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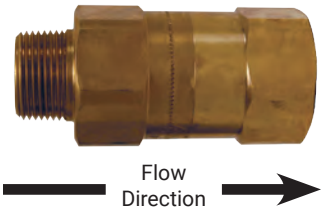
Safety Check Valves

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

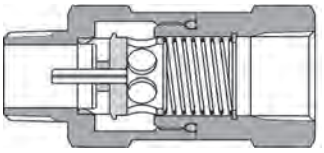
- Solid brass body and valve
- Stainless steel spring and roll pin

Specifications

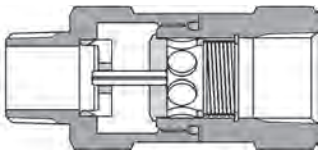
- Conforms to OSHA regulation 1926.302 (b) (7) requiring a safety device at the source of the air supply and at branch air lines
- Maximum operating pressure: **350 PSI**
- Maximum temperature: **250°F (121°C)**

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 - below the cutoff flow - of the unit, the force on the valve exerted by the spring is greater than that caused by the pressure differential (see "Open Position" graphic to the right). 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 right).
- 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 & Hose I.D. Size	Cut-off Flow Rate (SCFM at 90 PSI)	Brass Part #	NPT & Hose I.D. Size	Cut-off Flow Rate (SCFM at 90 PSI)	Brass Part #
1/4"	23-29	SCVL2	1-1/4"	260-290	SCVL10
3/8"	30-36	SCVL3		300-340	SCVM10
	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		1100-1200	SCVH16
	220-260	SCVM8	3"	1200-1400	SCVL24
	280-320	SCVS8		2400-2700	SCVS24
	310-340	SCVH8		2850-3050	SCVH24