



True Union Ball Check Valve

Specifications

- Sizes:** True Union : 1/2" - 2"
Single Union: 3" - 4"
- Models:** Socket, Threaded, Flanged (ANSI), Butt End
- Bodies:** PVC, CPVC, PP and PVDF
- Seats:** EPDM, FKM, PTFE
- Seals:** EPDM, FKM, PTFE
- Option:** Foot Valve

**Sizes 1/2" - 4" PVC/EPDM/FKM Models
NSF-61 Certified**

Standard Features (Sizes 1/2" - 2")

- Uniseat/seal of EPDM or FKM
- Ball is the only moving part. It unseats to permit flow in one direction but seals against seat to prevent backflow.
- May be used vertically or horizontally
- Minimum shut-off of 5 psi
- All sizes rated for full vacuum service
- Solid thermoplastic ball

Options:

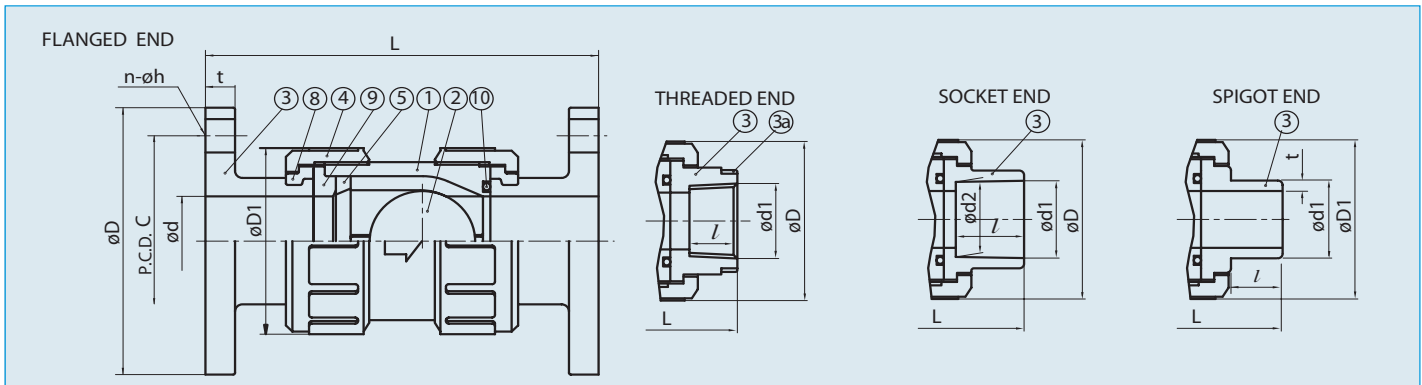
- PTFE coated FKM uniseat/seal
- Spring-loaded ball to assist ball in seating faster

Parts List – True Union (Sizes 1/2" – 2")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Ball	1	PVC, CPVC, PP, PVDF
3	End Connector	2	PVC, CPVC, PP, PVDF
4	Union Nut	2	PVC, CPVC, PP, PVDF
5	Stop Ring (A)	1	PVC, CPVC, PP, PVDF
8	Stop Ring (B)*	1	PVDF
9	Seat	1	EPDM, FKM, PTFE
10	O-Ring	1	EPDM, FKM, PTFE
3a	Ring**	1	Stainless Steel 304

* Used for flanged end

** Used for CPVC body, threaded end; 1/2" – 1"



Dimensions (Sizes 1/2" – 2")

