



the corrosion expert

# FluoroFlow Check Valves & Sight Glasses

CRP is a world leader in the manufacture of PTFE and PFA lined equipment including pipe, fittings, valves bellows, sight glasses and other ancillary equipment. CRP supplies in the chemical, agro-chemical, pharmaceutical, petrochemical, biotechnology, pulp & paper, metals refining, food and beverage manufacturing sectors.

CRP's range of check valves are all lined in PFA – the ideal lining material for the most corrosive and permeant chemicals. CRP has developed their own in-house PFA moulding skills over the last 30 years and this combined with their expertise in valve design and function has made their check valves the lined product of choice for the process industry.

The range of lined sight glasses use heavy wall borosilicate glass or reinforced PFA in order to achieve clear viewing for corrosive media at pressure and again have become a standard for end users across the world.

## CRP

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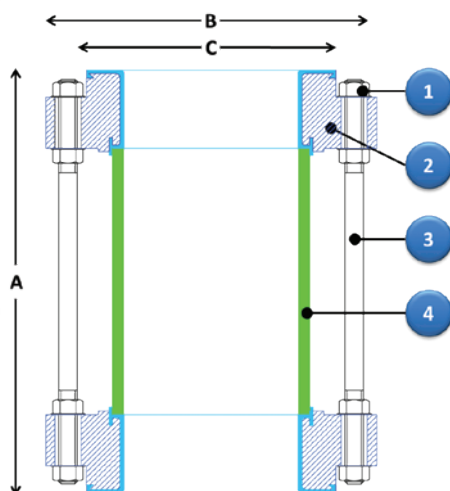
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# CTSG - PFA Lined Tubular Pipeline Sight Glass



The CTSG sight glasses' construction provides 360 degree process viewing with a pressure rating of up to 10 bar g. It is manufactured from heavy wall borosilicate glass tube with PFA lined flanges for use in the most demanding applications.

The "cage" construction makes the product extremely strong and capable of withstanding a significant amount of mishandling. The tie rod design is unique - enabling adjustment of the sight glass sealing following any maintenance activity without removing it from the pipeline. The product is manufactured in a fixed length range. For special lengths see the DTSG range.

### Features

- Heat treated heavy wall borosilicate glass for pressure retention, general mechanical strength, clear viewing and excellent corrosion resistance.
- Parallel full port flow path prevents liquid retention.
- Adjustable tie rods protect the sight glass from other plant loads and mechanical damage.
- A design proven through thirty years of field experience.
- PFA lined for the most corrosive duties.

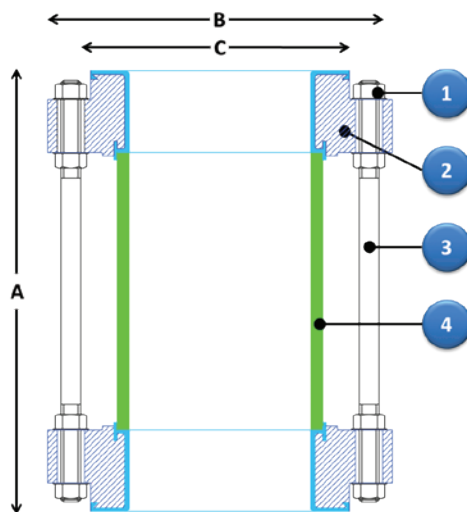
Performance	
Temperature	-29°C to 150°C
Pressure	
1in to 4in, DN25 to DN100	10 bar g
6in, DN150	6 bar g
8in, DN200	5 bar g
10in and 12in, DN250 and DN300	3 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Horizontal or Vertical

Dimensions							
To Suit Pipework	Face to Face	Flange Ø	Raised Face Ø	Weight	Glass		
ASME 150 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	152	110	51	3.7	30	4.5
1½	40	178	125	73	5.1	50	7.0
2	50	203	150	92	7.5	60	9.0
3	80	241	190	127	13.2	90	9.0
4	100	292	230	157	18.5	120	9.0
6	150	356	280	216	25.6	170	9.0
8	200	300	345	270	40.1	215	9.0
10	250	300	405	324	48.2	300	9.0
12	300	300	485	381	76.7	325	9.0
DIN PN 10/16 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	160	115	68	3.8	30	4.5
1½	40	200	150	88	5.5	50	7.0
2	50	230	165	102	8.3	60	9.0
3	80	310	200	138	12.0	90	9.0
4	100	350	220	158	18.5	120	9.0
6	150	480	285	212	29.3	170	9.0
8	200	300	340	268	40.1	215	9.0
10	250	300	395/405	320	48.2	300	9.0
12	300	300	445/460	370/378	76.7	325	9.0

Options	
Component	Description
Flange Materials	Stainless Steel Grade 304 or 316
Lining	Static Dissipating PFA/PTFE
Flange Type	Tri-clamp, RJT, SMS, DIN 11851 etc. (Whether these can be PFA lined depends on the size and fittings type).
Shield	Acrylic safety shield Poly (methyl methacrylate)
Glass	FEP lined for products which attack glass
Body	Flow disturbers, flow indicators and lighting
Tie Rods Live Loaded	

