Sinorix® Engineered Fire Suppression Systems
Cylinder / Valve Assemblies – 2-1/2” [6.4 cm.] Discharge Port
(Includes: Cylinder-Mounting Straps / Brackets; Top-Plug Adapter; Liquid-Level Indicator & Low-Pressure Switch)
Models CPY-375, CPY-560

ARCHITECT AND ENGINEER SPECIFICATIONS

- For use with Sinorix 227 and Sinorix 1230
- High-flow-rate valve
- 2-1/2 inch, discharge-port valve assembly
- Manual, electric or pressure operated
- Low-pressure monitoring switch
- Wall-mounting brackets included
- Liquid-level indicator
- ®UL 2166 Listed & ®ULC Listed
  FM Approved

Product Overview
Models CPY-375, CPY-560 are filled as shown:

<table>
<thead>
<tr>
<th>Model</th>
<th>Cylinder Size</th>
<th>Max. Fill at 70 Lb/FT³</th>
<th>Min. Fill at 30 Lb/FT³</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPY-375</td>
<td>375 Lbs.</td>
<td>375 Lbs.</td>
<td>162 Lbs.</td>
</tr>
<tr>
<td>CPY-560</td>
<td>560 Lbs.</td>
<td>560 Lbs.</td>
<td>240 Lbs.</td>
</tr>
</tbody>
</table>

Models CPY-375 and CPY-560 can be filled with HFC-227ea suppression agent or with 3M™ Novec™ 1230 Fire Protection Fluid. Models CPY-375 and CPY-560 are pressurized with nitrogen to 360 psig at 70°F (21.1°C), and are manufactured, tested and marked in accordance with D.O.T. specifications: 4BA500 or 4BW500 for the various sizes.

All cylinder and valve assemblies are furnished with an internal siphon tube. Cylinders must be mounted in the vertical position.

Specifications
The size 375 and 560 lbs. cylinders use a 2-1/2-inch (6.4 cm.) outlet. These valves are pressure-seated, and designed for high-flow rates to meet the rapid discharge time specified in NFPA 2001.

All valve assemblies have:
- Brass body
- Brass piston with resilient seat
- Safety-disc assembly
- Pressure gauge
- Pressure-releasing, pilot-check assembly for manual and pressure actuation, which relieves the pressure above the piston, and permits the piston to travel upward
- Optional electronic solenoid on the valve, which relieves the pressure above the piston, and permits the piston to travel upward
Valve Controls
All valve sizes accept the same set of valve controls described below:

Electronic Solenoid Valve
The Electronic Solenoid Valve is normally closed (NC), and opens upon electric energy being applied – thus relieving pressure above the valve piston, and causing the cylinder valve to open. For electrical connections, the Electronic Solenoid Valve is furnished with 24" (61 cm.) pigtails.

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPYEC-2-24</td>
<td>500-697990BG</td>
<td>Electronic Supervised Solenoid</td>
</tr>
</tbody>
</table>

Local Manual Control Head
The Local Manual Control Head can be installed on the top-plug adapter. When the safety pull pin is taken out, and the actuating lever is moved down, it causes a pin to depress and open the pilot check on the valve. Agent pressure is then released above the valve piston.

Pressure Actuator
The Pressure Actuator can be installed on the top-plug adapter. The Pressure Actuator contains a piston to provide the necessary force to open the pilot check, once pressure from the agent discharge of a primary cylinder is applied through 1/4" (0.64 cm.) tubing. The Pressure Actuator is used on pressure-operated secondary cylinders, which are released simultaneously with the primary Sinorix cylinder.

One (1) primary cylinder can be used to pressure operate up to a maximum of seven (7) secondary cylinders. If more than seven (7) cylinders are required, the engineer may use two (2) electric primary Sinorix cylinders.

All cylinder valves have a pressure-actuation outlet port. The pressure-actuation outlet port opens into the same space as the valve outlet and is only under pressure while the valve is discharging. The port has a 1/8" (0.32 cm.) pipe thread, which is fitted with a pipe plug. The pipe plug is removed when the port is used.

The tubing or pipe is connected to the outlet ‘M,’ and run to the pressure actuators on the secondary cylinders.

Electric Actuator & Manual Control Combination

<table>
<thead>
<tr>
<th>Cylinder Size</th>
<th>Valve Size</th>
<th>Max. Qty. of Piston Actuators</th>
<th>Copper Tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>375 Lbs.</td>
<td>2-1/2 &quot;</td>
<td>6</td>
<td>30 Ft.</td>
</tr>
<tr>
<td>560 Lbs.</td>
<td>2-1/2 &quot;</td>
<td>6</td>
<td>30 Ft.</td>
</tr>
</tbody>
</table>

Manual Control Head may be installed when using the electronic, top-plug-adapter combination.

Details for Ordering

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number</th>
<th>Cylinder Size</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPY-375</td>
<td>500-697904BG</td>
<td>375 Lbs.</td>
<td>231 Lbs.</td>
</tr>
<tr>
<td>CPY-560</td>
<td>500-697905BG</td>
<td>560 Lbs.</td>
<td>322 Lbs.</td>
</tr>
</tbody>
</table>

Weight of empty cylinders

Cylinder and Valve Assembly
**Cylinder Mounting Straps & Brackets**

The steel straps and brackets are used to mount the cylinders in the vertical position:

The brackets, which are used for wall-mounting purposes, are secured to adjacent wall studs. The brackets and straps are @UL Listed & @ULC Listed; as well as FM Approved.

**Liquid-Level Indicator**

The Liquid-Level Indicator operates magnetically, so there is no need to move or disconnect cylinders. Uninterrupted hazard protection is a key feature:

The Liquid-Level Indicator must be factory installed, and is @UL Listed & @ULC Listed; as well as FM Approved.

---

**Low-Pressure Switch**

The Sinorix Low-Pressure Indicating Switch (Model CPY-PSS1) is a single-pole, single-throw switch that is mounted to the cylinder valve during production.

Model CPY-PSS1 will remain in the (NC) position when no pressure is set against the switch. In Normal operating position, the Low-Pressure switch is be set at 360 psig. When the cylinder valve is pressurized, Model CPY-PSS1 will move into the open position.

Upon loss of pressure from the cylinder valve – due to discharge or leakage – Model CPY-PSS1 moves to a closed position at 291 psig. Model CPY-PSS1 is monitored by a Supervisory point on the fire-alarm control panel (FACP). The FACP will provide a Supervisory alarm upon loss of pressure below the PSIG set point.
Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.