

TRUE UNION BALL CHECK VALVE

Features

- The valve parts can be removed without disconnecting the pipes, by loosening the unions on both sides.
- Flow passage structure with low fluid resistance.
- Lightweight and small-size allow installation in narrow spaces.



Basic specifications

- Valve Type	:	True Union Ball Check Valve
- Size	:	15 mm — 50 mm (1/2 inch — 2 inch)
- Body Material	:	U-PVC (Conforming to ASTM D1784 Cell Classification 12454A) C-PVC (Conforming to ASTM D1784 Cell Classification 23567-A) PP (Conforming to ASTM D4101 Cell Classification PP0110B67272) PVDF (Conforming to ASTM D3222 Cell Classification Type II)
- Seal Material	/ Seat	: EPDM, FKM
- Connection	/ Flanged	: JIS B2220 5K, JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150
	Socket	: JIS, DIN, ASTM D2466 SCH40
	Threaded	: Rc, Rp, NPT
	Spigot	: DIN

Body Material	FLUID TEMPERATURE °C [°F]	Maximum working pressure (Normal temperature) MPa {psi }	Connection method			
			Flanged	Socket	Threaded	Spigot
U-PVC	0 ~ 50 { 30~120 }	1.0 { 150 }	○	○	○	○ *
C-PVC	0 ~ 90 { 30~195 }	1.0 { 150 }	○	○	○	-
PVDF	-20 ~ 100 { -5~210 }	1.0 { 150 }	○	○	○	○
PP	-20 ~ 80 { -5~175 }	1.0 { 150 }	○	○	○	○ *

Note:: The maximum working pressure is the value including the water hammer pressure.
Be careful that the maximum working pressure is not exceeded during use.

- * Concerning the allowable pressure for each temperature and material, see the technical documents at the next page of this sheet.
- * Spigot type, material U-PVC, PP for only DIN connection.

Certificate / Approval / Directive

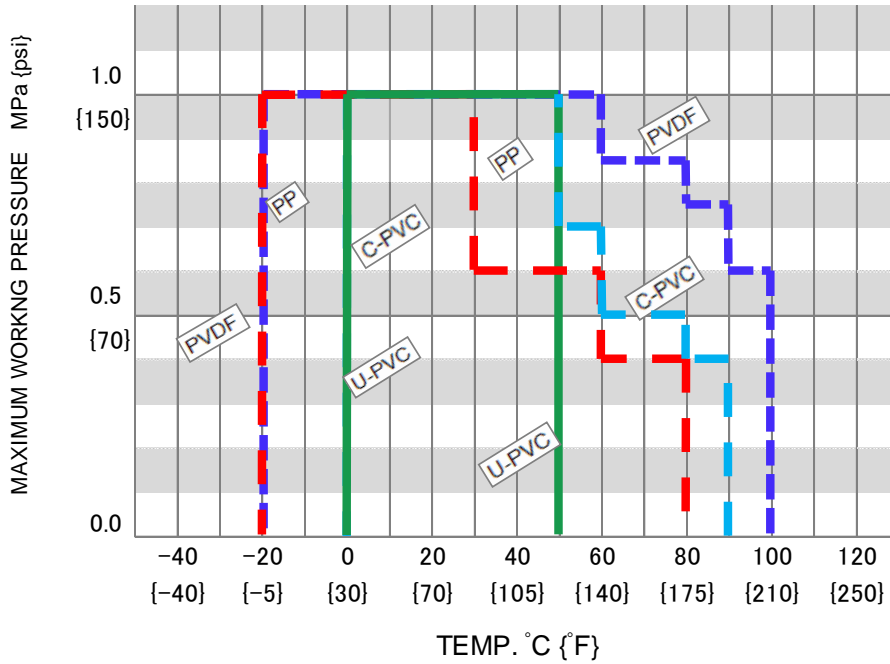
PED, NSF/ANSI61

“For details of applicable products, please consult us.”

