

## YC Series Y-Check Valves

1/2" TO 4" PVC AND CPVC



### KEY FEATURES

- PVC and CPVC
- Full Flow Design
- Minimum Pressure Drop
- PVC or CPVC Coil to Guide Piston to a Positive Seat
- Minimal Back Pressure Required to Seat Piston

### OPTIONS

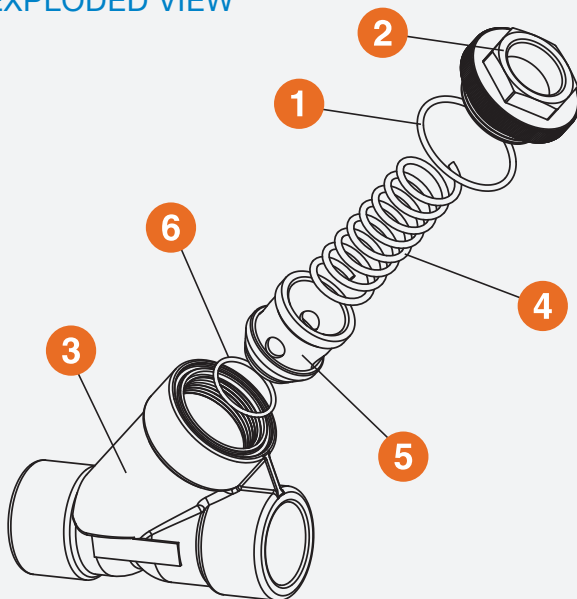
- Drilled Cap for Easy Drainage
- True Union End Connections

### MATERIALS

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

## TECHNICAL INFORMATION

### EXPLODED VIEW



### SELECTION CHART

| SIZE                        | MATERIAL    | END CONNECTION                          | SEALS       | PRESSURE RATING             |
|-----------------------------|-------------|---|-------------|-----------------------------|
| 1/2" – 4"<br>(DN15 – DN100) | PVC or CPVC | Socket, Threaded, Flanged or True Union | FPM or EPDM | 150 PSI @ 70°F<br>Non-Shock |

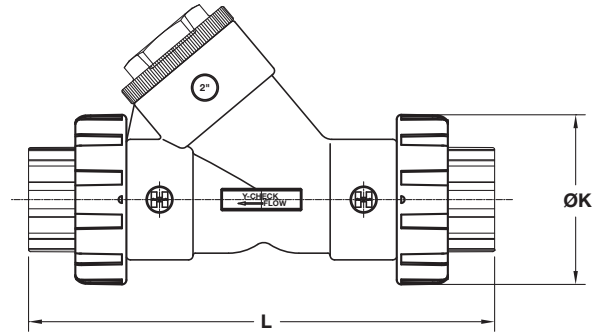
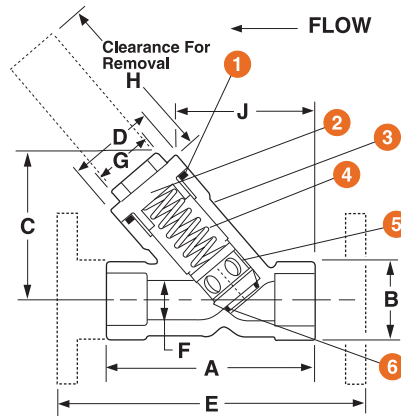
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## TECHNICAL INFORMATION, CONTINUED

