Ball Check & Foot Valves

The economical and versatile Chemline Ball Check Valve is the most popular type of non-return valves for pipe sizes under 6". A wide selection of body and seat materials, and end connections are available for many different applications. It has good flow capacity and will handle many slurry and suspended solid services. This valve works in both horizontal and vertical lines. The Foot Valve is for end of line services such as sumps.

CHEMLINE Plastics Limited

Your Pipeline To Quality

PVC, CPVC, PP, PVDF

SERIES:	BT – True Union Check BC – Single Union Check FV – Single Union Foot Valve FT – True Union Foot Valve
SIZES:	1/2" – 4"
ENDS:	Threaded, Socket, Flanged, Butt*
SEAT/SEALS:	EPDM, Viton, Teflon® coated Viton

Slip-out Union Ends

Easy Disassembly

Full Port to 4" Size

Features

- **Built-in Union Design** – For easy installation and maintenance
- **Free Floating Ball** – The only moving part
- **Uniseat/Seal** – Easily removable
- **May be used either horizontally or vertically**
- **Excellent flow characteristics**
- **Low seating and opening pressures**



Foot Valve has large capacity strainer basket with 1/8" perforations



True Union Check
1/2" to 2" in all materials

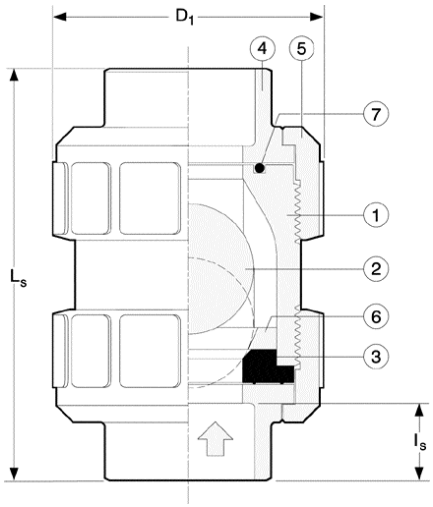


Single Union Check
1/2" to 4" in PVC
2-1/2" to 4" in CPVC, PP and PVDF

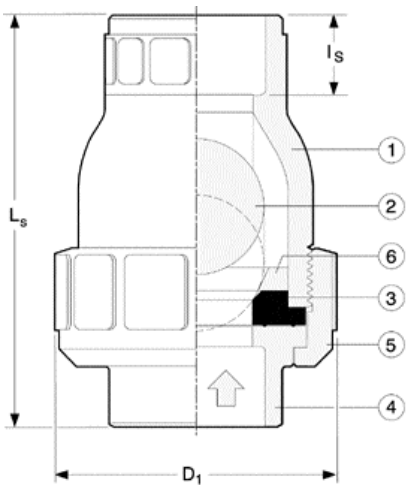
***** PP and PVDF Butt fusion ends (available 1/2" to 2") connect to Chemline PP and PVDF piping systems.

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Ball Check Valves



True Union Valve



Single Union Valve

PARTS

▲Recommended Spare Parts

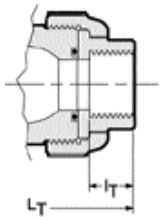
No.	Part	Pcs. T/U	Pcs. S/U	Materials
1	Body	1	1	PVC, CPVC, PP, PVDF
2	Ball	1	1	PVC, CPVC, PP, PVDF
3▲	Uniseat/Seal*	1	1	EPDM, Viton, Teflon® coated Viton
4	End Connector	2	1	PVC, CPVC, PP, PVDF
5	Union Nut	2	1	PVC, CPVC, PP, PVDF
6	Stop Ring	1	1	PVC, CPVC PP, PVDF
7	Face O-Ring	1	1	EPDM, Viton
9	Flange Retainer†	2	1	PVDF
10	Factory Flange**	2	1	PVC, CPVC, PP, PVDF

* Standard seals are EPDM in PVC, CPVC and PP valves, Teflon® coated Viton in PVDF valves. Coating is .002" thick.

