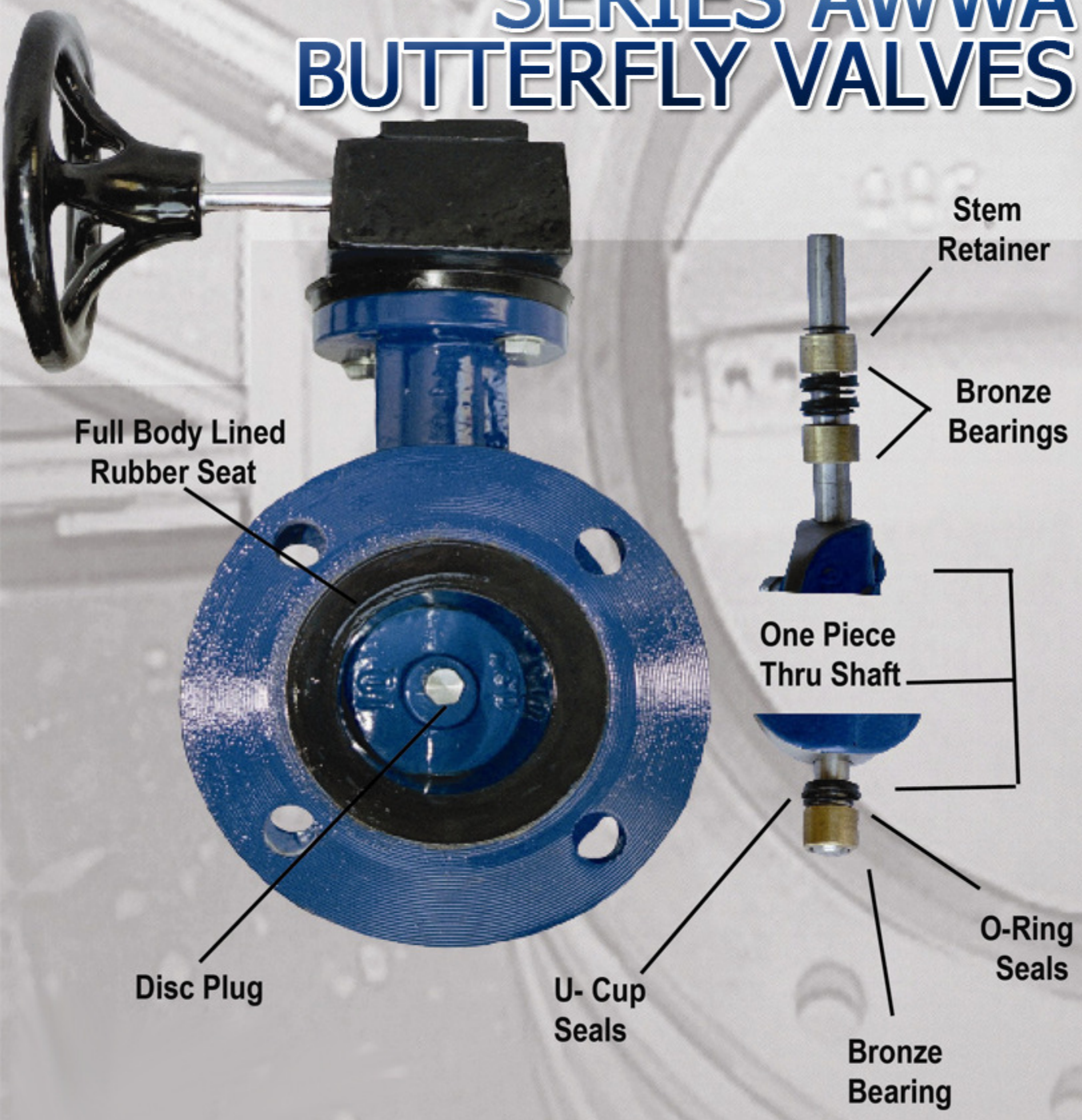


SERIES AWWA BUTTERFLY VALVES



Full Body Lined
Rubber Seat

Disc Plug

U- Cup
Seals

Stem
Retainer

Bronze
Bearings

One Piece
Thru Shaft

O-Ring
Seals

Bronze
Bearing

Design Detail and Specifications

General: Butterfly valves shall be bubble tight against full rated pressure. Valves shall be constructed per AWWA. Valves are suitable for bi-direction shutoff and throttling service.

