

# HIGH PERFORMANCE BUTTERFLY VALVE

**LCS6822 (Class 150)**

**LCS7822 (Class 300)**

## APPLICATIONS

Ideally suited for Commercial, Industrial and Mechanical HVAC Services. Use in other applications must be approved by the manufacturer

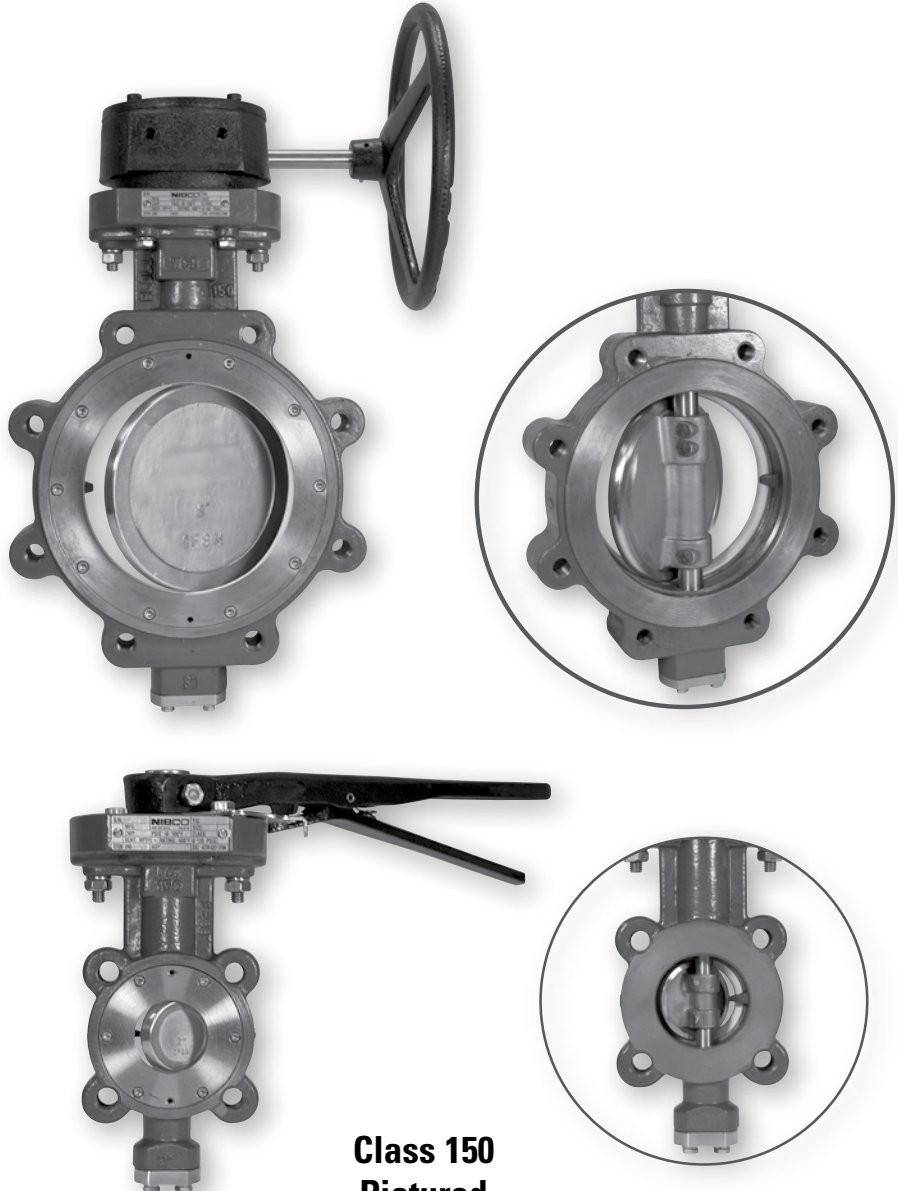
- Heating Hot Water
- Condenser Water
- Glycol
- Chilled Water
- Compressed Air
- Steam rated - 2" - 12" 150 psi for on/off applications and 50 psi modulating
- Chemical Process
- Isolation and Throttling
- Domestic Water

