AWWA Butterfly Valve

U.S. PIPE VALVE & HYDRANT DIVISION

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AWWA Butterfly Valve

Sizes: 3 through 24 inches

Valve Body Styles:
- Milliken Model 511: Class 150 B Flanged
- Milliken Model 510: Class 150 B Mechanical Joint

Actuation Options:
- Handwheel
- Buried Service

Features:

- Rubber seat in body
- Fully rubber-lined body on flanged valves
- U-cup packing with preload O-ring
- Ductile iron body and disc
- Fusion epoxy paint
- Streamlined disc shape
- 200-psi design

Benefits:

- Reduces the chance of seat damage from tuberculation or other solids
- Eliminates potential for corrosion on interior of body
- Preloaded packing is bi-directional and can be used for vacuum service
- Stronger materials translate into surge resistance and longer valve life
- Highest quality paint system is used on interior and exterior of valve
- On center disc design results in lower head-loss than offset disc design
- Valves are rated and tested at 200 psi to facilitate field system hydro-test

Suggested Specification:

All butterfly valves shall be of the tight closing, rubber seat type conforming to the design standards of ANSI/AWWA C504 latest revision. Valves shall be bubble-tight at the rated pressure in either direction and shall be suitable for throttling service and/or operation after long periods of inactivity. Manufacturer shall have a minimum of five (5) years experience producing AWWA butterfly valves.

All valve bodies shall be constructed of ductile iron ASTM A536, grade 65-45-12. Cast iron bodies are not acceptable. Flanged valves shall have ANSI B16.1 flanges with class 125# drilling. Mechanical Joint valves shall have ends conforming to the ANSI/AWWA C111/A21.11 standard. On 24” and smaller valves the valve seat shall be simultaneously bonded and vulcanized to the body of the valve. The entire interior waterway of the valve body shall be rubber-lined to prevent corrosion. Valve designs with the rubber seat on the disc are not acceptable.

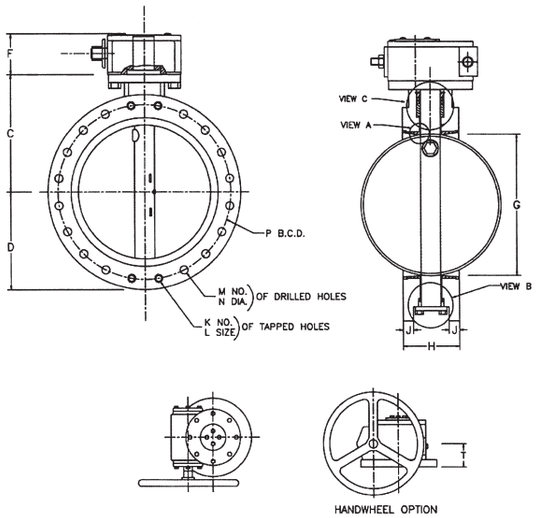
The discs shall be constructed of ductile iron ASTM A536 grade 65-45-12 with a 316 stainless steel edge. Cast iron discs are not acceptable. The disc on valves 24” and smaller shall be concentric design to improve flow characteristics and decrease head-loss.

The valve shaft shall be constructed of stainless steel ASTM A276 type 304. On 24” and smaller valves the shaft shall be one piece design that will be fastened to the disc with a threaded disc pin providing a positive leak proof connection between the shaft and disc.

All shaft bearing shall be of the self-lubrication, corrosion-resistant sleeve type. Bearings shall be designed for horizontal and/or vertical shaft loading.

Milliken Figure 511

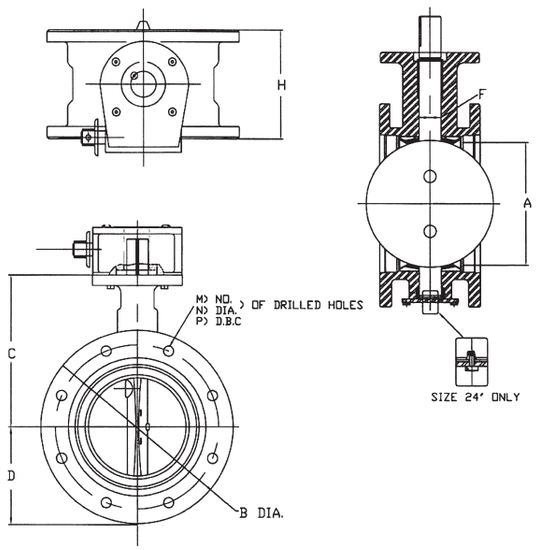
3" - 24" Class 150 B Flanged w/Gear Operator and Handwheel



Valve Size	C	D	F	G	H	J	K	L	M	N	P
3	6.25	3.75	2.50	3.00	5.0	0.750	-	-	4	0.75	6.00
4	7.00	4.50	2.50	6.00	5.0	0.937	-	-	8	0.75	7.50
6	8.00	5.50	2.50	6.00	5.0	0.950	-	-	8	0.88	9.50
8	9.53	6.70	TBA	8.00	6.0	1.000	-	-	8	0.88	11.75
10	10.78	8.00	TBA	10.00	8.0	1.187	-	-	12	1.00	14.25
12	12.32	9.50	TBA	12.00	8.0	1.250	-	-	12	1.00	17.00
14	14.01	10.50	3.5	14.00	8.0	1.437	4	1.0	8	1.13	18.75
16	15.03	12.00	5.3	16.00	8.0	1.500	4	1.0	12	1.13	21.25
18	16.54	12.50	5.3	18.00	8.0	1.625	4	1.0	12	1.25	22.75
20	18.07	13.75	5.3	20.00	8.0	1.750	4	1.0	16	1.25	25.00
24	22.52	16.00	6.0	24.10	8.0	1.887	4	1.0	16	1.38	29.50

Milliken Figure 510

3" - 24" Class 150 B Mechanical Joint w/Gear Actuator, Buried Service Nut



Valve Size	A	B	C	D	F	H	M	N	P
3	3.00	7.58	6.25	3.75	.558	8.50	4	.750	6.19
4	4.00	9.063	7.00	4.50	.625	8.50	4	.875	7.50
6	6.00	11.125	8.00	5.50	1.125	8.50	6	.875	9.50
8	8.00	13.375	9.53	6.75	1.125	8.625	6	.875	11.75
10	10.00	15.063	10.78	8.00	1.375	9.25	8	.875	14.00
12	12.00	17.313	12.32	9.50	1.375	9.25	8	.875	16.25
14	14.00	20.313	14.01	10.5	1.625	11.50	10	.875	18.75
16	16.00	22.563	15.03	11.75	1.875	12.00	12	.875	21.00
18	18.00	24.828	16.54	12.50	2.25	12.25	12	.875	23.25
20	20.00	27.078	18.07	13.75	2.25	12.50	14	.875	25.50
24	24.00	31.578	22.52	16.00	3.00	13.25	16	.875	30.00

Materials of Construction

Body - ASTM A536 ductile iron

Disc - ASTM A536 ductile iron

Disc Edge - ASTM A276 Type 316 stainless steel

Seat - Buna N/EPDM rubber vulcanized/bonded in the body

Shaft - ASTM A276 Type 304 stainless steel

Bearings - Nylatron/Bronze (oil impregnated)

Packing - Buna N/EPDM U-cup seal w/preloaded O-ring

Paint - Fusion bonded epoxy conforming to NSF 61

Design Details