

ACRIS

PFA LINED BUTTERFLY VALVES



Made In USA



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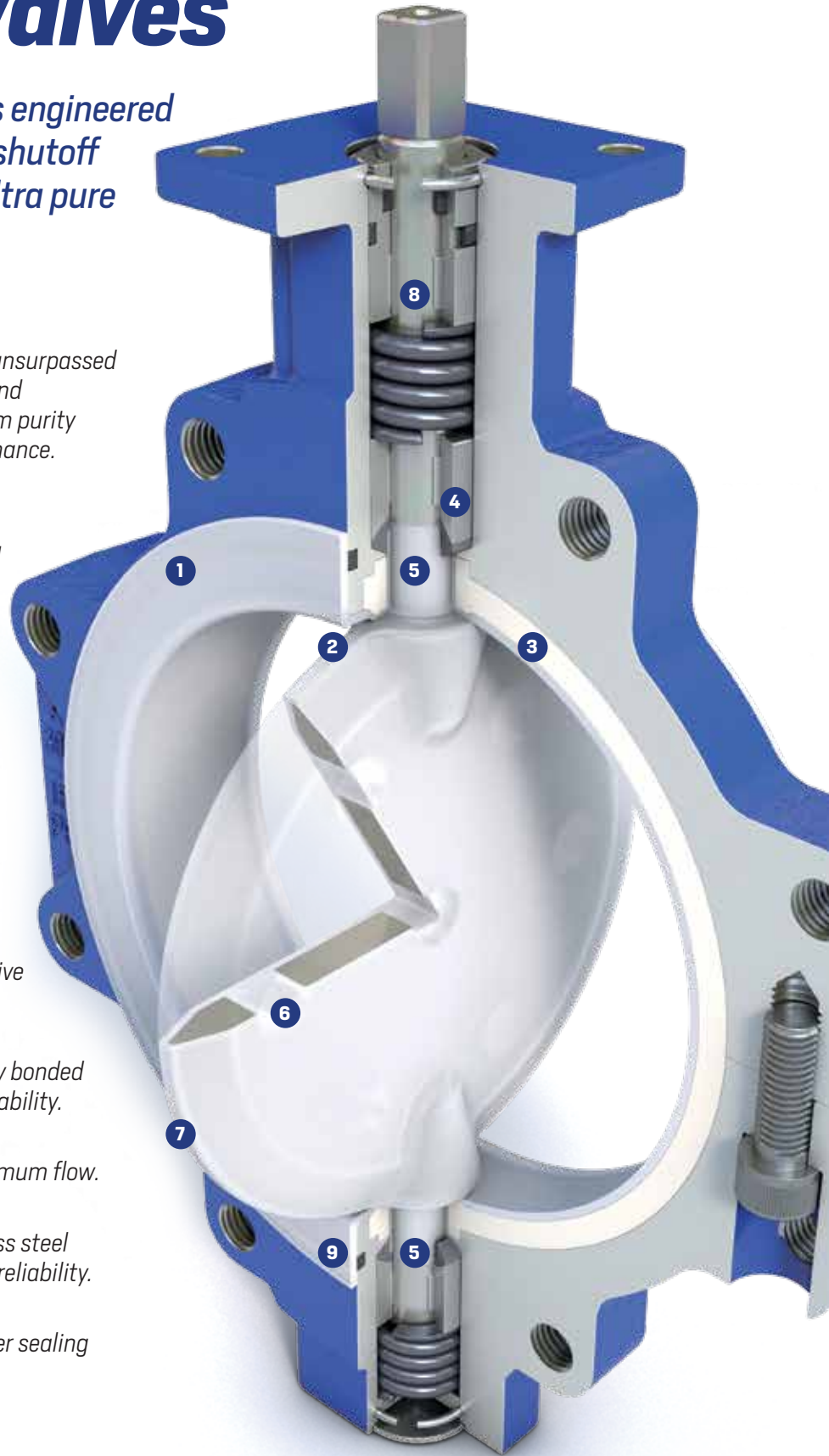
Amrësist®

A **Bray** Company

Acris[®] PFA Lined Butterfly Valves

Fully PFA lined butterfly valves engineered for bidirectional zero leakage shutoff in demanding corrosive and ultra pure industrial applications.

