

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
1/2" - 4" CPVC/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 back flow
- May be used vertically or horizontally
- Minimum shut-off of 5psi
- All sizes rated for full vacuum service
- Solid thermoplastic ball

Options:

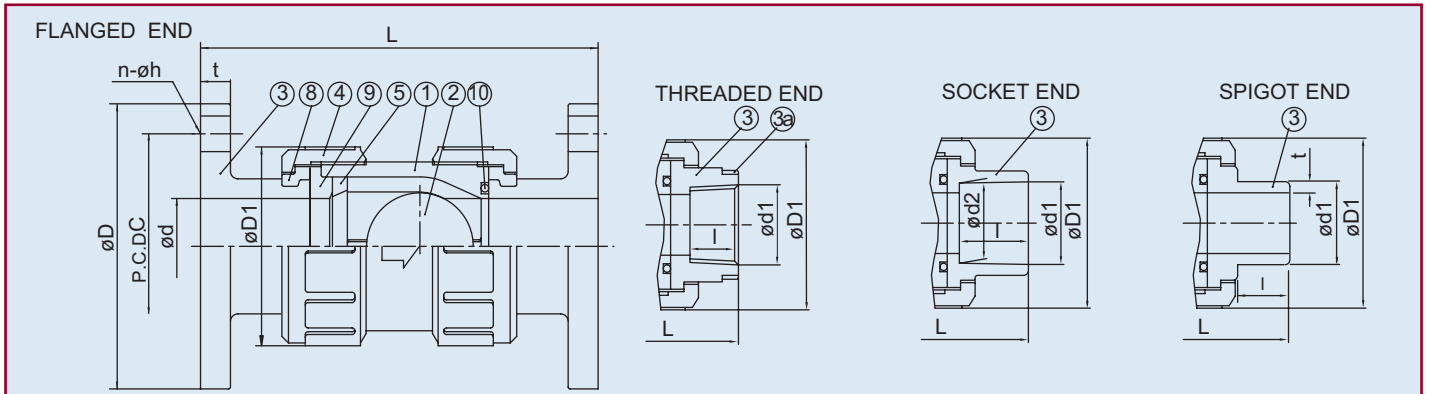
- PTFE coated FKM uniseat/seal
- Spring-loaded ball to assist ball in seating faster

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") (in.)

NOMINAL SIZE	FLANGED							THREADED					SOCKET										SPIGOT (BUTT END)							
	ANSI CLASS 150												PVC, CPVC					PP, PVDF (DIN)					PP, PVDF (IPS)							
													ASTM SCH 80					DIN 16962												
	D	C	n	h	L	t		d1	/	L	d	D1	d1	d2	/	L	d1	d2	/	L	d1	/	L	d1	/	L	d1	/	t	t
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")

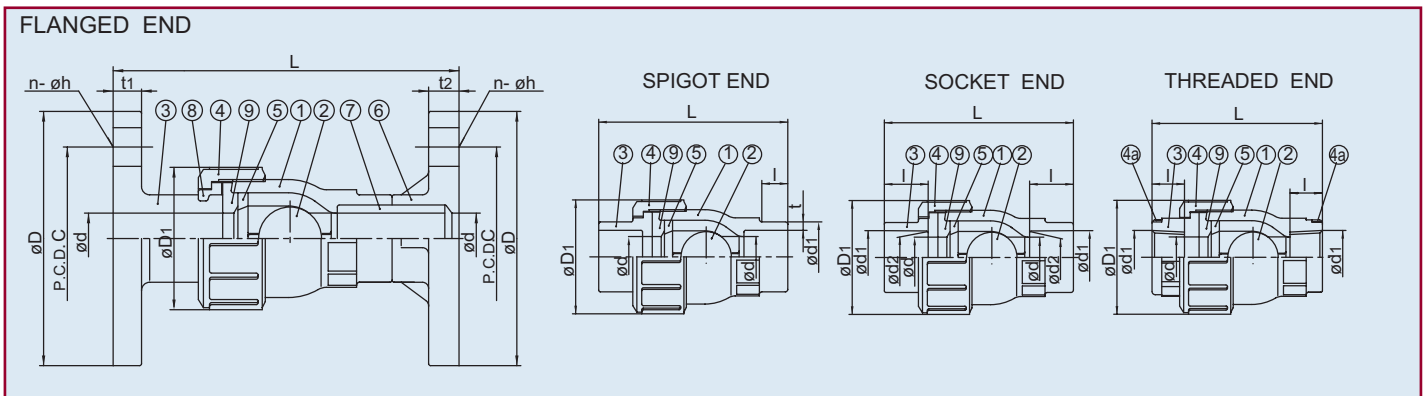
PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Ball	1	PVC, CPVC, PP, PVDF
3	End Connector	1	PVC, CPVC, PP, PVDF
4	Union Nut	1	PVC, CPVC, PP, PVDF
5	Stop Ring [A]	1	PVC, CPVC, PP, PVDF
8	Flange	1	PVC, CPVC, PVDF
9	Stub	1	PVC, CPVC, PVDF
10	Stop Ring [B]*	1	PVDF
3a	Seat	1	EPDM, FKM,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

* Used for flanged end

Single Union Ball Check Valves

Dimensions (Sizes 3" – 4") (in.)

