

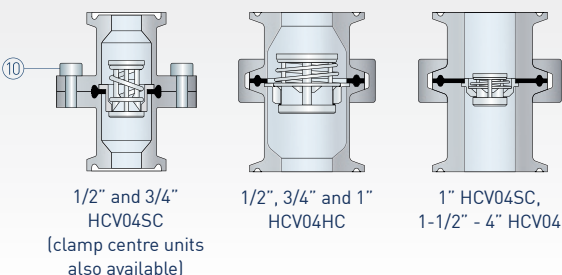
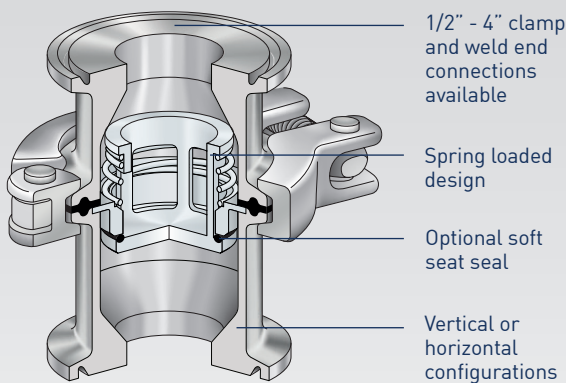
# HCV04 CHECK VALVE



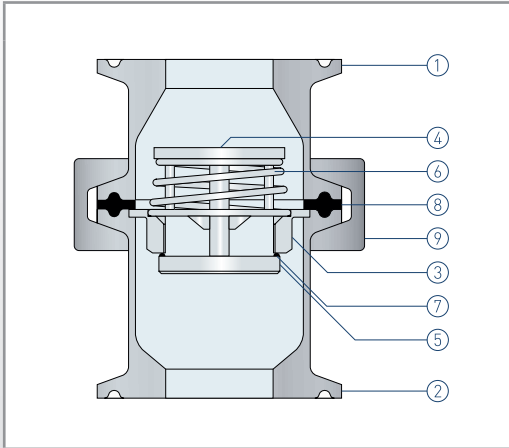
## HCV04

The HCV04 range is ideally suited to steam, condensate and process fluid applications. Standard valves have metal-metal seating and a choice of 8 or 35 mbar opening pressure. A range of soft seat options are also available. Wetted surfaces on all valves are finished to 0.5 microns Ra. 1/2" to 1" valves are available in either standard or high capacity configuration. The HCV04 is also suitable for use as an anti-vacuum valve or pressure relief device.

<b>P Pressure Rating</b>	Up to 10 barg
<b>T Temperature Rating</b>	Up to 200°C with metal-metal seating Up to 200°C with Viton, Silicone or Perlast seat seal Up to 150°C with EPDM seat seal
<b>I Connections</b>	1/2" - 4" ASME BPE clamp fittings DN8 - DN50 DIN and ISO clamp fittings
<b>Wetted Parts</b>	316L stainless steel*
<b>Seal Material</b>	Body seal - PTFE-Viton envelope Standard valves have metal-metal seating Optional body and seat seal combinations - EPDM, Viton, Silicone or Perlast
<b>Opening Pressure</b>	8 or 35 mbar
<b>Surface Finish</b>	Wetted surfaces - 0.5 microns Ra (SF1) External surfaces - 0.8 microns Ra
<b>Options</b>	Eccentric connections DIN and ISO clamp and weld end connections ASME BPE weld end connections Low ferrite stainless steel (WN1.4435) Electropolished finish (SF4)
<b>C Certification</b>	Certificate of conformity Material certification FDA Elastomer compliance certificate USP Elastomer compliance certificate Certified 'Animal Derived Ingredient' free
<b>★ Features</b>	<ul style="list-style-type: none"> <li>• Wide range of connection types and sizes</li> <li>• Optional finishes available - SF1 and SF4</li> <li>•</li> <li>•</li> <li>•</li> </ul>



\*Spring is 316 S11 spring steel



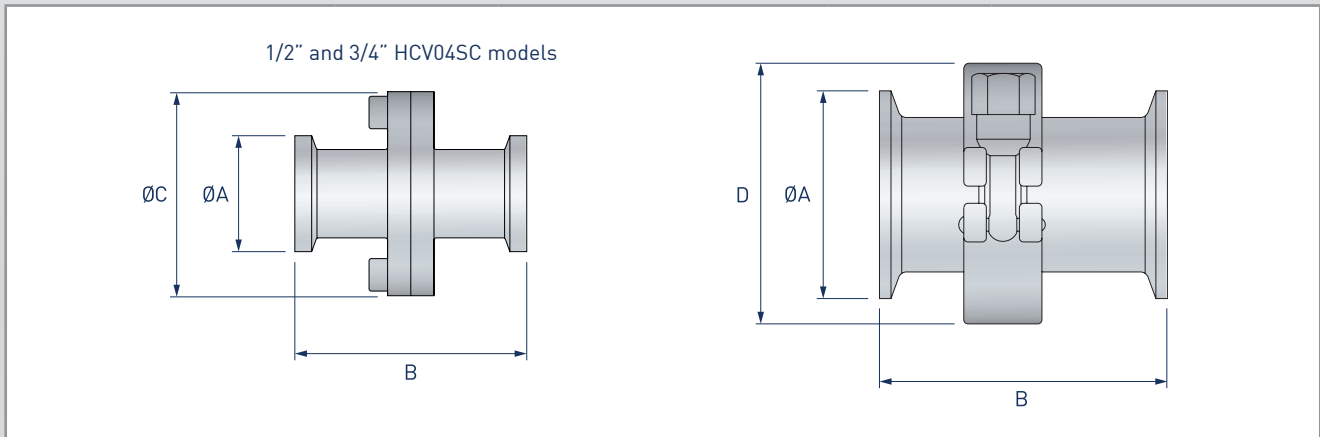
1/2" and 3/4" HCV04SC models have a bolted body joint as standard.