## MATERIALS & CONSTRUCTION

- Body constructed of carbon steel
- Stainless steel disc and stem
- Seats of reinforced PTFE for exceptional chemical and heat resistance
- Welded disc pins
- Silicone is not used in the manufacture of this valve

## DESIGN CRITERIA

- MSS SP-68 (Design)
- MSS SP-25 (Markings)
- API-609 Seat Pressure/Temperature Ratings/ Blow-out proof stem
- ASME/ANSI B16.34A, Body Pressure/Temperature Ratings
- ASME/ANSI B16.5 Flange Dimensions
- ISO 5211, EN 12116 Actuator Mounting Top Works
- ANSI Class 150 and Class 300
- Dual Offset Design



**Class 150 Pictured**

## FEATURES

- Powder coated epoxy finish
- One-piece stem
- Direct mount actuation
- Live loaded adjustable packing with unique flush-mounted packing gland
- Integrally cast disc-stop
- Dual offset design
- Blow-out proof stem
- Bi-directional dead end service (Arrow on body indicates preferred flow)
- Maximum operating temperature 400°F at 100 psi
- 100% production tested per MSS SP-68

# High Performance Butterfly Valve Series 6822 & 7822

Carbon Steel Body • Stainless Steel Disc and Stem • ISO 5211 Actuation Mounting

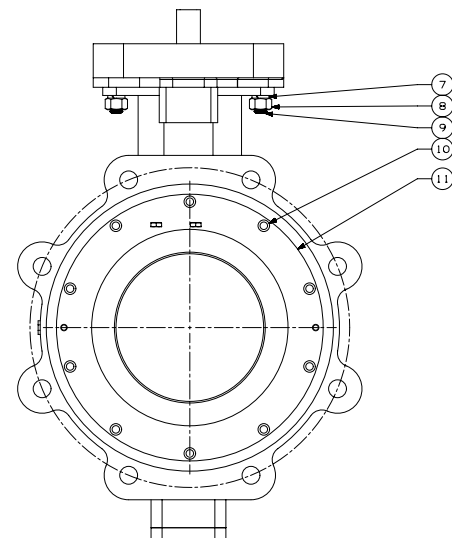
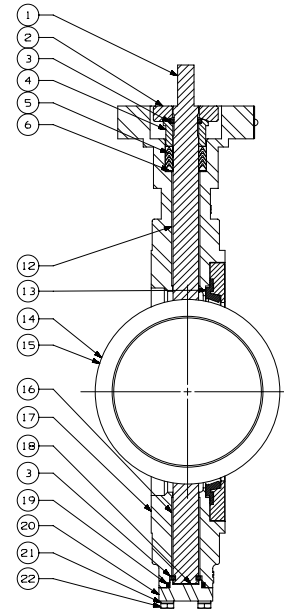
**CLASS 150 - SIZES 2" THROUGH 24"**

