

# Models: 1606, 1646

## Carbon Steel or Stainless Steel CHEXTER™ Check Valves Sizes: 2" - 12" (50 - 300mm)

Pressure/Temperature - Non-Shock		
Model	Material	Rating
1606-A	Carbon Steel	2220psi @ 100°F
		153 bar @ 38°C
		1850psi @ 400°F 128 bar @ 204°C
1606-C	Stainless Steel	2160psi @ 100°F
		149 bar @ 38°C
		1490psi @ 400°F 103 bar @ 204°C

**1606**  
**1646**

**Class 900, RF**  
**Class 900, RTJ**



Model 1606  
Open

### Typical Services

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

- 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.
- Model 1606 features RF facing, Model 1646 has RTJ facing.

### 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 \_\_\_\_\_

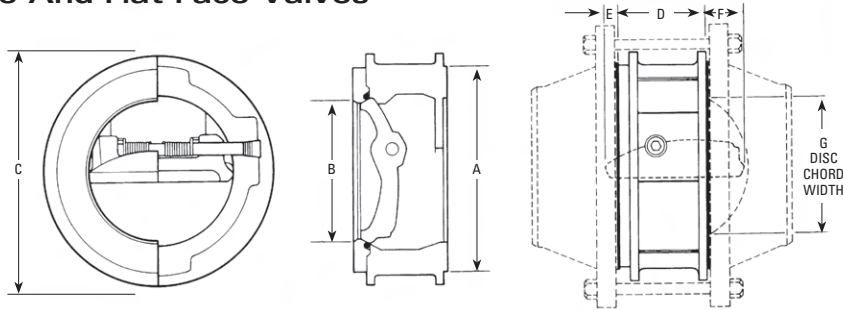
Representative \_\_\_\_\_

## 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" – 12 (50 – 300)

LINE SIZE				DIMENSIONS										
		A		B	C 900 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		5 <sup>5</sup> / <sub>8</sub>	142.9	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		—	—	1 <sup>15</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		6 <sup>5</sup> / <sub>8</sub>	168.3	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		8 <sup>1</sup> / <sub>8</sub>	206.4	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>7</sup> / <sub>16</sub>	185.7		—	—	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		11 <sup>3</sup> / <sub>8</sub>	288.9	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>5</sup> / <sub>8</sub>	269.9		14 <sup>1</sup> / <sub>8</sub>	358.8	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		17 <sup>7</sup> / <sub>8</sub>	435.0	6 <sup>11</sup> / <sub>16</sub>	169.9	1 <sup>1</sup> / <sub>2</sub>	38.1	2 <sup>3</sup> / <sub>8</sub>	60.3	8 <sup>3</sup> / <sub>8</sub>	212.7
12	300	15	381.0		19 <sup>5</sup> / <sub>8</sub>	498.5	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

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

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