### PARTS LIST

1. O-Ring Seal
2. Hex Cap
3. Body
4. Coil
5. Disc
6. O-Ring Disc Seal



### DIMENSIONS – INCHES / MILLIMETERS

| SIZE<br>in / DN | A<br>in / mm | B<br>in / mm | C<br>in / mm | D<br>in / mm | E<br>in / mm | F<br>in / mm | G<br>in / mm | H<br>in / mm | J<br>in / mm | K<br>in / mm | L<br>in / mm | WEIGHT<br>lbs / kg |              |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|--------------|
|                 |              |              |              |              |              |              |              |              |              |              |              | SOC / THD          | FLANGED      |
| 1/2 / 15        | 3.38 / 86    | 1.38 / 35    | 2.25 / 57    | 1.50 / 38    | NA           | 0.56 / 14    | 1.00 / 25    | 1.50 / 38    | 2.50 / 64    | 2.25 / 57    | 6.64 / 169   | 0.25 / 0.11        | NA           |
| 3/4 / 20        | 4.18 / 106   | 1.69 / 43    | 2.88 / 73    | 2.00 / 51    | NA           | 0.81 / 21    | 1.25 / 32    | 1.75 / 44    | 3.00 / 76    | 2.63 / 67    | 7.42 / 188   | 0.63 / 0.29        | NA           |
| 1 / 25          | 5.19 / 132   | 2.00 / 51    | 3.63 / 92    | 2.16 / 55    | NA           | 1.00 / 25    | 1.50 / 38    | 2.25 / 57    | 3.32 / 84    | 3.00 / 76    | 8.97 / 228   | 0.88 / 0.40        | NA           |
| 1-1/4 / 32      | 6.63 / 168   | 2.63 / 67    | 4.50 / 114   | 2.94 / 75    | NA           | 1.25 / 32    | 2.00 / 51    | 3.00 / 76    | 4.45 / 113   | 4.75 / 121   | 13.01 / 330  | 1.75 / 0.79        | NA           |
| 1-1/2 / 40      | 6.63 / 168   | 2.63 / 67    | 4.50 / 114   | 2.94 / 75    | NA           | 1.56 / 40    | 2.00 / 51    | 3.00 / 76    | 4.45 / 113   | 4.75 / 121   | 12.07 / 307  | 1.63 / 0.74        | NA           |
| 2 / 50          | 7.63 / 194   | 3.38 / 86    | 5.38 / 137   | 3.75 / 95    | 11.00 / 279  | 2.00 / 51    | 2.38 / 60    | 3.25 / 83    | 4.88 / 124   | 4.75 / 121   | 13.05 / 331  | 3.00 / 1.36        | 5.00 / 2.27  |
| 2-1/2 / 63      | 10.31 / 262  | 4.69 / 119   | 7.25 / 184   | 5.50 / 140   | NA           | 2.90 / 74    | 3.50 / 89    | 4.25 / 108   | 6.54 / 166   | 6.40 / 163   | 16.77 / 426  | 7.75 / 3.52        | NA           |
| 3 / 80          | 10.31 / 262  | 4.69 / 119   | 7.25 / 184   | 5.50 / 140   | 14.37 / 365  | 2.90 / 74    | 3.50 / 89    | 4.25 / 108   | 6.54 / 166   | 6.40 / 163   | 16.77 / 426  | 7.50 / 3.40        | 12.50 / 5.67 |
| 4 / 100         | 12.81 / 325  | 5.75 / 146   | 8.88 / 226   | 6.18 / 157   | 17.73 / 450  | 3.78 / 96    | 4.25 / 108   | 5.00 / 127   | 8.58 / 218   | 8.56 / 217   | 21.23 / 539  | 9.50 / 4.30        | 17.50 / 7.94 |

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

### Cv VALUES

| SIZE<br>in / DN | Cv VALUES<br>GPM | SIZE<br>in / DN | Cv VALUES<br>GPM |
|-----------------|------------------|-----------------|------------------|
| 1/2 / 15        | 0.8              | 2 / 50          | 65.0             |
| 3/4 / 20        | 3.0              | 2-1/2 / 63      | 75.0             |
| 1 / 25          | 9.0              | 3 / 80          | 110.0            |
| 1-1/4 / 32      | 26.0             | 4 / 100         | 240.0            |
| 1-1/2 / 40      | 45.0             |                 |                  |

### PRESSURE LOSS CALCULATION FORMULA

$$\Delta P = \left[ \frac{Q}{Cv} \right]^2$$

$\Delta P$  = Pressure Drop  
 $Q$  = Flow in GPM  
 $Cv$  = Flow Coefficient

### OPERATING TEMPERATURE / PRESSURE

