

**FEATURES & BENEFITS**

The True Union design provides easy access for in-line installation and servicing. The True Union ball check valve is designed for quick, positive sealing with minimal turbulence, low restriction, and efficient fluid transfer. Ball check valves prevent backflow in piping systems. They are installed to protect pumps, filters and other process equipment from damage. They are also effective at preventing liquid storage tanks from unwanted drain down.

Used in a variety of industrial and chemical processing applications, True Union ball check valves are available in 1/2 through 2" sizes with socket and female threaded end



**FOOT VALVE STRAINER FOR TRUE UNION BALL CHECKS**

Replaces the Union Nut on the upstream side of the True Union Ball Check Valve (sold separately).

Install the assembly vertically with strainer side down. Prevents debris from entering the fluid stream of a suction pipeline. Valve opens when suction is activated. Ball then seats to close the valve when suction is not present.

**FOOT STRAINER PART NUMBERS**

SIZE	PVC	CPVC
1/2"	V07271P	V07273P
3/4"	V08271P	V08273P
1"	V10271P	V10273P
1 - 1/4"	V14271P	V14273P
1 - 1/2"	V17271P	V17273P
2"	V20271P	V20273P

This valve can be installed in the vertical position (for upward flow), or horizontally, providing that there is a minimum of 5 psi (12 feet of head pressure) of backflow to properly seat the ball.

- **100% THERMOPLASTIC DESIGN**  
Eliminates process and atmospheric corrosion.
- **MATERIAL OPTIONS**  
PVC or CPVC body and ball;  
EPDM or FKM O-ring and seal.
- **Assembled with water-soluble, silicone-free O-ring lubricant.**
- **PRESSURE RATING**  
235 psi, non-shock water at 73° F, 150 psi if flanged. Per ASTM F-1970
- Schedule 80 Design. Dimensions meet ASTM requirements: PVC D-2467, D-2464; CPVC F-439, F437
- 3 – Year Limited Warranty

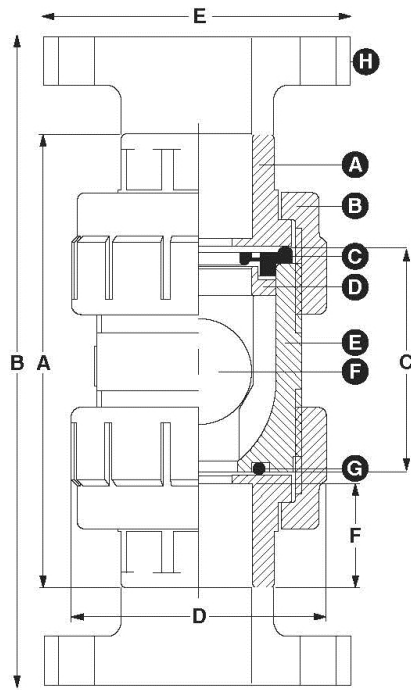
Note: Not for use with slurries.

**SAMPLE ENGINEERING SPECIFICATIONS**

All thermoplastic check valves shall be True Union ball type, Schedule 80, constructed from PVC Type I Cell Classification 12454 or CPVC Type IV Cell Classification 23447. O-ring/seat shall be EPDM or FKM. All valve components shall be replaceable. Pressure Ratings Per ASTM F-1970. Colonial 271 Series True Union Ball Check.



Revised 11/19/21 ASTM F-1970



### METAL TO PLASTIC TRANSITION WARNING

Colonial does not recommend the joining of metal pipe threads with plastic female pipe threads. To join a metal system with a plastic system, we recommend the use of flanged end connections.

### TEMPERATURE DE-RATING FOR VALVES & UNIONS (ABOVE 73°F)

TEMP (°F)	PVC	CPVC
73	1.00	1.00
80	0.88	0.96
90	0.75	0.92
100	0.62	0.85
110	0.50	0.77
120	0.40	0.70
130	0.30	0.62
140	0.22	0.55
150	NR	0.47
160	NR	0.40
170	NR	0.32
180	NR	0.25
200	NR	0.18
210	NR	0.15
240	NR	NR
280	NR	NR

NR: Not Recommended

Do not use with compressed air or gas

### COMPONENTS AND MATERIALS

Part Letter	Component	Quantity	Material
A	Connector	2	CPVC, PVC
B	Union Nut	2	CPVC, PVC
C	Seal	1	EPDM, FKM
D	Gland	1	CPVC, PVC
E	Body	1	CPVC, PVC
F	Ball	1	CPVC, PVC
G	O-Ring	1	EPDM, FKM
H	Flange	2	PVC, CPVC

### DIMENSIONS

Pressure Rating: 235 psi, non-shock water at 73°F

Size	A*	B*1	C	D	E	F
1/2"	3.500"	5.563"	1.750"	2.000"	3.531"	0.875"
3/4"	4.375"	6.688"	2.125"	2.438"	3.906"	1.000"
1"	5.094"	7.656"	2.188"	2.313"	4.281"	1.250"
1 - 1/4"	6.594"	9.469"	3.188"	3.813"	4.656"	1.375"
1 - 1/2"	6.594"	9.719"	3.188"	3.813"	5.031"	1.375"
2"	7.531"	10.844"	3.875"	4.219"	6.000"	1.500"

\*Socket or Thread Type (ST Series)

\*1Flange Type

MATERIAL CHOICES ST Series includes both Socket and Female Threaded End Connectors	EPDM O-Rings	FKM O-Rings	EPDM O-Rings	FKM O-Rings
	PVC Body/Ball		CPVC Body/Ball	
Size				
1/2"	V07271ST	V07272ST	V07273ST	V07274ST
3/4"	V08271ST	V08272ST	V08273ST	V08274ST
1"	V10271ST	V10272ST	V10273ST	V10274ST
1 - 1/4"	V14271ST	V14272ST	V14273ST	V14274ST
1 - 1/2"	V17271ST	V17272ST	V17273ST	V17274ST
2"	V20271ST	V20272ST	V20273ST	V20274ST

### FLUID FLOW COEFFICIENT

\*Gallons per minute @ 1 psi pressure drop

Nominal Size	Cv*
1/2"	6
3/4"	16
1"	24
1 - 1/4"	70
1 - 1/2"	84
2"	125

Caution: Colonial recommends a Minimum installation distance of 10 X the pipe diameter from a Pump or other sources of turbulence.

### FLANGED SERIES – PVC OR CPVC ANSI CLASS 150 FLANGED

Size	PVC/EPDM	PVC/FKM	CPVC/EPDM	CPVC/FKM
1/2"	V07271NF	V07272NF	V07273NF	V07274NF
3/4"	V08271NF	V08272NF	V08273NF	V08274NF
1"	V10271NF	V10272NF	V10273NF	V10274NF
1 - 1/4"	V14271NF	V14272NF	V14273NF	V14274NF
1 - 1/2"	V17271NF	V17272NF	V17273NF	V17274NF
2"	V20271NF	V20272NF	V20273NF	V20274NF

NOTE: ADDITION OF FLANGED ENDS REDUCES PRESSURE RATING TO 150 PSI