

# HCV02 CHECK VALVE



## HCV02

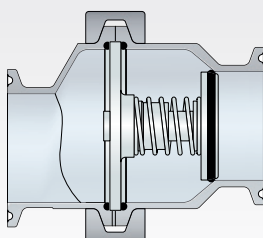
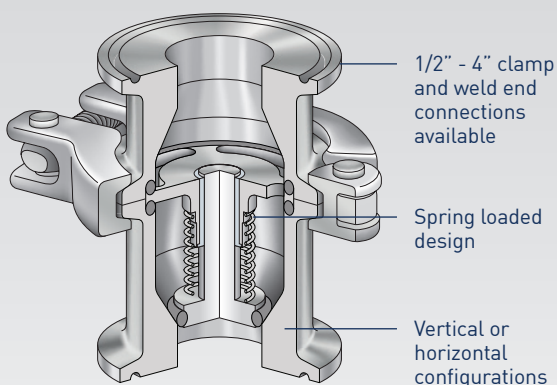
The HCV02 range is intended for use in high purity applications such as WFI systems. Valves are manufactured in 316L stainless steel with a range of seal options. Wetted surfaces are finished to 0.5 microns Ra. The standard opening pressure for the HCV02 range is either 8 or 35 mbar when horizontally installed. Where a valve is to be installed in a horizontal line and drainability is to be maintained, then an eccentric HCV02 version is available.

<b>P Pressure Rating</b>	Up to 10 barg
<b>T Temperature Rating</b>	Up to 150°C with EPDM seals Up to 200°C with Viton, Silicone or FEP-Silicone seals
<b>Connections</b>	1/2" - 4" ASME BPE clamp or weld end DN8 - DN50 DIN and ISO clamp and weld end Concentric and eccentric connections available
<b>Wetted Parts</b>	316L stainless steel*
<b>Seal Material</b>	EPDM, Viton, Silicone or FEP-Silicone
<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>	Bolten body design Perlast seals (High performance PTFE) Low ferrite stainless steel (WN1.4435), C22 and other alloys Electropolished finish (SF4)
<b>Certification</b>	Certificate of conformity Material certification FDA Elastomer compliance certificate USP Elastomer compliance certificate Certified 'Animal Derived Ingredient' free

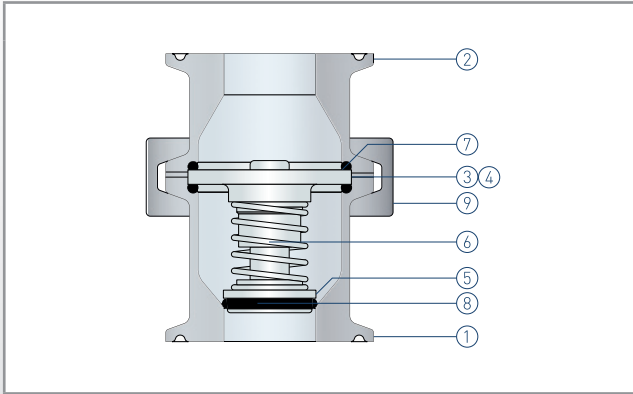
### ★ Features

- Wide range of connection types and sizes
- Optional finishes available - SF1 and SF4
- Concentric and eccentric connection types
- Minimal pressure drop
- Unique 'aseptic' twin o-ring body seal design

\*Spring is 316 S11 stainless steel



Valve with eccentric connections



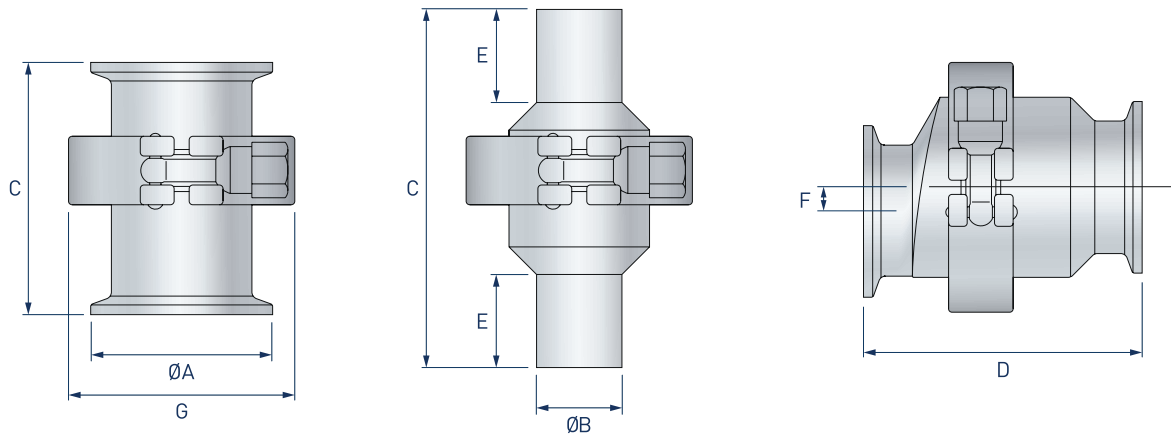
Part	Description	
1	Inlet body	316L stainless steel
2	Outlet body	316L stainless steel
3	Guide plate	316 stainless steel
4	Stem guide	TFM PTFE
5	Stem	316L stainless steel
6	Spring	316 stainless steel
7	Body seals*	EPDM, Viton, Silicone or FEP-Silicone
8	Seat seal*	EPDM, Viton, Silicone or FEP-Silicone
9	Clamp	304 stainless steel

\*All seals are FDA and USP compliant. EPDM and FEP-Silicone are USP 121°C compliant.