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Nuts + Washers	16/32/48	Stainless Steel	ASTM F594 Gr.304
2	Flange Lining 1in to 6in, DN25 to DN150 Lining 8in to 12in, DN200 to DN300	2	Carbon Steel	BS 1501-161-430A / ASTM A216 Gr. WCB
			PFA	ASTM D3307 Type II
			PTFE	ASTM D4895-91a Type I, Grade 2, Class A
3	Tie Rods	4/8/12	Stainless Steel	BS970 Pt.1 Gr. 303S42
4	Glass Tube	1	Borosilicate Glass 3.3	ISO 3585
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

# DTSG - PFA Lined Tubular Pipeline Sight Glass



The DTSG sight glasses' construction provides 360 degree process viewing with a pressure rating of up to 10 bar g. It is manufactured from heavy wall borosilicate glass tube with PFA lined flanges for use in the most demanding applications.

The "cage" construction makes the product extremely strong and capable of withstanding a significant amount of mishandling. The tie rod design is unique - enabling adjustment of the sight glass sealing following any maintenance activity. Available in lengths of up to 1500mm these sight glasses are ideal for applications where it is necessary to view an activity such as azeotropic separation.

Performance	
Temperature	-29°C to 150°C
Pressure	
1in to 4in, DN25 to DN100	10 bar g
6in, DN150	6 bar g
8in, DN200	5 bar g
10in and 12in, DN250 and DN300	3 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Horizontal or Vertical

Dimensions							
To Suit Pipework	Face to Face	Flange Ø	Raised Face Ø	Weight 500mm lg.	Glass		
ASME 150 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	100 – 1500	110	51	5.3	30	4.5
1 ½	40	100 – 1500	125	73	7.1	50	7.0
2	50	100 – 1500	150	92	9.7	60	9.0
3	80	110 – 1500	190	127	15.6	90	9.0
4	100	120 – 1500	230	157	21.4	120	9.0
6	150	120 – 1500	280	216	28.4	170	9.0
8	200	120 – 1500	345	270	45.4	215	9.0
10	250	150 – 1000	405	324	55.8	300	9.0
12	300	150 – 1000	485	381	84.7	325	9.0
DIN PN 10/16 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	100 – 1500	115	68	5.3	30	4.5
1 ½	40	100 – 1500	150	88	7.1	50	7.0
2	50	100 – 1500	165	102	9.7	60	9.0
3	80	110 – 1500	200	138	15.6	90	9.0
4	100	120 – 1500	220	158	21.4	120	9.0
6	150	120 – 1500	285	212	28.4	170	9.0
8	200	120 – 1500	340	268	45.4	215	9.0
10	250	150 – 1000	395/405	320	55.8	300	9.0
12	300	150 – 1000	445/460	370/378	84.7	325	9.0

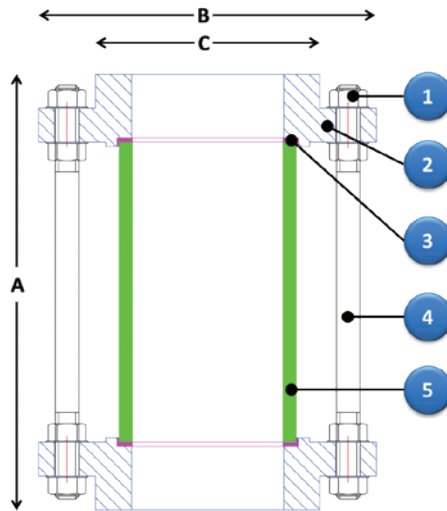
### Features

- Heat treated heavy wall borosilicate glass for pressure retention, general mechanical strength, clear viewing and excellent corrosion resistance.
- Parallel full port flow path prevents liquid retention.
- Adjustable tie rods protect the sight glass from other plant loads and mechanical damage.
- A design proven through thirty years of field experience.
- PFA lined for the most corrosive duties.
- Larger sizes available up to 16in NB / DN400.

Options	
Component	Description
Flange Materials	Stainless Steel Grade 304 or 316
Lining	Static Dissipating PFA/PTFE
Flange Type	Tri-clamp, RJT, SMS, DIN 11851 etc. (Whether these can be PFA lined depends on the size and fittings type).
Shield	Acrylic safety shield Poly(methyl methacrylate)
Glass	FEP lined for products which attack glass
Body	Flow disturbers, flow indicators and lighting
Tie Rods Live Loaded	

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Nuts + Washers	16/32/48	Stainless Steel	ASTM F594 Gr.304
2	Flange Lining 1in to 6in, DN25 to DN150 Lining 8in to 12in, DN200 to DN300	2	Carbon Steel	BS 1501-161-430A / ASTM A216 Gr. WCB
			PFA	ASTM D3307 Type II
			PTFE	ASTM D4895-91a Type I, Grade 2, Class A
3	Tie Rods	4/8/12	Stainless Steel	BS970 Pt.1 Gr. 303S42
4	Glass Tube	1	Borosilicate Glass	ISO 3585
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

# CTSG/DTSG - Unlined Tubular Pipeline Sight Glass



CRP has taken the proven design of the CTSG and DTSG to create an unlined sight glass for less corrosive applications. This has all of the construction characteristics of those products, but instead of the flanges being lined in PFA, they are manufactured in 316 stainless steel. Sealing is achieved through the use of a PTFE gasket between the flange and borosilicate glass. This product will suit the end user who is looking for a robust product for their plant. It is available in lengths of up to 1500mm.