NOMINAL SIZE		FLANGED						THREADED								SOCKET												SPIGOT(BUTT END)								
		ANSI CLASS 150														PVC, CPVC				PP, PVDF (DIN)				PP, PVDF (IPS)				PP, PVDF								
																PP, PVDF				DIN 16962												DIN 3442		PP	PVDF	
																				d1	d2	l	L	d1	d2	l	L	d1	l	L	d1	l	t	t	L	
INCHES	mm	D	C	n	h	L	t	d1	l	L	d	D1	d1	d2	l	L	d1	d2	l	L	d1	l	L	d1	l	t	t	L								
1/2	15	3.50	2.38	4	0.62	5.12	0.47	1/2-14NPT	0.59	3.39	0.59	1.89	0.848	0.836	0.688	3.43	0.768	0.760	0.57	3.19	0.83	0.87	3.31	0.787	0.728	0.098	0.075	4.00								
3/4	20	3.88	2.75	4	0.62	6.10	0.55	3/4-14NPT	0.67	4.06	0.79	2.36	1.058	1.046	0.719	3.86	0.965	0.957	0.63	3.70	1.03	1.00	4.43	0.984	0.866	0.106	0.075	4.35								
1	25	4.25	3.12	4	0.62	6.50	0.55	1-11 1/2NPT	0.79	4.45	0.98	2.76	1.325	1.310	0.875	4.37	1.240	1.232	0.71	4.13	1.30	1.13	4.35	1.260	0.866	0.118	0.094	4.75								
1 1/4	32	-	-	-	-	-	-	1 1/4-11 1/2NPT	0.87	5.00	1.22	3.78	1.670	1.655	0.938	4.92	-	-	-	-	-	-	-	-	-	-	-	-								
1 1/2	40	5.00	3.88	4	0.62	7.56	0.63	1 1/2-11 1/2NPT	0.98	5.94	1.57	3.78	1.912	1.894	1.094	5.94	1.947	1.937	0.93	5.62	1.89	1.37	5.57	1.969	1.260	0.181	0.118	5.75								
2	50	6.00	4.75	4	0.75	8.43	0.63	2-11 1/2NPT	1.10	6.97	2.01	4.17	2.387	2.369	1.156	6.77	2.461	2.445	1.08	6.69	2.36	1.50	6.49	2.480	1.417	0.228	0.118	6.50								

Ball Check

Single Union



Parts List – Single Union (Sizes 3" – 4")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Ball	1	PVC, CPVC, PP, PVDF
3	End Connector	1	PVC, CPVC, PP, PVDF
4	Union Nut	1	PVC, CPVC, PP, PVDF
5	Stop Ring (A)	1	PVC, CPVC, PP, PVDF
6	Flange		PVC, CPVC, PVDF
7	Stub		PVC, CPVC, PVDF
8	Stop Ring (B)*	1	PVDF
9	Seat	1	EPDM, FKM, PTFE

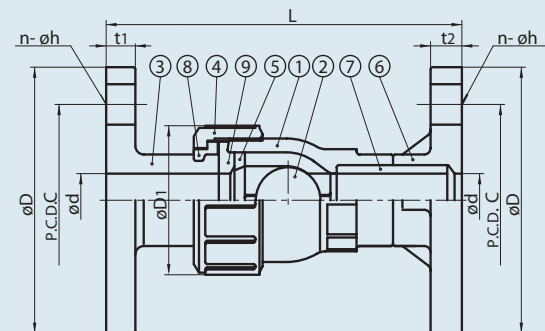
* Used for flanged end

Single Union Ball Check Valves

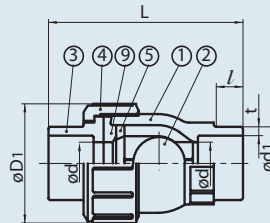
Dimensions (Sizes 3" – 4")

NOMINAL SIZE		d	D1	FLANGED								SOCKET												THREADED			SPIGOT (BUTT END)					
				ANSI Class 150				L	t1	t2	PVC, CPVC				PP, PVDF (DIN)				PP, PVDF (IPS)				d1	l	L	PP, PVDF						
											ASTM SCH40			L	DIN 16962			L	d1	l	L	d1				l	L	d1	l	t	t	L
											d1	d2	l		d1	d2	l															
INCHES	mm			D	C	n	h	L	t1	t2	d1	d2	l	L	d1	d2	l	L	d1	l	L	d1	l	L	d1	l	t	t	L			
3	80	3.07	5.98	7.50	6.00	4	0.75	12.20	0.71	0.87	3.516	3.492	1.875	9.57	3.512	3.498	1.40	8.46	3.480	1.874	9.55	3-8 NPT	1.38	8.74	3.543	1.496	0.323	0.169	11.67			
4	100	3.94	8.27	9.00	7.50	8	0.75	15.63	0.71	0.87	4.518	4.491	2.000	12.20	4.293	4.278	1.63	11.46	4.480	2.252	12.60	4-8 NPT	1.77	12.09	4.331	1.752	0.394	0.209	13.93			

