COMPACT CHECK VALVES
Engineering Creative Solutions for Fluid Systems Since 1901
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**SPRING LOADED CHECK VALVES**

**STANDARD FEATURES**
- Spring Loaded for Non-Slam Closure
- Heavy Duty Ductile Iron Body
- Automatic Operation
- Designed for ANSI Class 125 Flange Bolting
- Economical Purchase Price
- Suitable for Horizontal or Vertical (up) Piping
- Available in Sizes 2” thru 24”
- Compact Design

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**DOUBLE DISC CHECK VALVE**

**TECHNICAL SPECIFICATIONS**
Check valve shall be of the double disc, wafer style with torsion spring induced closure. Valve shall be Wafer style for bolting between ANSI Class 125 flanges and shall be rated for 250 PSI service. Valves have a Ductile Iron body (ASTM A-536 65-45-12) to fit inside 125# ANSI bolt circles, a two piece Stainless Steel disc (ASTM type 304), type 304 Stainless Steel dual shafts, ASTM A313, type 316 Stainless Steel torsion spring and have an integrally molded elastomer seat vulcanized to the body. Valve for horizontal flow shall be installed with the shafts in vertical position. Double disc check valve shall be Pratt® Series 740G as manufactured by us.

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**SCOPE OF THE LINE**
Double Disc Check Valve – Series 740G

---

<table>
<thead>
<tr>
<th>BODY</th>
<th>Ductile Iron-Wafer Pattern</th>
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<tbody>
<tr>
<td>DISC</td>
<td>304 Stainless Steel</td>
</tr>
<tr>
<td>SPRING</td>
<td>316 Stainless Steel</td>
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<tr>
<td>SEAT</td>
<td>EPDM (Elastomer)</td>
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<tr>
<td>RATING</td>
<td>250 psi</td>
</tr>
<tr>
<td>COATING</td>
<td>Fusion Bonded Epoxy (interior and exterior)</td>
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<td>AVAILABILITY</td>
<td>2” through 24”</td>
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DOUBLE DISC CHECK VALVE – SERIES 740G

2" - 24"

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<thead>
<tr>
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<td>Seal</td>
<td>4</td>
<td>EPDM</td>
<td></td>
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<td>3</td>
<td>Shaft</td>
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<td>4</td>
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<td>5</td>
<td>Disc</td>
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<td>6</td>
<td>Screw</td>
<td>2</td>
<td>Aluminum</td>
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<td>7</td>
<td>Spring</td>
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<td>4</td>
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<td>9</td>
<td>Washer 2</td>
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<td>Seat</td>
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NOTE: * Only for 8" and larger
**GLOBE STYLE CHECK VALVE**

**TECHNICAL SPECIFICATIONS**

Check valve shall be of the silent operating type and the same size as the entering pipe. Globe style shall be rated for 250PSI service, have a Ductile Iron body (ASTM A-536 Gr 65-45-12), 125# ANSI Flat Face Flanges, ASTM A313 Type 304 Stainless Steel helical or conical spring, a Stainless Steel (ASTM type 304) seat and dual guided disc (top and bottom), 304 Stainless Steel guide bushing and type 304 Stainless Steel guide pins. Check valve to have a minimum open area in the body of 110% of the area of the entering or corresponding pipe. Valve is to operate silently in either vertical or horizontal positions, flow up or down. Globe style check valve shall be Pratt® Series 821G as manufactured by us.
GLOBE STYLE CHECK VALVE – SERIES 821G

**Materials of Construction**

- **2” - 12”**
  - Size
  - L
  - ØD
  - ØD1
  - F
  - ØB
  - PCD
  - N–Ø
  - Weight (LBS)
  - 2”
    - 5.24
    - 2.20
    - 2.36
    - 0.69
    - 6.00
    - 4.75
    - 4–0.75
    - 16.50
  - 2.5”
    - 5.50
    - 2.87
    - 2.95
    - 0.69
    - 7.00
    - 5.50
    - 4–0.75
    - 20.00
  - 3”
    - 6.00
    - 3.35
    - 3.54
    - 0.75
    - 9.00
    - 7.50
    - 4–0.75
    - 26.50
  - 4”
    - 7.25
    - 4.17
    - 4.33
    - 0.75
    - 9.00
    - 7.50
    - 8–0.75
    - 35.50

- **14” - 24”**
  - Size
  - L
  - ØD
  - ØD1
  - F
  - ØB
  - PCD
  - N–Ø
  - Weight (LBS)
  - 14”
    - 15.75
    - 13.70
    - 13.97
    - 1.38
    - 21.00
    - 18.75
    - 12–11.2
    - 415
  - 16”
    - 17.64
    - 15.47
    - 16.23
    - 1.46
    - 23.50
    - 21.25
    - 16–11.2
    - 500
  - 18”
    - 18.75
    - 17.00
    - 17.56
    - 1.57
    - 25.00
    - 22.75
    - 16–12.5
    - 631
  - 20”
    - 20.63
    - 19.29
    - 19.84
    - 1.65
    - 27.50
    - 25.00
    - 20–1.25
    - 741
  - 24”
    - 24.00
    - 22.99
    - 23.62
    - 1.93
    - 32.00
    - 29.50
    - 20–1.38
    - 1,209

**Notes:**

1. Flat flanges and ring gaskets (rubber or compressed fiber) are required.
2. The mating companion flange I.D. must overlap the valve seat. This is required to provide proper seat retention.
3. The flange gasket must be properly centered and of the size indicated. This is required to achieve a seal between the seat O.D. and the body I.D. interface area.

