

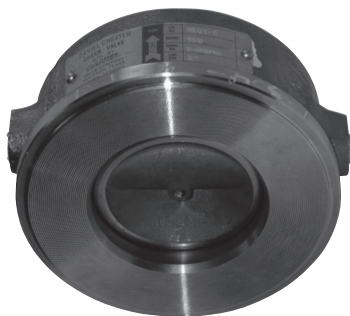
Model: 1603

Aluminum Bronze, Carbon Steel, or Stainless Steel CHEXTER™ Check Valves Sizes: 2" - 30" (50 - 750mm)

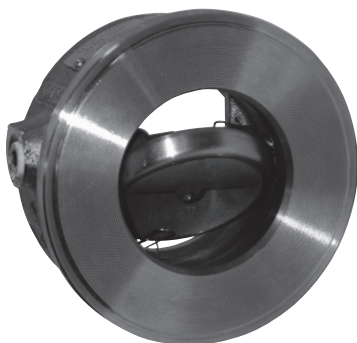
Pressure/Temperature - Non-Shock		
Model	Material	Rating
1603-E	Aluminum Bronze	515psi @ 100°F
		36 bar @ 38°C
		360psi @ 450°F 25 bar @ 232°C
1603-A	Carbon Steel	740psi @ 100°F
		51 bar @ 38°C
		617psi @ 450°F
		43 bar @ 232°C
1603-C	Stainless Steel	720psi @ 100°F
		50 bar @ 38°C
		497psi @ 450°F
		34 bar @ 232°C

1603

Class 300



Model 1603
Front



Open

Typical Services

Can be used in a vast number of industries and applications. Included are:

- Commercial Construction (institutions, multi-story buildings, schools, etc.)
- Chilled and hot water systems
- Industrial and Marine
- Gas and liquid applications
 - Water filtration, oxygen systems, boiler feed lines
 - Centrifugal pump and compressor systems
- Utilities
 - All gas and liquid applications
- Process Industries (Refining, petro-chemical, mining, textiles, pulp and paper, etc.)
 - Variety of materials and trims for corrosive services

Features

- Compact design with short face-to-face dimensions for minimum space requirements.
- Single moving part insures long, trouble-free service life.
- Seal-ring is one piece, easily replaceable in the field.
- Interchangeable parts for ease of maintenance.
- Operates fully at low pressure differential.
- Spring returns disc to fully closed position prior to reverse flow, minimizing water hammer.
- Disc is counter-weighted, utilizing gravity to additionally insure closure.
- Soft seal is located out of the flow path to reduce erosion effects.
- High C_v values due to aerodynamic disc shape and near full port opening.
 - Superior to other check valve designs, similar to Butterfly valves

Construction

- Robust cast body is wafer style, featuring compact face-to-face dimensions to fit in small spaces.
- Designed to fit within ANSI bolt circles.
- Variety of trim and seat materials are available, both soft and metal-to-metal.
 - Parts are interchangeable
- Disc rotates on the hinge pin, creating very low pivot friction, so little wear in operation.

Installation

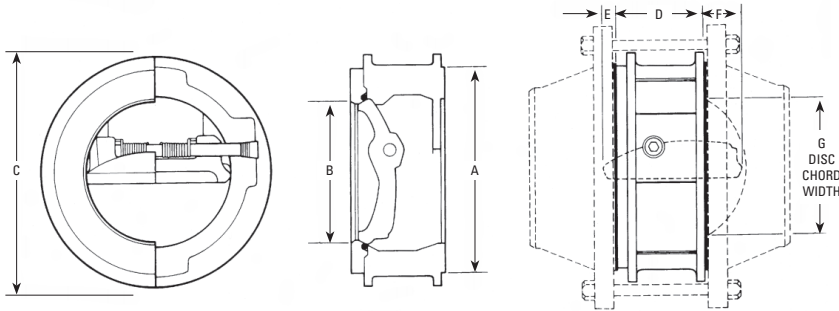
- Can be installed horizontally or vertically.
 - Consult factory for downward vertical flow applications.
 - In horizontal applications, valve should be installed top up, with shaft should be aligned horizontally with the top up (hinge pin plugs are above the pipe centerline)
- Good piping practice recommends installing a distance of 5 to 10 pipe diameters from elbows, pumps, or others turbulence-creating devices.
- Mueller Steam Specialty strongly recommends the installation of a strainer ahead of the pump to ensure protection of both the pump and the valve from foreign particles.

Materials

- See Information section of the CHEXTER™ Check section of the Mueller Steam Specialty Engineering binder for standard materials
- See Information section of the CHEXTER™ Check section of the Mueller Steam Specialty Engineering binder for How to Order instructions.