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

**Service Parts** - Seal kit comprising body seals (7) and seat seal (8).

Full refurbishment kit incorporating all internal parts and seals also available.



Size ASME BPE	Dimensions (mm)									Kv(m <sup>3</sup> /h)	Weight (kg)
	ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G		
1/2"	25	12.7	80	118	-	-	28	-	60	8	0.1
3/4"	25	19.05	80	111	85	115	28	9.5	60	8	0.1
1"	50.5	25.4	70	113	70	107	28	6.3	60	17	0.3
1-1/2"	50.5	38.1	80	110	82	110	28	7.0	78	27	0.4
2"	64	50.8	80	120	90	120	28	7.0	90	40	0.6
2-1/2"	77.5	63.5	95	122	110	137	28	14.3	120	*	0.8
3"	91	76.2	125	145	140	160	28	14.3	135	*	1.0
4"	119	101.6	155	160	170	175	28	21.0	180	*	1.3

\*Kv values available upon request

### ASME BPE part number ordering key

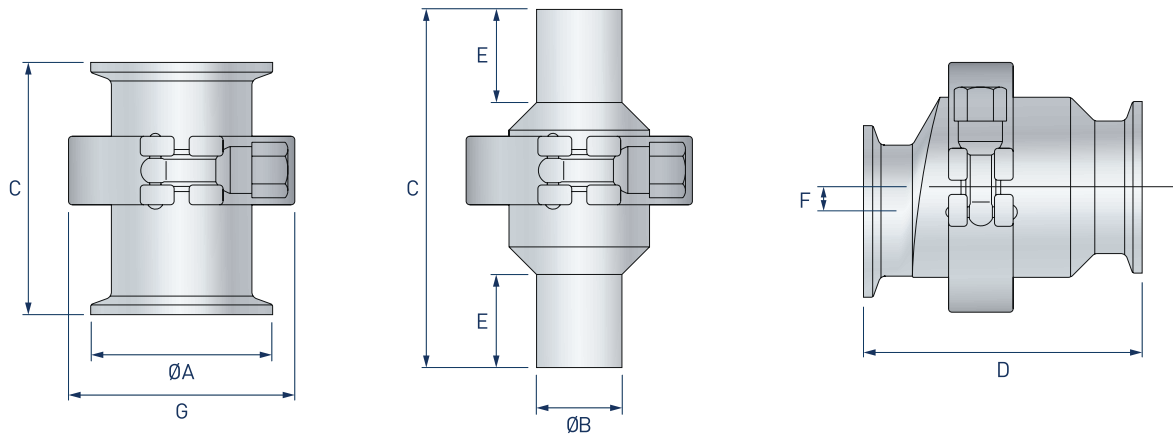
Product	Size	Connection	Seat seal	Spring	Options
-	-	-	-	-	-
Concentric HCV02	1/2" ASME BPE 050	Clamp C	EPDM - black EBKU	8 mbar 08	Electropolishing EP
Eccentric HCV02E	3/4" ASME BPE 075	Weld W	Viton - black VBKU	35 mbar 35	
	1" ASME BPE 100		Silicone - white SW		
	1-1/2" ASME BPE 150		FEP-Silicone FEPS		
	2" ASME BPE 200				
	2-1/2" ASME BPE 250				
	3" ASME BPE 300				
	4" ASME BPE 400				

### Example

<b>HCV02</b>	<b>-</b>	<b>050C</b>	<b>-</b>	<b>EBKU</b>	<b>-</b>	<b>08</b>	<b>-</b>	<b>EP</b>
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### Specification text

Staitech HCV02 check valve manufactured in 316L stainless steel with EPDM FDA and USP Class VI compliant body and seat seals. 1/2" ASME BPE concentric clamp connections. 8 mbar spring. 2-piece body clamp with hex nut closure. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-050C-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-050C-EBKU-08-EP).



