

700 Series

UHP Stainless Steel Bulk Facility Valve
High Flow Bellows

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Value Proposition:

The Ultra High Purity (UHP) 700 Series high flow valve offers high purity and high flow for UHP gas distribution systems. The unique design reduces valve weight and, as a result, lowers installation costs.

All Parker UHP bellows valves use a full flow bore that positions the bellows assembly out of the flow path when the valve is open.



Contact Information:

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Product Features:

- Inconel 625 bellows for increased pressure, ultra high purity and maximum cycle life in a small envelope
- Lower weight reduces gas distribution system installation costs
- Optimized stroke for higher Cv
- Optimum purge port locations at seals
- Maximum operating pressure 375 psig (250 psig 1" size)
- Sizes up to 6" available
- AOP available in 1", 1-1/2" and 2" sizes

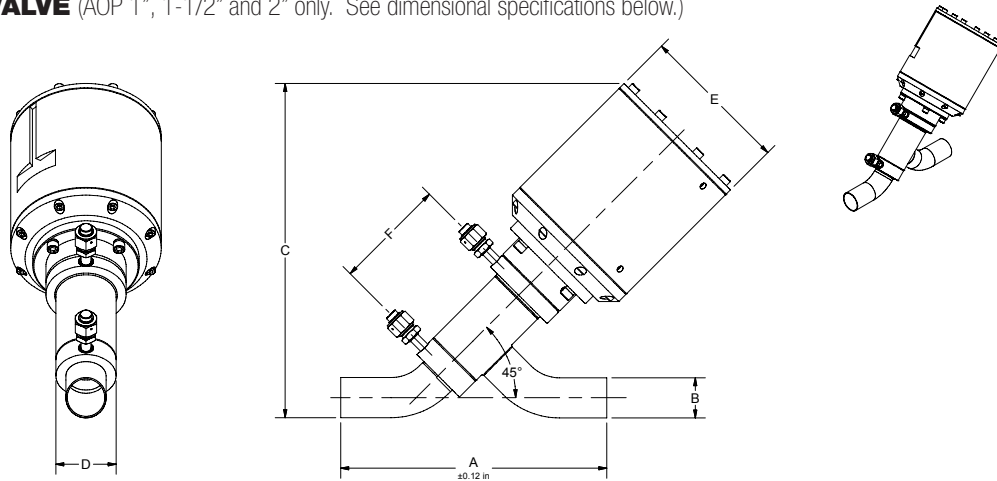


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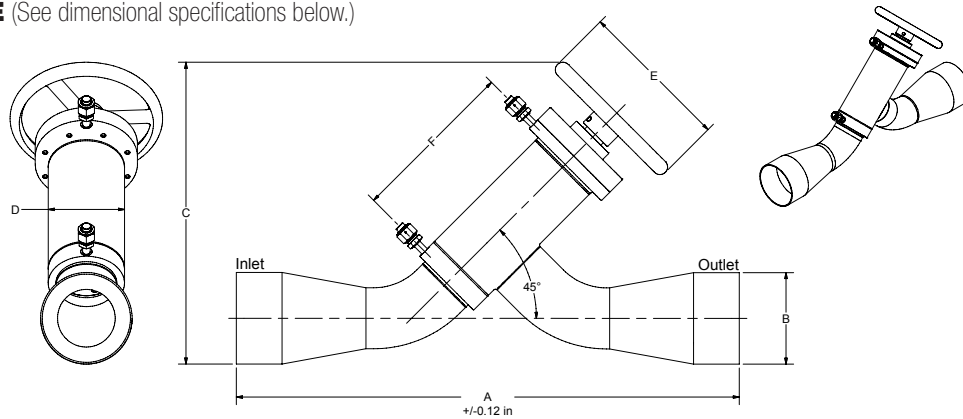
700 Series

Dimensional Drawing

1" - 4" VALVE (AOP 1", 1-1/2" and 2" only. See dimensional specifications below.)



6" VALVE (See dimensional specifications below.)



DIMENSION TABLE

| Part (Manual) | Size Body | C _v | A (inch) | B (inch) | C (inch) | D (inch) | E (inch) | F (inch) | Weight (lbs) |
|---------------|-----------|----------------|----------|----------|----------|----------|----------|----------|--------------|
| UHP0706 | 1" | 19 (b) | 8.49 | 1.00 | 7.2 | 1.50 | 4.00 | 3.93 | 3.2 |
| UHP0708 | 1.5" | 41 (a) | 10.00 | 1.50 | 7.9 | 2.00 | 5.00 | 3.86 | 5.0 |
| UHP0712 | 2" | 86 (a) | 13.26 | 2.00 | 10.6 | 3.00 | 6.00 | 5.59 | 11.5 |
| UHP0716 | 3" | 206 (b) | 16.00 | 3.00 | 13.7 | 4.00 | 8.00 | 7.21 | 23.0 |
| UHP0724-32 | 4" | 317 (b) | 20.00 | 4.00 | 18.8 | 5.00 | 10.00 | 10.94 | 36.0 |
| UHP0724-48 | 4" | 294 (b) | 32.98 | 6.00 | 19.8 | 5.00 | 10.00 | 10.94 | 40.4 |