## Features

- Heat treated heavy wall borosilicate glass for pressure retention, general mechanical strength, clear viewing and excellent corrosion resistance.
- Parallel full port flow path prevents liquid retention.
- Adjustable tie rods protect the sight glass from other plant loads and mechanical damage.
- A design proven through thirty years of field experience.

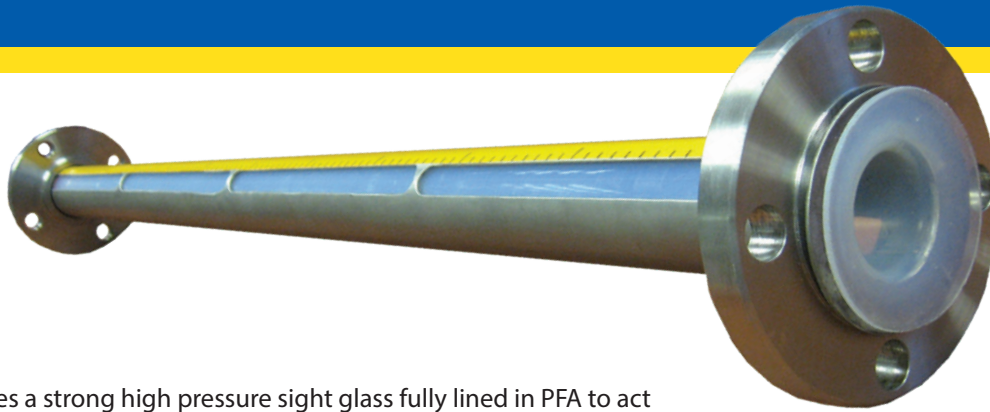
Performance	
Temperature	-29°C to 150°C
Pressure	
1 in to 4 in, DN25 to DN100	10 bar g
6 in, DN150	6 bar g
8 in, DN200	5 bar g
10 in and 12 in, DN250 and DN200	3 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Horizontal or Vertical

Dimensions							
To Suit Pipework		Face to Face	Flange Ø	Raised Face Ø	Weight 500mm lg.	Glass	
ASME 150 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	100 – 1500	110	51	5.3	30	4.5
1½	40	100 – 1500	125	73	7.1	50	7.0
2	50	100 – 1500	150	92	9.7	60	9.0
3	80	110 – 1500	190	127	15.6	90	9.0
4	100	120 – 1500	230	157	21.4	120	9.0
6	150	120 – 1500	280	216	28.4	170	9.0
8	200	120 – 1500	345	270	45.4	215	9.0
10	250	150 – 1000	405	324	55.8	300	9.0
12	300	150 – 1000	485	381	84.7	325	9.0
DIN PN 10/16 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	100 – 1500	115	68	5.3	30	4.5
1½	40	100 – 1500	150	88	7.1	50	7.0
2	50	100 – 1500	165	102	9.7	60	9.0
3	80	110 – 1500	200	138	15.6	90	9.0
4	100	120 – 1500	220	158	21.4	120	9.0
6	150	120 – 1500	285	212	28.4	170	9.0
8	200	120 – 1500	340	268	45.4	215	9.0
10	250	150 – 1000	395/405	320	55.8	300	9.0
12	300	150 – 1000	445/460	370/378	84.7	325	9.0

Options	
Component	Description
Flange Materials	Carbon steel, Hastelloy, other exotics
Flange Type	Tri-clamp, RJT, SMS, DIN 11851 etc.
Shield	Acrylic safety shield Poly (methyl methacrylate)
Glass	FEP lined for products which attack glass
Body	Flow disturbers, flow indicators and lighting

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Nuts + Washers	16/32/48	Stainless Steel	ASTM F594 Gr. 304
2	Flange	2	Stainless Steel	ASTM A182 Gr. F316/Gr. F304
3	Gaskets	2	PTFE	D4894
4	Tie Rods	4/8/12	Stainless Steel	BS970 Pt. 1 Gr. 303542
5	Glass Tube	1	Borosilicate Glass 3.3	ISO 3585

# LGSG - PFA Lined Level Gauge



The LGSG provides a strong high pressure sight glass fully lined in PFA to act as a clear level gauge for corrosive or sticky applications. The shatterproof sight glass is ideal for tough applications.

