



U Section Butterfly Valves



ACHEM U Section Butterfly Valves

Size 2"-48"

Flange PN6/PN10/PN16/150LB/10K/Table D /Table E

Design EN593/API609/BS5155/ISO5211/EN1092

Mounting Flange ISO 5211

Testing Standard API598 ISO5208 EN12266-1

Description

The valve body shall adopt a one-piece U-section design and a concentric disc and seat configuration to accommodate 2" - 56" of piping insulation, have flange holes drilled in accordance with international flange standards, and be equipped with a non-corrosive bushing and self-adjusting stem seal. Flange locating holes shall be provided on U-section bodies to facilitate quick and precise alignment during valve installation. The edge and hub of the valve disc on metal discs shall be spherically machined and hand polished for minimum torque and maximum sealing capability. The disc-to-stem connection shall be an internal square design without any possible leak paths in the disc-to-stem connection. External disc-to-stem connections such as screws or pins are prohibited. The valve seat shall have a tongue-and-groove design. The seat shall completely encapsulate the body, isolating the body from the line



11-1155 NORTH SERVICE ROAD WEST, OAKVILLE, ONTARIO CANADA

PHONE: 519-358-7381 EXT. 101 FAX: 519-672-6428

WEBSITE: www.achemcontrols.com Email: info@achemcontrols.com



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media, and no flange gaskets shall be necessary. The U-section valve shall be rated for bubble-tight shut-off in bidirectional service at 16 Bar for sizes 2" - 12" (50mm - 300mm) and at 10 Bar for sizes 14" - 56" (350mm - 1400mm). The valve shall be tested for tight shut-off at 110% of the rated pressure.

Product Features

1. Compact and lightweight design facilitates easy installation and maintenance.
2. Can be mounted in any required location; features a simple, compact construction with quick 90-degree on-off operation.
3. Operating torque is minimized for enhanced energy efficiency.
4. Provides bubble-tight sealing with no leakage during pressure testing.
5. A wide range of materials available, suitable for various media applications.
6. Long service life, proven to withstand tens of thousands of opening and closing cycles without failure.
7. Flow curve approaches a straight line, demonstrating excellent regulation performance."

Working/Testing Pressure

Size	DN	40mm-300mm	350mm-1200mm
	Inch	1-1/2"-12"	14"-24"
Working		16bar	10bar
Testing	Shell	24bar	15bar
	Seal	17.6bar	11bar

Working Temperature



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Seat Material	EPDM	NBR	FKM	PTFE
Temperature	-10°C to 120°C	-10°C to 80°C	-15°C to 200°C	-25°C to 180°C

Material Specification

Part	Material
Body	Cast Iron Ductile Iron WCB CF8 CF8M CF3M Duplex Steel Al-Bronze
Disc	Ductile Iron CF8 CF8M CF3M Duplex Steel Al-Bronze Harlar Coated
Shaft	SS410 SS416 SS420 SS431 SS316 17-4PH
Seat	EPDM NBR PTFE FKM Silicone
Bushing	FRP PTFE Bronze
Lever	Malleable Iron Carbon Steel Aluminum SS316
Gear Box	Ductile Iron Aluminum SS316

Corrosion Protection

Epoxy Resin Powder Spray, The minimum thickness is not less than 300 microns



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Disc Options

Through shaft with Pin

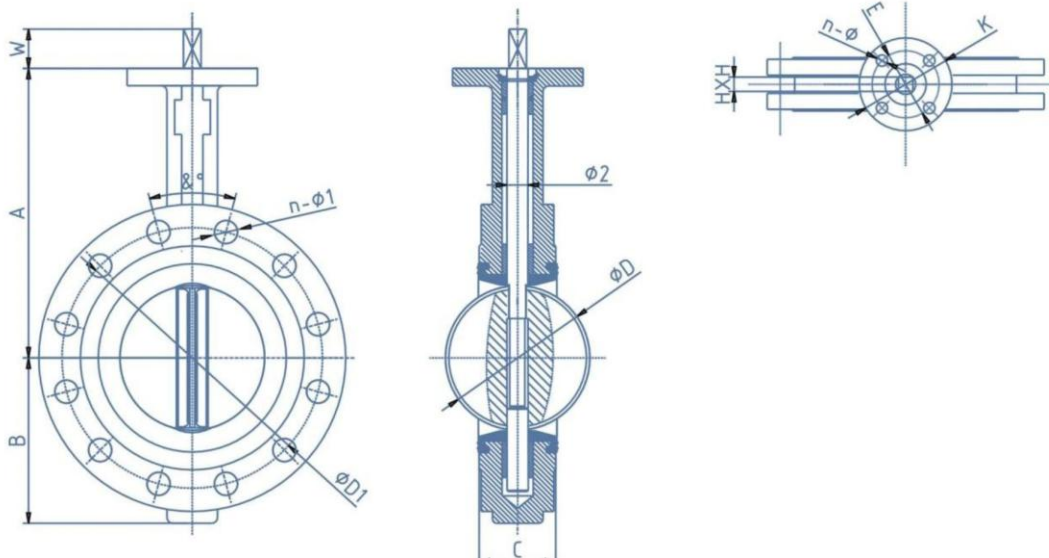
Pinless disc

Slim disc concentric design(DN50-DN350)

