

PVC


## Sample Engineering Specification

All thermoplastic ball valves shall be Utility sealed unit type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454 or CPVC Type IV, ASTM D 1784 Cell Classification 23447. All O-rings shall be EPDM. All valves shall have Safe-T-Shear ${ }^{\circledR}$ stem and Polypropylene handle. All valves shall be certified by NSF International for use in potable water service. All valves shall be pressure rated at 150 psi for water at $73^{\circ} \mathrm{F}$, as manufactured by Spears ${ }^{\circledR}$ Manufacturing Company.

## Quick-View Valve Selection Chart

| Valve Size | O-ring Material | PVC Part Number ${ }^{1,2}$ |  | Pressure Rating |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Socket | Threaded |  |
| 1/2 | EPDM | 2622-005 | 2621-005 | 150 psi Non-Shock Water @ $73^{\circ} \mathrm{F}$ |
| 3/4 | EPDM | 2622-007 | 2621-007 |  |
| 1 | EPDM | 2622-010 | 2621-010 |  |
| 1-1/4 | EPDM | 2622-012 | 2621-012 |  |
| 1-1/2 | EPDM | 2622-015 | 2621-015 |  |
| 2 | EPDM | 2622-020 | 2621-020 |  |
| 2-1/2 | EPDM | 2622-025 | 2621-025 |  |
| 3 | EPDM | 2622-030 | 2621-030 |  |
| 4 | EPDM | 2622-040 | 2621-040 |  |
| 6 | EPDM | 2622-060 | --- |  |

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## Features - PVC White, PVC Gray \& CPVC

A high quality, economical quarter-turn shutoff valve designed for irrigation, pool and spa, and general purpose applications. IPS sizes $1 / 2^{\prime \prime}-2^{\prime \prime}$ available in PVC White, PVC Gray or CPVC with socket or threaded end connectors. Sizes 3" - 4" available in PVC White with socket or threaded end connectors. 6" size available in PVC White with socket end connectors and high-efficiency lever style handle for easier operation.

- Chemical \& Corrosion Resistant PVC or CPVC Construction
- Economical Sealed Unit
- Schedule 80 Full-Bore Design
- High Impact Polypropylene Handle
- Spears ${ }^{\circledR}$ Single O-ring Safe-T-Shear ${ }^{\circledR}$ Stem Design
- EPDM O-rings
- PTFE/HDPE Floating Seat Design
- Sizes 1/2" - 6" Pressure Rated to 150 psi @ 73F
- $\mathrm{NSF}_{\circledR}$ Certified for Potable Water use
- Assembled with Silicone-Free, Water Soluble lubricant
Note: Valve sizes $2-1 / 2^{\prime \prime}, 3^{\prime \prime}, 4^{\prime \prime}$ and $6^{\prime \prime}$ are not available in CPVC. Refer to Compact Ball Valve Valve size 6" uses Lever Handle (not shown)


