HCV01 CHECK VALVE

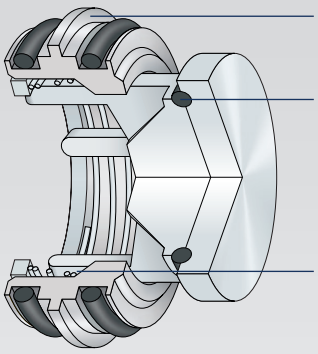
HCV01

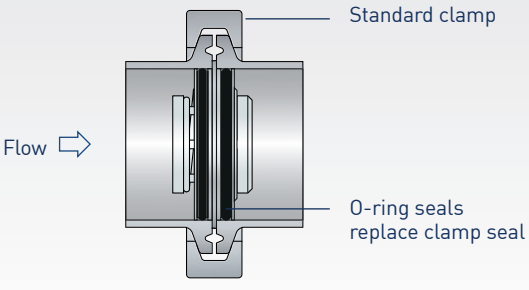
The HCV01 check valve is designed to fit between two ASME BPE compliant clamp fittings, sealing on the ID of the tube using FDA approved EPDM O-rings. The compact 316/316L stainless steel design is suitable for a wide range of duties in steam, liquid and gas service, including pressure relieving and anti-vacuum applications. Standard valves are available with either metal-metal or EPDM soft seat seal. The standard opening pressure for the HCV01 is either 8 or 35 mbar when installed horizontally. The HCV01 has a cast internal barrel which limits the certifiable surface finish. Where a specified surface is required, the HCV01B is available. The HCV01B is manufactured entirely from bar-stock material with all surfaces finished to 0.5 microns Ra as standard.

Pressure Rating	Up to 50 barg
Temperature Rating	135°C with EPDM seals
Connections	To suit 3/4" - 4" ASME BPE clamp fittings
Wetted Parts	316 /316Lstainless steel
Seal Material	Body seals - EPDM Seat seal - metal-metal or EPDM
Opening Pressure	8 or 35 mbar
Surface Finish	Body and valve head - 0.5 microns Ra Piston surfaces - 1.2-1.6 microns Ra
Options	100 or 240 mbar opening pressure Viton, silicone or Kalrez body and seat seals Clamp with tab to identify valve presence Enhanced surface finish - HCV01B
Certification	Certificate of conformity Material certification FDA Elastomer compliance certificate Certified 'Animal Derived Ingredient' free

Features

- Simple to install - fits between ferrules using a standard clamp
- Integral o-rings eliminate need for additional seal
- Suitable for steam, liquid and gas applications
- Wide range of spring and seal options





Installed valve

Unit 1000, Sperry Way, Stonehouse Park, Stonehouse, GL10 3UT, UK / T. +44 (0) 1453 882736 / sales@staitech.com / www.staitech.com

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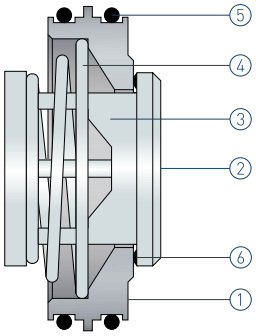
Illustration showing optional seat seal (6) fitted



Part		Description
1	Body	316L stainless steel
2	Valve head	316L stainless steel
3	Piston	316 stainless steel (cast)
4	Spring	316 stainless steel
5	Body seals	EPDM
6	Optional seat seal	EPDM

		Effect on opening pressure due to valve orientation (mbar)						
	Flow	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
8 mbar spring	↔	0	0	0	0	0	0	0
	↑	+4	+4	+4	+4	+4	+5	+7
	↓	-4	-4	*	*	*	*	*
Other spring ranges	↑	+4	+4	+4	+4	+5	+5	+7
	↓	-4	-4	-4	-4	-5	-5	-7

*Valves not suitable for orientation with flow downward when fitted with 8 mbar spring as valve may fail to close due to the piston and head weight overcoming the spring closing force

Service Parts - Body seal kit - 2 seals (5) per set
Note - 3/4" to 4" valves with soft seat seal are non-maintainable as the seat seal is captive. Body seals are still available for soft seated valves

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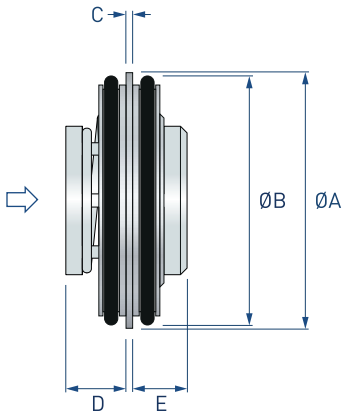

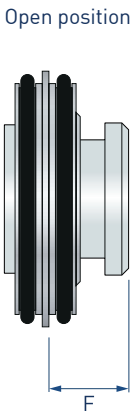

Size ASME BPE	Dimensions (mm) ØA	ØB	C	D	E	F	Kv(m³/h)	Weight (kg)
3/4"	19.0	15.8	1.6	7.1	11.2	19.8	2	0.01
1"	25.4	22.1	1.6	7.6	13.5	22.6	4	0.03
1-1/2"	38.1	34.8	1.6	16.0	13.5	26.9	8	0.1
2"	50.8	47.5	1.6	16.7	16.8	35.3	18	0.2
2-1/2"	63.5	60.2	1.6	22.4	17.5	39.6	32	0.3
3"	76.2	72.9	1.6	31.8	19.0	50.0	60	0.3
4"	101.6	97.4	1.6	41.4	22.4	61.2	90	1.1

ASME BPE part number ordering key

Product		Size		Connection			Seal			Spring	
	-					-			-		
HCV01		3/4" ASME BPE	**075**	Clamp	**C**		Metal	**M**		8 mbar	**08**
		1" ASME BPE	**100**				EPDM - black	**EBK**		35 mbar	**35**
		1-1/2" ASME BPE	**150**							100 mbar	**100**
		2" ASME BPE	**200**							240 mbar	**240**
		2-1/2" ASME BPE	**250**								
		3" ASME BPE	**300**								
		4" ASME BPE	**400**								

Example

HCV01	**-**	**075C**	**-**	**M**	**-**	**08**

Specification text

Staitech **HCV01 check valve** manufactured in 316L stainless steel with EPDM compliant body seals. **3/4" ASME BPE clamp** connections. **Metal-metal seating. 8 mbar opening pressure.** Body and valve head finished to 0.5 microns Ra with piston surfaces finished to 1.2-1.6 microns Ra. (HCV01-075C-M-08).