Seat Options

Cartridge rubber seat

Tongue and Groove/Replaceable Seat



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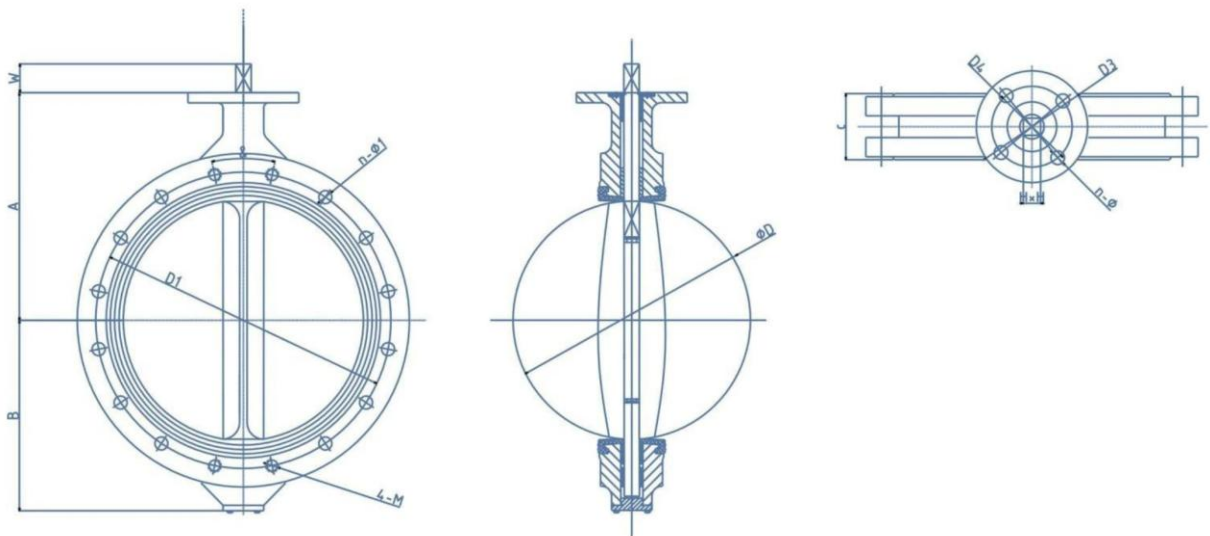
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SIZE	A	B	C	D	$\phi 2$	ISO5211	K	E	n- ϕ	D1	n- $\phi 1$	$\&^{\circ}$	HxH
50	161	80	43	52.6	12.6	F07	90	70	4-10	125	4-19	90	11X11
65	175	89	46	64.3	12.6	F07	90	70	4-10	145	4-19	90	11X11
80	181	95	46	78.8	12.6	F07	90	70	4-10	160	8-19	45	11X11
100	200	114	52	104	15.77	F07	90	70	4-10	180	8-19	45	11X11
125	213	127	56	123.3	18.92	F07	90	70	4-10	210	8-19	45	14X14
150	226	139	56	155.7	18.92	F07	90	70	4-10	240	8-23	45	14X14
200	260	175	60	202.4	22.10	F10	125	102	4-12	295	8-23	45	17X17
250	292	203	68	250.42	28.45	F10	125	102	4-12	350	12-23	30	22X22
300	337	242	78	301.5	31.60	F10	125	102	4-12	400	12-23	30	22X22
350	368	267	78	333.5	31.60	F10	125	102	4-12	460	16-23	22.5	22X22



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SIZE	A	B	øD	C	D1	n-ø1	4-M	&	ISO5211	D3	D4	n-ø	H	W
400	400	309	389.6	102	515	12-28	4-M24	22.5	F14	175	140	4-18	27	36
450	422	328	440.5	114	565	16-28	4-M24	18	F14	175	140	4-18	27	36
500	480	361	491.6	127	620	16-28	4-M24	18	F14	175	140	4-18	36	36
600	562	459	592.5	154	725	16-31	4-M27	18	F16	210	165	4-22	36	46



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