Dimensions

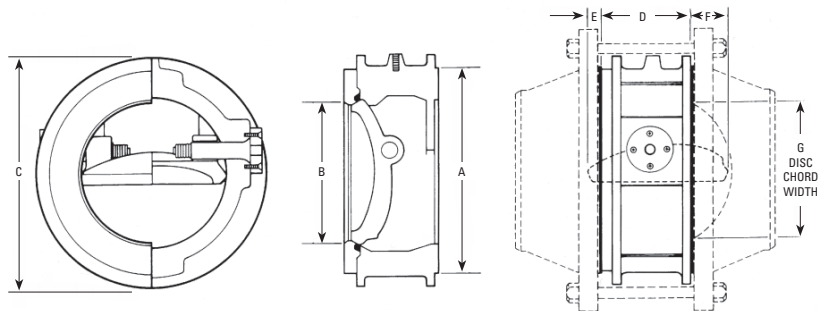
Raised Face And Flat Face Valves



2" – 14" (50 – 350)

LINE SIZE		DIMENSIONS												
		A		B	C		D*		E		F		G	
in.	mm	in.	mm	SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES	300 CLASS		in.	mm	in.	mm	in.	mm	in.	mm
2	50	3 ⁵ / ₈	92.1		4 ³ / ₈	111.1	1 ¹ / ₂	38.1	0	0	1/2	12.7	1 ¹⁵ / ₁₆	33.3
2 ¹ / ₂	65	4 ¹ / ₈	104.8		5 ¹ / ₈	130.2	1 ⁹ / ₁₆	49.2	1/16	1.6	9/16	14.3	2 ⁷ / ₈	60.3
3	80	5	127.0		5 ⁷ / ₈	149.2	2 ¹ / ₈	54.0	1/8	3.2	3/4	19.1	2 ⁷ / ₈	73.0
4	100	6 ³ / ₁₆	157.2		7 ¹ / ₈	181.0	2 ³ / ₄	69.9	1/8	3.2	1 ¹ / ₈	28.6	3 ⁷ / ₈	98.4
5	125	7 ⁵ / ₁₆	185.7		8 ¹ / ₂	215.9	3 ¹ / ₂	88.9	7/16	11.1	1 ³ / ₈	34.9	4 ¹ / ₁₆	103.2
6	150	8 ¹ / ₂	215.9		9 ⁷ / ₈	250.8	4 ¹ / ₈	104.8	5/8	15.9	1 ¹ / ₄	31.8	4 ¹⁵ / ₁₆	125.4
8	200	10 ⁵ / ₈	269.9		12 ¹ / ₈	308.0	5 ³ / ₈	136.5	1	25.4	1 ¹⁵ / ₁₆	49.2	6 ⁷ / ₈	174.6
10	250	12 ³ / ₄	323.9		14 ¹ / ₄	362.0	6 ¹ / ₁₆	169.9	1 ¹ / ₂	38.1	2 ³ / ₈	60.3	8 ³ / ₈	212.7
12	300	15	381.0		16 ⁵ / ₈	422.3	8	203.2	2 ¹ / ₁₆	52.4	2 ⁷ / ₁₆	61.9	9 ³ / ₈	238.1
14	350	16 ¹ / ₄	412.8	19 ¹ / ₈	485.8	8 ³ / ₄	222.3	1 ¹ / ₂	38.1	2 ¹ / ₄	57.2	9 ¹ / ₄	235.0	

*"D" dimensions (overall face-to-face) are for 125-600 Class.



16" – 30" (400 – 750)

LINE SIZE		DIMENSIONS												
		A		B	C		D*		E		F		G	
in.	mm	in.	mm	SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES	300 CLASS		in.	mm	in.	mm	in.	mm	in.	mm
16	400	18 ¹ / ₂	469.9		21	533.4	9 ¹ / ₄	235.0	1 ¹¹ / ₁₆	42.9	4 ⁵ / ₈	117.5	13 ³ / ₄	349.3
18	450	21	533.4		23 ¹ / ₈	587.4	10 ³ / ₈	263.5	1 ¹ / ₂	38.1	5"	127.0	15 ¹ / ₂	393.7
20	500	23	584.2		25 ¹ / ₈	638.2	11 ¹ / ₄	285.8	2 ¹ / ₂	63.5	6 ¹ / ₈	155.6	17 ⁷ / ₈	447.7
24	600	27 ¹ / ₄	692.2		30 ³ / ₈	765.2	12 ¹ / ₂	317.5	3 ¹ / ₄	82.6	6 ³ / ₄	171.5	20 ³ / ₄	527.1
30	760	33 ³ / ₄	857.3	37 ¹ / ₈	943.0	15 ¹ / ₂	393.7	5 ⁵ / ₈	142.9	8 ³ / ₁₆	208.0	26 ¹ / ₂	673.1	

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