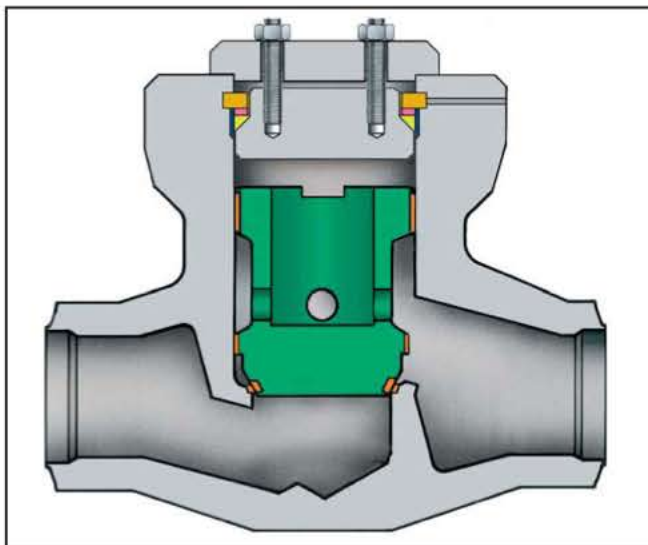


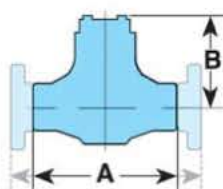


# **PRESSURE SEAL PISTON CHECK VALVES CARBON, ALLOY OR STAINLESS STEEL** ASME CLASSES 600–2500, 2–14" (50–350 mm)



**CAUTION:** For other than horizontal line orientations see pgs. 50-51, or contact Velan Engineering.

| CLASS | FIG. NO.    |
|-------|-------------|
| 600   | 2034P/2034K |
| 900   | 7034P/7034K |
| 1500  | 3034P/3034K |
| 2500  | 4034P/4034K |



Flange dimensions are in accordance with ASME B16.5. Flanges are welded on.

## **STANDARD MATERIALS**

| PART                   | MATERIAL                                             |                                            |                                            |                  |                                              |
|------------------------|------------------------------------------------------|--------------------------------------------|--------------------------------------------|------------------|----------------------------------------------|
| Body <sup>(1)(2)</sup> | A 105                                                | A 182                                      | A 182                                      | A 182            | A 182                                        |
| Cover <sup>(2)</sup>   |                                                      | Gr. F11                                    | Gr. F22                                    | Gr. F91          | Gr. F316                                     |
| Disc <sup>(2)</sup>    | A 105<br>or<br>A 216<br>Gr. WCB                      | A 182<br>Gr. F11<br>or<br>A 217<br>Gr. WC6 | A 182<br>Gr. F22<br>or<br>A 217<br>Gr. WC9 | A 182<br>Gr. F91 | A 182<br>Gr. F316<br>or<br>A 351<br>Gr. CF8M |
| Gasket                 | Soft carbon steel - silver plated or Graphite/SS 316 |                                            |                                            |                  |                                              |
| Gasket retainer        | A 182 Gr. F6a Cl.4                                   |                                            |                                            |                  |                                              |
| Spacer ring            | Gr. 4140 option Ni or Cad plated or SS               |                                            |                                            |                  |                                              |
| Cover plate            | Carbon steel                                         |                                            |                                            |                  |                                              |
| Cover stud             | Gr. B7                                               |                                            |                                            |                  |                                              |
| Cover nut              | Gr. 2H                                               |                                            |                                            |                  |                                              |

(1) Other materials available, including Graphite. (2) Stellite.

## **FLOW COEFFICIENT CV\***

| SIZE<br>in (mm) | CLASS |     |      |      |
|-----------------|-------|-----|------|------|
|                 | 600   | 900 | 1500 | 2500 |
| 2 (50)          | 45    | 45  | 45   | 20   |
| 2½ (65)         | 45    | 45  | 45   | 35   |
| 3 (80)          | 100   | 100 | 100  | 35   |
| 4 (100)         | 170   | 170 | 170  | 60   |
| 6 (150)         | 350   | 350 | 350  | 200  |
| 8 (200)         | 640   | 640 | 425  | 350  |
| 10 (250)        | 875   | 875 | 710  | 490  |
| 12 (300)        | —     | —   | 960  | —    |
| 14 (350)        | —     | —   | 960  | —    |

Note: 2–10" (50–100 mm) are forged.  
12–14" (300–350 mm) are cast.

