

CT-SVFI – SHX

Clamp Type Sterile Visual Flow Indicator



The **CT-SVFI** is a novel sight glass that has been designed with hygienic processing in mind. The glass/o-ring/flange end is sealed utilising a sanitary clamp. As there is a mechanical stop, the gasket cannot be over compressed. The use of a clamp connection reduces the need for tools to assemble or disassemble the sight glass. Additional seals provide a secondary barrier to prevent the ingress of contaminants to the seal location.



Advantages

- Design is aseptic due to the addition of external o-ring
- Labyrinth design with capillary fluid barriers to halt external media migrating to process side
- Gasket compression is controlled with metal to metal contact
- Assembly / disassembly is very simple
- No large screw threads to clean – less COP time
- Force is applied in one direction to the gasket

Applications

- Pharmaceutical processing
- Food / dairy
- Chemical processing
- Can be welded in place and easily disassembled

Compliance

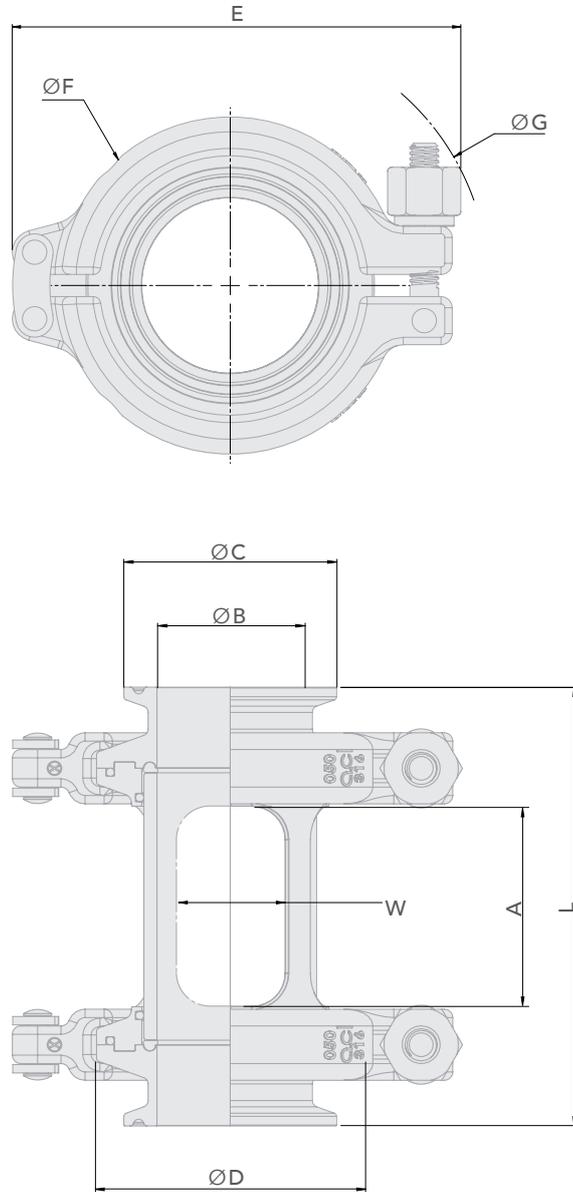
- EC 1935/2004, FDA CFR 21 177.2600 & USP VI <87> <88> Certified gaskets
- Surface finish according to ASME-BPE
- Controlled gasket extrusion to ASME-BPE CAT2
- Fully complies with the requirements of the European Pressure Equipment Directive 2014/68/EU and carries the 'CE' mark when so required
- Borosilicate glass 3.3 – pressure rating calculated according to CRN (FOS 10:1)

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US Patent WO 2021/084008A1

Dimensions



Clamp Type Sterile Visual Flow Indicators

Nominal size (inches)	DIMENSIONS (mm)										Working pressure (BAR)	Mass (kg)
	Window A x W	ID ØB	Mating flange ØC	Integral flange ØD	Length L	Width E	Minor OD ØF	Major OD ØG	Number of windows	Integral clamp size		
½	24 x 8	9.40	25.0	34.0	76.0	85.0	46.3	106.0	4	DN10/15/20	20.0	0.58
¾	29 x 13	15.75	25.0	50.5	87.0	102.0	62.2	114.0	4	1" - 1.5"	17.5	0.90
1	34 x 16	22.10	50.5	50.5	90.0	102.0	62.2	114.0	4	1" - 1.5"	8.5	1.01
1½	48 x 26	34.80	50.5	64.0	105.0	123.0	77.7	127.0	4	2"	8.0	1.19
2	55 x 36	47.50	64.0	77.5	120.0	140.0	91.2	139.0	4	2.5"	7.0	1.53
2½	72 x 33	60.20	77.5	91.0	151.0	150.0	104.7	157.0	6	3"	6.5	1.90
3	108 x 36	72.90	91.0	106.0	175.0	165.0	119.7	171.0	6	3.5"	6.5	2.51
4	135 x 48	97.38	119.0	130.0	200.0	191.0	143.7	194.0	6	4.5"	4.0	3.47