Face to Face: Lay length per short body, Table 1

Shell Thickness: Thickness per Class 150(B), Table 1

Pressure Rating: 200 PSIG, Bi-Directional bubble tight

Flanges: Flat faced per AWWA ANSI B16.1 Class 125

Body: Exterior- Epoxy Coated
Interior- Fusion bonded EPDM or Buna N

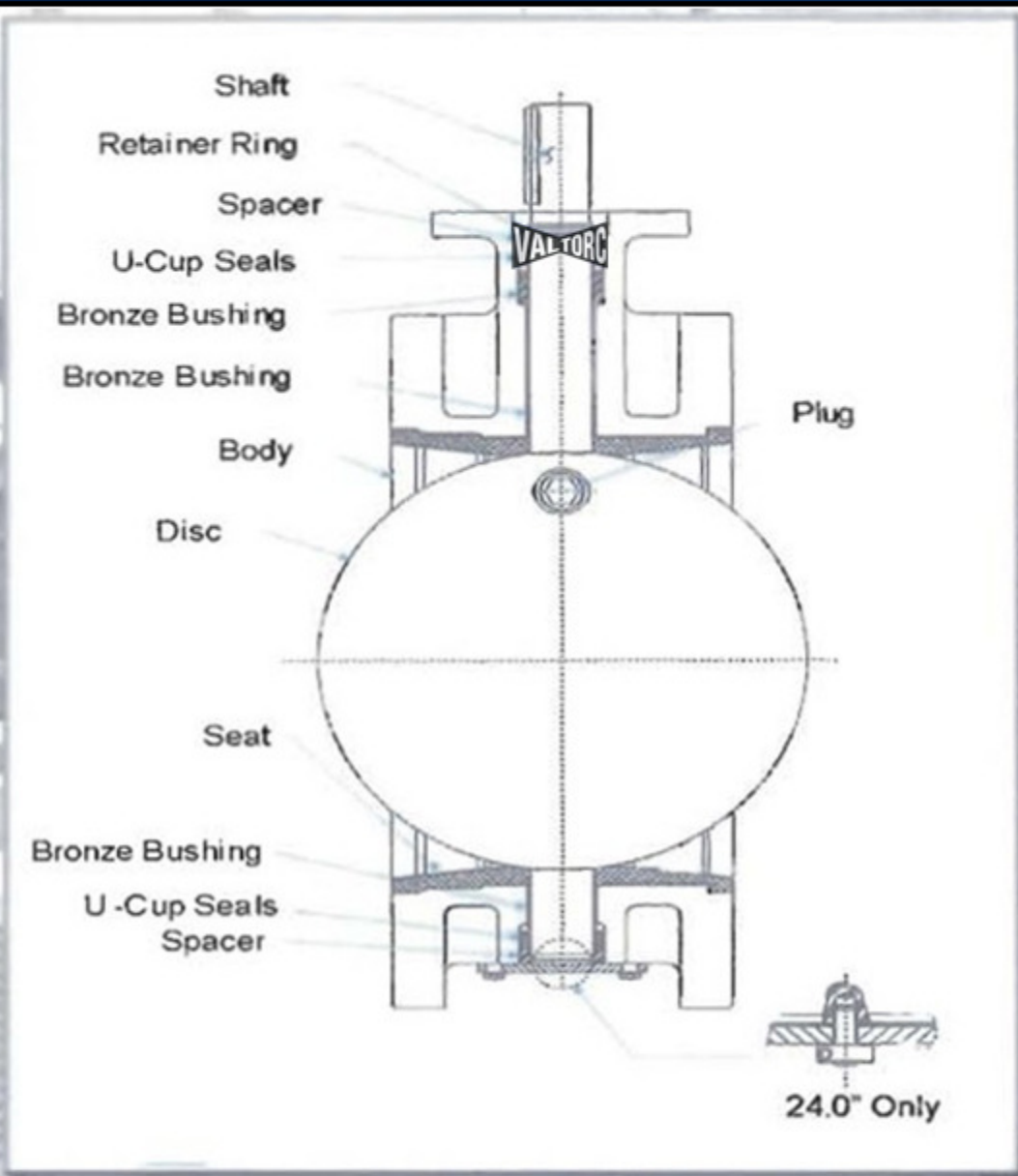
Disc: Concentric, ductile iron, fusion bonded NSF-61 Epoxy coated
316 SS disc edge.

