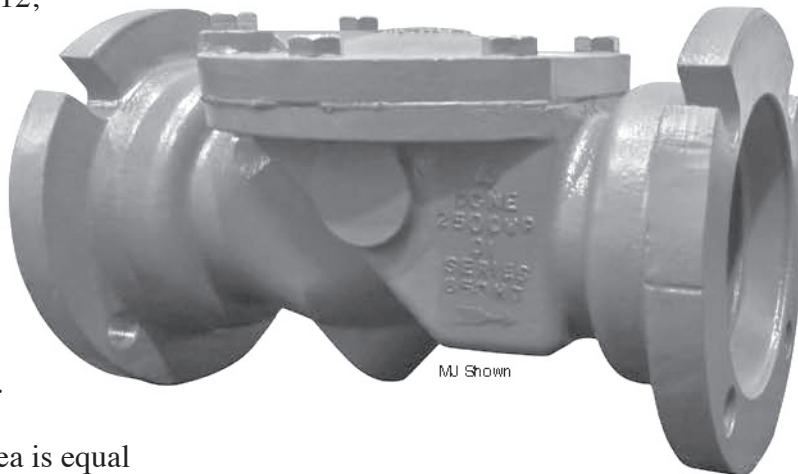


# MUELLER® Flexible Disc Check Valve

Simple, Maintenance Free • Flg x Flg or MJ x MJ

The Mueller® Flexible Disc Check Valve has only one moving part: a flexible elastomeric disc reinforced with steel, as well as nylon in the flex area. This simple, innovative valve provides dependable, maintenance-free performance, and quiet operation with its inherent non-slam construction. The design has undergone a rigorous 1,000,000 continuous cycle test with no signs of wear or distortion to the valve disc or seat. All sizes — 2" through 24" — have a 250 psi rating and meet applicable requirements of AWWA C508.

**Body** – Ductile iron in ASTM A-536 Grade 65-45-12, and features a full flow area providing 100% unrestricted flow and low head loss. Flanged ends comply with ANSI B16.42 Class 150; Mechanical Joint ends comply with ANSI/AWWA C111.



**Flow** – The flow area is equal to or greater than the equivalent pipe size throughout, resulting in low head losses, compared to other types of check valves.

**Accessories/Options** –

- External backflushing device - to manually open disc. (Not available on MJ)
- Visual disc position indicator and limit switch - to indicate disc position. (Not available on MJ)
- EPDM disc
- Connections – Flanged ends 2"–24"; Standard Mechanical Joint ends 3"–16".
- 304 stainless steel hardware.

**Body Seat** – Constructed on a 45 degree angle to reduce the travel of the disc to the full open position -- significantly reducing the potential for water hammer.

**Bonnet** – Ductile iron-domed access bonnet allows for easy removal and inspection of the flexible disc assembly. Bonnet bolts are Type 316 Stainless Steel on MJ end valves (SAE Gr. 5 on flanged valves, with Type 316 SS optional).

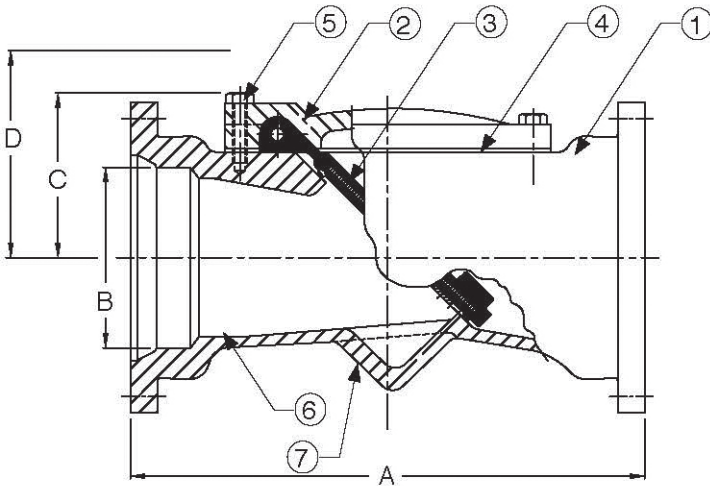
**Installation** – Suitable for both horizontal and vertical pipelines with flow upward.

