

Hygienic Visual Flow Indicator



Exceeding the recommendations of
all recognized standards...

Hygienic Visual Flow Sight Glass-HVF Inline

The FlowSmart Hygienic Visual Sight Glass (HVF) is designed for use in high purity applications where a visible indication of flow or product presence is required. Designed and manufactured to the highest specification found in today's food, pharmaceutical and biotech industries, meeting and exceeding the requirements of all recognized standards including ASME-BPE 2009.

Our HVF combines CNC machined 316L Stainless Steel body parts, with both precision sized Type 1 Borosilicate Glass and USP Class VI EPDM O-Rings as standard. Quality materials coupled with sound engineering practices and experience have resulted in the most durable, user friendly, hygienic and maintenance free sight glass available on today's world market.



Easily Seen Design Advantages

- Fully certifiable materials of construction
- Wetted surfaces are finished to 15µin [0.38µm] and electropolished
- Product exterior is essentially crevice free, eliminating bacteria traps and enabling ease of product wipe down during CIP or SIP
- Precision sized Type 1 Borosilicate Glass cylinders
- Largest available viewing area through the four windows
- Clean bore with controlled gasket sealing
- Seal intrusion meets ASME-BPE standard of <math><0.02></math>"

Clean bore, precision sized glass

4 Large Viewing Windows

Exceeds ASME-BPE gasket intrusion guidelines

Wetted surfaces finished 15µin [0.38µm]

Soft radii crevice free exterior

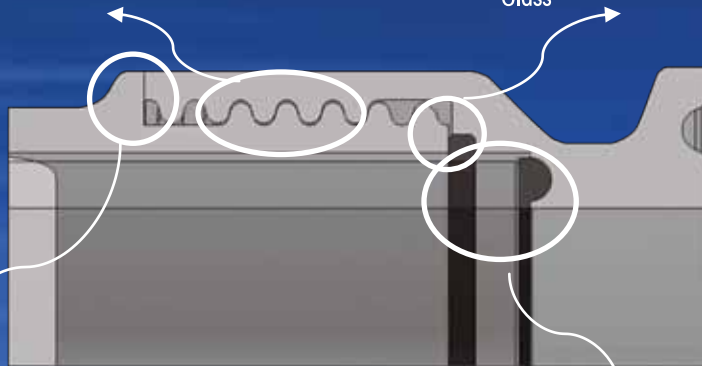


Unique Design Advantages

- Largest viewing area for every size compared to the rest of the market.
- Rounded "Knuckle" threads to internationally recognized standards, eliminating galling or seized threads when it comes to essential o-ring change-outs during disassembly & assembly.
- EHEDG approved O-Ring sealing design, incorporating both a compression controlled sealing o-ring & location support o-ring.

Rounded "Knuckle" thread to DIN405-1 standard, eliminates thread galling or seizing often experienced with stainless to stainless threaded assembly's

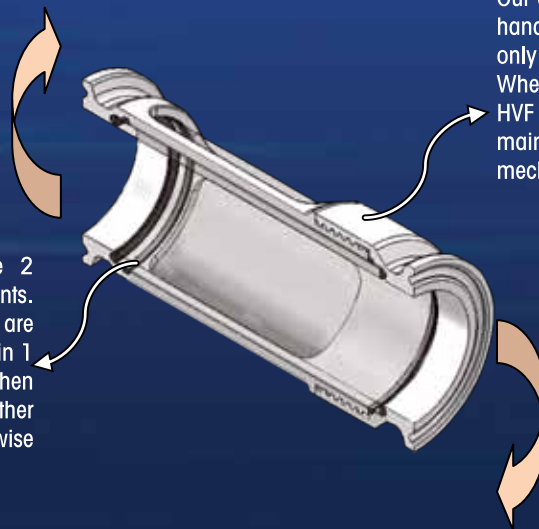
Compression controlled locating o-ring, building on the EHEDG principles & alleviating the variable tolerances incurred when using Type 1 Borosilicate Glass



Our 2 part body design provides a mechanical stop. This prevents bending stress or shock from the process pipeline from affecting the glass & provides the compression control for o-ring sealing & location.

Uses EHEDG (European Hygienic Equipment Design Group) double o-ring support & seal design recommendations, guaranteeing a hygienic o-ring seal mechanism.

- Our body assembly comprises only of 2 parts! This unique feature is an advantage over the typical 3 piece body assembly. Field experience has taught us that a leak free assembly is only possible with a single threaded union. Torsional forces or twisting caused by a heavy load (mounted valve, flow meters, combination of vertical & horizontal pipe work etc...) can cause units to loosen in situ at either end. Correctly positioned, the FlowSmart HVF eliminates the issue.