DIMENSION TABLE

| Part (AOP) | Size Body | C _v | A (inch) | B (inch) | C (inch) | D (inch) | E (inch) | F (inch) | Weight (lbs) |
|------------|-----------|----------------|----------|----------|----------|----------|----------|----------|--------------|
| UHP0706-A | 1" | 19 (b) | 8.49 | 1.00 | 13.7 | 1.50 | 6.00 | 3.93 | 20.7 |
| UHP0708-A | 1.5" | 39 (a) | 10.00 | 1.50 | 16.4 | 2.00 | 6.00 | 3.86 | 31.0 |
| UHP0708-F | 1.5" | 41 (a) | 10.00 | 1.50 | 13.2 | 2.00 | 5.99 | 3.86 | 19.0 |
| UHP0712-B | 2" | 82 (a) | 13.26 | 2.00 | 14.1 | 3.00 | 6.99 | 5.59 | 25.0 |
| UHP0712-F | 2" | 86 (a) | 13.26 | 2.00 | 16.7 | 3.00 | 7.50 | 5.59 | 36.0 |

a) Test procedures per ANSI/ISA S75.02-1998 and SEMI F32-0998.

b) C_v values estimated by computational fluid dynamics analysis.

Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

700 Series

Ordering Information

Build a 700 Series valve by replacing the numbered symbols with an option from the corresponding tables below.

Color Explanations: Black = Standard Lead Time Configurations

Blue = Extended Lead Time Configurations

For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

Sample: **UHP** **0712** **C** **1** **1616** **10** **A** **S** **K**

Finished Order: **UHP0712C1161610ASK**



Basic Series

0706 = 1" 1/4" purge port size
0708 = 1.5" 1/4" purge port size
0712 = 2" 1/2" purge port size
0716 = 3" 1/2" purge port size
0724 = 4" & 6" 1/2" purge port sizes



Purge Port

C = Up & downstream

Note: Purge Valves ordered separately:

1", 1-1/2": 830LSFSFM (54019556)*

2", 3", 4" & 6": 855LSFS8FM (54019557)*

* 830LSFSFM limited to 300 psig max,

855LSFS8FM limited to 250 psig max.

If high pressure purge valves are required, please contact the factory.



Operation

Manual Actuation

1 = Blue

Pneumatic Actuation

A = Normally Closed - 0706 and 0708 Only.

B = Double Actuation - 0712 Only.

F = Normally Open - 0708 and 0712 Only.

Consult Factory for additional Handle Colors



Port Size

0808 = 1" - 0706 Only.

1212 = 1 1/2" - 0708 Only.

1616 = 2" - 0712 Only.

2424 = 3" - 0716 Only.

3232 = 4" - 0724 Only.

4848 = 6" - 0724 Only.



Internal Surface Finish

10 = 10 Ra



Design Series

A = Standard Design



Purge Port Type

S = Standard face seal fitting



Seat Material

K = PCTFE

Additional configurations available upon request



High Flow, Value Priced Valve
for High Purity Gas Systems

700 Series

Specifications

| Materials of Construction | |
|---------------------------|------------------------------|
| Wetted | |
| Body | 316L Stainless Steel |
| Tube Ends | 316L Stainless Steel |
| Seat Holder | |
| 0706 | 316 Stainless Steel |
| 0708, 0712, 0716, 0724 | 316L Stainless Steel |
| Bellows Adapter | 316L Stainless Steel |
| Bellows | |
| 0706 | 316L Stainless Steel |
| 0708, 0712, 0716, 0724 | Inconel® 625 |
| Seat | PCTFE |
| Bonnet Gasket | Nickel |
| Non-wetted | |
| Handle | Aluminum |
| Stem | 316L or 17-4 Stainless Steel |
| Driver | Bronze |
| Guide | Brass |
| Bonnet | Aluminum |
| Surface Finish | 10 micro inch Ra |
| Weight | See Dimension Tables |

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

Notes:

- A - Valves shall be installed and supported in accordance with ASME B31.3 - 1996, Chapter II, Part 5, Flexibility and Support or equivalent.
- B - Rated for external leak test at 110% (412.5 psig), valve in open position.
- C - Rated for external leak test at 110% (275 psig), valve in open position for 0706 only.

| Functional Performance | |
|-----------------------------|----------------------------------|
| Design Pressure | |
| Proof | |
| 0706 | 375 psig (25.86 barg) |
| 0708, 0712, 0716, 0724 | 562.5 psig (38.78 barg) |
| Burst | |
| 0706 | 750 psig (51.71 barg) |
| 0708, 0712, 0716, 0724 | 1,125 psig (77.57 barg) |
| Installation | See note A |
| Flow Capacity | See Dimensional Table |
| Leak Rate | Inboard Test Method |
| Internal | |
| Rated | 1 X 10 ⁻¹⁰ scc/sec He |
| Std Production | 1 X 10 ⁻⁹ scc/sec He |
| External (See notes B & C) | 1 X 10 ⁻¹⁰ scc/sec He |
| Operating Conditions | |
| Maximum Pressure | |
| 0706 | 250 psig (17.24 barg) |
| 0708, 0712, 0716, 0724 | 375 psig (25.86 barg) |
| Minimum Pressure | Vacuum |
| AOP Actuation Pressure | 100 psig (6.9 barg, nominal) |
| AOP Air Inlet | 1/8 - 27 NPT |
| Temperature | |
| Maximum | 140°F (60°C) |
| Minimum | -40°F (-40°C) |

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Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

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