Disc/Stem Connection: One piece shaft with disc attached using threaded disc plug

Stem Bushing: Luberized bronze bushing, top & bottom

Packing: Top- double U-Cup with O-ring backup
Bottom- single U-Cup with O-ring backup

Testing: Valve shall be hydrostatic tested and leak tested per AWWA



Materials Of Construction

Name	Material(s)	
	Standard	Optional
Shaft	416SS	304SS, 316SS
Retaining Ring	Brass	
Spacer	Nylon	
Seals	EPDM	Buna N
Bushings	Bronze	
Body	Cast Iron	Ductile Iron
Disc	Ductile Iron - 304SS Edge	316SS, Al Brz
Seat	EPDM	Buna N

Design Details & Specifications

Cv Values - Valve Sizing Coefficients

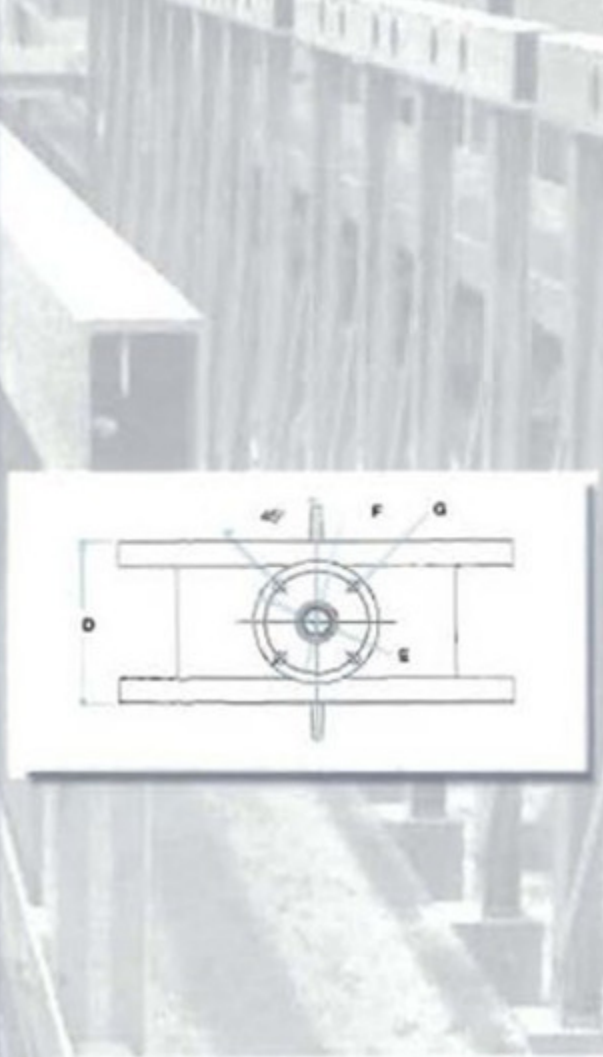
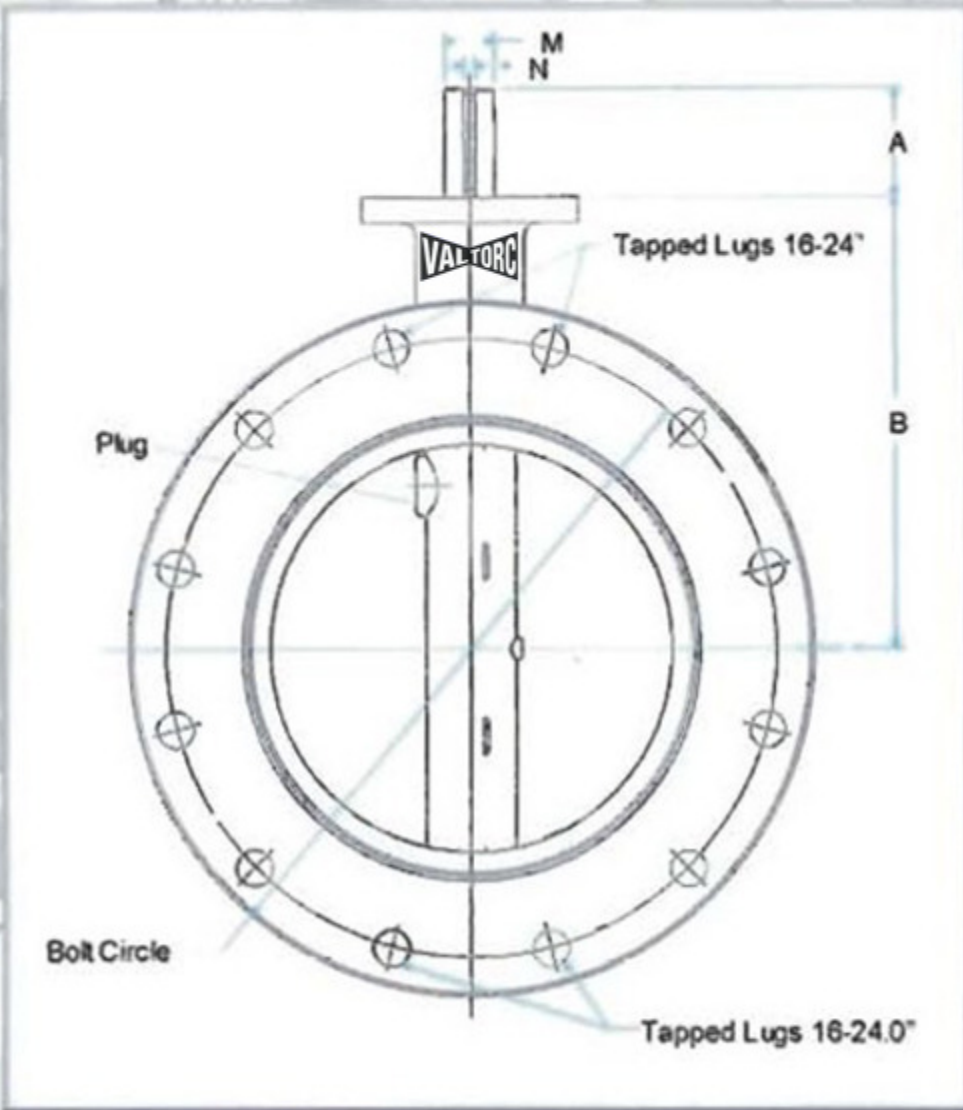
Disc Angles

