

SCV-Series Excessive Flow Sensor/Check Valve

SCV-Series



- High flow design results in maximum flow with minimal pressure drop.
- Automatically and instantly protects the operator against hose whip in the event of a damaged hose or coupling.
- In the event of a hose rupture or coupling failure, the valve will automatically reset after the problem is fixed.
- SCV-Series is available in a large selection of sizes ranging from 1/4" to 3", NPTF or BSPP/BSPT threads.
- Valve operation is fully compliant with OSHA Safety Regulation 1926.302(b)(7), as shown on page 3.

Performance Specifications	Operating Bar (PSI)	Min. Burst Bar (PSI)	Temperature °C (°F)	Air Flow * 30.5m (100')
1/4"	17 (250)	138 (2,000)	121 (250)	17 SCFM
3/8"	17 (250)	138 (2,000)	121 (250)	41 SCFM
1/2"	17 (250)	138 (2,000)	121 (250)	77 SCFM
3/4"	17 (250)	138 (2,000)	121 (250)	178 SCFM
1"	17 (250)	138 (2,000)	121 (250)	340 SCFM
1-1/4"	17 (250)	138 (2,000)	121 (250)	620 SCFM
1-1/2"	17 (250)	138 (2,000)	121 (250)	940 SCFM
2"	17 (250)	138 (2,000)	121 (250)	1,760 SCFM
2-1/2"	17 (250)	138 (2,000)	121 (250)	2,800 SCFM
3"	17 (250)	138 (2,000)	121 (250)	4,200 SCFM

* Air flow rating is based upon calculated values using unobstructed air flow for the applicable hose size.

SCV-Series Selection Parameters

1. Sketch the position of the tool, fittings, safety check and supply line. Measure the length of hose from the safety check to the tool. There should be no jump sizes in the hose between the safety check and the tool. You will need one safety check valve for each branch line feeding the tool. A safety check in the main supply line is also recommended.
2. Determine the hose size you want to protect. Select the same size safety check as the hose size. For example, a 3/8" hose will require a 3/8" safety check. Do not use a different size safety check. One exception to this rule is for 5/8" hose, use a 1/2" safety check valve.
3. Determine the maximum operating air flow (SCFM) required through the safety check during normal use. For example, the maximum air consumption of the largest tool used on that supply line. Determine the optimum cutoff flow by multiplying the maximum operating air flow by 110%.
4. Add to the length of hose, you measured in step 1, length adders to compensate for system components. Add 0.91m (3') for each elbow, 0.91m (3') for each tee, 3.05m (10') for each globe valve, 0.61m (2') for each gate valve, 0.91m (3') for each hose fitting. This calculation will result in the total length for your safety check valve selection. Find the column in the Unobstructed Air Flow Chart, on the next page, that corresponds to your hose size and the row that corresponds to your calculated total length. Where they intersect, is the unobstructed air flow in SCFM.
5. If the optimum cutoff flow is 80% of the unobstructed air flow or less, you should use the optimum cutoff flow (110% of the maximum calculated air flow) to select the appropriate safety check valve. To do this, find the safety check that has a corresponding cutoff flow rate in the product list on the next page.
6. If the optimum cutoff flow is greater than 80% of the unobstructed air flow, there may be a problem with the safety check valve sensing the difference between normal air demand and a line rupture. You may want to consider removing fittings from the flow path, reducing the length of your hose or increasing your hose diameter. If you are not sure, call your Dixon distributor for assistance.
7. Always install one safety check and test the performance of the system before you continue other installations. When start-up is underway, open the air control valve at the compressor or manifold VERY SLOWLY to allow air to bleed through the check valve so that pressure is equalized on each side of the valve. If the valve fails to operate despite meeting all conditions, check the supply line for obstructions or a hose mender restricting normal air flow.



Attention Required!

Not recommended for applications requiring 100% of the available air supply. These applications include, but are not limited to, sand blast equipment, pile driving rigs, and expansion joint blow down pipes.

It is recommended to install auxilliary safety devices, including Safety Cables, to ensure optimum safety for the operator in the event of a coupling failure or hose rupture.