



## True Union Ball Check Valves

1/4" to 6" PVC, Corzan® CPVC, PPL



CHECK VALVES

### **Backflow Prevention**

Hayward True Union Ball Check Valves prevent reversal of flow in piping systems. They are ideal where backflow could potentially cause damage to pumps, filters, or process equipment.

### **Automatic Operation**

Hayward True Union Ball Check Valves operate without the need for any adjustments or settings. Line pressure moves the solid plastic ball off the elastomer seat, opening the valve. When the inlet flow stops, back pressure moves the ball back onto the seat – stopping the flow. Additionally, this valve features a unique square-cut elastomer seat to seal at low back pressures.

### **True Union Design**

Sizes 1/2" to 6" feature a true union design. This allows for easy removal from a piping system without breaking down piping connections. Just unscrew the two assembly nuts and lift the valve body out of the line. A Trim Check design is used for the 1/4" and 3/8" sizes. While not true union, the valves are fully repairable, unlike some other smaller check valves.

### **No Corrosion Failures**

Because of their all-plastic construction, these valves will never jam or stick as a result of rust or corrosion. Also they will not contaminate sensitive fluids that come into contact with them.

### **Features**

- Full Port Design to 4"
- True Union Design
- Easy Maintenance
- FPM or EPDM Seals
- Unique Square Cut Seat
- Works in Any Position Except Downflow

### **Options**

- Foot Valve Screens

Corzan® is a registered trademark of Noveon, Inc.



## Technical Information

True Check with foot valve screen installed

**Parts List**  
**True Union Ball Check Valves**

1. Body
2. O-Ring Seals
3. Square Cut O-Ring Seat
4. Seal Retainer
5. End Connector
6. Union Nut

### Dimensions - Inches / Millimeters

Size	A	B	C	D	E	F	G	Weight - (lb / kg)	
								Socket/ Threaded	Flanged
1/4"	3.06 / 78	0.31 / 8	1.38 / 35	0.50 / 13	N/A	N/A	N/A	0.13 / .06	N/A
3/8"	3.06 / 78	0.31 / 8	1.38 / 35	0.50 / 13	N/A	N/A	N/A	0.13 / .06	N/A
1/2" / 20*	4.63 / 118	0.50 / 13	2.25 / 57	0.75 / 19	6.75 / 171	4.88 / 124	2.32 / 59	0.75 / .34	1.00 / .45
3/4" / 25*	4.75 / 121	0.75 / 19	2.63 / 67	1.0 / 25	7.13 / 181	5.00 / 127	2.60 / 66	0.75 / .34	1.38 / .63
1" / 32*	5.25 / 133	1.00 / 25	3.00 / 76	1.25 / 32	7.75 / 197	5.88 / 14	2.88 / 73	1.25 / .57	2.13 / .97
1-1/4" / 40*	6.30 / 160	1.25 / 32	4.00 / 102	1.75 / 44	9.19 / 233	6.94 / 17	3.75 / 95	2.00 / .90	3.75 / 1.70
1-1/2" / 50*	6.75 / 171	1.50 / 38	4.00 / 102	1.75 / 44	9.75 / 248	7.06 / 17	3.75 / 95	2.00 / .90	3.75 / 1.70
2" / 63*	8.00 / 203	1.94 / 49	4.75 / 121	2.25 / 57	11.25 / 286	8.56 / 217	4.50 / 114	3.75 / 1.70	5.75 / 2.60
2-1/2"	10.68 / 271	2.88 / 73	6.56 / 167	3.25 / 83	14.38 / 365	11.25 / 286	2.50 / 64	10.00 / 4.54	14.00 / 6.36
3" / 90*	10.56 / 268	2.88 / 73	6.56 / 167	3.25 / 83	14.38 / 365	11.25 / 286	2.50 / 64	10.00 / 4.54	14.00 / 6.36
4" / 110*	12.94 / 329	4.00 / 102	8.56 / 217	4.25 / 108	17.00 / 432	14.63 / 372	4.25 / 108	17.00 / 7.72	25.00 / 11.36
6"	N/A	4.00 / 102	N/A	4.25 / 108	19.19 / 487	N/A	N/A	N/A	30.20 / 13.73

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

### Selection Chart

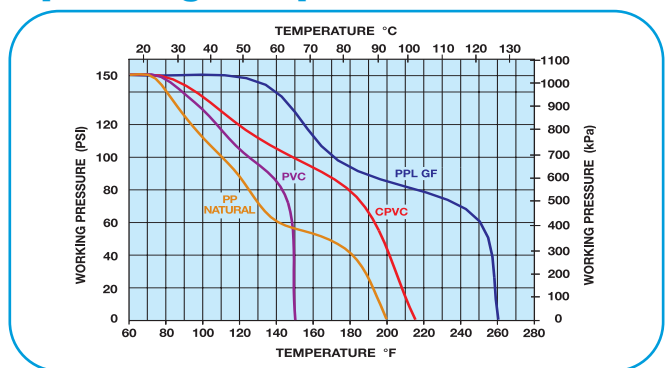
Size	Material	End. Conn.	Seals	Pressure Rating
1/4" - 3/8"*	PVC	Socket or Threaded	FPM	150 PSI @ 70°F Non-Shock
1/2" - 4"	PVC or CPVC	Socket, Threaded, or Flanged	FPM or EPDM	
1/2" - 2"	NAT. PPL***	Threaded	FPM	
6"***	PVC or CPVC	Flanged	FPM	

\*Trim Check Design

\*\* 4" Valve Venturi'd to 6"

\*\*\* 2" Rated at 100 PSI

### Operating Temperature/Pressure



### Cv Factors

Size	Factor	Size	Factor
1/4"	1.0	1-1/2"	45
3/8"	3.0	2"	130
1/2"	4.8	2-1/2"	170
3/4"	7.7	3"	250
1"	11	4"	400
1-1/4"	25	6"	340

#### Pressure Loss Calculation Formula

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

ΔP = Pressure Drop  
Q = Flow in GPM  
Cv = Flow Coefficient