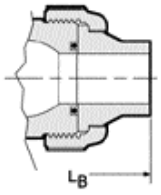
† True Union: 2 pcs 1/2" to 2", 6 pcs 1-1/2" to 4"
Single Union: 1 pcs 1/2" to 2", 3 pcs 2-1/2" to 4".

**True Union flanged valves have two factory flanges. Single Union valves have one factory flange and one fabricated flange.
Consult Chemline for details on fabricated type.

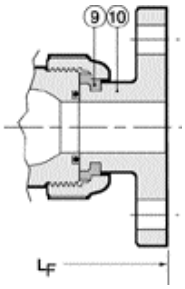
UNION END CONNECTIONS



NPT Threaded



Butt Fusion
PP and PVDF



Factory Flanged

DIMENSIONS INCHES

WEIGHTS LB

Size	D_1	I_s	I_T	True Union PVC & CPVC L_T	True Union PVC & CPVC L_S	True Union PVC & CPVC L_F	True Union PP & PVDF L_T	True Union PP & PVDF L_B	True Union PP & PVDF L_F	Single Union PVC L_T	Single Union PVC L_S	Single Union PVC L_F	True Union - Socket or Butt PVC	True Union - Socket or Butt CPVC	True Union - Socket or Butt PP	True Union - Socket or Butt PVDF	Single Union PVC
1/2"	1.9	0.69	0.59	3.4	3.4	5.1	3.4	4.0	5.1	3.2	3.4	5.6	0.3	0.3	0.2	0.3	0.2
3/4"	2.4	0.72	0.67	4.1	3.9	6.1	4.1	4.4	6.1	3.8	3.7	6.6	0.5	0.5	0.3	0.6	0.4
1"	2.8	0.88	0.79	4.5	4.4	6.5	4.5	4.8	6.5	4.2	4.3	7.3	0.7	0.8	0.4	0.9	0.6
1-1/4"	3.1	0.94	0.87	5.0	4.9	6.6	5.0	5.9	6.6	6.2	6.3	12.3	1.1	1.2	0.7	1.5	1.5
1-1/2"	3.7	1.09	0.98	5.9	5.9	7.6	5.9	5.8	7.6	5.6	5.7	9.1	1.6	1.7	1.0	2.0	1.3
2"	4.2	1.16	1.10	7.0	6.8	8.4	7.0	6.5	8.4	6.5	6.5	10.5	2.2	2.4	1.4	2.7	1.8

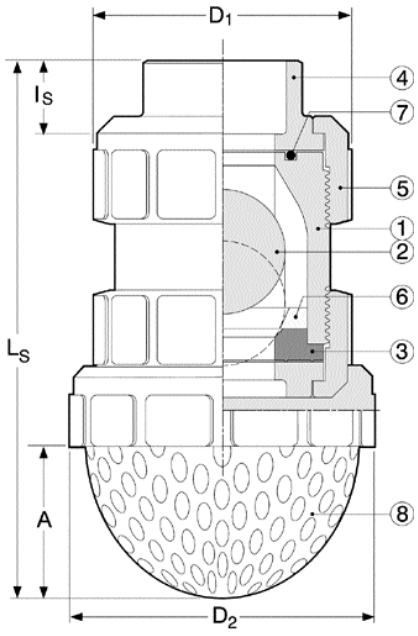
DIMENSIONS INCHES

WEIGHTS LB

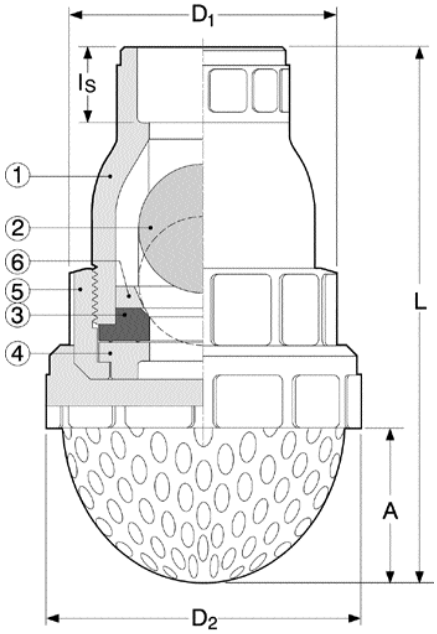
Size	D_1	I_s*	I_T	Single Union PVC & CPVC L_T	Single Union PVC & CPVC L_S	Single Union PVC & CPVC L_F	Single Union PP & PVDF L_T	Single Union PP & PVDF L_B	Single Union PP & PVDF L_F	Single Union PVC	Single Union CPVC	Single Union PP	Single Union PVDF
2-1/2"	6.0	2.10	2.17	9.5	10.0	14.1	8.7	*	9.7	5.7	6.2	*	*
3"	6.0	1.88	1.38	8.7	9.6	10.1	8.7	*	9.7	5.1	5.5	3.3	6.3
4"	8.3	2.00	1.77	12.1	12.2	13.3	12.1	*	*	12.7	13.9	8.1	15.7