## Thermoplastic Valves Product Guide \& Engineering Specifictions Utility Ball Valves



## Dimensions, Weights \& Cv Values

| Nominal Size | Dimension Reference (inches, $\pm 1 / 16$ ) |  |  |  |  |  | Approx. Wt. (Lbs.) |  | $\mathrm{C}_{\mathrm{v}}{ }^{2}$ Values |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | $B^{1}$ |  | C | D | $\mathrm{E}^{3}$ | PVC | CPVC |  |
|  |  | Socket | Threaded |  |  |  |  |  |  |
| 1/2 | 1-7/16 | 1-7/32 | 1-7/32 | 2-21/32 | 1-11/16 | 2-3/4 | . 16 | . 17 | 46 |
| 3/4 | 1-25/32 | 1-7/16 | 1-7/16 | 2-29/32 | 2-1/32 | 3-1/4 | . 25 | . 27 | 91 |
| 1 | 2-1/16 | 1-19/32 | 1-19/32 | 3-3/8 | 2-13/32 | 3-17/32 | . 34 | . 36 | 160 |
| 1-1/4 | 2-9/16 | 1-31/32 | 1-31/32 | 3-7/8 | 2-27/32 | 3-25/32 | . 57 | . 60 | 306 |
| 1-1/2 | 2-31/32 | 2-15/32 | 2-25/32 | 4-11/16 | 3-5/32 | 3-5/32 | . 88 | . 90 | 429 |
| 2 | 3-9/16 | 2-13/16 | 3-3/16 | 5-5/32 | 3-7/8 | 4-9/32 | 1.34 | 1.34 | 755 |
| 2-1/2 | 4-5/16 | 3-17/32 | 4-7/16 | 7-1/16 | 4-3/16 | 5-1/32 | 2.31 | N/A | 1126 |
| 3 | 5-11/32 | 4-5/32 | 5-1/8 | 7-15/16 | 5-9/16 | 7-3/4 | 4.78 | N/A | 1660 |
| 4 | 6-11/16 | 5-1/8 | 6-7/32 | 9-3/16 | 6-5/32 | 9-5/32 | 8.00 | N/A | 3129 |
| $6^{3}$ | 10-3/16 | 8-3/32 | --- | 14-3/16 | 8-5/32 | 14-3/32 | 23.24 | N/A | 7942 |

1: Valve Lay Length
2: Gallons per minute at 1 psi pressure drop. Values calculated from valve laying length, based on derivative of Hazen-Williams equation with surface roughness factor of $\mathrm{C}=150$.
3: $6^{\prime \prime}$ valve has lever handle, dimension is from valve stem centerline (not illustrated)
Temperature Pressure Rating

| System Operating Temperature ${ }^{\circ} \mathrm{F}\left({ }^{\circ} \mathrm{C}\right)$ |  | $\begin{gathered} 73 \\ (23) \end{gathered}$ | $\begin{aligned} & 100 \\ & (38) \end{aligned}$ | $\begin{aligned} & 110 \\ & (43) \end{aligned}$ | $\begin{aligned} & 120 \\ & \text { (49) } \end{aligned}$ | $\begin{aligned} & 130 \\ & (54) \end{aligned}$ | $\begin{aligned} & 140 \\ & (60) \end{aligned}$ | $\begin{aligned} & 150 \\ & (66) \end{aligned}$ | $\begin{aligned} & 160 \\ & (71) \end{aligned}$ | $\begin{aligned} & 170 \\ & (77) \end{aligned}$ | $\begin{aligned} & 180 \\ & (82) \end{aligned}$ | $\begin{aligned} & 190 \\ & (88) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valve Pressure Rating psi (MPa) | $\begin{aligned} & \text { PVC } \\ & \text { CPVC } \end{aligned}$ | $\begin{gathered} 150 \\ (1.03) \end{gathered}$ | $\begin{gathered} 93 \\ (.64) \end{gathered}$ | $\begin{gathered} 75 \\ (.52) \end{gathered}$ | $\begin{gathered} 60 \\ (.41) \end{gathered}$ | $\begin{gathered} 45 \\ (.31) \end{gathered}$ | $\begin{gathered} 33 \\ (.23) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ |
|  |  | $\begin{gathered} 150 \\ (1.03) \end{gathered}$ | $\begin{aligned} & 123 \\ & (.85) \end{aligned}$ | $\begin{aligned} & 110 \\ & (.76) \end{aligned}$ | $\begin{gathered} 98 \\ (.68) \end{gathered}$ | $\begin{gathered} 86 \\ (.58) \end{gathered}$ | $\begin{gathered} 75 \\ (.52) \end{gathered}$ | $\begin{gathered} 68 \\ (.47) \end{gathered}$ | $\begin{gathered} 60 \\ (.41) \end{gathered}$ | $\begin{gathered} 48 \\ (.33) \end{gathered}$ | $\begin{gathered} 38 \\ (.26) \end{gathered}$ | $\begin{gathered} -0- \\ (-0-) \end{gathered}$ |


[^0]:    1: For CPVC valves, add the letter "C" to part numbers listed (e.g., 2621-005C).
    2: For PVC Gray, add the letter " $G$ " to part numbers listed (e.g. 2621-005G).