- 1 Fully PFA lined disc and body provide unsurpassed resistance to corrosion, permeation and microbial contamination for maximum purity and reliability with minimum maintenance.
- 2 Durable, spherically molded PFA liner and matching disc interface to form a tight bidirectional seal.
- 3 Full width 360° energized backup liner provides uniform sealing.
- 4 Acriseal™ live-loaded, stem sealing system self-adjusts to eliminate leak paths and reduce fugitive emissions for long-term, maintenance-free operation. (ISO 15848-1 compliant)
- 5 Extended PFA liner forms a protective sleeve shielding the stem from corrosive media and eliminating leak paths.
- 6 PFA disc over-molding is mechanically bonded to the base metal for full vacuum capability.
- 7 Streamlined disc engineered for maximum flow.
- 8 High-strength one-piece 17-4 stainless steel disc and stem standard for improved reliability.
- 9 Energized flange seals maintain proper sealing between valve and flange.

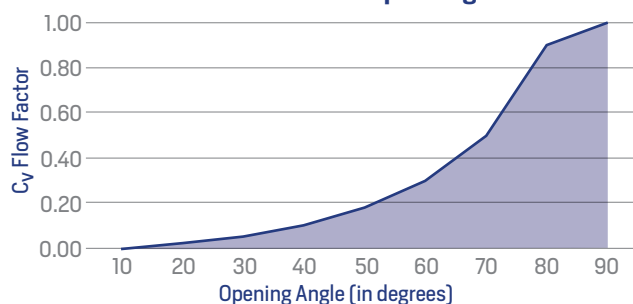


Specifications & Standards

Size Range	1" to 24" (25 to 600mm)
Pressure Rating	Up to 150psi (10bar)
Vacuum Rating	To 0.0002 psia (1.03×10^{-2} torr)
Temperature	-20°F to 320°F (-29°C to 160°C)
Body Style	Two-piece, Wafer, Lug
Face-to-Face	ISO 5752, API 609
Top Plate	ISO 5211
FE Standard	ISO 15848-1, ISO 15848-2
Drilling	ASME B16.5 CL150, ASME B16.1 CL125



Flow Factor vs. Open Angle



Flow Coefficient Factors at 10° Increments for ACRIS

Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Cv	0	.02	.05	.10	.18	.30	.50	.90	1.0

High Performance PFA Lining

- Melt processable for precise molding of parts with smoother surface finishes than PTFE liners.
- Superior flexibility to withstand repeated flexing and dynamic loads for extended service life.
- Higher resistance to permeation for increased durability with lower total cost of ownership.
- Lower particle shedding for maximum purity.
- Superior creep resistance at high temperatures.
- Increased resistance to microbial contamination.

Acriseal™ Stem Sealing System

Precision engineered for reliable, maintenance-free service, the Acriseal three step stem sealing system provides unmatched sealing for long term zero leakage performance. The primary seal is created by the spherically molded PFA body liner and matching disc hub interface. The energized backup liner maintains tight contact pressure for consistent shutoff in high cycle applications.

An independent secondary seal is formed by the extended body and disc liners. The flexible PFA body liner extends into the stem cavity and the disc liner envelops the stem. The resulting protective sleeve eliminates potential leak paths for fugitive emissions and shields internal components from contact with the media. This feature works in conjunction with the tertiary safety seal to ensure compliance with ISO 15848-1 standards for fugitive emissions.

The third sealing mechanism in the Acriseal stem sealing system is a graphite filled PTFE safety seal. Completely isolated from the process media by the extended disc liner and energized by a coil spring, the safety seal self-adjusts for changes in temperature and wear to ensure absolute zero leakage shutoff of corrosive and ultra pure process media.