**CLASS 300 - SIZES 2" THROUGH 12"**

ANSI Class 150 & 300

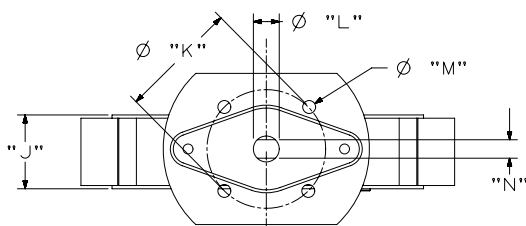
## MATERIAL LIST

PART	SPECIFICATION
1. Stem	Stainless Steel UNS ASTM A564 UNS S17400
2. Flange, Gland	Stainless Steel ASTM A351 Grade CF8M
3. Retainer, Stem (4)	Stainless Steel ASTM A276 UNS S31600
4. Gland, Packing	Stainless Steel ASTM A276 UNS S31600
5. Packing (set)	PTFE
6. Retainer, Packing	Stainless Steel ASTM A276 UNS S31600
7. Lockwasher (2)	Stainless Steel Type 304 18-8
8. Nut (2)	Stainless Steel Type 304 18-8
9. Stud (2)	Stainless Steel Type 304 18-8
10. Screw, SHCS	Stainless Steel Type 304 18-8
11. Retainer, Seat	Stainless Steel ASTM A276 UNS S31600
12. Bushing, Upper	Stainless Steel Type 304 PTFE Coated
13. Seat	PTFE 15% Glass Reinforced
14. Disc	Stainless Steel ASTM A351 Grade CF8M
15. Pin, Disc (2)	Stainless Steel ASTM A276 UNS S31600
16. Bushing, Lower	Stainless Steel TYPE 304 PTFE Coated
17. Body	Carbon Steel ASTM A216 GRADE WCB
18. Disc, Spacer	Stainless Steel ASTM A240 UNS S31600
19. Seal, Lower	PTFE
20. Cap, Body	Stainless Steel ASTM A351 Grade CF8M
21. Lockwasher (4)	Stainless Steel Type 304 18-8
22. Screw, Hex (4)	Stainless Steel Type 304 18-8
23. Handle Assembly	Malleable Iron (shown separately)
24. Plate, Throttle	Steel, Plated (shown separately)
25. Screw, Hex	Carbon Steel, Plated (shown separately)
26. Lockwasher	Carbon Steel, Plated (shown separately)
27. Key	Carbon Steel ASTM A108 Grade 1045
28. ID Plate	Stainless Steel

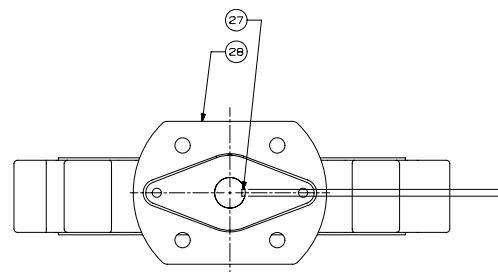


**NOTE:** For severe steam applications, contact NIBCO Technical Services.

**NOTE:** If valve is installed opposite the flow arrow for dead end service a downstream flange is recommended.



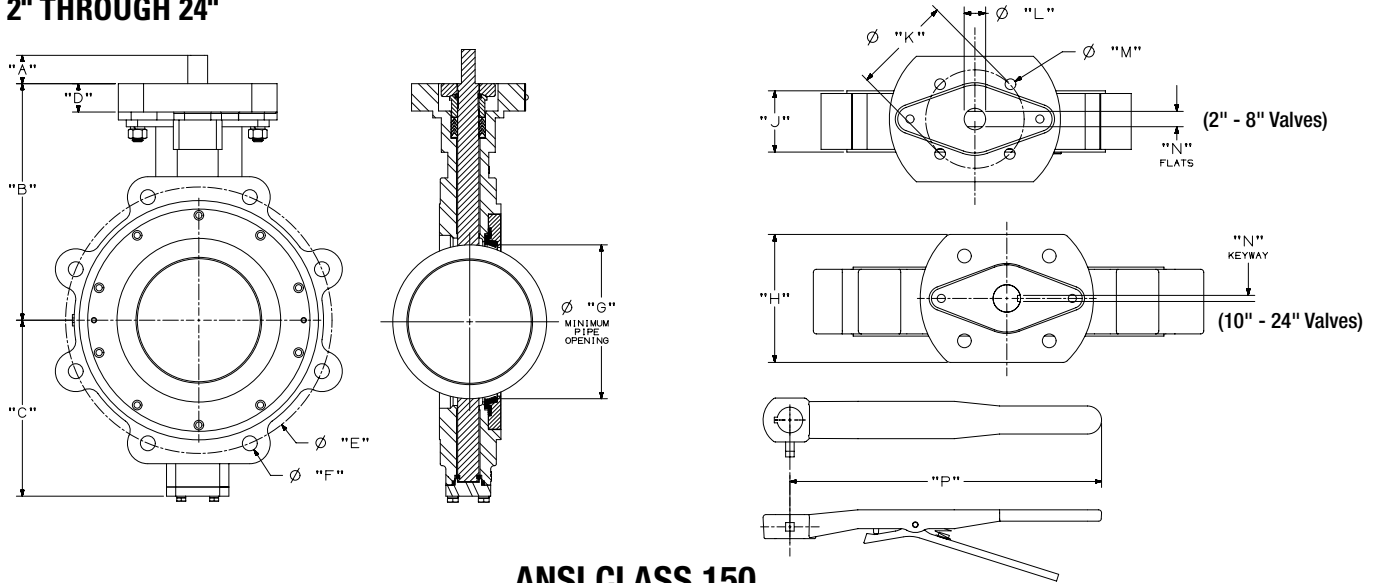
2" - 8" Class 150 Valves  
2" - 6" Class 300 Valves



