

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 connectors, or flanged.



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

ORDER VALVE SEPARATELY



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.

• **PRESSURE RATING**

235 psi, non-shock water at 73° F, 150 psi if flanged.

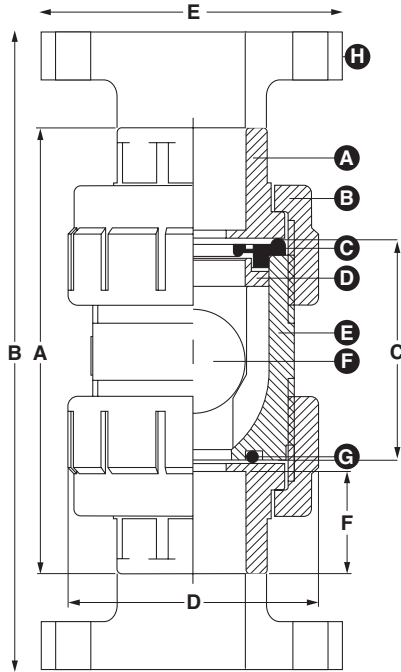
Note: Not for use with slurries.

SAMPLE ENGINEERING SPECIFICATIONS

All thermoplastic check valves shall be True Union ball type 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. All 1/2 through 2" valves shall be pressure rated at 235 psi, non-shock water at 73° F, 150 psi if flanged.



Revised 1/12



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	.88	.96
90	.75	.92
100	.62	.85
110	.50	.77
120	.40	.70
130	.30	.62
140	.22	.55
150	NR	.47
160	NR	.40
170	NR	.32
180	NR	.25
200	NR	.18
210	NR	.15
240	NR	NR
280	NR	NR

NR: Not Recommended

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COMPRESSED AIR WARNING

The products in this document are only intended for use in transferring or storing chemically compatible pressurized liquids. Do not test or use products in this document with compressed air or other gases. Doing so is dangerous and could cause injury or great bodily harm should a system fail under compressed air. Only use products that are specifically designed for compressed air/gas service. Call Colonial technical service for more information.

AIR/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)
*¹ Flange Type

MATERIAL CHOICES

ST Series includes both Socket and Female Threaded End Connectors

Size	EPDM O-Rings	FKM O-Rings	EPDM O-Rings	FKM O-Rings
	PVC Body/Ball		CPVC Body/Ball	
1/2"	V07271ST	V07272ST	V07274ST	V07273ST
3/4"	V08271ST	V08272ST	V08274ST	V08273ST
1"	V10271ST	V10272ST	V10274ST	V10273ST
1-1/4"	V14271ST	V14272ST	V14274ST	V14273ST
1-1/2"	V17271ST	V17272ST	V17274ST	V17273ST
2"	V20271ST	V20272ST	V20274ST	V20273ST

FLUID FLOW COEFFICIENT

*Gallons per minute @ 1 psi pressure drop

Nominal Size	C _v * ¹
1/2"	5
3/4"	8
1"	17
1-1/4"	27
1-1/2"	48
2"	124

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

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