



## TBZ Series “Z-Ball” True Union Ball Valves

1/2" TO 6" PVC AND CPVC

### KEY FEATURES

- PVC and CPVC
- Full Port Design
- Reversible PTFE Seats
- Double O-Ring Stem Seals
- For Sodium Hypochlorite Applications
- Adjustable Seat Retainer

### OPTIONS

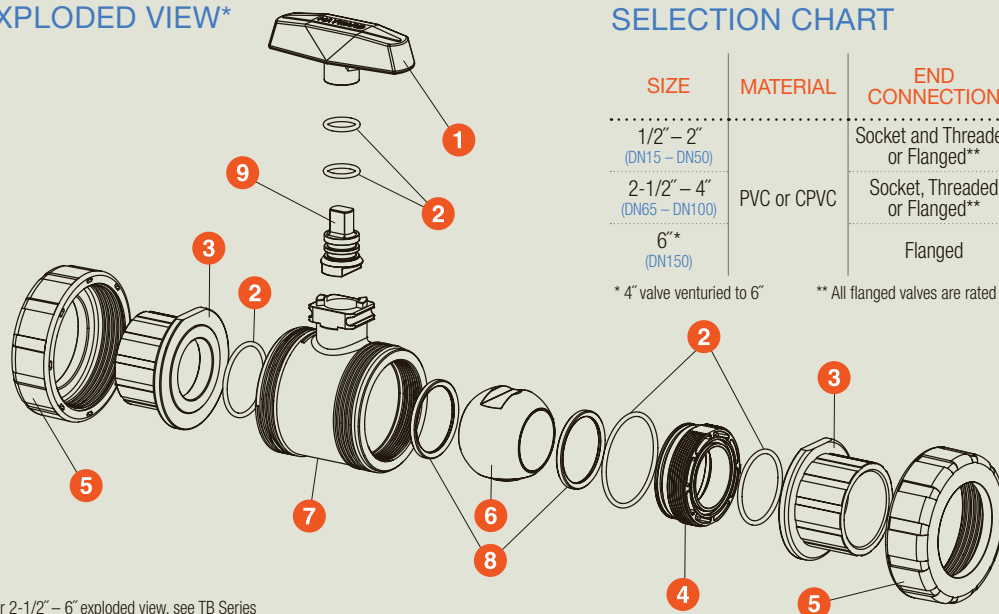
- Lockouts Available
- Stem Extensions
- Spring Return Handle
- Pneumatic and Electric Actuators
- 2" Square Operating Nut

### MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM O-Ring Seals

## TECHNICAL INFORMATION

### EXPLODED VIEW\*



\* For 2-1/2" – 6" exploded view, see TB Series

### SELECTION CHART

| SIZE                          | MATERIAL    | END CONNECTION                   | SEALS | PRESSURE RATING          |
|-------------------------------|-------------|----------------------------------|-------|--------------------------|
| 1/2" – 2"<br>(DN15 – DN50)    | PVC or CPVC | Socket and Threaded or Flanged** | FPM   | 250 PSI @ 70°F Non-Shock |
| 2-1/2" – 4"<br>(DN65 – DN100) |             | Socket, Threaded or Flanged**    |       | 235 PSI @ 70°F Non-Shock |
| 6"*<br>(DN150)                |             | Flanged                          |       | 150 PSI @ 70°F Non-Shock |

\* 4" valve venturied to 6"

\*\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock

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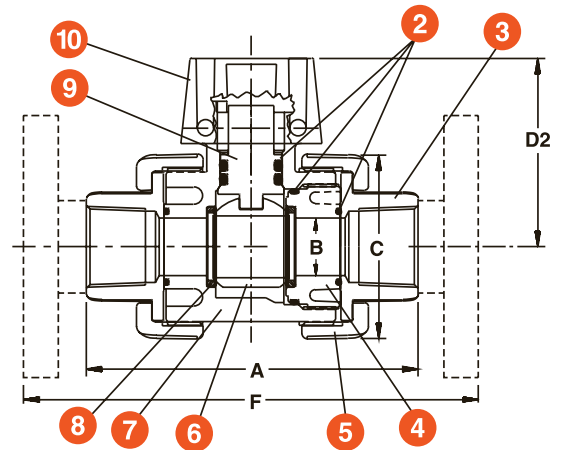
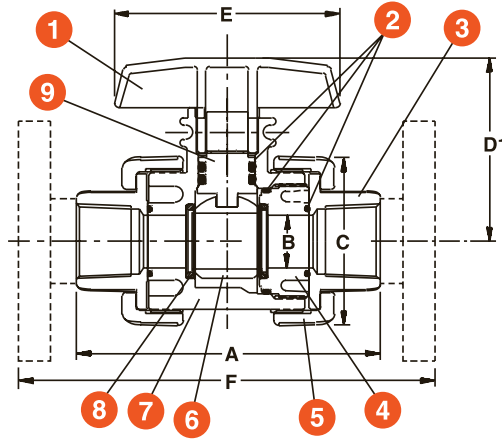
1/2" TO 6" PVC AND CPVC

