
</tr>
</tbody>
</table>
5.0 PERFORMANCE

Valve
Working Pressure: Max 300 bar at 15C
Approved Test Pressure: 250 Bar at 15C
Production Test Pressure: 0.8 x min. value of burst disc
Burst Pressure:
- 49L: 280 bar +0%/-10%
- 80L: 345 bar +0%/-10%
Operating Temperature: +40°F to +130°F (+4.4°C to +54.4°C)
Storage Temperature: -4°F to +130°F (-20°C to +54.4°C)
### 5.1 PERFORMANCE

**49L Cylinder**
- **Min. Water Capacity:** 108 lbs/49 kg
- **Water Volume:** 2995 in³/49L
- **DOT Service Pressure:** 2400 Psi/165 bar
- **TC Service Pressure:** 183 bar
- **Test Pressure:** 4000 Psi/275 bar

**80L Cylinder**
- **Min. Water Capacity:** 176 lbs/80kg
- **Water Volume:** 4893 in³/80L
- **DOT Service Pressure:** 3000 Psi/206 bar
- **TC Service Pressure:** 229 bar
- **Test Pressure:** 5000 Psi/344 bar

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>DOT 3AA 2400 ISO 9809-1</th>
<th>DOT 3AA 3000 ISO 9809-1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td><strong>Pressure @ 70’F/21°C</strong></td>
<td><strong>Usable Cylinder Volume</strong></td>
</tr>
<tr>
<td><strong>Liter</strong></td>
<td><strong>psi bar</strong></td>
<td><strong>SCF Sm³</strong></td>
</tr>
<tr>
<td>49</td>
<td>2100 144.8</td>
<td>212 6.0</td>
</tr>
<tr>
<td>80</td>
<td>2500 172.4</td>
<td>413 11.7</td>
</tr>
</tbody>
</table>

1. Usable Cylinder Volume listed in the table above are based on 250 psi/17.2 bar remaining in the cylinder.
6.0 NOTIFICATIONS

⚠️ WARNING

- Always refer to the applicable Victaulic Vortex™ Hybrid Fire Extinguishing System General Design, Installation, and Maintenance Manual before specifying or installing any Victaulic Vortex™ products.
- Wear safety glasses, hardhat, and foot protection during installation and maintenance of a Victaulic Vortex™ Hybrid Fire Extinguishing.
- It is the customer’s responsibility to verify hybrid emitter material compatibility and that the proper size hybrid emitter and water flow control cartridge are specified in the system design.

Failure to follow instructions and warnings can cause system failure, resulting in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

70.03: Victaulic Vortex™ Hybrid Fire Extinguishing System Series 951 Panels
70.05: Victaulic Vortex™ Hybrid Fire Extinguishing System - Series 950 Water Tanks
70.07: Victaulic Vortex™ Fire Suppression System Series 950 Nitrogen Cylinder
70.12: Victaulic Vortex™ Hybrid Fire Extinguishing System Emitters
70.16: Victaulic Vortex™ Series 953 Flow Cartridge and Strainer Kit