CVS10 Sanitary Check Valve with Metal Seat

Description

The CVS10 sanitary in-line spring assisted check valve is manufactured from 316L stainless steel and prevents reverse flow in fluid lines. The CVS10 with metal seat is designed for steam applications or other aggressive applications where a soft seat is not suitable, within the food, medical and pharmaceutical industries.

Optional:
For water, process fluid and gas applications soft-seated versions with EPDM, Viton or FEP-Silicone seats are available - See Technical Information sheet TI-P029-10-US for further data.

Available types and surface finish
CVS10-1 has an internal surface finish of 20 µ-in (0.5 micron) Ra (within ASME BPE SF1), and external surface finish of 32 µ-in (0.8 micron) Ra and a metal seat.
CVS10-2 has an electropolished internal surface finish of 15 µ-in 0.38 Ra (within ASME BPE SF4), and external surface finish of 32 µ-in (0.8 micron) Ra and a metal seat.

Standards
- The CVS10 fully complies with the European Pressure Equipment Directive 97/23/EC.
- The CVS10 is designed in accordance with ASME-BPE.

Standard shut-off
The standard shut-off of the CVS10 with metal seat conforms to EN 12266-1: 2003 Rate D.

Certification:
- EN 10204 3.1 material certification.
- Typical surface finish certificates.

Note: All certification inspection requirements must be stated at time of order placement.

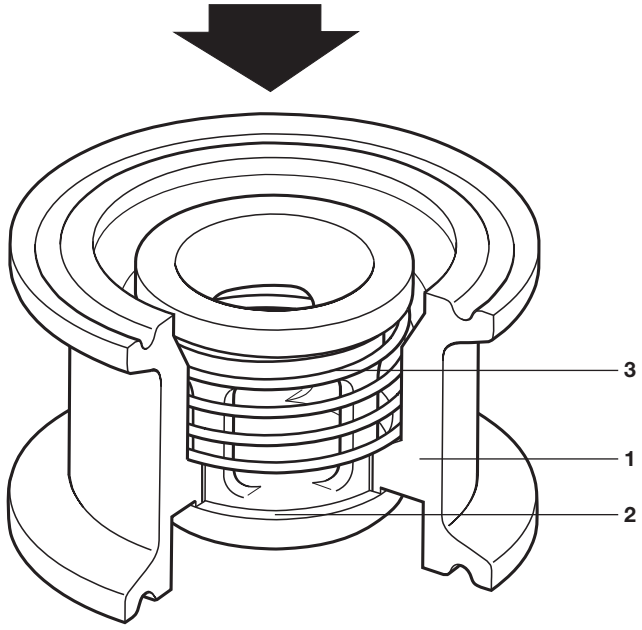
Packaging
Packaging for this product is conducted in a clean environment segregated from other non stainless steel products, and in accordance with ASME BPE. Inlet and outlet connections are capped and the product is sealed in a plastic bag prior to boxing.

No.	Part	Material
1	Body	Stainless steel 316L
2	Valve head	Stainless steel 316L
3	Spring	Stainless steel 316

Sizes and pipe connections

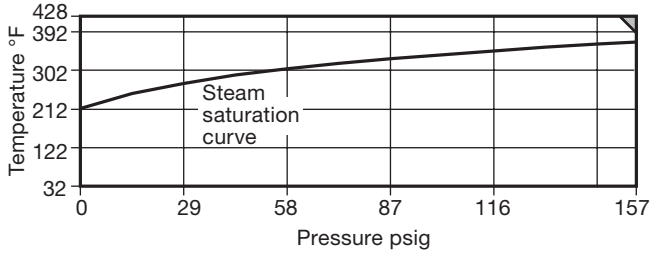
½", ¾", 1", 1½" and 2" to ASME BPE available as standard.
Sanitary clamp:
- ASME BPE clamp.

Please note: other connections, sizes and opening pressures are available on request.



1" valve shown

Pressure/temperature limits



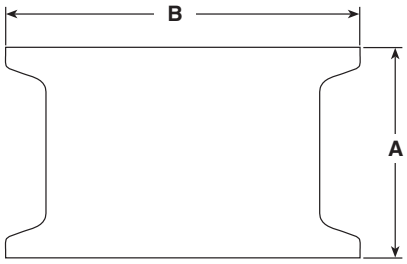
The product **must not** be used in this region.

Body design conditions		PN10
PMA	Maximum allowable pressure	157 psig @ 392°F (10.8 barg @ 200°C)
TMA	Maximum allowable temperature	428°F @ 152 psig (220°C @ 10.5 bar g)
Minimum allowable temperature		-425°F (-254°C)
PMO	Maximum operating pressure for saturated steam service	145 psig (10 bar g)
TMO	Maximum operating temperature	428°F @ 145 psig (220°C @ 10 bar g)
Minimum operating temperature		32°F (0°C)
Designed for a maximum cold hydraulic test pressure of 218 psig (15 barg)		

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

CVS10 Sanitary Check Valve with Metal Seat

Dimensions / weights (approximate) in inches (mm) and lbs. (kg)



Sanitary clamp

Size	A	B	Weight
½"	1.57 (40)	1.0 (25.4)	.2 (0.10)
¾"	1.57 (40)	1.0 (25.4)	.2 (0.10)
1"	.98 (25)	2.0 (50.5)	.3 (0.15)
1½"	1.18 (30)	2.0 (50.5)	.4 (0.18)
2"	1.37 (35)	2.5 (64.0)	.8 (0.35)

K_V values

Size	½"	¾"	1"	1½"	2"
K_V	2	2	4	8	18

For conversation: C_V (UK) = K_V x 0.963 C_V(US) = K_V x 1.156

Opening pressures in psi (mbar)

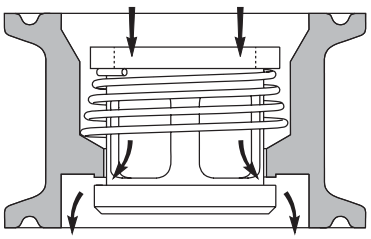
Differential pressure with zero flow in a horizontal installation.

Size	½"	¾"	1"	1½"	2"
psi (mbar)	.507 (35)	.507 (35)	.507 (35)	.507 (35)	.507 (35)

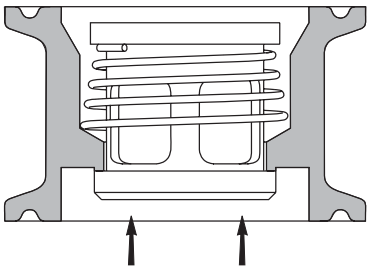
Operation

The valve is opened by the pressure of the fluid. When fluid flow stops the spring closes the valve before reverse flow can occur.

Valve open



Valve closed



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P029-11) supplied with the product.

How to order

Example: 1 off Spirax Sarco 1" CVS10-1 sanitary check valve with metal seat, ASME BPE sanitary clamp connections, and having an internal surface finish of 20 µ-in (0.5 micron) Ra. Complete with certification dossier.

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