

**Model: 1604****Carbon Steel CHEXTER™ Check Valves**  
**Sizes: 2" – 24" (50 – 600mm)****Pressure/Temperature - Non-Shock**

Model	Material	Rating
1604-A	Carbon Steel	990psi @ 100°F 68 bar @ 38°C
	Carbon Steel	822psi @ 450°F 57 bar @ 232°C

**1604****Class 400**Model 1604  
Open**Typical Services**

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

- Chilled and hot water systems
- Gas and liquid applications
- Water filtration, oxygen systems, boiler feed lines
- Centrifugal pump and compressor systems

**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 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.

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

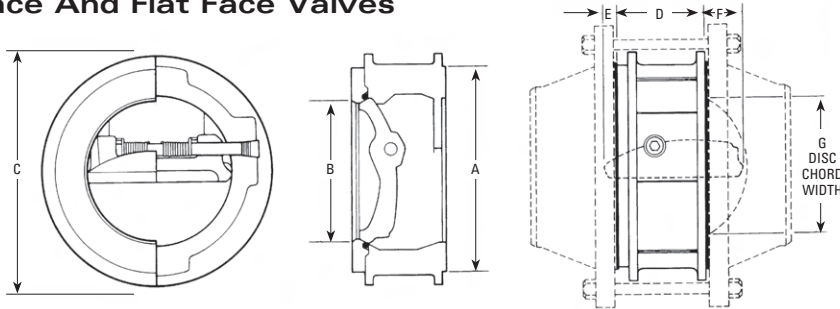
Representative \_\_\_\_\_

## 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

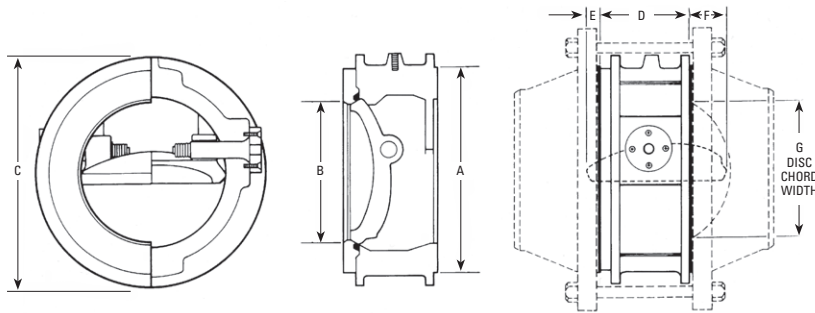


2" – 14" (50 – 350)

LINE SIZE		DIMENSIONS												
		A		B	C 400 CLASS		D*		E		F		G	
in.	mm	in.	mm	SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2	50	3 <sup>5</sup> / <sub>8</sub>	92.1		4 <sup>3</sup> / <sub>8</sub>	111.1	1 <sup>1</sup> / <sub>2</sub>	38.1	0	0	1/2	12.7	1 <sup>15</sup> / <sub>16</sub>	33.3
2 <sup>1</sup> / <sub>2</sub>	65	4 <sup>1</sup> / <sub>8</sub>	104.8		5 <sup>1</sup> / <sub>8</sub>	130.2	1 <sup>19</sup> / <sub>16</sub>	49.2	1/16	1.6	9/16	14.3	2 <sup>7</sup> / <sub>8</sub>	60.3
3	80	5	127.0		5 <sup>7</sup> / <sub>8</sub>	149.2	2 <sup>1</sup> / <sub>8</sub>	54.0	1/8	3.2	3/4	19.1	2 <sup>7</sup> / <sub>8</sub>	73.0
4	100	6 <sup>3</sup> / <sub>16</sub>	157.2		7	177.8	2 <sup>3</sup> / <sub>4</sub>	69.9	1/8	3.2	1 <sup>1</sup> / <sub>8</sub>	28.6	3 <sup>3</sup> / <sub>8</sub>	98.4
5	125	7 <sup>1</sup> / <sub>16</sub>	185.7		8 <sup>3</sup> / <sub>8</sub>	212.7	3 <sup>1</sup> / <sub>2</sub>	88.9	7/16	11.1	1 <sup>3</sup> / <sub>8</sub>	34.9	4 <sup>1</sup> / <sub>16</sub>	103.2
6	150	8 <sup>1</sup> / <sub>2</sub>	215.9		9 <sup>3</sup> / <sub>4</sub>	247.7	4 <sup>1</sup> / <sub>8</sub>	104.8	5/8	15.9	1 <sup>1</sup> / <sub>4</sub>	31.8	4 <sup>15</sup> / <sub>16</sub>	125.4
8	200	10 <sup>9</sup> / <sub>16</sub>	269.9		12	304.8	5 <sup>3</sup> / <sub>8</sub>	136.5	1	25.4	1 <sup>15</sup> / <sub>16</sub>	49.2	6 <sup>7</sup> / <sub>8</sub>	174.6
10	250	12 <sup>3</sup> / <sub>4</sub>	323.9		14 <sup>1</sup> / <sub>8</sub>	358.8	6 <sup>1</sup> / <sub>16</sub>	169.9	1 <sup>1</sup> / <sub>2</sub>	38.1	2 <sup>9</sup> / <sub>16</sub>	60.3	8 <sup>3</sup> / <sub>8</sub>	212.7
12	300	15	381.0		16 <sup>1</sup> / <sub>2</sub>	419.1	8	203.2	2 <sup>1</sup> / <sub>16</sub>	52.4	2 <sup>7</sup> / <sub>16</sub>	61.9	9 <sup>3</sup> / <sub>8</sub>	238.1
14	350	16 <sup>1</sup> / <sub>4</sub>	412.8	19	482.6	8 <sup>3</sup> / <sub>4</sub>	222.3	1 <sup>1</sup> / <sub>2</sub>	38.1	2 <sup>1</sup> / <sub>4</sub>	57.2	9 <sup>1</sup> / <sub>4</sub>	235.0	

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

\*"D" dimensions for 900 Class same as RTJ "D" dimensions on page 10.



16" – 24" (400 – 600)

LINE SIZE		DIMENSIONS												
		A		B	C 400 CLASS		D*		E		F		G	
in.	mm	in.	mm	SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
16	400	18 <sup>1</sup> / <sub>2</sub>	469.9		20 <sup>7</sup> / <sub>8</sub>	530.2	9 <sup>1</sup> / <sub>4</sub>	235.0	1 <sup>1</sup> / <sub>16</sub>	42.9	4 <sup>5</sup> / <sub>8</sub>	117.5	13 <sup>3</sup> / <sub>4</sub>	349.3
18	450	21	533.4		23	584.2	10 <sup>3</sup> / <sub>8</sub>	263.5	1 <sup>1</sup> / <sub>2</sub>	38.1	5"	127.0	15 <sup>1</sup> / <sub>2</sub>	393.7
20	500	23	584.2		24 <sup>7</sup> / <sub>8</sub>	631.8	11 <sup>1</sup> / <sub>4</sub>	285.8	2 <sup>1</sup> / <sub>2</sub>	63.5	6 <sup>1</sup> / <sub>8</sub>	155.6	17 <sup>5</sup> / <sub>8</sub>	447.7
24	600	27 <sup>1</sup> / <sub>4</sub>	692.2	29 <sup>7</sup> / <sub>8</sub>	758.8	12 <sup>1</sup> / <sub>2</sub>	317.5	3 <sup>1</sup> / <sub>4</sub>	82.6	6 <sup>3</sup> / <sub>4</sub>	171.5	20 <sup>3</sup> / <sub>4</sub>	527.1	

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