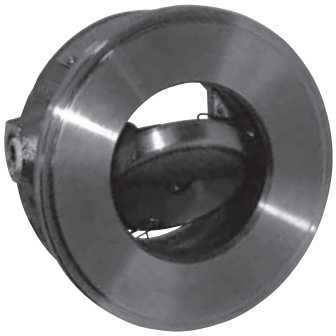
# Model: 1601

## 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<br>13 bar @ 38°C<br>140psi @ 450°F<br>10 bar @ 232°C |
| 1601-A | Carbon Steel | 285psi @ 100°F<br>20 bar @ 38°C<br>185psi @ 450°F<br>13 bar @ 232°C |
| 1601-C | Stainless Steel | 275psi @ 100°F<br>19 bar @ 38°C<br>185psi @ 450°F<br>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 $C_V$ 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 _____

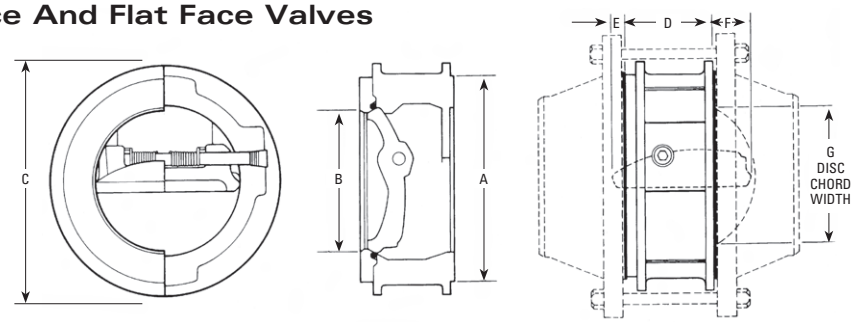
Mueller Steam Specialty™

## 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

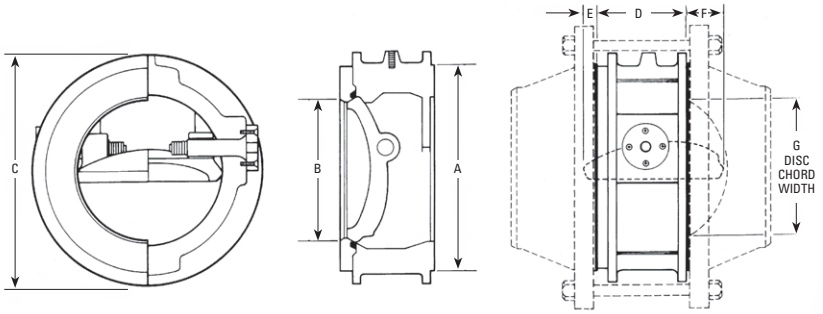
### Raised Face And Flat Face Valves




**2" – 14" (50 – 350)**

| LINE SIZE | | DIMENSIONS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | B | C 125 & 150 CLASS | | D* | | E | | F | | G | |
| in. | mm | in. | mm | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm |
| 2 | 50 | 3⅝ | 92.1 | SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES | 4⅛ | 104.8 | 1½ | 38.1 | 0 | 0 | ½ | 12.7 | 1 15/16 | 33.3 |
| 2½ | 65 | 4⅛ | 104.8 | | 4⅞ | 123.8 | 1 15/16 | 49.2 | 1/16 | 1.6 | 9/16 | 14.3 | 2⅞ | 60.3 |
| 3 | 80 | 5 | 127.0 | | 5⅜ | 136.5 | 2⅛ | 54.0 | ⅛ | 3.2 | ¾ | 19.1 | 2⅞ | 73.0 |
| 4 | 100 | 6 3/16 | 157.2 | | 6⅞ | 174.6 | 2¾ | 69.9 | ⅛ | 3.2 | 1⅛ | 28.6 | 3⅞ | 98.4 |
| 5 | 125 | 7 5/16 | 185.7 | | 7¾ | 196.9 | 3½ | 88.9 | 7/16 | 11.1 | 1⅜ | 34.9 | 4 1/16 | 103.2 |
| 6 | 150 | 8½ | 215.9 | | 8¾ | 222.3 | 4⅛ | 104.8 | ⅝ | 15.9 | 1¼ | 31.8 | 4 15/16 | 125.4 |
| 8 | 200 | 10⅝ | 269.9 | | 11 | 279.4 | 5⅜ | 136.5 | 1 | 25.4 | 1 15/16 | 49.2 | 6⅞ | 174.6 |
| 10 | 250 | 12¾ | 323.9 | | 13⅜ | 339.7 | 6 1/16 | 169.9 | 1½ | 38.1 | 2⅜ | 60.3 | 8⅜ | 212.7 |
| 12 | 300 | 15 | 381.0 | | 16⅛ | 409.6 | 8 | 203.2 | 2 1/16 | 52.4 | 2 7/16 | 61.9 | 9⅜ | 238.1 |
| 14 | 350 | 16¼ | 412.8 | | 17¾ | 450.9 | 8¾ | 222.3 | 1½ | 38.1 | 2¼ | 57.2 | 9¼ | 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 | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm |
| 16 | 400 | 18½ | 469.9 | SAME VALVE FITS SCHEDULE 40 AND 80 LINE SIZES | 20 | 508.0 | 9¼ | 235.0 | 1 1/16 | 42.9 | 4⅝ | 117.5 | 13¾ | 349.3 |
| 18 | 450 | 21 | 533.4 | | 21¼ | 539.8 | 10⅜ | 263.5 | 1½ | 38.1 | 5" | 127.0 | 15½ | 393.7 |
| 20 | 500 | 23 | 584.2 | | 23½ | 596.9 | 11¼ | 285.8 | 2½ | 63.5 | 6⅛ | 155.6 | 17⅝ | 447.7 |
| 24 | 600 | 27¼ | 692.2 | | 27⅞ | 708.0 | 12½ | 317.5 | 3¼ | 82.6 | 6¾ | 171.5 | 20¾ | 527.1 |
| 30 | 760 | 33¾ | 857.3 | | 34⅜ | 873.1 | 15½ | 393.7 | 5⅝ | 142.9 | 8 3/16 | 208.0 | 26½ | 673.1 |
| 36 | 900 | 40¼ | 1022.4 | | 40⅞ | 1038.2 | 18" | 457.2 | 5 5/16 | 134.9 | 12" | 304.8 | 33¼ | 844.6 |



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**USA:** St. Pauls, NC • Tel. 1-800-334-6259 • Fax 1-800-421-6772 • www.muellersteam.com