**Coatings** – The valve interior is fully coated with NSF61 epoxy suitable for use in potable water service. The exterior is provided as standard with a universal primer enamel suitable for coating in the field. MJ ended Valves are coated with epoxy inside and out. Special coatings can be furnished on request.

**Disc** – The only moving part, featuring a fully Buna-N or EPDM encapsulated steel disc with nylon reinforcement in the flex area. The molded elastomer with integral O-ring ensures a bubble-tight shut off, without backflow.

# Mueller Flexible Disc Check Valve

Dimension 'D' clearance required to remove access cover.



Flanges are per ANSI B16.42 Class 150 Flat Faced.  
Standard mechanical joint ends comply with ANSI/AWWA C111.

Valve Size	A		B	C		D
	FL	MJ		FL	MJ	
2	8	—	2*	3.38	—	8.5*
2.5	8.5	—	2.5*	3.38	—	8.5*
3	9.5	13	3	3.88	3.90	9
4	11.5	14.96	4	4.63	4.65	9.75
5	13.75	—	5*	5.13	—	10.25*
6	15	19.3	6	5.88	6.22	11
8	19.5	23.81	8	7.63	7.80	13.75
10	24.5	28.34	10	9.88	10.20	16
12	27.5	33	12	11.38	11.38	18.5
14	31	35	14	13.38	12.00	20.5
16	32	37	16	15.38	13.58	23.5
18	36	—	18*	17.13	—	25.25*
20	40	—	20*	19.13	—	29.25*
24	48	—	24*	22.75	—	32.75*

\* Flanged valves only.

Number	Description	Material	ASTM Designation
1	BODY	DUCTILE IRON	ASTM A-536 GR. 65-45-12
2	BONNET	DUCTILE IRON	ASTM A-536 GR. 65-45-12
3	DISC	STEEL / BUNA-N OR EPDM	ASTM A-36/D-2000 BK 807
4	GASKET	RUBBER (BUNA N)	D 2000 BK 807
5	BONNET BOLTS	CARBON STEEL	MJ - Type 316 SS FL - SAE Gr. 5 (Type 316 SS optional)
6	INTERIOR LINING	EPOXY	
7*	PLUG	DUCTILE IRON	ASTM A-536 GR. 65-45-12
8	EXTERIOR COATING	MJ - EPOXY / FL - PRIMER	

\* Flanged valves only.

## Sample Specification

Check valve shall be of the flexible disc, full body check valve type with no internal moving parts except the closure disc. The flanged ends shall be manufactured in accordance with ANSI B16.42 Class 150; MJ ends shall meet ANSI/AWWA C111. Valves shall be rated to 250 psi for all sizes.

The valve body shall be constructed of ductile iron ASTM A-536 Grade 65-45-12 with flow equal to the nominal pipe inside diameter throughout the valve. Seat shall be constructed on a 45 degree angle to reduce disc travel and provide higher flow rates. The seat and internal body shall be fully coated with an epoxy suitable for use in both water and wastewater applications.

The domed bonnet shall be manufactured of ductile iron ASTM A-536 Grade 65-45-12. The bonnet-to-body seal shall be provided

by a gasket to allow easy removal and replacement of the access bonnet.

The flexible disc shall feature a fully encapsulated steel pressure plate with integral molded O-ring on the face of the elastomer. Nylon reinforcements shall be provided in the flexible hinge area of the disc assembly.

The manufacturer shall furnish certified results of a proof of design test performed at an independent testing laboratory. Testing shall include a million-cycle continuous test to demonstrate the durability of the flexible connection.

Flexible disc check valves shall be the Mueller Flexible Disc Check Valve as sold by Mueller Co. of Chattanooga, TN.



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