10" - 24" Class 150 Valves  
8" - 12" Class 300 Valves

# High Performance Butterfly Valve Series 6822

SIZES 2" THROUGH 24"



## ANSI CLASS 150

### DIMENSIONS — WEIGHTS

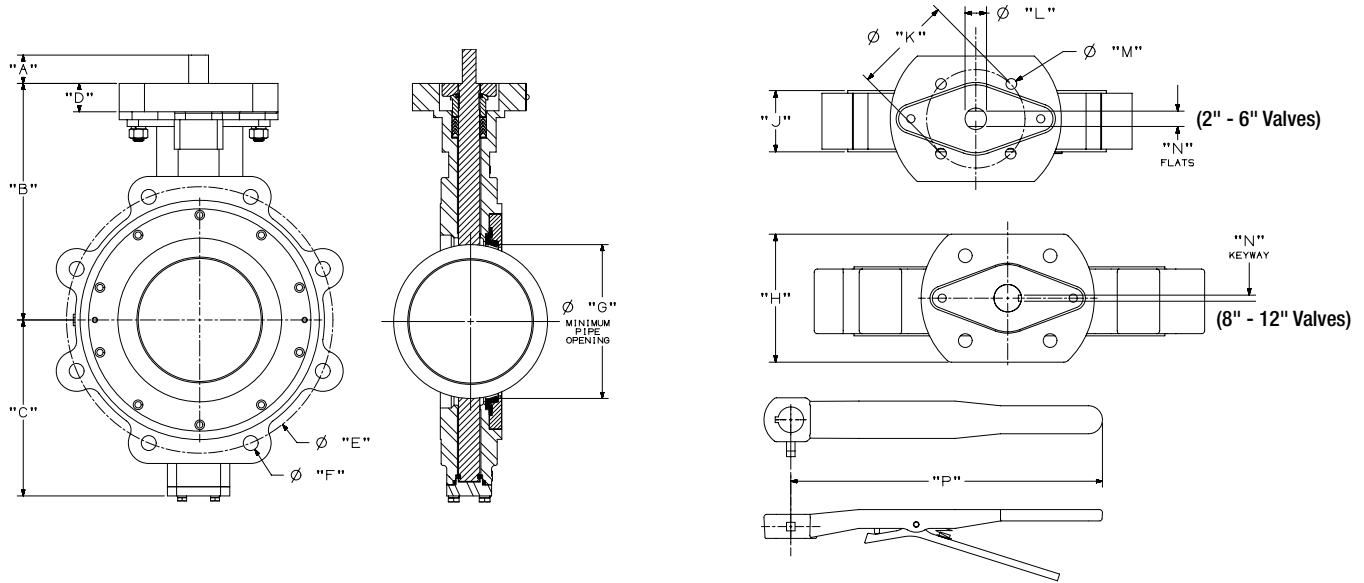
Valve Size	Gear Operator Mounting	A		B		C		D		E		F Threads	G	
		In.	mm	In.	mm.	In.	mm.	In.	mm.	In.	mm.		In.	mm.
2"	F07	1.25	31.75	5.78	146.8	3.94	100.1	1.25	31.8	4.75	120.65	4 X 5/8"-11 UNC	1.68	42.7
2½"	F07	1.25	31.75	6.49	164.8	4.06	103.1	1.25	31.8	5.50	139.70	4 X 5/8"-11 UNC	2.24	56.9
3"	F07	1.25	31.75	6.77	172.0	4.37	111.0	1.25	31.8	6.00	152.40	4 X 5/8"-11 UNC	2.72	69.1
4"	F07	1.25	31.75	6.98	177.3	4.80	121.9	1.25	31.8	7.50	190.50	8 X 5/8"-11 UNC	3.38	85.9
5"	F07	1.25	31.75	8.39	213.1	6.38	162.1	1.25	31.8	8.50	215.90	8 X 3/4"-10 UNC	4.48	113.8
6"	F07	1.25	31.75	8.71	221.2	5.97	151.6	1.25	31.8	9.50	241.30	8 X 3/4"-10 UNC	5.34	135.6
8"	F10	1.25	31.75	10.43	264.9	7.76	197.1	1.60	40.6	11.75	298.45	8 X 3/4"-10 UNC	7.28	184.9
10"	F12	2.00	50.80	11.81	300.0	8.61	218.7	1.00	25.4	14.25	361.95	12 X 7/8"-9 UNC	9.13	231.9
12"	F12	2.00	50.80	12.80	325.1	10.63	270.0	1.00	25.4	17.00	431.80	12 X 7/8"-9 UNC	10.68	271.3
14"	F12	2.25	57.15	16.03	407.2	11.68	296.7	1.00	25.4	18.75	476.25	12 X 1"-8 UNC	12.14	308.4
16"	F16	3.00	76.20	16.73	424.9	13.78	350.0	1.88	47.8	21.25	539.75	16 X 1"-8 UNC	13.98	355.1
18"	F16	3.00	76.20	17.72	450.1	14.76	374.9	1.88	47.8	22.75	577.85	16 X 1-1/8"-8 UN*	16.18	411.0
20"	F16	3.00	76.20	18.94	481.1	16.43	417.3	2.00	50.8	25.00	635.00	20 X 1-1/8"-8 UN*	18.13	460.5
24"	F16/F25	4.00	101.60	23.23	590.0	19.37	492.0	2.50	63.5	29.50	749.30	20 X 1-1/4"-8 UN*	21.17	537.7