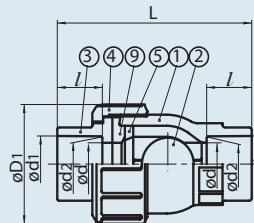
FLANGED END



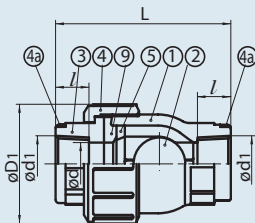
SPIGOT END



SOCKET END



THREADED END



True Union, Single Union, and Foot Valve Weight (POUNDS)

NOMINAL SIZE		SOCKET	FLANGED
INCHES	mm		
1/2	15	0.22	0.66
3/4	20	0.44	1.10
1	25	0.66	1.54
1 1/2	40	1.54	2.20
2	50	2.20	3.31
3	80	6.17	9.92
4	100	14.99	24.25

Cv Values

NOMINAL SIZE		Cv
INCHES	mm	
1/2	15	6.5
3/4	20	17
1	25	25
1 1/2	40	86
2	50	130
3	80	280
4	100	500

Sample Specification – (BALL CHECK VALVES)

All ball check valves and foot valves shall be of solid thermoplastic construction, and shall be designed with an elastomeric uniseat/seal for tight shut-off under pressure. Sizes 1/2" through 2" shall be of True Union design, while 3" & 4" shall be Single Union design. The same seal shall function as both the ball seat and the union seal. PVC shall conform to ASTM D1784 Cell Classification 12454-A, CPVC shall conform to ASTM D1784 Cell Classification 23567-A, PP shall conform to ASTM D4101 Cell Classification PPO210B67272 and PVDF shall conform to ASTM D3222 Cell Classification Type II. Ball Check valves and foot valves sizes 1/2" – 2" shall be rated 150 psi at 70 degrees F, 3" and 4" rated 100 psi at 70 degrees F, as manufactured by Asahi/America, Inc.

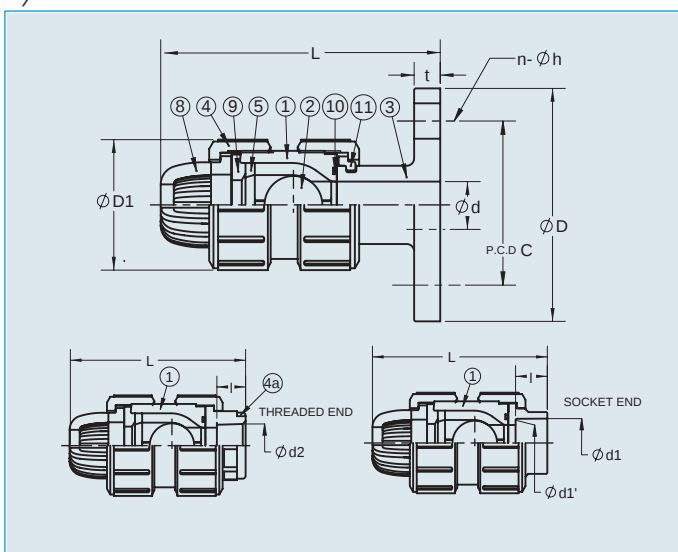
Ball Check

Foot Valve Option

Parts List Foot Valve (Sizes 1/2" – 2")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Ball	1	PVC, CPVC, PP, PVDF
3	End Connector	1	PVC, CPVC, PP, PVDF
4	Union Nut	2	PVC, CPVC, PP, PVDF
5	Stop Ring (A)	1	PVC, CPVC, PP, PVDF
7	Flange	1	EPDM, FKM, PTFE
8	Screen	1	PVC, CPVC, PP, PVDF
9	Seat	1	EPDM, FKM, PTFE
10	O-Ring	2	EPDM, FKM, PTFE
11	Stop Ring (B)*	1	PVDF
4a	Ring	1	304 SS

