

# Figure 345 & 355 THERMOPLASTIC VALVES



## TRUE-UNION BALL CHECK VALVE

**Figure 345 - PVC with NPT and SW Ends**

**Figure 355 - CPVC with NPT and SW Ends**

### Valve Features

- Pressure Rating: 150 PSI
- 5 PSI Minimum Shut Off
- Temperature Range:
  - PVC: 41°F to 122°F (5°C to 50°C)
  - CPVC: 32°F to 194°F (0°C to 90°C)
- EPDM or FPM (Viton®) Seals
- Both NPT & Sweat Ends Included
- For Vertical & Horizontal Installation\*
- With Flow Direction Arrow
- Machined & Tumbled Ball for Hermetic Seal
- Easy Maintenance

\* For vertical up flow only, not down flow. In horizontal installations, standard line drop typically will not allow the ball to seat (a back pressure differential of 5 PSI minimum is needed for shut off).



### Standards

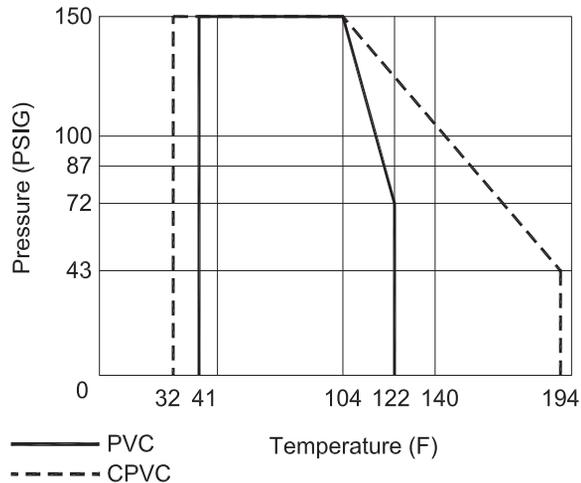
#### Connections:

- Threaded: ASTM D-2464, ref. ANSI B1.20.1
- Socket: ASTM D-2467

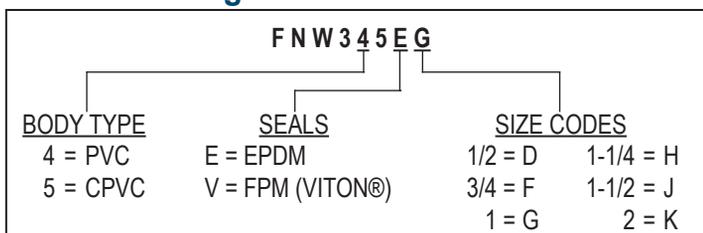
#### Materials:

- PVC: Cell Classification 12454 per ASTM D1784 (formerly Type I, Grade 1)
- CPVC: Cell Classification 23447 per ASTM D1784 (formerly Type IV, Grade 1)

**Pressure/Temperature**



**Figure Number Matrix**



**Cv & Weights**

Size	Cv	Wt. (Lbs.)
1/2	10	0.37
3/4	26	0.55
1	37	0.83
1-1/4	40	1.52
1-1/2	80	2.11
2	152	3.86

### TRUE-UNION BALL CHECK VALVE

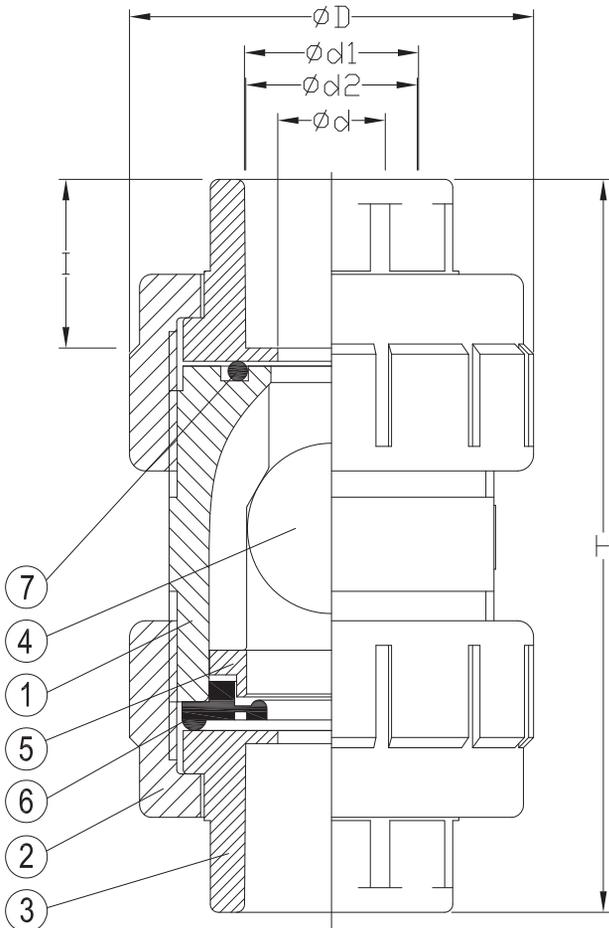
#### About PVC

Unplasticised Polyvinyl Chloride, or PVC, is the most widely used of all plastics and commonly used for pressure pipes, fittings, and valves. It is rigid, suitable for above and below ground applications. PVC has good chemical resistance and is odorless and tasteless. It is for use with liquids and gases with temperatures +32°F to +140°F\* (for higher temperatures see CPVC) at a wide range of operating pressures. Some poorer quality PVC can leach chemicals into water which can build up in recirculation systems, however most modern pipe is built to specific standards (e.g. BS3505/6, ASTM D 1785, ASTM D2241, DIN 8061/2, KIWA 49, BS4346 PART 1, DIN 8063) to control this. ASTM D1784 controls the compounds for rigid PVC and CPVC.

#### About CPVC

Chlorinated Polyvinyl Chloride, or CPVC, has been offering the process industry superior corrosion resistance, mechanical strength, and excellent life-cycle economics in a single package. Conceptually, CPVC is a PVC homopolymer that has been subjected to a chlorination reaction. It is generally inert to most mineral acids, bases, salts, and paraffinic hydrocarbon solutions. CPVC is not recommended for use with chlorinated or aromatic hydrocarbons, esters, or ketones. The upper temperature limit on CPVC is 200°F\*. There is no lower temperature limit on CPVC and the material will withstand pressure. However, at very cold temperatures, the material will become brittle and the impact strength will decline.

\* Note: Other materials within valves besides PVC and CPVC can have an affect on the temperature limits of the valve. Temperatures noted above are for the thermoplastic material alone.



#### Standard Materials

Ref. No.	Description	Material				Qty
		345		355		
		EPDM Seals	Viton Seals	EPDM Seals	Viton Seals	
1	Body	PVC		CPVC		1
2	Union Nut	PVC		CPVC		2
3	End Connector	PVC		CPVC		1
4	Ball	PVC		CPVC		1
5	Gland	PVC		CPVC		1
6	Seat	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	1
7	O-ring	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	1

#### Dimensions (inches)

Size	Ød2	Ød1	I	d	D	H	Thd./In (NPT)
1/2	0.84	0.85	0.875	0.63	1.97	3.52	14
3/4	1.05	1.06	1.000	0.79	2.44	4.39	14
1	1.31	1.33	1.125	0.98	2.84	5.09	11.5
1-1/4	1.66	1.67	1.250	0.98	3.82	6.16	11.5
1-1/2	1.89	1.91	1.375	1.58	3.82	6.60	11.5
2	2.37	2.39	1.500	1.97	4.21	7.54	11.5