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
3.0"	1	5	12	21	40	69	115	170	230
4.0"	3	9	23	41	81	138	230	340	460
6.0"	6	21	54	96	187	321	535	792	1070
8.0"	13	48	119	214	416	713	1188	1758	2375
10.0"	24	88	219	394	767	1314	2190	3241	4380
12.0"	36	130	326	587	1141	1956	3260	4825	6520
14.0"	53	192	479	862	1676	2873	4788	7086	9575
16.0"	73	267	668	1202	2337	4007	6678	9883	13356
18.0"	93	338	845	1521	2958	5070	8450	12506	16900
20.0"	112	408	1021	1838	3574	6126	10210	15111	20420
24.0"	153	558	1395	2511	4883	8370	13950	20646	27900

Cv Value denotes the flow rate in US GPM for water at 70 degrees F with differential pressure of 1 PSIG

Expected Seating and Unseating Torques - In. Lbs

Size	Table 5		Service	Operating Fluid	Safety Factor
	50 PSIG	200 PSIG			
3.0"	89	124			
4.0"	186	310	On-Off	Water or Oil	1.25
6.0"	708	1185			
8.0"	1328	1883	Throttling	Water or Oil	1.25
10.0"	2036	3360	On-Off	Air	1.25
12.0"	2832	4420			
14.0"	4425	7072	Throttling with Positioner	Air ≥ 80 Cu In < 80 Cu In	1.5 2.0
16.0"	6195	9724			
18.0"	8408	13702	Throttling without Positioner		10.0
20.0"	14160	19271			
24.0"	17700	27227			



Overall Dimensions & Weights

Size	A	B	C	D	WE	WT	WC	W	N	# Holes/Diam.	W.C.	Weight
3.0"	1.25	6.3	NA	5	4	3.25	0.44	NA	0.187	4 X .75	6	29
4.0"	1.26	7.05	NA	5	4	3.25	0.44	NA	0.187	8 X .75	7.5	48
6.0"	2	8.07	NA	5	6	5	0.56	1.13	0.25	8 X .87	9.5	58
8.0"	2	9.57	NA	6	6	5	0.56	1.13	0.25	8 X .87	11.75	56
10.0"	2.99	10.83	NA	8	6	5	0.56	1.38	0.31	12 X 1.00	14.25	150
12.0"	2.99	12.32	NA	8	6	5	0.56	1.38	0.31	12 X 1.00	17	204
14.0"	2.99	14.06	NA	8	6	6.5	0.56	1.63	0.31	12 X 1.15	18.75	257
16.0"	2.99	15.88	NA	8	8	6.5	0.81	1.63	0.37	16 X 1.15	21.13	398
18.0"	3.5	16.57	NA	8	8	6.5	0.81	2.25	50 X .37	16 X 1.25	22.75	433
										1 1/8"-7		
20.0"	3.5	18.07	NA	8	8	6.5	0.81	2.25	50 X .37	20 X 1.25	25	585
										1 1/8"-7		
24.0"	3.5	19.57	NA	8	8	6.5	0.81	2.25	74 X .50	20 X 1.38	29.5	780
										1 1/4"-7		