**Valve Size (IN) | Max. Allowable Flange ID | Gasket I.D. (IN) | OD for 125 LB Globe Type (IN)**
--- | --- | --- | ---
2 | 2.76 | 2.56 | 4.09
2.5 | 2.76 | 2.87 | 4.84
3 | 3.35 | 3.90 | 5.35
4 | 4.72 | 4.53 | 6.46
5 | 5.51 | 5.59 | 7.64
6 | 6.50 | 6.42 | 8.66
8 | 8.27 | 8.46 | 10.67
10 | 10.24 | 10.16 | 13.03
12 | 12.40 | 12.20 | 14.84
14 | 14.37 | 13.98 | 17.32
16 | 16.34 | 16.34 | 19.29
18 | 17.72 | 17.72 | 21.26
20 | 19.88 | 19.88 | 23.43
24 | 24.25 | 24.02 | 28.15

*Gasket supplied by others*

**Item | Description | Qty | Material**
--- | --- | --- | ---
1 | Body | 1 | Ductile Iron ASTM A-536 (65-45-12)
2 | Seat | 1 | 304 Stainless Steel
3 | Disc | 1 | 304 Stainless Steel
4 | Stem | 1 | 304 Stainless Steel
5 | 2”-6” Spring | 1 | 304 Stainless Steel
6 | 18”-24” Spring | 1 | 304 Stainless Steel
7 | Guide Bushing | 1 | Bronze ASTM B984
8 | Seal | 1 | EPDM
9 | SHCS | 2 | 304 Stainless Steel
10 | Name Plate | 1 | 304 Stainless Steel
11 | Steel Ball (2”-12”) | 1 | 304 Stainless Steel
12 | Seat O-Ring (14”-24”) | 1 | EPDM
COMPACT WAFER-SILENT CHECK VALVE

TECHNICAL SPECIFICATIONS

Check valve shall be of the silent wafer type and the same size as the entering pipe. Valves shall be the compact wafer style and have a pressure and temperature rating equal to or greater than the pipeline in which they are installed. Compact wafer-silent style check valves thru 6 inches shall be rated for 250 PSI service for installation between ANSI Class 125 flanges, have a Ductile Iron body (ASTM A-536 65-45-12), ASTM A313, Type 304 Stainless Steel helical or conical spring, a Stainless Steel guide bushing and type 304 Stainless Steel guide pins. Valves are to operate silently in either vertical or horizontal positions, flow up or down. Compact wafer-silent check valve shall be Pratt® Series 720G as manufactured by us.
### COMPACT WAFER-SILENT CHECK VALVE – SERIES 720G

#### 2” - 12”

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<tr>
<th>SIZE</th>
<th>2”</th>
<th>2.5”</th>
<th>3”</th>
<th>4”</th>
<th>6”</th>
<th>8”</th>
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<tr>
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<td>11.75</td>
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<td>PCD</td>
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<td>9.50</td>
<td>11.75</td>
<td>14.25</td>
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<tr>
<td>N-Ø</td>
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<td>4-0.75</td>
<td>8-0.75</td>
<td>8-0.875</td>
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**MAX. ALLOWABLE ID OF FLG**

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*STD RING GASKET DIMENSIONS*

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<th>8”</th>
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<td>2.76</td>
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<td>10.16</td>
<td>12.20</td>
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**NOTES:**

1. Flat flanges and ring gaskets (rubber or compressed fiber) are required.
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3. The flange gasket must be properly centered and of the size indicated. This is required to achieve a seal between the seat O.D. and the body I.D. interface area.

**ITEM**

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<th>DESCRIPTION</th>
<th>QTY</th>
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<td>2 Seat</td>
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<tr>
<td>3 Disc</td>
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<tr>
<td>4 Spring</td>
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<tr>
<td>5 Guide Bushing</td>
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<td>Bronze ASTM B584</td>
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<td>6 Seal</td>
<td>1</td>
<td>EPDM</td>
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<td>7 Steel Ball</td>
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<tr>
<td>8 Set Screw</td>
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<td>9 Name Plate</td>
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PRESSURE DROP CHART
For Double Door Type Check (740G) & Globe Type Silent Check (821G) Valves

DOUBLE DISC CHECK VALVE – SERIES 740G

CHARACTERISTIC CURVE OF HEAD LOSS FOR 740G DOUBLE DISC WAFER CHECK VALVES

Cv Value of 821G Globe Silent Check Valves

GLOBE STYLE CHECK VALVE – SERIES 821G

CHARACTERISTIC CURVE OF HEAD LOSS FOR 821G GLOBE SILENT CHECK VALVES

These charts are based on the flow of clean water at ambient temperature. Consult our Engineering Department for pressure drop information on steam, gases or viscous fluids.

Good piping practice recommends placement of check valves a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbow, pumps etc.
PRESSURE DROP CHART
For Compact Wafer Silent Check (720G) Valve

COMPACT WAFER SILENT CHECK VALVE – SERIES 720G

This chart is based on the flow of clean water at ambient temperature. Consult our Engineering Department for pressure drop information on steam, gases or viscous fluids.

Good piping practice recommends placement of check valves a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbow, pumps etc.

*Cv = The flow rate of water in U.S. gallons per minute of 60° F water, which passes through the valve with 1PSI pressure drop across the valve.
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