\*SPECIAL PITCH CAP SCREW THREAD REQUIRED PER MSS SP-68 SPECIFICATIONS.

Valve Size	H		J		K		L		M		N		P		Valve Wt.		Operating Torque at 285 psi	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	In.-Lbs.	N-m
2"	4.15	105.4	1.69	42.93	2.76	70.10	0.500	12.700	0.37	9.40	0.375	9.525	13.75	349.3	12.5	6	290	33
2½"	4.15	105.4	1.84	46.74	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	16	7	320	36
3"	4.15	105.4	1.88	47.75	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	18	8	350	40
4"	4.15	105.4	2.12	53.85	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	31	14	510	58
5"	4.15	105.4	2.25	57.15	2.76	70.10	0.750	19.050	0.37	9.40	0.500	12.700	13.75	349.3	38	17	725	82
6"	4.15	105.4	2.25	57.15	2.76	70.10	0.750	19.050	0.37	9.40	0.500	12.700	13.75	349.3	44	20	845	95
8"	5.12	130.0	2.50	63.50	4.02	102.11	0.875	22.225	0.44	11.18	0.625	15.875	—	—	68	31	1430	162
10"	5.25	133.4	2.83	71.88	4.92	124.97	1.125	28.575	0.56	14.22	1/4" X 1/4"	—	—	104	47	2400	271	
12"	5.25	133.4	3.19	81.03	4.92	124.97	1.125	28.575	0.56	14.22	1/4" X 1/4"	—	—	148	67	3650	412	
14"	5.25	133.4	3.62	91.95	4.92	124.97	1.375	34.925	0.56	14.22	5/16" X 5/16"	—	—	201	91	6000	678	
16"	6.50	165.1	4.00	101.60	6.50	165.10	1.875	47.625	0.81	20.57	3/8" X 1/2"	—	—	309	140	8800	994	
18"	6.50	165.1	4.50	114.30	6.50	165.10	1.875	47.625	0.81	20.57	3/8" X 1/2"	—	—	346	157	11500	1299	
20"	6.50	165.1	5.00	127.00	6.50	165.10	2.125	53.975	0.81	20.57	1/2" X 1/2"	—	—	426	194	16500	1864	
24"	11.02	279.9	6.06	153.92	6.50	165.10	2.555	64.897	0.81	20.57	3/4" X 1/2"	—	—	675	307	24600	2779	