Size DIN	Dimensions (mm)									Kv(m <sup>3</sup> /h)	Weight (kg)
	ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G		
DN8	34	8	80	118	-	-	28	-	60	8	0.5
	25	8	80	118	-	-	28	-		8	0.5
DN10	34	10	80	111	85	115	28	9.5	60	8	0.5
	25	10	80	111	85	115	28	9.5		8	0.5
DN15	34	15	80	113	70	107	28	6.3	60	8	0.6
	25	15	80	113	70	107	28	6.3		8	0.6
DN20	34	20	80	110	82	110	28	7.0	78	17	0.9
DN25	50.5	25	70	120	90	120	28	7.0	90	17	1.2
DN32	50.5	32	70	122	110	137	28	14.3	120	27	1.6
DN40	50.5	38	70	145	140	160	28	14.3	135	27	2.4
DN50	64	50	80	160	170	175	28	21.0	180	40	3.8

Size ISO	Dimensions (mm)									Kv(m <sup>3</sup> /h)	Weight (kg)
	ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G		
DN8	25	8	80	118	-	-	28	-	60	8	0.5
DN10	25	10	80	111	85	115	28	9.5	60	8	0.5
DN15	34	15	80	113	70	107	28	6.3	60	14	0.6
	50.5	15	80	113	70	107	28	6.3		14	0.6
DN20	50.5	20	80	110	82	110	28	7.0	78	17	0.9
DN25	50.5	25	70	120	90	120	28	7.0	90	23	1.2
DN32	50.5	32	70	122	110	137	28	14.3	120	27	1.6
DN50	64	38	70	145	140	160	28	14.3	135	40	2.4

DIN part number ordering key											
Product		Connection		Size		Seat seal		Spring		Options	
Concentric		Clamp	C	DIN DN8	25.0-8.0	EPDM - black	EBKU	8 mbar	08	Electropolishing	EP
HCV02					34.0-8.0	Viton - black	VBKU	35 mbar	35		
Eccentric				DIN DN10	25.0-10.0	Silicone - white	SW				
HCV02E					34.0-10.0	FEP-Silicone	FEPS				
					25.0-15.0						
				DIN DN15	34.0-15.0						
				DIN DN20	34.0-20.0						
				DIN DN25	50.5-25.0						
				DIN DN32	50.5-32.0						
				DIN DN40	50.5-38.0						
				DIN DN50	64.0-50.0						
Concentric		Weld	W	DIN DN8	10.0-8.0	EPDM - black	EBKU	8 mbar	08		
HCV02					12.0-10.0	Viton - black	VBKU	35 mbar	35		
Eccentric				DIN DN10	13.0-10.0	Silicone - white	SW				
HCV02E					18.0-15.0	FEP-Silicone	FEPS				
				DIN DN15	19.0-16.0						
				DIN DN20	23.0-20.0						
					28.0-25.0						
				DIN DN25	29.0-26.0						
				DIN DN32	35.0-32.0						
				DIN DN40	41.0-38.0						
				DIN DN50	53.0-50.0						
<b>Example</b>											
HCV02	-	C	-	34.0-8.0	-	EBKU	-	08	-	EP	
<b>Specification text</b>											
<p>Staitech HCV02 check valve manufactured in 316L stainless steel with EPDM FDA and USP Class VI compliant body and seat seals. DIN DN8 concentric clamp connections. 8 mbar spring. 2-piece body clamp with hex nut closure. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-C-34.0-8.0-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-C-34.0-8.0-EBKU-08-EP).</p> <p>Staitech HCV02 check valve manufactured in 316L stainless steel with EPDM FDA and USP Class VI compliant body and seat seals. DIN DN8 concentric weld connections. 8 mbar spring. 2-piece body clamp with hex nut closure. Wetted surfaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-W-12.0-10.0-EBKU-08-EP).</p>											

ISO part number ordering key											
Product		Connection		Size		Seat seal		Spring		Options	
	-		-		-		-				
Concentric		Clamp	C	ISO DN8	25.0-10.3	EPDM - black	EBKU	8 mbar	08	Electropolishing	EP
HCV02				ISO DN10	25.0-14.0	Viton - black	VBKU	35 mbar	35		
Eccentric					34.0-18.1	Silicone - white	VBK				
HCV02E				ISO DN15	50.5-18.1	FEP-Silicone	SW				
				ISO DN20	50.5-23.7						
				ISO DN25	50.5-29.7						
				ISO DN32	64.0-38.4						
				ISO DN40	64.0-44.3						
Concentric		Weld	W	ISO DN8	13.4-10.3	EPDM - black	EBKU	8 mbar	08		
HCV02				ISO DN10	17.2-14.0	Viton - black	VBKU	35 mbar	35		
Eccentric				ISO DN15	21.3-18.1	Silicone - white	SW				
HCV02E				ISO DN20	26.9-23.7	FEP-Silicone	FEPS				
				ISO DN25	33.7-29.7						
				ISO DN32	42.4-38.4						
				ISO DN40	48.3-44.3						
				ISO DN50	53.0-56.3						
<b>Example</b>											
<b>HCV02</b>	<b>-</b>	<b>C</b>	<b>-</b>	<b>25.0-10.3</b>	<b>-</b>	<b>EBKU</b>	<b>-</b>	<b>08</b>	<b>-</b>	<b>EP</b>	
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