

Check Valves



Size range: 1/2" - 4" O.D. (12-100mm)

Materials: R=316L

Contact Dixon for price and availability.

Maintaining the standard.

The Hygienic Standard was created by the dairy industry as a voluntary benchmark for product performance and hygienic safety.

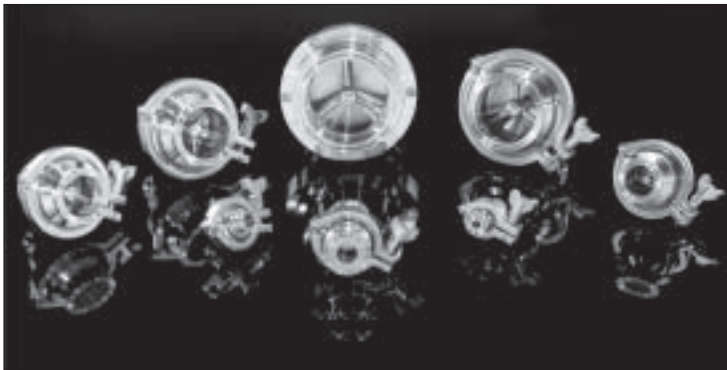
Our products have earned the  symbol, which requires an annual assessment to make certain each product conforms in all respects to the published standard. Dixon check valves carrying the symbol conform to the hygienic standards for fittings for milk and milk products. Dixon is proud to be a participant in the  program.



A variety of industries have trusted Dixon hygienic check valves for many years. Dixon check valves feature quick-disconnect clamp ends for quick and easy cleaning (RJT, DIN, SMS, IDF ends available). Check valves are used for hygienic, as well as industrial applications, to prevent backflow.

- Spring check valves are designed to prevent reverse flow. Concentric valves are available in 1/2" - 4"
- Ball check valves are used where full flow and low pressure drop of product during processing is required. When the flow of product is reversed, the PTFE ball rolls back and seats, thus preventing backflow. Sizes are available from 1 1/2" - 3"
- Air blow check valves are used to clear lines of CIP solutions or other products. Sizes are available from 1" - 4"

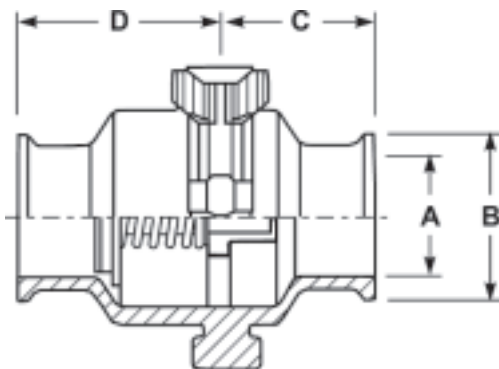
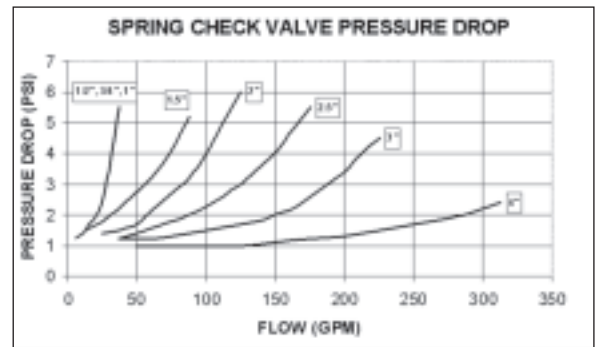
Spring Check Valves



- CF-8M (316) stainless steel
- Viton® seats
- Various end configurations available
- Full size flow plate with a long bushing helps to minimise stem wear
- Specially designed to prevent even low-pressure leak-through
- Maximum operating pressure: 145 psi
- Operating temperature range: 20°C (0°F) to 100°C (200°F)

Get control with Dixon's high quality spring check valves. Spring check valves meet all 3A requirements and are designed to prevent reverse flow.

The valve opens once the pressure below the valve seat exceeds the pressure above the valve seat. It closes when the pressure is equalised.