End of Line Service

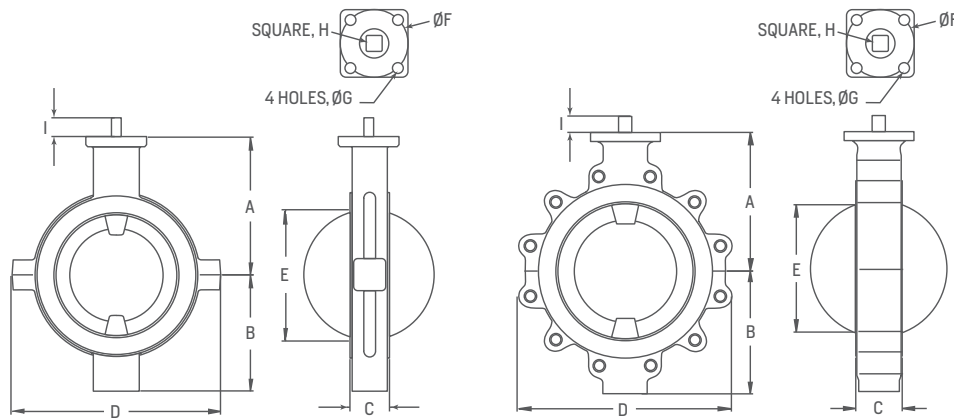
The wide elastomer backup liner rests in a machined body groove enabling downstream dismantling at full working pressure. This unique feature makes Acris ideal for end of line service.

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Acris Butterfly Valve Dimensions

Size (in.)	A	B	C	Wafer Body D	Lug Body D	E	ØF	ØG	H	I	ISO	Wafer Body Weight (lbs.)	Lug Body Weight (lbs.)	C _V
1	3.74	1.69	1.35	3.38	3.38	0.000	1.969	0.312	.630	1.02	F05	4	4	50
1¼	3.74	1.69	1.35	3.38	3.38	0.000	1.969	0.312	.630	1.02	F05	4	4	50
1½	3.93	1.88	1.35	3.74	3.74	0.874	1.969	0.312	.630	1.02	F05	5	6	100
2	4.25	2.24	1.69	3.97	4.56	1.312	1.969	0.312	.630	1.02	F05	5	6	209
3	4.88	4.05	1.83	5.23	5.55	2.539	2.756	0.375	.630	1.02	F07	10	12	580
4	5.62	4.80	2.12	6.73	7.99	3.271	2.756	0.375	.630	1.02	F07	12	17	916
6	6.88	6.25	2.25	8.62	10.11	5.428	2.756	0.375	.630	1.02	F07	25	29	2320
8	8.85	7.75	2.51	10.86	12.24	7.403	4.016	0.437	.748	1.22	F10	42	50	5800
10	10.03	8.93	2.82	13.22	15.43	9.432	4.921	0.562	.984	1.22	F12	70	78	9396
12	11.41	10.43	3.19	15.98	18.03	11.252	4.921	0.562	1.181	1.61	F12	110	116	15892
14*	13.54	13.11	4.12	20.98	20.35	13.127	5.511	0.708	1.181	1.61	F14	172	195	21344
16	14.48	14.13	4.12	23.50	23.62	14.747	5.511	0.708	1.417	1.45	F14	231	229	26912
18*	16.49	16.81	5.08	25.00	24.40	16.974	5.511	0.708	1.417	1.85	F14	330	344	34104
20	17.48	17.12	5.08	27.48	28.74	19.019	6.496	0.866	1.575	1.85	F16	440	400	41760
24	19.68	19.92	6.06	32.67	32.99	22.101	6.496	0.866	1.968	2.20	F16	565	649	60500

*14 and 18 inch Acris valves do not conform to ISO 5752 face-to-face dimensions. Dimensions are approximate and subject to change.



Acris Butterfly Valve Ordering Information

Size	1 to 24 inch
Body Type	IW = ISO Wafer, IL = ISO Lug, L = Lug for 14 and 18 inch only
Body Material	3 = Ductile Iron
Shaft / Disc	1k = 17-4SS over molded with PFA 1s = Carbon Steel over molded with PFA
Liner	F = PFA
Back-up Liner	Silicone
Body Bolts	18-8 Stainless Steel

Options

- S9 = Viton back-up liner
- SB7 = A193 Gr B7 Bolting
- S9C = Viton back-up liner; B7 bolts; Cleaned, tested & packaged for chlorine gas service
- SC1 = Silicone back-up liner; Assembled, cleaned, tested and packaged for Ultra Pure service

Example: 6 inch IL-31kF/S9 = 6 inch ISO Lug, Ductile Iron Body, 17-4 SS Shaft/ Disc over molded w/ PFA, PFA Liner, Viton back up liner

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