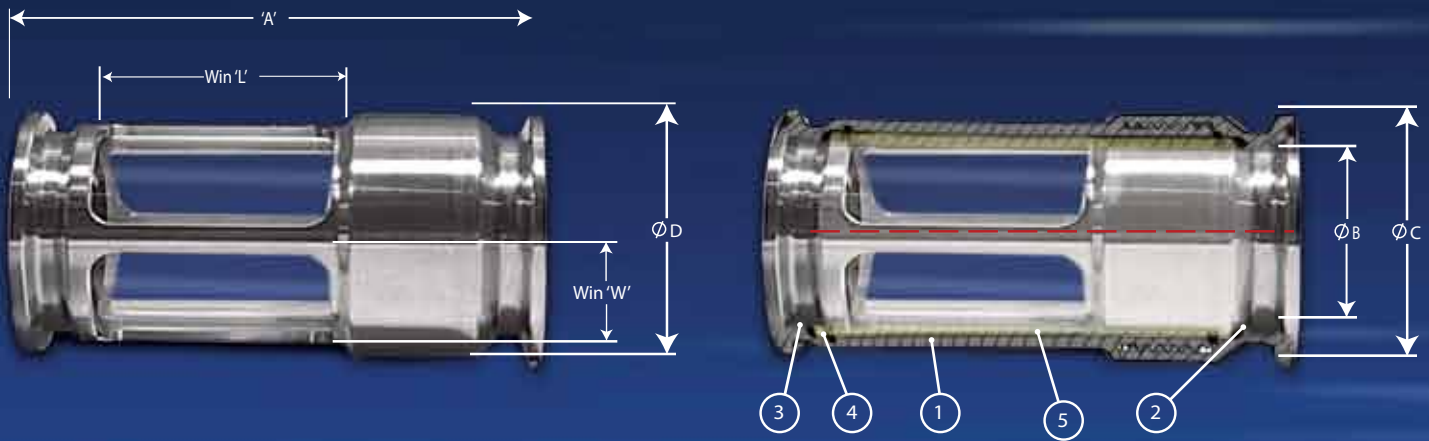


Our assembly is achieved with a single right handed thread which results in dis-assembly only possible with a left hand torsional force. When positioned in a pipe line correctly, the HVF will only experience a force which will maintain compression on the seals and our mechanical stop.

Competitors sight glasses have 2 right hand threaded components. When assembled the threads are opposing each other. This results in 1 end or the other loosening itself when subjected to torsional forces in either clockwise or counter clockwise directions.



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Hygienic Visual Flow Sight Glass - HVF Data Table

Nominal Size	A Length [inch] mm	ØB ID Bore [inch] mm	ØC Flange OD [inch] mm	ØD Body OD [inch] mm	'L' Length [inch] mm	'W' Width [inch] mm	Mass [lbs] Kg	Max Working Pressure bar
1/2"	[2.990] 76.0	[0.370] 9.4	[0.984] 25.0	[0.945] 24.0	[1.378] 35.0	[0.433] 11.0	[0.220] 0.10	26.1
3/4"	[3.425] 87.0	[0.620] 15.7	[0.984] 25.0	[1.260] 32.0	[1.378] 35.0	[0.670] 17.0	[0.330] 0.15	18.0
1"	[3.583] 91.0	[0.870] 22.1	[1.984] 50.4	[1.496] 38.0	[1.811] 46.0	[0.787] 20.0	[0.598] 0.27	15.6
1 1/2"	[4.134] 105.0	[1.370] 34.8	[1.984] 50.4	[1.97] 50.0	[2.087] 53.0	[1.063] 27.0	[0.669] 0.30	8.6
2"	[4.720] 120.0	[1.870] 47.5	[2.520] 63.9	[2.480] 63.0	[2.680] 68.0	[1.260] 32.0	[1.320] 0.60	7.1

* 1" - ASMEP BPE Alternative

Hygienic Visual Flow Sight Glass - HVF Bill of Materials

Item #	Qty Per Assy	Item Description	Standard Material	Material Options Available	Surface Finish [Standard] Available Options
1	1	Body (Male Threaded)	316L SS	C22, AL-6XN® Call For More Options	[SF4 = 15µin] SF1 -> SF6 = 15µin-> 30µin Mechanical Or Electropolished
2	1	End (Female Threaded)	316L SS	C22, AL-6XN® Call For More Options	[SF4 = 15µin] SF1 -> SF6 = 15µin-> 30µin Mechanical Or Electropolished
3	2	Sealing O-Ring	EPDM USP Class VI	VITON®, Silicone Call For More Options	N/A
4	2	Location O-Ring	EPDM USP Class VI	VITON®, Silicone Call For More Options	N/A
5	1	Glass Cylinder	Type 1 Borosilicate	Acrylic Call For More Options	Flame Polished As Standard



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