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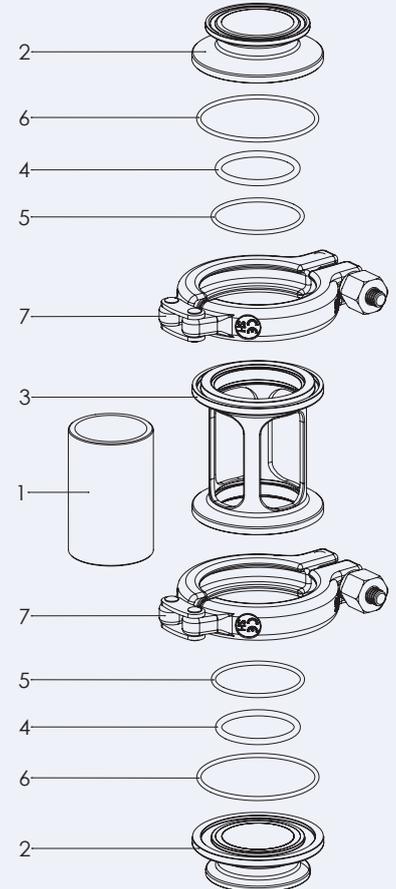
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Bill of Materials

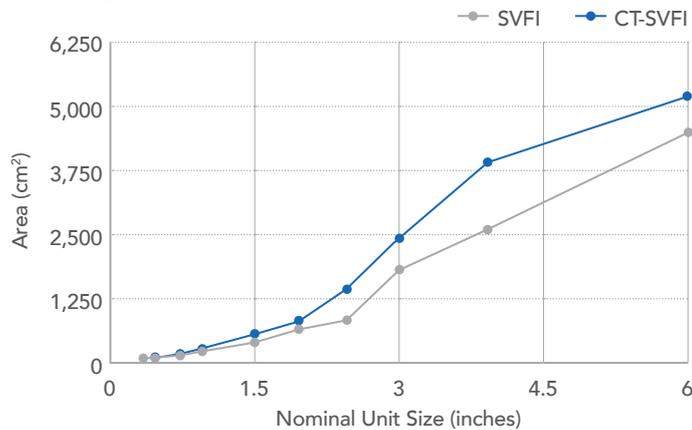
Item	Quantity	Description	Material	Available options
1	1	Glass	Borosilicate 3.3	-
2	2	Flange ends	AISI 316L	C22 / AL6XN
3	1	Body	AISI 316L	C22 / AL6XN
4	2	Sealing o-rings	EPDM	FEP / VITON / PC-SIL
5	2	Cushion o-rings	EPDM	FEP / VITON / PC-SIL
6	2	Clamp o-rings	EPDM	FEP / VITON / PC-SIL
7	2	ACL clamps	CF8M / CF8	-

Exploded Assembly



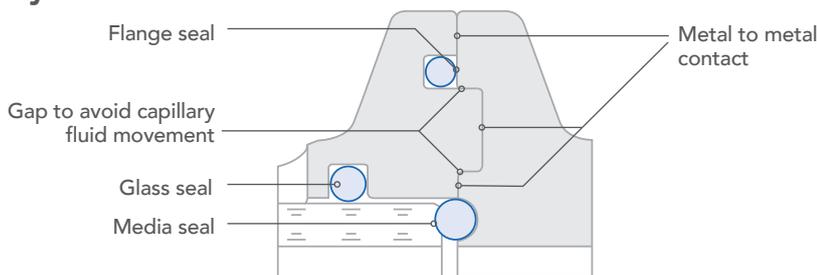
- 1 Glass
- 2 Flange ends
- 3 Body
- 4 Sealing o-rings
- 5 Cushion o-rings
- 6 Clamp o-rings
- 7 ACL® clamps

Viewing Window Area – SVFI v CT-SVFI



The CT-SVFI has been designed to ensure the largest viewing area possible whilst maintaining the mechanical integrity of the component.

Seal Layout



Materials used in the fabrication of the CT-SVFI are European sourced and conform to AD2000 W2 and PED, ensuring the highest level of reliability and safety.