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PART NO.	SIZE	DIMENSIONS (inches)				PRESSURE RATING (PSI)	CRACKING PRESSURE (PSI)		FLOW COEFFICIENT (CV)
		A	B	C	D		SPRING #1	SPRING #2	
B45MP-R50	1/2"	0.370	0.992	1.1	1.6	145	10	0.6	5
B45MP-R75	3/4"	0.620	0.992	1.1	1.6	145	4	2	8
B45MP-R100	1"	0.870	1.988	1.7	2.3	145	0.8	N/A	12
B45MP-R150	1 1/2"	1.370	1.988	1.7	2.3	145	1.6	N/A	20
B45MP-R200	2"	1.870	2.519	1.7	2.3	145	1.4	N/A	40
B45MP-R250	2 1/2"	2.370	3.051	1.7	2.3	145	0.9	N/A	60
B45MP-R300	3"	2.870	3.582	1.7	2.3	145	0.5	N/A	100
B45MP-R400	4"*	3.834	4.682	1.7	2.7	145	0.5	N/A	210

* 4" uses bolted construction in place of clamp

Note: Drawing is for dimensional information only. Specifications and dimensions are subject to change without notice.

Ball Check Valves

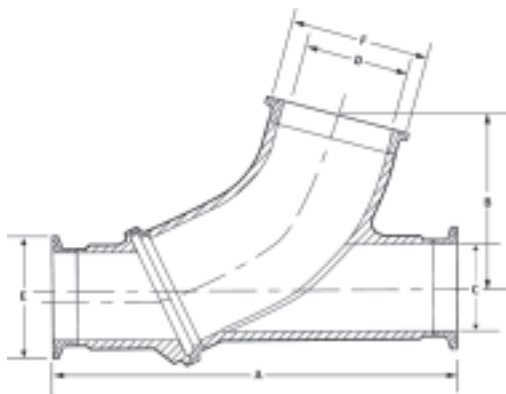


These rugged valves are designed to prevent reverse flow in systems moving liquid products.

When liquid flows into the inlet, a PTFE ball rolls up into the branch of the valve allowing full fluid flow. When the flow stops, equalising the pressure, the ball drops back into the seat, preventing backflow. Should reverse flow occur, the opposing pressure will cause the ball to seat firmly against the inlet gasket preventing backflow.

- Two piece construction for easier alignment during installation
- Various end configurations available: RJT, DIN, SMS, IDF, Clamp.
- Polished ID and OD to 3A standards
- Sizes from 1 1/2" - 3"
- All metal contact surfaces of 316 (CF8M) stainless steel construction
- Air blow check valve can be added (see air blow for sizing) page 51
- PTFE ball

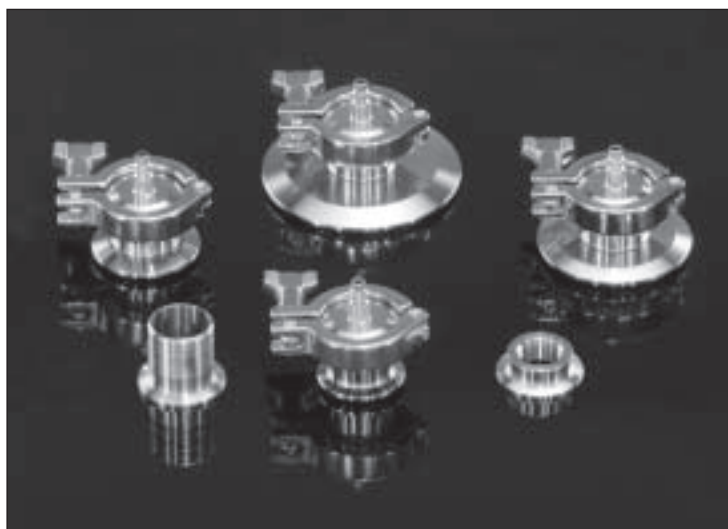
SIZE	COMPONENT SIZE (in)				BALL Ø	SEATING PRESSURE (inches) H2O	WEIGHT (lbs)
	BODY	CAP	CLAMP	GASKET			
1 1/2"	1 1/2"	2	2	2	1.6	0.75	4.9
2"	2"	2 1/2"	2 1/2"	2 1/2"	2.1	0.75	6.6
2 1/2"	2 1/2"	3"	3"	3"	2.7	0.75	10.5
3"	3"	4"	4"	4"	3.6	0.75	17.5



PART NO.	SIZE	DIMENSIONS (inches)					
		A	B	C	D	E	F
B45BY-R150	1 1/2"	7.5	3.3	1.365	1.875	1.984	2.516
B45BY-R200	2"	8.5	3.9	1.865	2.335	2.516	3.047
B45BY-R250	2 1/2"	10.0	4.5	2.370	2.870	3.047	3.579
B45BY-R300	3"	11.5	5.3	2.870	3.834	3.579	4.682

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Air Blow Check Valve

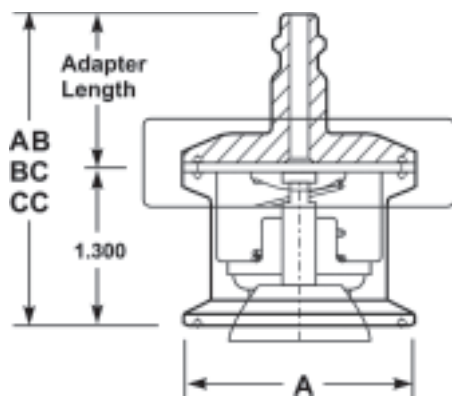


Dixon's air blow check valve is designed to evacuate lines of product or CIP solutions thus helping to protect the lines against corrosion. The valve's fail-safe operation prevents backflow with a simple air-to-open spring-to-close mechanism.