NOMINAL SIZE		FLANGED										SOCKET						THREADED			SPIGOT (BUTT END)								
		ANSI CLASS 150										PVC, CPVC			PP, PVDF (DIN)			PP, PVDF (IPS)			PP, PVDF								
												ASTM SCH40			DIN 16962						DIN 3442								
		INCHES	mm	d	D1	D	C	n	h	L	t1	t2	d1	d2	/	L	d1	d2	/	L	d1	/	L	d1	L	t	t	L	
3	80	3.07	5.98	7.50	6.00	4	0.75	12.2	0.71	0.87	3.516	3.492	1.875	9.57	3.51	3.50	1.40	8.46	3.480	1.874	9.55	4-8 NPT	1.38	8.74	3.54	1.49	0.32	0.17	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	4.29	4.28	1.63	11.46	4.480	2.252	12.60	3-8 NPT	1.77	12.09	4.33	1.75	0.39	0.21	13.93



True Union, Single Union, and Foot Valve Weight (lbs.)

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

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 12454A, CPVC shall conform to ASTM D1784 Cell Classification 23567A, 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 150psi at 70° F, 3" and 4" rated 100psi at 70° F, as manufactured by Asahi/America, Inc.

Ball Check

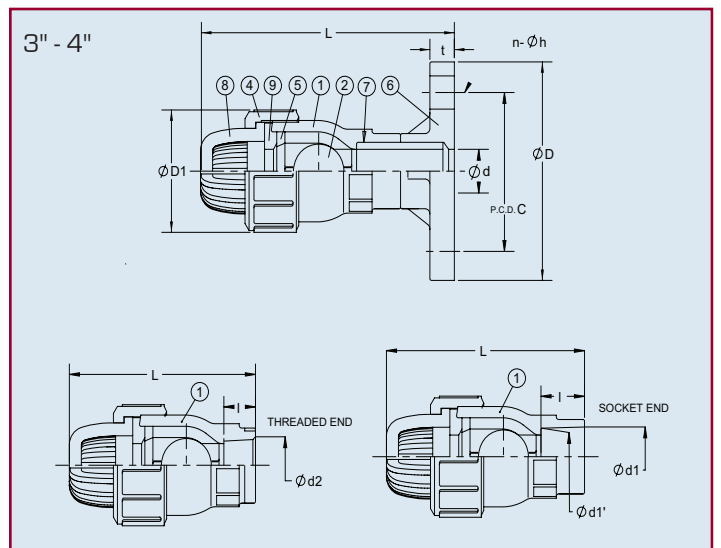
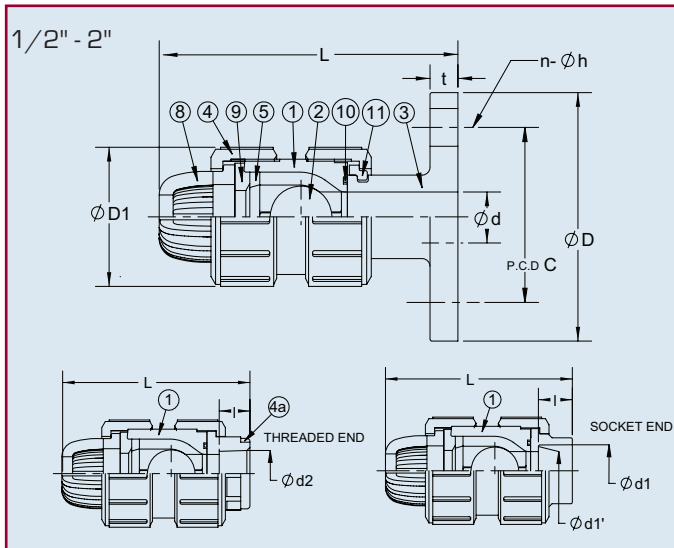
Foot Valve Option

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	304SS

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	2	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	304SS



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	
INCHES	mm													
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	

Dimensions (1/2"– 4") (in.)

NOMINAL SIZE		SOC.	THR'D		FLG.		
			PVC	PVDF	PVC	PVDF	
INCHES	mm	D1	L	L	L	L	
1/2	15	1.89	3.74	3.74	3.62	4.61	4.53
3/4	20	2.36	4.25	4.33	4.21	5.39	5.31
1	25	2.76	4.80	4.84	4.72	5.87	5.79
1-1/2	40	3.78	7.17	7.17	7.05	7.99	7.91
2	50	4.17	7.72	7.83	7.72	8.58	8.50
3	80	5.98	12.09	11.57	11.34	16.1	13.23
4	100	8.27	14.96	14.72	14.41	20.41	16.34

Foot Valve Wt. (lbs.)

NOMINAL SIZE		SOCKET	FLANGED
INCHES	mm		
1/2	15	0.22	0.66
3/4	20	0.44	0.88
1	25	0.66	1.32
1-1/2	40	1.54	3.31
2	50	2.20	3.31
3	80	7.71	11.02
4	100	15.43	23.14

Caution

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