* Consult Chemline.

Ball Foot Valves



True Union Valve



Single Union Valve

PARTS

▲Recommended Spare Parts

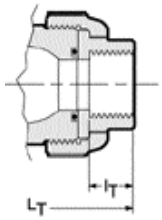
No.	Part	Pcs. T/U	Pcs. S/U	Materials
1	Body	1	1	PVC, CPVC, PP, PVDF
2	Ball	1	1	PVC, CPVC, PP, PVDF
3▲	Uniseat/Seal*	1	1	EPDM, Viton, Teflon® coated Viton
4	End Connector	2	1	PVC, CPVC, PP, PVDF
5	Union Nut	2	1	PVC, CPVC, PP, PVDF
6	Stop Ring	1	1	PVC, CPVC PP, PVDF
7	Face O-Ring	1	1	EPDM, Viton
8	Foot Valve Basket	1	1	PVC, CPVC PP, PVDF
9	Flange Retainer†	3	0	PVDF
10	Factory Flange**	1	0	PVC, CPVC, PP, PVDF

* Standard seals are EPDM in PVC, CPVC and PP valves, Teflon® coated Viton in PVDF valves. Coating is .002" thick.

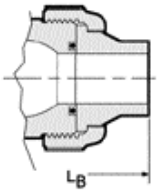
† True Union: 1 pc 1/2" to 2", 3 pcs 2-1/2" to 4".

** True Union valves have factory flanges. Single Union have fabricated flanges. Consult Chemline for details on fabricated type.

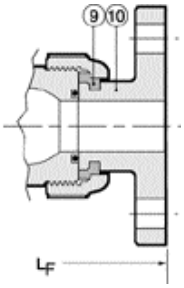
END CONNECTIONS FOR TRUE UNION VALVE



NPT Threaded



Butt Fusion
PP and PVDF



Factory Flanged

DIMENSIONS INCHES

WEIGHTS LB

Size	D_1	I_s Soc	I_T Thd	True Union CPVC D_2	A	L_S	L_T	L_F	Single Union PVC D_2	A	L_S	L_T	L_F	Single Union PVC Socket
1/2"	1.9	0.69	0.59	2.4	1.0	4.0	3.9	4.8	2.4	1.2	4.8	4.5	5.8	0.3
3/4"	2.4	0.72	0.67	2.8	1.2	4.6	4.6	5.7	2.8	1.6	5.5	5.2	6.7	0.4
1"	2.8	0.88	0.79	3.7	1.4	5.2	5.2	6.3	3.7	1.9	6.3	5.6	7.6	0.8
1-1/4"	3.7	0.94	0.87	5.2	*	*	*	*	5.2	2.5	8.7	8.7	10.1	1.8
1-1/2"	3.7	1.09	0.98	5.2	1.8	6.8	6.8	7.7	5.2	2.5	8.4	8.3	9.9	1.7
2"	4.2	1.16	1.10	5.2	2.1	8.0	8.0	8.8	5.2	2.5	9.2	8.8	10.9	2.1
2-1/2"	6.0	2.10	2.17	–	–	–	–	–	8.3	4.6	14.8	15.0	18.8	7.4
3"	6.0	1.88	1.38	–	–	–	–	–	8.3	4.6	14.6	14.7	16.7	7.1
4"	8.3	2.00	1.77	–	–	–	–	–	10.1	5.4	18.1	18.1	20.5	15.7

* Consult Chemline for dimensions.

