

Safety Check Valves

Applications

- Used in temporary plant/factory air lines, construction sites, shipyards, or utilities
- Not for use in applications where 100% of the available air is required, i.e. sand blast, pile driving rigs, expansion joint blow down pipes, etc.



Features

- High-flow valve provides optimum performance
- Controls excess air flow (SCFM) in only one direction
- Automatically senses change in air flow and shuts off the flow in the event of a surge in excess of valve flow rating thus preventing hose whip
- Does not prevent backflow

Materials

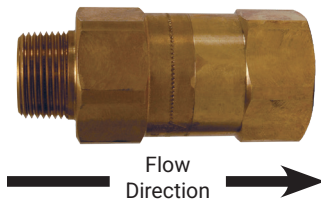
- Solid brass body and valve
- Stainless steel spring and roll pin

Specifications

- Maximum operating pressure: **350 PSI**
- Maximum temperature: **250°F (121°C)**

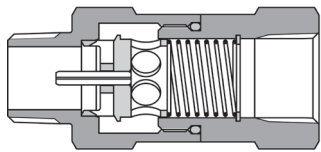
Approval

- Conforms to OSHA regulation 1926.302 (b) (7) requiring a safety device at the source of the air supply and at branch air lines

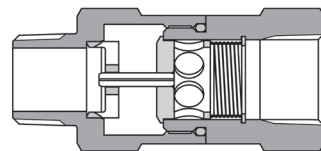


How It Works

- Safety check valves utilize the pressure differential across the valve to operate the valve and spring assembly. The pressure differential is directly related to the flow of air (SCFM) through the valve.
- When the pressure differential is within the operating limits of the unit – below the cutoff flow –, the force on the valve exerted by the spring is greater than that caused by the pressure differential (see "Open Position" graphic to the left). The valve remains open and normal operation continues.
- When the pressure differential is above the cutoff limit, the force on the valve exerted by the pressure differential is greater than the force exerted by the spring, and the valve closes (see the "Closed Position" graphic to the left).
- After the repair is made, normal operation is automatically enabled when pressure across the valve equalizes through the bleeder hole.
- The valve spring size can be specified by determining the air flow during normal operation and by estimating the air flow if a failure or rupture occurs.



Open Position



Closed Position

| NPT and Hose I.D. Size | Cutoff Flow Rate (SCFM at 90 PSI) | Brass Part # | NPT & Hose I.D. Size | Cutoff Flow Rate (SCFM at 90 PSI) | Brass Part # | |
|------------------------|-----------------------------------|--------------|----------------------|-----------------------------------|--------------|--------|
| 1/4" | 23-29 | SCVL2 | 1-1/4" | 260-290 | SCVL10 | |
| | 30-36 | SCVL3 | | 300-340 | SCVM10 | |
| 3/8" | 39-47 | SCVM3 | | 440-500 | SCVS10 | |
| | 52-65 | SCVS3 | | 570-630 | SCVH10 | |
| 1/2" | 70-78 | SCVM4 | | 1-1/2" | 300-360 | SCVL12 |
| | 80-96 | SCVS4 | | | 470-530 | SCVM12 |
| 3/4" | 72-88 | SCVL6 | 564-602 | | SCVX12 | |
| | 92-108 | SCVM6 | 640-720 | | SCVS12 | |
| | 112-128 | SCVR6 | 750-830 | | SCVH12 | |
| | 132-148 | SCVJ6 | 2" | | 510-590 | SCVL16 |
| | 160-180 | SCVS6 | | 725-825 | SCVM16 | |
| | 180-200 | SCVH6 | | 900-1050 | SCVS16 | |
| 1" | 165-195 | SCVL8 | | 3" | 1100-1200 | SCVH16 |
| | 220-260 | SCVM8 | 1200-1400 | | SCVL24 | |
| | 280-320 | SCVS8 | 2400-2700 | | SCVS24 | |
| | 310-340 | SCVH8 | 2850-3050 | | SCVH24 | |
| | | | see below* | | SCVS24-16 | |

*Designed for **350 PSI** 1550 SCFM compressors