# High Performance Butterfly Valve Series 7822

SIZES 2" THROUGH 12"



## ANSI CLASS 300

### DIMENSIONS — WEIGHTS

Valve Size	Gear Operator Mounting	A		B		C		D		E		F Threads	G	
		In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		In.	mm.
2"	F07	1.25	31.75	5.78	146.8	3.94	100.1	1.25	31.8	5.00	127.00	8 X 5/8"-11 UNC	1.68	42.7
2½"	F07	1.25	31.75	6.49	164.8	4.06	103.1	1.25	31.8	5.88	149.35	8 X 3/4"-10 UNC	2.24	56.9
3"	F07	1.25	31.75	6.77	172.0	4.37	111.0	1.25	31.8	6.62	168.15	8 X 3/4"-10 UNC	2.72	69.1
4"	F07	1.25	31.75	6.98	177.3	4.80	121.9	1.25	31.8	7.88	200.15	8 X 3/4"-10 UNC	3.38	85.9
5"	F07	1.25	31.75	8.39	213.1	6.38	162.1	1.25	31.8	9.25	234.95	8 X 3/4"-10 UNC	4.42	112.3
6"	F07	1.25	31.75	9.53	242.1	7.75	196.9	1.25	31.8	10.62	269.75	12 X 3/4"-10 UNC	4.07	103.4
8"	F10	2.00	50.80	11.42	290.1	8.91	226.3	2.00	50.8	13.00	330.20	12 X 7/8"-9 UNC	7.03	178.6
10"	F12	2.25	57.15	12.32	312.9	9.88	251.0	1.00	25.4	15.25	387.35	16 X 1"-8 UNC	9.11	231.4
12"	F12	3.00	76.20	13.90	353.1	11.00	279.4	1.00	25.4	17.75	450.85	16 X 1-1/8"-8 UN*	10.55	268.0

\*SPECIAL PITCH CAP SCREW THREAD REQUIRED PER MSS SP-68 SPECIFICATIONS.

Valve Size	H		J		K		L		M		N		P		Valve		Operating Torque at 700 psi	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	In.-Lbs.	N-m
2"	4.15	105.4	1.69	42.93	2.76	70.10	0.500	12.700	0.37	9.40	0.375	9.525	13.75	349.3	14	6	390	44
2½"	4.15	105.4	1.84	46.74	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	21	10	425	48
3"	4.15	105.4	1.88	47.75	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	27	12	450	51
4"	4.15	105.4	2.12	53.85	2.76	70.10	0.625	15.875	0.37	9.40	0.438	11.125	13.75	349.3	49	22	725	82
5"	4.15	105.4	2.31	58.67	2.76	70.10	0.750	19.050	0.37	9.40	0.500	12.700	13.75	349.3	60	27	1000	113
6"	4.15	105.4	2.31	58.67	2.76	70.10	0.750	19.050	0.37	9.40	0.500	12.700	13.75	349.3	71	32	1250	141
8"	5.12	130.0	2.88	73.15	4.02	102.11	1.125	28.575	0.44	11.18	1/4" X 1/4"	—	—	121	55	2025	229	
10"	5.25	133.4	3.25	82.55	4.92	124.97	1.375	34.925	0.56	14.22	5/16" X 5/16"	—	—	143	65	3775	426	
12"	5.25	133.4	3.62	91.95	4.92	124.97	1.625	41.275	0.56	14.22	3/8" X 3/8"	—	—	216	98	5725	647	

14" - 24" SIZES AVAILABLE - CONSULT FACTORY