

# ACL® Curved SVFI

## Curved Sterile Visual Flow Indicator



The **Curved SVFI** has been developed to overcome issues inherent in the processing industry. As it can be difficult to view the middle of a bend without equipment such as boroscopes, it is not easy to ensure the cleanliness of a system. Surface finish cannot be guaranteed at the middle of a bend as it is inaccessible to measuring equipment and not all bends are 'piggable', due to their manufacturing method.

All of these points can be overcome by using an ACL Curved SVFI.

### Advantages

- Super fine finish >0.01Ra across the entire media contact face
- Transparent (due to borosilicate glass)
- The Curved SVFI is piggable
- Pressure ratings to general pharmaceutical system ratings
- Higher roughing corrosion resistance than stainless steel

### Applications

- Pharmaceutical processing
- Food / dairy
- Chemical processing

### 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)

**CMC TECHNOLOGIES**

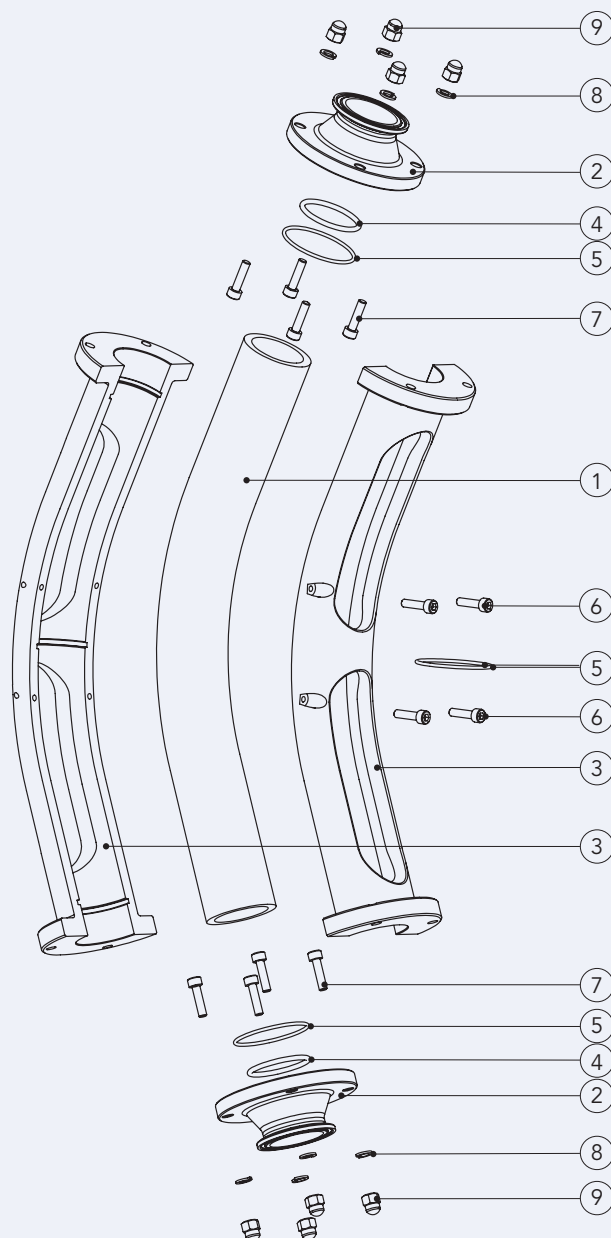
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AUSTRALIA

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### Exploded Assembly



### Bill of Materials

Item	Quantity	Description	Material	S/Finish - Grade	Available options
1	1	DURAN® Glass bend	Borosilicate 3.3	Flame polished	-
2	2	C-SVFI Flange end	AISI 316L	SF4 - 0.38Ra EP	C22 / AL6XN
3	1	Body	AISI 316L	0.8Ra	C22 / AL6XN
4	2	Sealing o-rings	EPDM	FDA / USP VI	FEP / VITON / PC-SIL
5	3	Cushion o-rings	EPDM	FDA / USP VI	FEP / VITON / PC-SIL
6	4	M5 SKT Cap screw	AISI 304	A2-70	-
7	8	M6 SKT Cap screw	AISI 304	A2-70	-
8	8	M6 Spring washer	AISI 304	A2	-
9	8	M6 Domed nut	AISI 316L	0.8Ra	-

## ACL® Curved SVFI

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#### Glass Bends by SCHOTT

ACL has used glass bends produced from DURAN® tubing by SCHOTT in its range of visual flow indicators in order to create a new product for the pharmaceutical / food and dairy industry that can be integrated seamlessly within a hygienic processing system.

"SCHOTT offers high precision glass bends made from optimum quality DURAN® in a wide range of diameters with various bend angles ... Resistance-free flow is ensured by accurately matching the inner diameter of the glass bends to existing conveying systems. The transparency of the glass ensures simple monitoring of the material flowing through. With its food grade properties glass is perfectly suited for the food industry. High quality borosilicate glass is distinguished by its durability and its favorable price/benefit ratio."

Source: <https://www.schott.com/d/tubing/e3abe0b4-f9c8-40b8-b4b7-80ffb4d2df01/1.6/>

#### Specification of DURAN® Tubing Glass Bends by SCHOTT

Technical Data	Specification
Glass type	Borosilicate Glass 3.3
Outside diameter	1.5" up to 4.3"
Lengths	20" up to 51"
Bending angle	45° and 90° *
Centre line radius	3.5" up to 24"
Physical Data	Specification
Coefficient of mean linear thermal expansion $\alpha$ (20°C; 300°C) DIN ISO 7991	3.3 $10^{-6} \text{ K}^{-1}$
Transformation temperature $T_g$ DIN ISO 7884-8	525°C
Density $\rho$ at 25°C	2.23g-cm <sup>-3</sup>
Modulus of elasticity E (Young's Modulus)	63-10 <sup>3</sup> N-mm <sup>-2</sup>
Thermal conductivity $\lambda_w$ at 90°C	1.2 W-m <sup>-1</sup> -K <sup>-1</sup>
Log of electric volume resistivity ( $\Omega$ -cm) at: 250°C 300°C	8.0 6.5
Chemical Resistance	Specification
Hydrolytic resistance ISO 719	Class HGB 1
Acid resistance DIN 12116	Class S 1
Alkali resistance ISO 695	Class A 2

\* Other angles are available on request

The manufacturer's full specification information for this product can be found at: [www.schott.com/d/tubing/e3abe0b4-f9c8-40b8-b4b7-80ffb4d2df01/1.6/schott-duran-glass-bends-fact-sheet-english-29112017.pdf](http://www.schott.com/d/tubing/e3abe0b4-f9c8-40b8-b4b7-80ffb4d2df01/1.6/schott-duran-glass-bends-fact-sheet-english-29112017.pdf)

#### Quality Assurance

The ACL Quality Management System is certified according to EN ISO 9001:2015. We ensure that our suppliers also maintain a certified Quality Management System.

All technical information and advice given here is based on our previous experiences and/or test results. We give this information to the best of our knowledge, but assume no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. Specifications are subject to change without notice. ACL's terms and conditions of sale apply to the purchase and sale of the product.

All materials used in the construction of the ACL Curved SVFI conform to ASME Standards. Glass pressure ratings are according to the manufacturer guidelines.

#### Further Information

For detailed selection criteria, technical information, installation guidelines or to contact ACL, please visit our website:

[www.advanced-couplings.com](http://www.advanced-couplings.com)

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