### Features

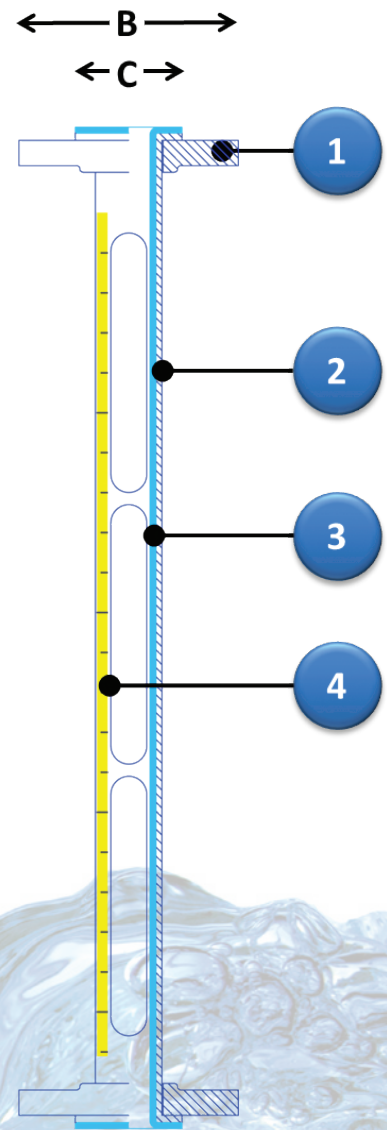
- Shatterproof sight tube for maximum safety
- Fully PFA lined to all wetted surfaces for maximum corrosion resistance
- Strong housing in stainless steel
- Can be easily manufactured to any length within the range

Performance	
Temperature	-29°C to 150°C
Pressure	
-29°C to 25°C	10 bar g
50°C	8.5 bar g
100°C	5.5 bar g
150°C	3 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Vertical

Dimensions						
To Suit Pipework	Face to Face	Flange Ø	Raised Face Ø	Liner Thickness	Weight 1000mm lg.	
ASME 150 Piping System						
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	mm	Kg
1	25	250 - 6000	110	51	3.0	5.8
1½	40	250 - 6000	125	73	3.0	9.0
2	50	250 - 6000	150	92	3.0	12.5
DIN PN 10/16 Piping System						
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	mm	Kg
1	25	250 - 6000	115	68	3.0	5.8
1½	40	250 - 6000	150	88	3.0	9.0
2	50	250 - 6000	165	102	3.0	12.5

Options	
Component	Description
Viewing Hollow Ball	Indicator Lamps
Slots	Various slot configurations
Scale	Graduation or marking to customer requirements

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Flange	2	Stainless Steel	ASTM A182 Gr. F304/ Gr.F316
2	Support Tube	1	Stainless Steel	ASTM A312 TP304/TP316
3	Sight Tube	1	PFA	ASTM D3307 Type II
4	Graduation Scale	1	Reflective Polyester	

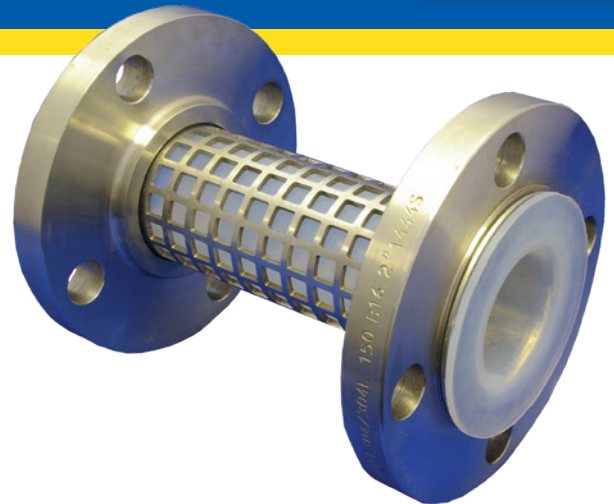


# FLSG - PFA Fully Lined Sight Glass

The FLSG provides full 360 degree viewing and a most robust construction employing no glass yet capable of a maximum pressure rating of 15 bar g.

## Features

- Stainless steel support tube provides clear viewing whilst remaining capable of retaining high pressures.
- Parallel full port flow path prevents liquid retention and bug traps.
- Shatterproof sight tube for maximum safety.

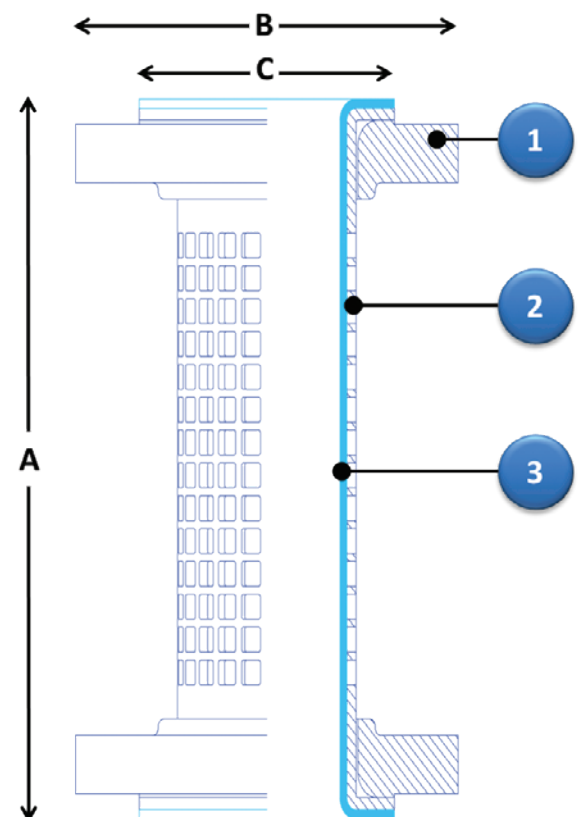


Performance		
Temperature		-29°C to 150°C
Pressure		
-29°C to 50°C		15 bar g
100°C		10 bar g
150°C		5 bar g
Vacuum		Full vacuum -29°C to 150°C
Orientation		Horizontal or Vertical