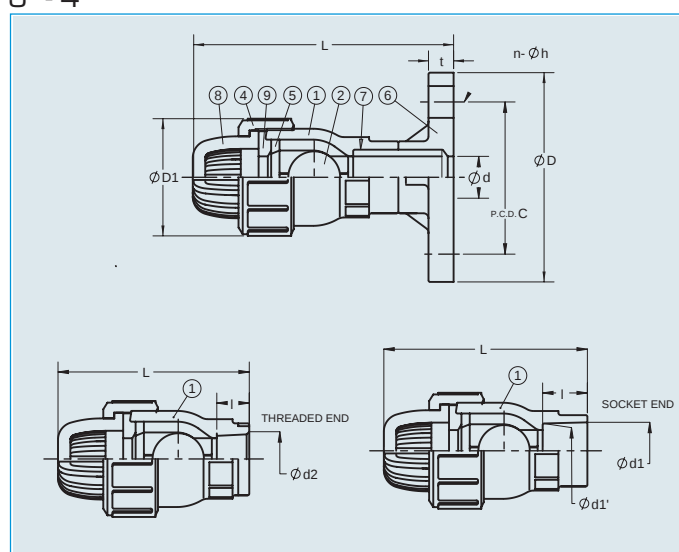
1/2" - 2"



Parts List Foot Valve (Sizes 3" – 4")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Ball	1	PVC, CPVC, PP, PVDF
3	End Connector	1	PVC, CPVC, PP, PVDF
4	Union Nut	1	PVC, CPVC, PP, PVDF
5	Stop Ring (A)	1	PVC, CPVC, PP, PVDF
6	Stub (2)	1	PVC, CPVC, PP, PVDF
7	Flange	1	PVC, CPVC, PP, PVDF
8	Screen	1	PVC, CPVC, PP, PVDF
9	Seat	1	EPDM, FKM, PTFE
4a	Ring	1	304 SS

3" - 4"



Pressure vs. Temperature – BALL CHECK AND FOOT VALVES (PSI, WATER, NON-SHOCK)

NOMINAL SIZE		PVC	CPVC				PP			PVDF			
		30° F 120° F	30° F 120° F	121° F 140° F	141° F 175° F	176° F 195° F	-5° F 85° F	86° F 140° F	141° F 175° F	-30° F 140° F	141° F 175° F	176° F 195° F	196° F 210° F
1/2 - 2	15-50	150	150	120	90	60	150	90	60	150	125	110	90
3 - 4	80-100	100	100	90	60	45	75	60	45	100	90	60	45

Foot Valve Wt. (LBS) Dimensions (1/2"– 4")

NOMINAL SIZE		SOCKET FLANGED		NOMINAL SIZE		THR'D				FLG.	
						SOC.	PVC CPVC	PVDF PP	PVC CPVC	PVDF PP	
INCHES	mm			INCHES	mm	D1	L	L	L	L	L
1/2	15	0.22	0.66	1/2	15	1.89	3.74	3.74	3.62	4.61	4.53
3/4	20	0.44	0.88	3/4	20	2.36	4.25	4.33	4.21	5.39	5.31
1	25	0.66	1.32	1	25	2.76	4.80	4.84	4.72	5.87	5.79
1 1/2	40	1.54	3.31	1 1/2	40	3.78	7.17	7.17	7.05	7.99	7.91
2	50	2.20	3.31	2	50	4.17	7.72	7.83	7.72	8.58	8.50
3	80	7.71	11.02	3	80	5.98	12.09	11.57	11.34	16.10	13.23
4	100	15.43	23.14	4	100	8.27	14.96	14.72	14.41	20.41	16.34

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.