Attach and use with Dixon ball check valves, or any quick disconnect clamp configuration, to allow quick assembly and disassembly when replacing filter media, cleaning or inspecting.

FOR USE ON BALL CHECK VALVES:	
BALL CHECK VALVE SIZE	AIR BLOW VALVE SIZE
1 1/2"	2"
2"	2 1/2"
2 1/2"	3"
3"	4"

- 316L stainless steel offered with EPDM stem seat and gasket
- Sizes from 1 1/2" - 4"
- Conforms to 3A standards for filtration of air entering tanks or pipelines with optional filter disc
- Filter discs sold separately in packs of 50



PART NO.	SIZE	DIMENSIONS (inches)			
		A	AB	BC	CC
B45AB-R1 00150	1 - 1 1/2"	1.984	2.550	2.989	1.925
B45AB-R200	2"	2.516	2.550	2.989	1.925
B45AB-R250	2 1/2"	3.047	2.550	2.989	1.925
B45AB-R300	3"	3.579	2.550	2.989	1.925
B45AB-R400	4"	4.682	2.550	2.989	1.925

- Note:
- * AB dimension reflects valve length and quick coupler adapter (B16AC) - (standard)
 - * BC dimension reflects valve length and hose barb adapter (14MPHR)
 - * CC dimension reflects valve length and NPT adapter (B23BMP)

Note: Drawing is for dimensional information only. Specifications and dimensions are subject to change without notice.

Air Relief Valves



Working Principle

The Bradford™ air relief valve allows air to be removed from a line or container without the liquid flowing out. Its design does not allow air to enter the line or container, even if subjected to a negative pressure. It is a doubleseated valve with a freely moving polypropylene ball. The ball, which is lighter than water, closes against the upper or lower seat, depending on the pressure conditions.

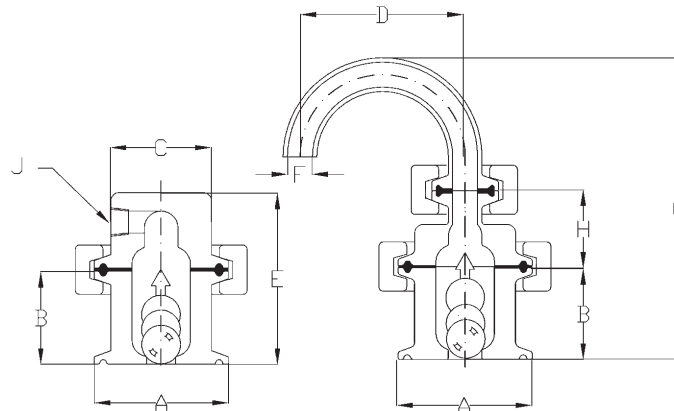
Get control with the dependable air relief valve which can be installed vertically on top of a tank, container or tube where air removal is required.

Examples:

1. Bleeding of a tube line where an air pocket has formed. This application calls for installation at the top of the tube.
2. Bleeding of a tube on the suction side of a pump. The suction side is bled automatically, before the pump starts, establishing a vacuum. Binding of air to liquid will be prevented, and so will subsequent cavitation. In this application the valve is mounted in front of the pump, on the top of the inlet tube.

Features and Benefits

- No tools for assembly or disassembly
- The ball and gaskets are replaceable
- The valve seals for both pressure and vacuum. The air and water can be directed away by using a plastic tube and the 1/8" FNPT connection port on the valve
- All product contact surfaces have a radius of 1/4" or better
- The valve ball is constructed of FDA, 3A approved polypropylene
- PTFE valve ball is available (density=0.078 lb/in³)
- Other gasket materials available



PART NO.	DESCRIPTION	DIMENSIONS (inches)								
		A	B	C	D	E	F	G	H	J
BARV-G150	air relief valve	1.98	1.4	1.5	–	2.4	–	–	–	1/8" NPT
BARVE-G150	3A air relief valve	1.98	1.4	–	1.5	–	0.37	4.5	1.1	–

Note: all dimensions are in inches. Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.