Dimensions						
To Suit Pipework	Face to Face	Flange Ø	Raised Face Ø	Liner Thickness	Weight 500mm lg.	
ASME 150 Piping System						
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	mm	Kg
1	25	250 - 2800	110	51	3.0	4.4
1½	40	250 - 2800	125	73	3.0	6.5
2	50	250 - 2800	150	92	3.0	9.3
3	80	250 - 2800	190	127	3.0	16.2
4	100	250 - 2800	230	157	3.0	20.0
DIN PN 10/16 Piping System						
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	mm	Kg
1	25	250 - 2800	115	68	3.0	4.4
1½	40	250 - 2800	150	88	3.0	6.5
2	50	250 - 2800	165	102	3.0	9.3
3	80	250 - 2800	200	138	3.0	16.2
4	100	250 - 2800	220	158	3.0	20.0

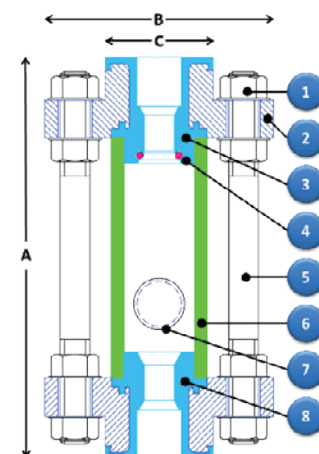
Options	
Component	Description
Length	Customer Specified
Viewing Hollow Ball	Indicator Lamps Flow Disturbers Flow Indicators

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Flange	2	Stainless Steel	ASTM A240 Gr. F304/Gr. F316
2	Housing	1	Stainless Steel	ASTM A312 TP304
3	Liner	1	PFA	ASTM D3307 Type II



# BFSG - PFA Lined Ball Float Sight Glass

The BFSG is a floating ball check valve, constructed from a heavy duty borosilicate glass tube held securely between two PFA lined end flanges. Inside the BFSG are two PTFE seats (the lower one castellated and the upper one with FFKM o-ring seal) and a hollow PTFE floating ball trapped between them. These sight glass / check valves are used to safeguard vacuum pumps from failure caused through liquid being drawn into them. Under normal operation the gasses pass up past the ball and through the sight glass into the vacuum pump. If something goes wrong with the process and liquid enters into the vacuum line the sight glass fills with this and the ball floats up to the seat preventing the liquid from passing and damaging the pump. Not only is the pump protected but the sight glass gives clear visual indication of the presence of liquid in the line.



## Features

- Heat treated heavy wall borosilicate glass for pressure retention, general mechanical strength, clear viewing and excellent corrosion resistance.
- Adjustable tie rods protect the sight glass from other plant loads and mechanical damage.
- Soft seat for reliable sealing.

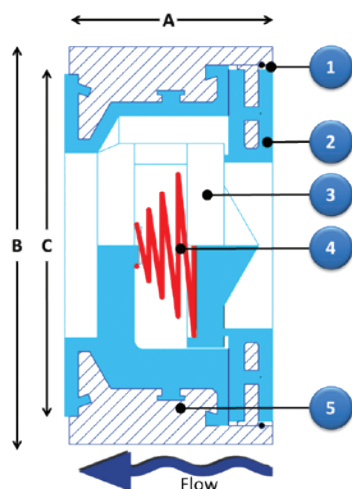
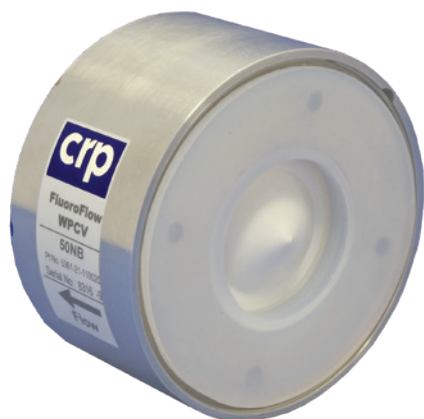
Performance	
Temperature	-29°C to 150°C
Pressure	
1 in to 2 in, DN25 to DN50	6 bar g
3 in to 4 in, DN80 to DN100	4 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Vertical with ball trap at base

Dimensions							
To Suit Pipework		Face to Face	Flange Ø	Raised Face Ø	Weight	Glass	
ASME 150 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	152	110	51	3.8	30	4.5
1½	40	178	125	73	5.2	50	7.0
2	50	203	150	92	7.7	60	9.0
3	80	241	190	127	13.5	90	9.0
4	100	292	230	157	18.9	120	9.0
DIN PN 10/16 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	160	115	68	4.0	30	4.5
1½	40	200	150	88	5.6	50	7.0
2	50	230	165	102	8.5	60	9.0
3	80	310	200	138	12.3	90	9.0
4	100	350	220	158	18.9	120	9.0

