

Series 851 Check Valve

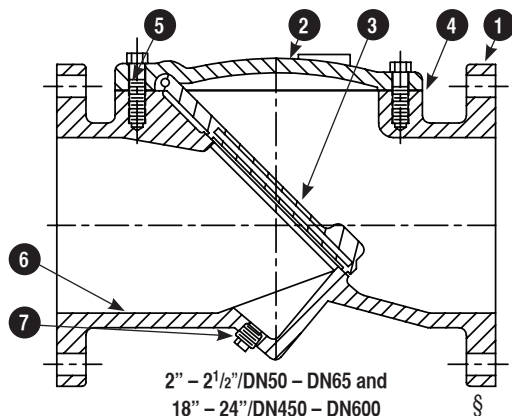
MILLIKEN®

Shown with optional disc position indicator and limit switch.



ACCESSORIES/OPTIONS

- **Disc position indicator**
(3" – 16"/DN80 – DN400 only)
- **Disc position indicator with limit switch**
(3" – 16"/DN80 – DN400 only)
- **Glass lined**
- **Rubber lined**
- **External backflow device**
- **Proximity limit switch**
- **EPDM disc option**
- **Stainless Steel cover bolts**



PARTS LIST

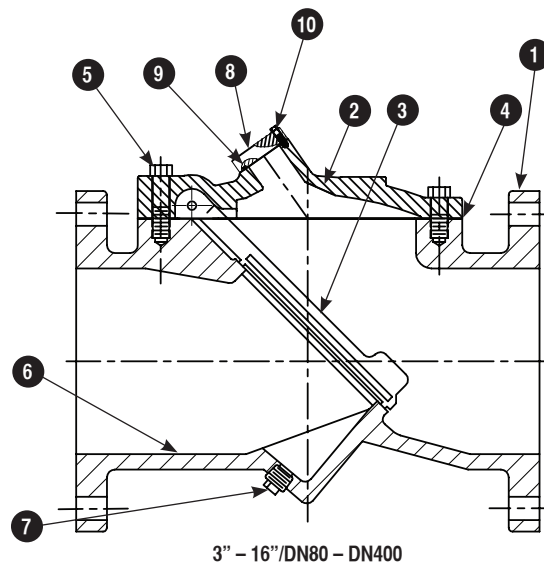
ID	Part Name	Material Standards
1	Body	Ductile Iron ASTM A-536
2	Bonnet	Ductile Iron ASTM A-536
3	Disc	Steel/NBR ASTM A-36/D2000
4	Gasket	Rubber (NBR) ASTM D2000
5	Cap Bolts	Steel/Zinc Plated
6	Interior Lining	Epoxy
7	Plug	Ductile Iron ASTM A-536
8	Boss Cover	Ductile Iron ASTM A-536
9	O-Ring	Rubber (NBR) ASTM D2000
10	Boss Cover Bolts	Steel/Zinc Plated

*3" – 16"/DN80 – DN400 CHECK VALVES ONLY.

The Milliken Series 851 Flex Check Valve has only one moving part: a resilient Disc reinforced with Steel. This simple, innovative valve gives dependable, maintenance free and quiet operation due to its inherent non-slam construction. The large, unobstructed flow path makes the valve an excellent choice for wastewater as well as water applications. 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 have a 250psig/17barg rating.

PRODUCT FEATURES

- 2" – 24"/DN50 – DN600 flanged ends.
- Ductile Iron Body – ASTM A-536 Grade 65-45-12 features a full flow area providing 100% unrestricted flow and low head loss. Flanges available in PN10, PN16 and ANSI B16.1, Class 125.
- Ductile iron domed access bonnet allows easy removal and inspection of the flexible disc assembly.
- Only one moving part, featuring a fully NBR (EPDM available to order) encapsulated steel disc with Nylon reinforcement in the flex area. The moulded disc with integral O-ring ensures bubble-tight shut off and no backflow.
- Body Seat constructed on a 45° angle to reduce the travel of the disc, significantly reducing the potential for water hammer.
- Flow area is equal to or greater than the equivalent pipe size, resulting in low head loss compared to other types of Check Valves.
- Installation suitable for horizontal and vertical pipelines with upward flow.
- Valve interior is fully coated with liquid thermosetting 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. Special coatings available on request.