For CPVC (2-1/2" to 4"), PP and PVDF Foot Valve lengths, consult Chemline.

Ball Check & Foot Valves

WORKING PRESSURES PSI

Size	PVC	CPVC				Polypropylene			PVDF			
	0 - 50°C 32 - 122°F	0 - 50°C 32 - 122°F	60°C 140°F	80°C 176°F	90°C 194°F	–20 - 30°C –4 - 90°F	60°C 140°F	80°C 176°F	–20 - 60°C –4 - 140°F	80°C 176°F	90°C 194°F	100°C 212°F
1/2"	150	150	115	85	60	150	90	60	150	120	110	85
3/4"	150	150	115	85	60	150	90	60	150	120	110	85
1"	150	150	115	85	60	150	90	60	150	120	110	85
1-1/4"	150	150	115	85	60	150	90	60	150	120	110	85
1-1/2"	150	150	115	85	60	150	90	60	150	120	110	85
2"	150	150	115	85	60	150	90	60	150	120	110	85
2-1/2"	100	100	90	60	45	100	60	45	100	90	60	45
3"	100	100	90	60	45	100	60	45	100	90	60	45
4"	100	100	90	60	45	100	60	45	100	90	60	45

Maximum Temperatures: PVC 0 to 60°C (32 to 140°F), **CPVC** 0 to 95°C (32 to 203°F), **PP** –20 to 90°C (–4 to194°F), **PVDF** –40 to 100°C (–40 to 212°F).

MINIMUM SEATING AND OPENING PRESSURE PSI

Size	Vertical Piping		Horizontal Piping		Check Valves
	Open	Seating	Open	Seating	
1/2"	0.7	2.8	0.1	2.8	6.5
3/4"	0.7	4.3	0.1	4.3	17.
1"	0.7	4.3	0.1	4.3	25.
1-1/4"	1.4	4.3	0.3	4.3	86.
1-1/2"	1.4	4.3	0.3	4.3	86.
2"	1.4	4.3	0.3	4.3	130.
2-1/2"	1.4	2.8	0.3	2.8	280.
3"	1.4	2.8	0.3	2.8	280.
4"	1.4	2.8	0.3	2.8	500.

C_V VALVES

VACUUM RATING

- 29.9 inches mercury

SAMPLE SPECIFICATION

– All Ball Check valves in PVC, CPVC, PP or PVDF shall be Chemline BT or BC Series or equal with EPDM (Viton or Teflon® coated Viton) seats and union ends. Sizes 1/2" to 2" shall be slip-out True Union style, sizes 2-1/2" to 4" shall be single union. The elastomer uniseat/seal shall function as both the ball seat and the union seal. Ball Check valves shall be rated 150 psi up to 2" and 100 psi for sizes 2-1/2" to 4".

ORDERING EXAMPLE

	BT	A	020	E	S
Valve Type	**BT** - True Union Ball Check **BC** - Single Union Ball Check **FV** - Single Union Foot Valve **FT** - True Union Foot Valve				
Body Material	**A** - PVC **C** - CPVC **B** - PP **K** - PVDF				
Size	**005** - 1/2" **007** - 3/4" **010** - 1" **012** - 1-1/4" **015** - 1-1/2" **020** - 2" **025** - 2-1/2" **030** - 3" **040** - 4"				
Seals	**E** - EPDM **V** - Viton **T** - Teflon® coated Viton				
Ends†	**S** - Socket **T** - Threaded **F** - Flanged **B** - Butt				

Example: Ball Check Valve, PVC, 2", with EPDM seat, socket ends.

OPTIONS & ACCESSORIES

- **Teflon® coated Uniseat/Seal**
- **Spring Loaded Ball** – Assists ball to seat faster

CHEMLINE Plastics Limited
55 Guardsman Road, Thornhill, Ontario, Canada, L3T 6L2
Tel: 905-889-7890 **Fax:** 905-889-8553
Sales: 905-889-7021 **email:** info@chemline.com **www.**chemline.com