Options	
Component	Description
Flange Materials	Stainless Steel
Lining	Static Dissipating PFA,
Flange Type	Unlined stainless steel
	Tri-clamp, RJT, SMS, DIN 11851 etc. (Whether these can be PFA lined depends on the size and fittings type).
Shield	Acrylic safety shield Poly (methyl methacrylate)
Glass	FEP lined for products which attack glass
Body	Back lighting

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Nuts+Washers	16/16	Stainless Steel	ASTM F594 Gr. 304
2	Flange	2	Carbon Steel PFA	BS1501-161-430A/ASTM A216 Gr.WCB ASTM D3307 Type II
3	Ball Seat	1	Glass Filled PTFE	BS6564 UA1/1
4	O Ring	1	Chemraz 505	
5	Tie Rod	4	Stainless Steel	BS970 Pt. 1 Gr. 303S42
6	Sight Glass Tube	1	Borosilicate Glass 3.3	ISO 3585
7	Hollow Ball	1	PTFE	ASTM D4894
8	Castellated Ball Trap	1	Glass Filled PTFE	BS6564 UA1/1
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

# WPCV - Wafer Poppet Check Valve



The WPCV has developed into a global industry standard for a lined poppet check valve with a wide range of process applications. Although initially launched as a true check valve, it quickly became adopted as a simple pressure relief valve and is often used on nitrogen blankets. To this end we are able to produce valves with a wide range of cracking pressures. By limiting the wetted parts to Glass Filled PTFE, PFA and Hastelloy, this ensures long, high cycle life.

In terms of the design, clever features include the conical spring design to ensure that the spring doesn't become "coil bound" on opening, reducing wear and enabling the valve to fully open. The valve has a large open area minimising the pressure drop across the product. Finally a removable seat plate enables the valve to be easily disassembled and cleaned or components replaced.

For very arduous duties the WPCV can be supplied with a PTFE encapsulated spring so that there are no wetted metallic parts.

## Features

- Positively located spring and poppet making it secure from misalignment and binding
- A crush resistant design guards against poor installation
- An ideal design for low opening pressure duties
- A full bore design provides the maximum flow with the minimum pressure drop
- Designed for easy disassembly
- Many spring options making a versatile product

Performance	
Temperature	-29°C to 200°C
Pressure	
-29°C to 38°C	19.6 bar g
100°C	17.7 bar g
150°C	15.8 bar g
200°C	13.8 bar g
Vacuum	Full vacuum -29°C to 200°C
Orientation	Horizontal or Vertical

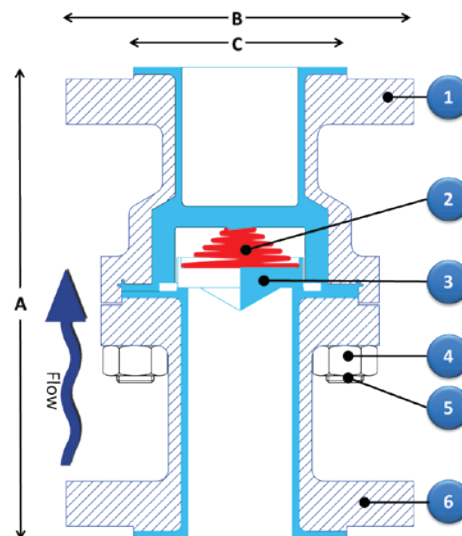
Dimensions					
To Suit Pipework	Face to Face	Valve Ø	Raised Face Ø	Weight	
ASME 150 Piping System					
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg
½	15	30	45	35	0.2
¾	20	30	54	43	0.3
1	25	35	63	51	0.5
1½	40	45	82	73	1.1
2	50	56	101	92	1.7
3	80	71	133	127	3.5
4	100	80	171	157	5.3
DIN PN 10/16 Piping System					
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg
½	15	30	48	45	0.2
1	25	35	71	68	0.6
1½	40	45	92	88	1.3
2	50	56	107	102	1.8
3	80	71	142	138	3.5
4	100	80	164	158	5.1

Options	
Component	Description
Body	316 Stainless Steel
Lining	Static Dissipating PFA
Spring	Alternative pressure ratings PTFE encapsulated Alternative spring materials Spring removed (floating poppet)

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Circlip	1	Stainless Steel	BS2056 Gr. 316S42
2	Seat Plate	1	Stainless Steel PFA	ASTM A240 Gr. 304 ASTM D3307 Type II
3	Poppet	1	Glass Filled PTFE	BS6564 UA1/1
4	Spring	1	Hastelloy® C276	ASTM B574 Gr. UNS N10276
5	Valve Body	1	Stainless Steel PFA	ASTM A240 Gr. 304 ASTM D3307 Type II



# FPCV - Flanged Poppet Check Valve



Performance	
Temperature	-29°C to 200°C
Pressure	
-29°C to 38°C	19.6 bar g
100°C	17.7 bar g
150°C	15.8 bar g
200°C	13.8 bar g
Vacuum	Full vacuum -29°C to 200°C
Orientation	Horizontal or Vertical

The FPCV embodies all of the features of the WPCV, but has the additional benefit of providing the valve within bolted flange ends, making installation simple and fitting in standard valve face to face spaces.

