

# Model: 1601

## Aluminum Bronze, Carbon Steel, or Stainless Steel CHEXTER™ Check Valves Sizes: 2" - 36" (50 - 900mm)

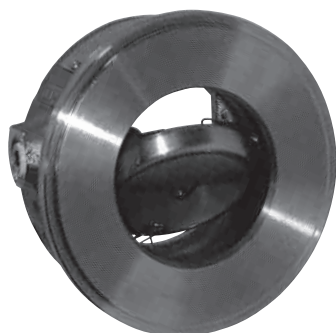
Pressure/Temperature - Non-Shock		
Model	Material	Rating
1601-E	Aluminum Bronze	195psi @ 100°F
		13 bar @ 38°C
		140psi @ 450°F 10 bar @ 232°C
1601-A	Carbon Steel	285psi @ 100°F
		20 bar @ 38°C
		185psi @ 450°F
		13 bar @ 232°C
1601-C	Stainless Steel	275psi @ 100°F
		19 bar @ 38°C
		185psi @ 450°F
		13 bar @ 232°C

1601

Class 125



Model 1601  
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
  - Refrigeration, plumbing, air conditioning
- 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<sub>v</sub> 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.

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

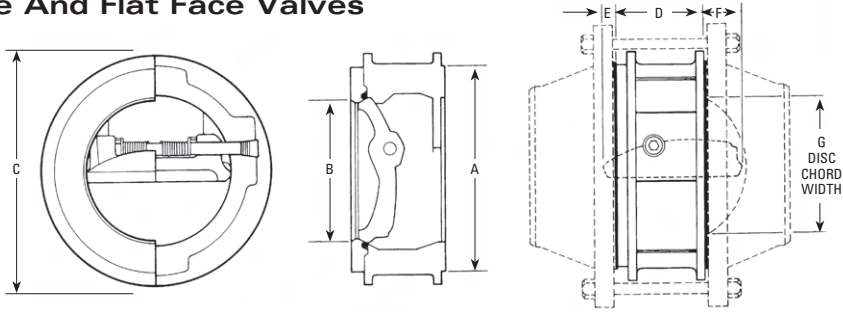
Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

## 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 Engineering Specialty binder for Ordering instructions.

## Dimensions

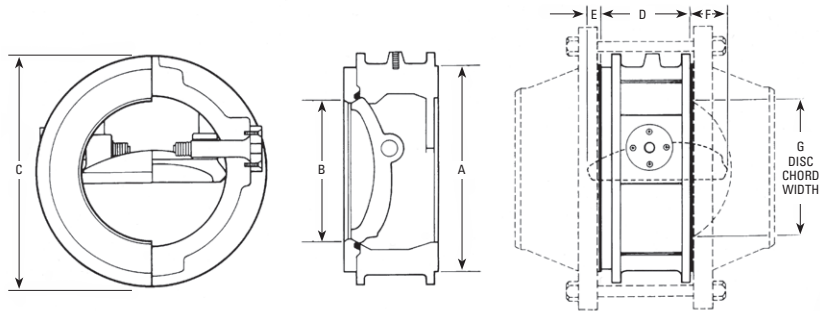
### Raised Face And Flat Face Valves



2" – 14" (50 – 350)

LINE SIZE		DIMENSIONS												
		A		B	C 125 & 150 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>1</sup> / <sub>8</sub>	104.8	1 <sup>1</sup> / <sub>2</sub>	38.1	1/8	3.2	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		4 <sup>7</sup> / <sub>8</sub>	123.8	1 <sup>15</sup> / <sub>16</sub>	49.2	1/8	3.2	9/16	14.3	2 <sup>3</sup> / <sub>16</sub>	55.6
3	80	5	127.0		5 <sup>3</sup> / <sub>8</sub>	136.5	2 <sup>1</sup> / <sub>8</sub>	54.0	1/4	6.4	3/4	19.1	2 <sup>7</sup> / <sub>8</sub>	73.0
4	100	6 <sup>3</sup> / <sub>16</sub>	157.2		6 <sup>7</sup> / <sub>8</sub>	174.6	2 <sup>3</sup> / <sub>4</sub>	69.9	1/4	6.4	1 <sup>1</sup> / <sub>8</sub>	28.6	3 <sup>7</sup> / <sub>8</sub>	98.4
5	125	7 <sup>1</sup> / <sub>16</sub>	185.7		7 <sup>3</sup> / <sub>4</sub>	196.9	3 <sup>1</sup> / <sub>2</sub>	88.9	9/16	14.3	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		8 <sup>3</sup> / <sub>4</sub>	222.3	4 <sup>1</sup> / <sub>8</sub>	104.8	3/4	19.1	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>16</sub>	269.9		11	279.4	5 <sup>5</sup> / <sub>8</sub>	136.5	1 <sup>1</sup> / <sub>16</sub>	27.0	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		13 <sup>3</sup> / <sub>8</sub>	339.7	6 <sup>1</sup> / <sub>16</sub>	169.9	1 <sup>7</sup> / <sub>16</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		16 <sup>1</sup> / <sub>2</sub>	409.6	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	17 <sup>3</sup> / <sub>4</sub>	450.9	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.



16" – 36" (400 – 900)

LINE SIZE		DIMENSIONS												
		A		B	C 125 & 150 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	508.0	9 <sup>1</sup> / <sub>4</sub>	235.0	1 <sup>13</sup> / <sub>16</sub>	46.0	4 <sup>5</sup> / <sub>8</sub>	117.5	13 <sup>3</sup> / <sub>4</sub>	349.3
18	450	21	533.4		21 <sup>1</sup> / <sub>4</sub>	539.8	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		23 <sup>1</sup> / <sub>2</sub>	596.9	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>3</sup> / <sub>8</sub>	447.7
24	600	27 <sup>1</sup> / <sub>4</sub>	692.2		27 <sup>7</sup> / <sub>8</sub>	708.0	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
30	760	33 <sup>3</sup> / <sub>4</sub>	857.3		34 <sup>3</sup> / <sub>8</sub>	873.1	15 <sup>1</sup> / <sub>2</sub>	393.7	5 <sup>5</sup> / <sub>8</sub>	142.9	8 <sup>3</sup> / <sub>16</sub>	208.0	26 <sup>1</sup> / <sub>2</sub>	673.1
36	900	40 <sup>1</sup> / <sub>4</sub>	1022.4		40 <sup>7</sup> / <sub>8</sub>	1038.2	18"	457.2	5 <sup>5</sup> / <sub>16</sub>	134.9	12"	304.8	33 <sup>1</sup> / <sub>4</sub>	844.6

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ES-MS-1601 1608

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