Part	Description
1	Inlet body 316L stainless steel
2	Outlet body 316L stainless steel
3	Cartridge valve body 316L stainless steel
4	Cartridge valve piston 316L stainless steel
5	Cartridge valve head 316L stainless steel
6	Cartridge valve spring 316 stainless steel
7	Optional seat seal EPDM, Viton, Silicone or Perlast
8	Body seal* PTFE-Viton envelope, EPDM, Viton or Silicone
9	Body clamp 304 stainless steel
10	Body screw** Stainless steel

\*The standard body seal for a metal-metal seated valve is a PTFE-Viton envelope gasket. Other seal materials are available upon request. For soft seated valves, the body seal is typically matched to the seat seal material. Valves with Perlast seat seal will have a PTFE-Viton body seal.

All seals are FDA and USP compliant. USP seals tested at 121°C are available to special order.

\*\*1/2" and 3/4" SC only see illustration on page 1



Size ASME BPE	ØA	Dimensions (mm)			Drainable in horizontal	Kv(m <sup>3</sup> /h)	Weight (kg)
		B	ØC	D			
1/2" SC	25	50	44	-	x	2	0.15
1/2" HC	25	80	-	60	x	4	0.5
3/4" SC	25	50	44	-	✓	2	0.15
3/4" HC	25	80	-	60	x	4	0.5
1" SC	50.5	70	-	60	✓	4	0.5
1" HC	50.5	70	-	60	x	8	0.5
1-1/2"	50.5	80	-	60	✓	8	0.65
2"	64	80	-	78	✓	18	0.75
2-1/2"	77.5	80	-	120	✓	32	1.1
3"	91	80	-	135	✓	60	1.3
4"	119	80	-	180	✓	109	1.5

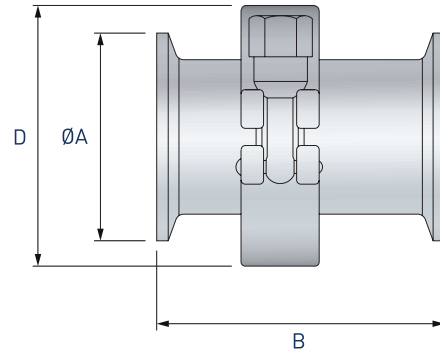
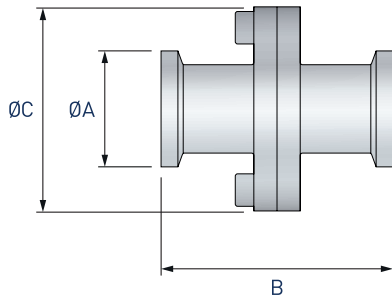
		Effect on opening pressure due to valve orientation (mbar)							
Flow		1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
08 mbar spring	↔	0	0	0	0	0	0	0	0
	↑	+4	+4	+4	+4	+4	+4	+5	+7
	↓	-4	-4	*	*	*	*	*	*
35 mbar spring	↑	+4	+4	+4	+4	+4	+5	+5	+7
	↓	-4	-4	-4	-4	-4	-5	-5	-7

\*Valves not suitable for orientation with flow downward when fitted with 8 mbar spring as valve may fail to close

**Service Parts** - Body seal (8), seat seal (7) where fitted

HCV04 ASME BPE connections - ordering code									
Product		Size		Connection		Seat seal		Spring	
	-				-		-		
Standard capacity		1/2" ASME BPE	050	Clamp	C	Metal	M	8 mbar	08
HCV04SC		3/4" ASME BPE	075	Weld	W	EPDM	EBKU	35 mbar	35
		1" ASME BPE	100			Viton	VBKU		
High capacity		1/2" ASME BPE	050			Silicone	SW		
HCV04HC		3/4" ASME BPE	075			Perlast	PLW		
		1" ASME BPE	100						
HCV04		1-1/2" ASME BPE	150						
		2" ASME BPE	200						
		2-1/2" ASME BPE	250						
		3" ASME BPE	300						
		4" ASME BPE	400						
Example									
<b>HCV04</b>	<b>-</b>	<b>150C</b>		<b>-</b>		<b>M</b>	<b>-</b>	<b>08</b>	
Specification text									
<p>Staitch HCV04 check valve manufactured in 316L stainless steel with PTFE-Viton body seal. 1-1/2" ASME BPE clamp connection. Metal-metal seating. 8 mbar spring. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV04-150C-M-08). For electropolished finish add suffix '-EP' (HCV04-150C-M-08-EP).</p>									