Please note that DIN PN10/16 FPCV's are a three part construction and not as depicted.

Dimensions					
To Suit Pipework		Face to Face	Valve Ø	Raised Face Ø	Weight
ASME 150 Piping System					
in	mm	Dim. A mm min.	Dim. B mm	Dim. C mm	Kg
1	25	152	110	51	3.9
1½	40	178	125	73	7.1
2	50	203	150	92	9.5
3	80	241	190	127	17.1
4	100	292	230	157	27.7
DIN PN 10/16 Piping System					
in	mm	Dim. A mm min.	Dim. B mm	Dim. C mm	mm Kg
1	25	160	115	68	4
1½	40	200	150	88	7
2	50	230	165	102	10
3	80	310	200	138	20
4	100	350	220	158	30

## Features

- Flanged connections for those installations where a wafer pattern design is not wanted
- All the features of the WPCV
- Standard face to face dimensions
- Suitable for both vertical and horizontal applications

Options	
Component	Description
Body	Stainless Steel
Lining	Static Dissipating PFA
Length	Special face to face dimensions
Spring	Alternative pressure ratings PTFE encapsulated Alternative spring materials Spring removed (floating poppet)

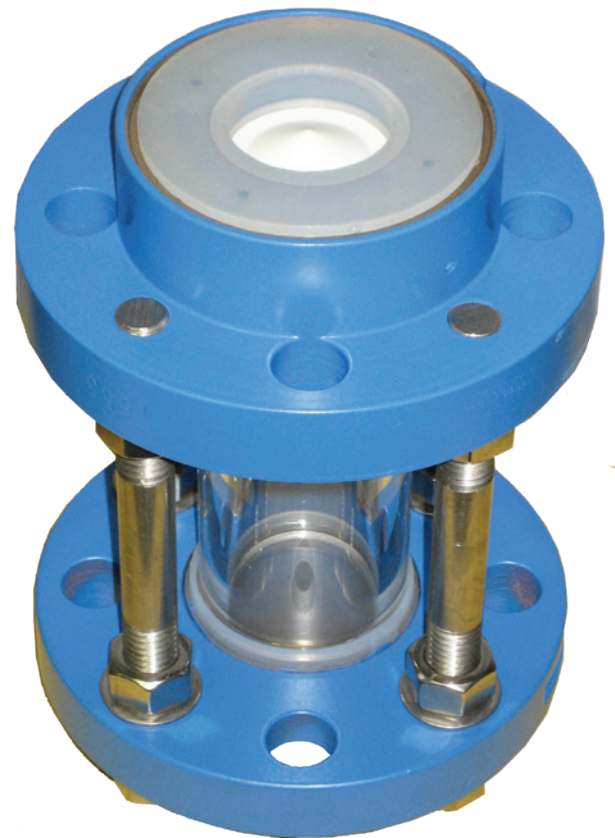
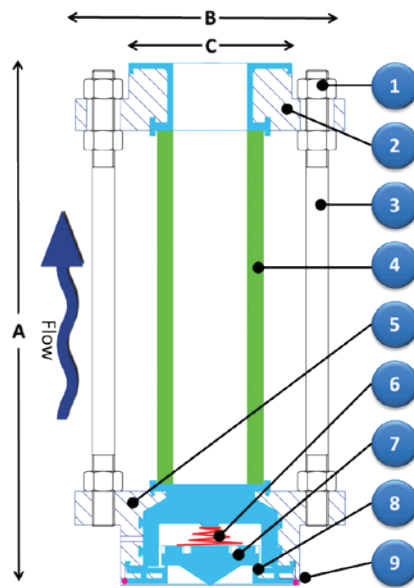
Material Specification				
Item	Description	Quantity	Materials	Specification
1	Valve Body	1	Carbon Steel PFA	ASTM A216 Gr. WCB ASTM D3307 Type II
2	Spring	1	Hastelloy® C276	ASTM B574 Grade UNS N10276
3	Poppet	1	Glass Filled PTFE	BS6564 UA 1/1
4	Nut	4/6	Stainless Steel	ASTM F594 Gr. 304
5	Stud	4/6	Stainless Steel	BS970 Pt 1 Gr. 303S42
6	Valve Inlet	1	Carbon Steel PFA	ASTM A216 Gr. WCB ASTM D3307 Type II
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

# SPCV - Sight Glass Poppet Check Valve

The sight glass poppet check valve is, we believe, unique in combining a poppet check valve and sight glass in one space and cost saving unit.