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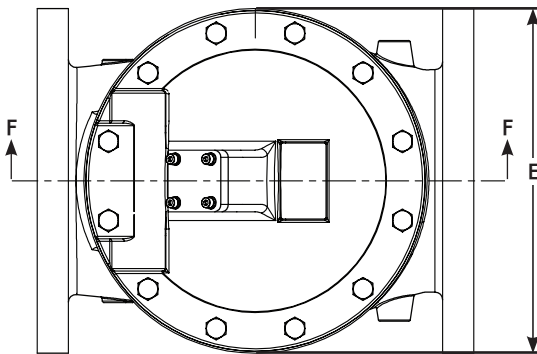
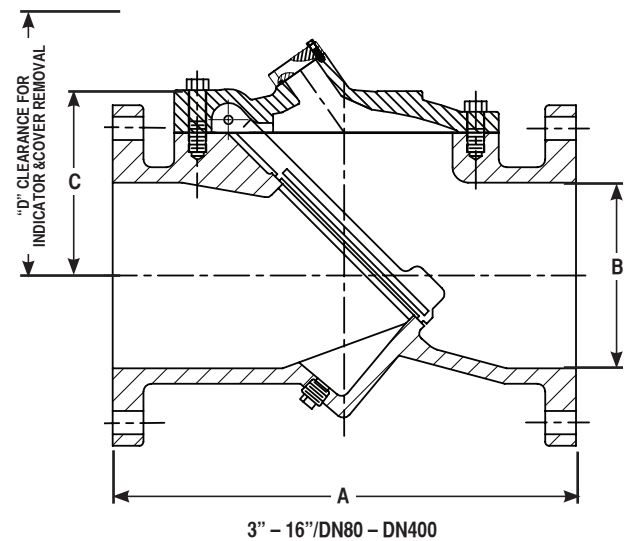
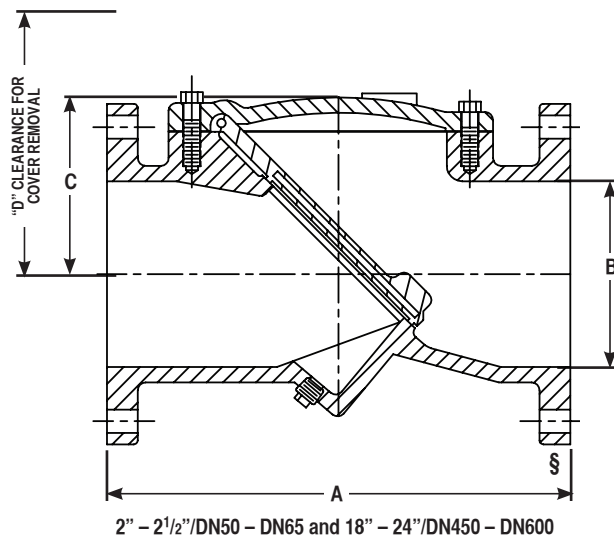
Reliable Connections®

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Form 13002 – Rev 10/16

Series 851 Check Valve

MILLIKEN



FLANGED END DIMENSIONS - inches (mm)

Valve Size	A	B	C	D	E	Wt-lb (Kg)
2"/DN50	8.0 (203)	2.0 (51)	3.38 (86)	5.75 (146)	5.2 (132)	22 (10)
2 1/2"/DN65	8.5 (216)	2.5 (64)	3.38 (86)	5.75 (146)	6.8 (173)	30 (14)
3"/DN80	9.5 (241)	3.0 (76)	3.88 (99)	8.28 (210)	7.4 (188)	40 (18)
4"/DN100	11.5 (292)	4.0 (102)	4.63 (118)	9.25 (235)	9.0 (229)	71 (32)
6"/DN150	15 (381)	6.0 (152)	5.88 (149)	10.28 (261)	10.9 (277)	125 (57)
8"/DN200	19.5 (495)	8.0 (203)	7.63 (194)	12.28 (312)	14.2 (360)	222 (101)
10"/DN250	24.5 (622)	10.0 (254)	9.88 (251)	14.28 (363)	19.6 (498)	372 (169)
12"/DN300	27.5 (698)	12.0 (305)	11.38 (289)	15.78 (401)	21.3 (541)	514 (234)
14"/DN350	31.0 (787)	14.0 (356)	13.38 (340)	17.78 (452)	25.8 (655)	696 (316)
16"/DN400	32.0 (813)	16.0 (406)	15.38 (391)	19.78 (502)	25.2 (640)	987 (449)
18"/DN450	36.0 (914)	18.0 (457)	17.13 (435)	28.94 (735)	29.1 (739)	1340 (609)
20"/DN500	40.0 (1016)	20.0 (508)	19.13 (486)	31.13 (791)	31.9 (810)	1670 (759)
24"/DN600	48.0 (1219)	24.0 (610)	22.75 (578)	38.75 (984)	38.3 (973)	2147 (976)

NOTES:

1. DIMENSION "D" REQUIRED TO REMOVE ACCESS COVER.
2. FLANGES ARE PER ANSI B16.1 CL. 125/150 FLAT FACED.

SUGGESTED SPECIFICATIONS

Check Valve shall be of the flanged, full body type with no internal moving parts except for the resilient disc. Valves shall be rated to 250psi/17barg for all sizes.

The Valve body shall be constructed of Ductile Iron ASTM A-536 Grade 65-45-12 with flow area equal to the nominal pipe inside diameter throughout the valve. Seat shall be constructed on a 45 degree angle to reduce disc travel. The seat and internal body shall be fully coated with a two part thermosetting epoxy suitable for use in both potable 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. Bonnet bolting shall be SAE Grade 5 zinc plated.

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

If requested the manufacturer shall provide 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.