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Spare Parts

1/2"

BOM No.	Code	Name	Qty
1	SG.SV.050.G	1/2" SVFI - Glass Element - 40mm long	1
2	SG.SC.050.F	1/2" Clamp Type SVFI Flange Ends - 316L	2
3	SG.SC.050.B	1/2" SVFI Clamp Type Body - 316L	1
4	SG.SV.050.OS	1/2" SVFI - EPDM Small O-Ring	2
5	SG.SV.050.OL	1/2" SVFI - EPDM Large O-Ring	2
6	SG.SC.050.OC	1/2" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.D010	DIN 10/15/20 SH Clamp 316	2

3/4"

BOM No.	Code	Name	Qty
1	SG.SV.075.G	3/4" SVFI - Glass Element - 47mm Long	1
2	SG.SC.075.F	3/4" Clamp Type SVFI Flange Ends - 316L	2
3	SG.SC.075.B	3/4" SVFI Clamp Type Body - 316L	1
4	SG.SV.075.OS	3/4" SVFI - EPDM Small O-Ring	2
5	SG.SV.075.OL	3/4" SVFI - EPDM Large O-Ring	2
6	SG.SV.150.OL	1 1/2" SVFI - EPDM Large O-Ring	2
7	CL.SH.0100	1" - 1 1/2" SH Clamp 316	2

1"

BOM No.	Code	Name	Qty
1	SG.SV.100.G	1" SVFI - Glass Element - 50mm Long	1
2	SG.SC.100.F	1" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.100.B	1" SVFI Clamp Type Body - 316L	1
4	SG.SV.100.OS	1" SVFI - EPDM Small O-Ring	2
5	SG.SV.100.OL	1" SVFI - EPDM Large O-Ring	2
6	SG.SV.150.OL	1 1/2" SVFI - EPDM Large O-Ring	2
7	CL.SH.0100	1" - 1 1/2" SH Clamp 316	2

1 1/2"

BOM No.	Code	Name	Qty
1	SG.SV.150.G	1 1/2" SVFI - Glass Element - 64mm Long	1
2	SG.SC.150.F	1 1/2" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.150.B	1 1/2" SVFI Clamp Type Body - 316L	1
4	SG.SV.150.OS	1 1/2" SVFI - EPDM Small O-Ring	2
5	SG.SV.150.OL	1 1/2" SVFI - EPDM Large O-Ring	2
6	SG.SC.150.OC	1 1/2" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0200	2" SH Clamp 316	2

2"

BOM No.	Code	Name	Qty
1	SG.SV.200.G	2" SVFI - Glass Element - 70mm Long	1
2	SG.SC.200.F	2" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.200.B	2" SVFI Clamp Type Body - 316L	1
4	SG.SV.200.OSN	2" SVFI - EPDM Small O-Ring	2
5	SG.SV.200.OL	2" SVFI - EPDM Large O-Ring	2
6	SG.SC.200.OC	2" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0250	2 1/2" SH Clamp 316	2

2 1/2"

BOM No.	Code	Name	Qty
1	SG.SV.250.G	2 1/2" SVFI - Glass Element - 86mm Long	1
2	SG.SC.250.F	2 1/2" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.250.B	2 1/2" SVFI Clamp Type Body - 316L	1
4	SG.SV.250.OS	2 1/2" SVFI - EPDM Small O-Ring	2
5	SG.SV.250.OL	2 1/2" SVFI - EPDM Large O-Ring	2
6	SG.SC.250.OC	2 1/2" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0300	3" SH Clamp 316	2

3"

BOM No.	Code	Name	Qty
1	SG.SV.300.G	3" FVFI - Glass Element - 122.5mm Long	1
2	SG.SC.300.F	3" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.300.V	3" SVFI Clamp Type Body - 316L	1
4	SG.SC.300.OS	3" SVFI - EPDM Seal O-Ring	2
5	SG.SV.300.OL	3" SVFI - EPDM Large O-Ring	2
6	SG.SC.300.OC	3" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0350	3 1/2" SH Clamp 316	2

4"

BOM No.	Code	Name	Qty
1	SG.SV.400.G	4" SVFI - Glass Element - 147.5mm Long	1
2	SG.SC.400.F	4" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.400.B	4" SVFI Clamp Type Body - 316L	1
4	SG.SV.400.OS	4" SVFI - EPDM Small O-Ring	2
5	SG.SV.400.OL	4" SVFI - EPDM Large O-Ring	2
6	SG.SC.400.OC	4" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0450	4 1/2" SH Clamp 316	2

6"

BOM No.	Code	Name	Qty
1	SG.FV.600.G	6" FVFI - Glass Element	1
2	SG.SC.600.F	6" SVFI Clamp Type Flange Ends - 316L	2
3	SG.SC.600.B	6" SVFI Clamp Type Body - 316L	1
4	SG.SV.600.OS	6" SVFI - EPDM Small O-Ring	2
5	SG.SV.600.OL	6" SVFI - EPDM Large O-Ring	2
6	SG.SC.600.OC	6" SVFI - EPDM Clamp O-Ring	2
7	CL.SH.0658	6 5/8" SH Clamp 316 (Single Bolt)	2