## Features

- Significant cost savings with two products in one.
- Space saving and flange joint reduction
- Full 360 degree viewing of the downstream process flow.
- All the features of the WPCV check valve and CTSG sight glass



Performance	
Temperature	-29°C to 150°C
Pressure	10 bar g
Vacuum	Full vacuum -29°C to 150°C
Orientation	Horizontal or Vertical

Dimensions							
To Suit Pipework	Face to Face	Flange Ø	Raised Face Ø	Weight	Glass		
ASME 150 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	152	110	51	3.8	30	4.5
1½	40	178	125	73	5.2	50	7.0
2	50	203	150	92	7.7	60	9.0
3	80	241	190	127	13.5	90	9.0
4	100	292	230	157	18.8	120	9.0
DIN PN 10/16 Piping System							
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg	Ø mm	Wall mm
1	25	160	115	68	3.9	30	4.5
1½	40	200	150	88	5.6	50	7.0
2	50	230	165	102	8.5	60	9.0
3	80	310	200	138	12.3	90	9.0
4	100	350	220	162	18.8	120	9.0

Options	
Component	Description
Body	Stainless Steel
Lining	Static-Dissipating PFA
Length	Special face to face dimensions
Spring	Alternative pressure ratings PTFE encapsulated Alternative spring materials Spring removed (floating poppet)
Shield	Acrylic safety shield Poly (methyl methacrylate)

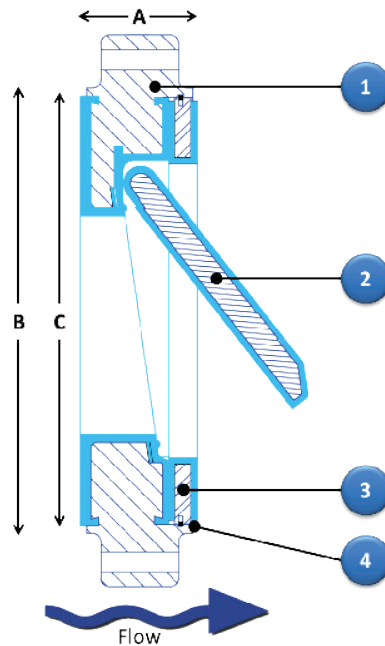
Material Specification				
Item	Description	Quantity	Materials	Specification
1	Nuts+Washers	12/12	Stainless Steel	ASTM F594 Gr. 304
2	Flange	2	Carbon Steel PFA	BS1501-161-430A/ASTM A216 Gr. WCB ASTM D3307 Type II
3	Tie Rods	4	Stainless Steel	BS970 Pt. 1 Gr.303S42
4	Sight Glass Tube	1	Borosilicate Glass 3.3	ISO 3585
5	Valve Body	1	Carbon Steel PFA	BS1501-141-430A ASTM D3307 Type II
6	Spring	1	Hastelloy C276	ASTM B574 Gr. UNS N10276
7	Poppet	1	Glass Filled PTFE	BS 6564 UA1/1
8	Seat Plate	1	Stainless Steel PFA	ASTM A240 Gr. 304 ASTM D3307 Type II
9	Circlip	1	Stainless Steel	BS2056 Gr. 316S42
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

# STCV - Swing Check Valve

A high integrity PFA moulded wafer swing check valve with a fully encapsulated one piece disc and hinge assembly ensuring prolonged maintenance free service. It is suitable for PTFE lined or unlined pipework in severe process conditions.

## Features

- Retained hinge design makes the product easy to install and does not rely on mating pipework to trap the disc. This therefore prevents the loss of the disc in service as can happen with other designs.
- Steel liner reinforcement and machined body T slots lock the PFA in position and enable it to perform at full vacuum and 200°C.
- The seat sits at an angle in the closed position ensuring that the disc sits home in a horizontal line.



Performance	
Temperature	-29°C to 200°C
Pressure	
-29°C to 40°C	19.6 bar g
100°C	17.7 bar g
150°C	15.8 bar g
200°C	13.8 bar g
Vacuum	Full vacuum -29°C to 200°C
Orientation	Horizontal or Vertical [flow upwards only]

Dimensions					
To Suit Pipework		Face to Face	Valve Ø	Raised Face Ø	Weight
ASME 150 Piping System					
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg
4	100	52	171	164	7.0
6	150	56	219	210	12.0
8	200	60	275	268	21.5
10	250	68	336	324	27.5
12	300	78	406	386	40.5
14	350	92	447	427	60.0
16	400	102	511	470	81.0
DIN PN10 Piping System					
in	mm	Dim. A mm	Dim. B mm	Dim. C mm	Kg
4	100	52	162	158	7.0
6	150	56	218	210	12.0
8	200	60	273	268	21.5
10	250	68	328	324	27.5
12	300	78	378	370	40.5
14	350	92	438	427	60.0
16	400	102	489	470	76.0

Material Specification				
Item	Description	Quantity	Materials	Specification
1	Body	1	Cast Steel PFA	ASTM A216 Gr. WCB PFA ASTM D3307 Type II
2	Disc	1	Cast Steel PFA	ASTM A216 Gr. WCB PFA ASTM D3307 Type II
3	Retaining Plate	1	Steel Plate PFA	BS4360 Gr. 43A PFA ASTM D3307 Type II
4	Circlip	1	Stainless Steel	ASTM A580 Gr. 304
	Paint Finish	75µ	Epoxy	Intergard 345 colour blue

Options	
Component	Description
Body	Stainless Steel
Lining	Static-Dissipating PFA



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