\*  $K_v = C_v \times 0.85$

## **DESIGN FEATURES:**

- Advanced pressure seal design. (See page 10 for details.)
- Quick and easy repair in the line.
- Seat integrally Stellite.
- Disc-piston fully guided with Stellite seating and guiding surfaces. The light disc-piston ensures maximum lift and low pressure drop.
- Tight shutoff.
- Other sizes available on request.

## **DIMENSIONS – BUTT WELD END**

| SIZE<br>in<br>mm | ASME 600<br>(PN 100) |       |                         | ASME 900<br>(PN 150) |       |                         | ASME 1500<br>(PN 250) |       |                         | ASME 2500<br>(PN 420) |       |                         |
|------------------|----------------------|-------|-------------------------|----------------------|-------|-------------------------|-----------------------|-------|-------------------------|-----------------------|-------|-------------------------|
|                  | A                    | B     | lb <sup>(4)</sup><br>kg | A                    | B     | lb <sup>(4)</sup><br>kg | A                     | B     | lb <sup>(5)</sup><br>kg | A                     | B     | lb <sup>(4)</sup><br>kg |
| 2                | 10.00 <sup>(3)</sup> | 6.50  | 100                     | 10.00 <sup>(3)</sup> | 6.50  | 100                     | 10.00 <sup>(3)</sup>  | 6.50  | 100                     | 11.00                 | 9.13  | 110                     |
| 50               | 254                  | 165   | 45                      | 254                  | 165   | 45                      | 254                   | 165   | 45                      | 279                   | 232   | 50                      |
| 2½               | 10.00 <sup>(3)</sup> | 6.50  | 100                     | 10.00                | 6.50  | 100                     | 10.00                 | 6.50  | 100                     | 13.00                 | 8.63  | 120                     |
| 65               | 254                  | 165   | 45                      | 254                  | 165   | 45                      | 254                   | 165   | 45                      | 330                   | 219   | 54                      |
| 3                | 10.00                | 8.50  | 100                     | 12.00                | 8.50  | 100                     | 12.00                 | 8.50  | 100                     | 14.50                 | 8.63  | 125                     |
| 80               | 254                  | 216   | 45                      | 305                  | 216   | 45                      | 305                   | 216   | 45                      | 368                   | 219   | 56                      |
| 4                | 12.00                | 10.25 | 150                     | 14.00                | 10.25 | 150                     | 16.00                 | 10.25 | 150                     | 18.00                 | 10.25 | 160                     |
| 100              | 305                  | 260   | 68                      | 356                  | 260   | 68                      | 406                   | 260   | 68                      | 457                   | 260   | 72                      |
| 6                | 18.00                | 14.62 | 450                     | 20.00                | 14.62 | 450                     | 22.00                 | 14.62 | 450                     | 24.00                 | 14.62 | 500                     |
| 150              | 457                  | 371   | 204                     | 508                  | 371   | 204                     | 559                   | 371   | 204                     | 610                   | 371   | 227                     |
| 8                | 26.00                | 17.6  | 700                     | 26.00                | 17.60 | 700                     | 28.00                 | 17.81 | 700                     | 30.00                 | 17.31 | 750                     |
| 200              | 660                  | 447   | 318                     | 660                  | 447   | 318                     | 711                   | 452   | 318                     | 762                   | 440   | 340                     |
| 10               | 28.00                | 19.13 | 900                     | 31.00                | 19.13 | 900                     | 34.00                 | 19.13 | 900                     | 34.00 <sup>(3)</sup>  | 19.10 | 1000                    |
| 250              | 711                  | 486   | 408                     | 787                  | 486   | 408                     | 864                   | 486   | 408                     | 864                   | 485   | 454                     |
| 12               | —                    | —     | —                       | —                    | —     | —                       | 44.50                 | 17.50 | 2050                    | —                     | —     | —                       |
| 300              | —                    | —     | —                       | —                    | —     | —                       | 1130                  | 445   | 929                     | —                     | —     | —                       |
| 14               | —                    | —     | —                       | —                    | —     | —                       | 44.50 <sup>(3)</sup>  | 17.50 | 2050                    | —                     | —     | —                       |
| 350              | —                    | —     | —                       | —                    | —     | —                       | 1130                  | 445   | 929                     | —                     | —     | —                       |

(3) The following valves do not meet the ASME B16.10 end to end dimensions.

(4) Weights shown are for forged valves. For weights of cast steel valves, please contact Velan's Engineering Dept.