## TECHNICAL INFORMATION, CONTINUED

### PARTS LIST\*

1. Handle
2. O-Ring Seals
3. End Connector
4. Seal Retainer
5. Union Nut
6. Ball
7. Body
8. PTFE Seat
9. Stem
10. Actuator Mounting Pad

\* For 2-1/2" – 6" Sizes, See TB Series



### DIMENSIONS

| SIZE<br>in/DN | A<br>in/mm | B<br>in/mm | C<br>in/mm | D1<br>in/mm | D2<br>in/mm | E<br>in/mm | F<br>in/mm | WEIGHT<br>lbs/kg |             |
|---------------|------------|------------|------------|-------------|-------------|------------|------------|------------------|-------------|
|               |            |            |            |             |             |            |            | SOC/THD          | FLANGED     |
| 1/2/15*       | 4.77/121   | .50/13     | 2.25/57    | 2.81/71     | 2.63/67     | 3.50/89    | 6.75/171   | .75/.34          | 1.00/.45    |
| 3/4/20*       | 4.85/123   | .75/19     | 2.63/67    | 3.02/76     | 2.81/71     | 3.50/89    | 7.13/181   | .75/.34          | 1.00/.45    |
| 1/25*         | 5.44/138   | .93/24     | 3.00/76    | 3.26/83     | 3.05/77     | 5.00/127   | 8.09/205   | 1.15/.52         | 2.15/.98    |
| 1-1/4/32*     | 6.30/160   | 1.50/38    | 4.00/102   | 3.92/100    | 3.48/88     | 5.00/127   | 9.19/233   | 2.15/.98         | 3.50/1.6    |
| 1-1/2/40*     | 6.85/174   | 1.50/38    | 4.00/102   | 3.92/100    | 3.48/88     | 5.00/127   | 9.88/250   | 2.15/.98         | 3.75/1.7    |
| 2/50*         | 8.00/203   | 1.94/50    | 4.75/121   | 4.43/113    | 4.00/102    | 5.00/127   | 11.4/290   | 3.80/1.7         | 6.30/2.9    |
| 2-1/2/65      | 10.68/271  | 2.75/70    | 6.66/169   | 6.46/164    | 6.17/157    | 10.50/267  | 14.65/372  | 11.30/5.12       | 15.30/6.94  |
| 3/80*         | 10.56/268  | 2.75/70    | 6.66/169   | 6.46/164    | 6.17/157    | 10.50/267  | 14.60/371  | 11.30/5.12       | 15.30/6.94  |
| 4/100*        | 12.30/312  | 3.81/97    | 8.56/217   | 7.62/194    | 6.64/169    | 10.50/267  | 17.26/438  | 18.50/8.39       | 25.70/11.65 |
| 6/150*        | N/A        | 3.81/97    | 8.56/217   | 7.62/194    | 6.64/169    | 10.50/267  | 19.26/489  | N/A              | 30.75/13.95 |

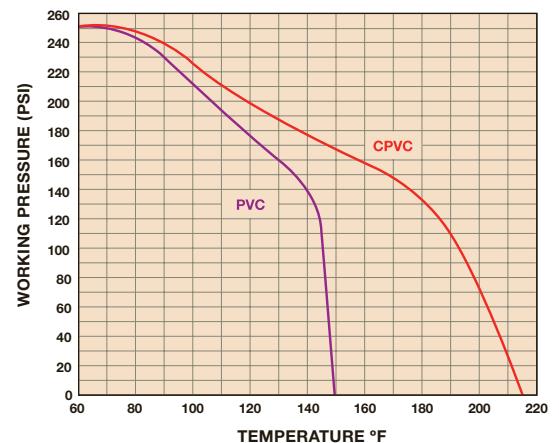
Dimensions are subject to change without notice – consult factory for installation information

\* Metric End Connections Available In: BSP – Straight Thread, BSP TR – Tapered Thread and Metric Socket

### Cv VALUES

| SIZE<br>in/DN | Cv VALUES | SIZE<br>in/DN | Cv VALUES | PRESSURE LOSS<br>CALCULATION FORMULA        |
|---------------|-----------|---------------|-----------|---------------------------------------------|
| 1/2/15        | 8.0       | 2/50          | 150.0     |                                             |
| 3/4/20        | 16.0      | 2-1/2/65      | 340.0     | $\Delta P = \left[ \frac{Q}{C_v} \right]^2$ |
| 1/25          | 29.0      | 3/80          | 490.0     | $\Delta P$ = Pressure Drop                  |
| 1-1/4/32      | 75.0      | 4/100         | 600.0     | Q = Flow in GPM                             |
| 1-1/2/40      | 90.0      | 6/150         | 550.0     | Cv = Flow Coefficient                       |

### OPERATING TEMPERATURE/PRESSURE



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