DN8SC and DN10SC models



Size DIN	Dimensions (mm)				Kv(m <sup>3</sup> /h)	Weight (kg)
	ØA	B	ØC	D		
<b>DN8SC &amp; DN10SC</b>	34	50	44	-	2	0.15
	25	50	44	-	2	0.15
<b>DN10HC</b>	34	80	-	60	4	0.5
	25	80	-	60	4	0.5
<b>DN15</b>	34	80	-	60	4	0.5
	25	80	-	60	4	0.5
<b>DN20</b>	34	80	-	60	4	0.5
<b>DN25SC</b>	50.5	70	-	60	4	0.5
<b>DN25HC</b>	50.5	70	-	60	8	0.5
<b>DN32</b>	50.5	70	-	60	8	0.5
<b>DN40</b>	50.5	80	-	60	8	0.65
<b>DN50</b>	64	80	-	78	18	0.75

Note - larger sizes available upon request

Size ISO	Dimensions (mm)				Kv(m <sup>3</sup> /h)	Weight (kg)
	ØA	B	ØC	D		
<b>DN8SC &amp; DN10SC</b>	25	50	40	-	2	0.15
<b>DN8HC &amp; DN10HC</b>	25	70	-	60	4	0.15
<b>DN15</b>	34	70	-	60	4	0.5
	50.5	70	-	60	4	0.5
<b>DN20SC</b>	50.5	70	-	60	4	0.5
<b>DN20HC</b>	50.5	70	-	60	8	0.5
<b>DN25</b>	50.5	70	-	60	8	0.5
<b>DN32</b>	64	80	-	78	8	0.65
<b>DN40</b>	40	80	-	78	18	0.75

Note - larger sizes available upon request

Note - for DIN and ISO ordering codes consult Staitech

HCV02 DIN connections - ordering code									
Product		Connection		Size		Seat seal		Spring	
	-		-		-		-		
Standard capacity HCV04SC		Clamp Weld	C W	DIN DN8	34.0-8.0 25.0-8.0	Metal EPDM	M EBKU	8 mbar 35 mbar	08 35
				DIN DN10	34.0-10.0 25.0-10.0	Viton Silicone	VBKU SW		
				DIN DN15	34.0-15.0 25.0-15.0	Perlast	PLW		
				DIN DN20	34.0-20.0 25.0-20.0				
High capacity HCV04HC		Clamp Weld	C W	DIN DN10	34.0-10.0 25.0-10.0				
				DIN DN15	34.0-15.0 25.0-15.0				
				DIN DN20	34.0-20.0 25.0-20.0				
HCV04		Clamp Weld	C W	DIN DN15	34.0-15.0 25.0-15.0				
				DIN DN20	34.0-20.0 25.0-20.0				
				DIN DN25	50.5-25.0				
				DIN DN32	50.5-32.0				
				DIN DN40	50.5-38.0				
				DIN DN50	64.0-50.0				
<b>Example</b>									
<b>HCV04SC</b>	<b>-</b>	<b>C</b>	<b>-</b>	<b>34.0-8.0</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>08</b>	
<b>Specification text</b>									
Staitech HCV04SC check valve manufactured in 316L stainless steel with PTFE-Viton body seal. DIN DN8 clamp connection. Metal-metal seating. 8 mbar spring. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV04-C-34.0-8.0-M-08). For electropolished finish add suffix '-EP' (HCV04-C-34.0-8.0-M-08-EP).									

HCV02 ISO connections - ordering code									
Product	Connection		Size		Seat seal		Spring		
	-		-		-		-		
Standard capacity		Clamp	C	ISO DN8	25.0-10.3	Metal	M	8 mbar	08
HCV04SC		Weld	W	ISO DN10	25.0-14.0	EPDM	EBKU	35 mbar	35
				ISO DN20	50.5-23.7	Viton	VBKU		
High capacity		Clamp	C	ISO DN8	25.0-10.3	Silicone	SW		
HCV04HC		Weld	W	ISO DN10	25.0-14.0	Perlast	PLW		
				ISO DN20	50.5-23.7				
HCV04		Clamp	C	ISO DN15	34.0-18.1				
		Weld	W		50.5-18.1				
				ISO DN20	50.5-23.7				
				ISO DN25	50.5-29.7				
				ISO DN32	64.0-38.4				
				ISO DN40	64.0-44.3				
Example									
<b>HCV04HC</b>	<b>-</b>	<b>C</b>	<b>-</b>	<b>25.0-10.3</b>	<b>-</b>	<b>M</b>	<b>-</b>	<b>08</b>	
Specification text									
<p>Staitech HCV04HC check valve manufactured in 316L stainless steel with PTFE-Viton body seal. ISO DN8 clamp connection. Metal-metal seating. 8 mbar spring. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV04HC-C-25.0-10.3-M-08). For electropolished finish add suffix '-EP' (HCV04HC-C-25.0-10.3-M-08-EP).</p>									