Working pressure vs. Temperature

TRUE UNION BALL CHECK VALVE

: 15mm - 50mm

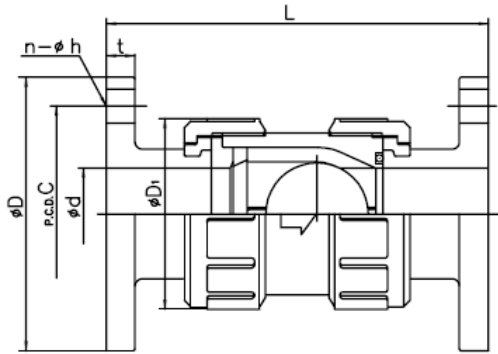


Note:

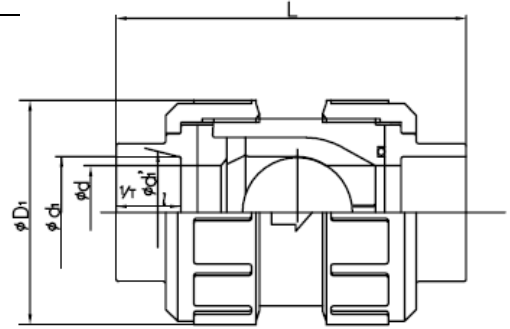
Make sure that the temperature and pressure are within the working range during operation.
 (If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

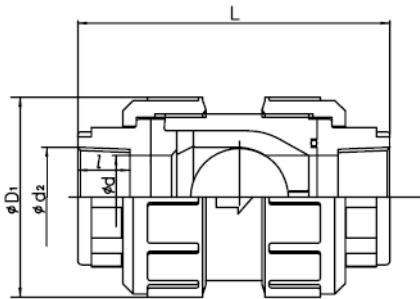
FLANGED



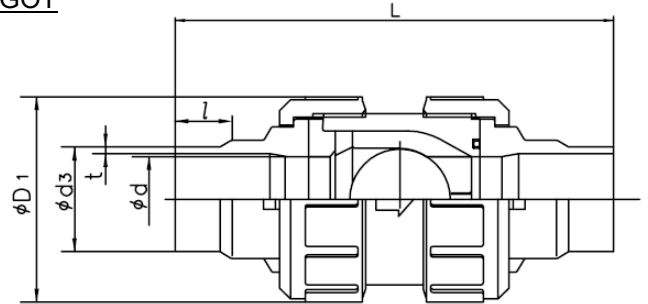
SOCKET



THREADED



SPIGOT



■ JIS (Unit: mm)

mm	inch	d	D ₁	FLANGED										SOCKET								THREADED				
				JIS 5K				JIS 10K				L		U-PVC, C-PVC				PP				d ₂	ℓ	L		
				D	C	n	h	D	C	n	h	U-PVC C-PVC	PP PVDF	t	d ₁	ℓ	1/T	L	d ₁	d ₁ '	ℓ			L	U-PVC C-PVC	PVDF PP
15	1/2	15	48	80	60	4	12	95	70	4	15	130	128	12	22.11	20	1/34	92	21.2	20.2	22	94	Rc1/2	15	86	83
20	3/4	20	60	85	65	4	12	100	75	4	15	155	154	14	26.13	24	1/34	110	26.2	25.2	23	107	Rc3/4	17	103	98
25	1	25	70	95	75	4	12	125	90	4	19	165	163	14	32.16	27	1/34	123	33.0	32.0	25	117	Rc 1	20	113	109
40	1 1/2	40	96	120	95	4	15	140	105	4	19	192	190	16	48.21	37	1/37	170	47.0	46.0	28	151	Rc1 1/2	25	151	147
50	2	51	106	130	105	4	15	155	120	4	19	214	211	16	60.25	42	1/37	199	59.0	58.0	28	168	Rc 2	28	177	171

■ DIN (Unit: mm)

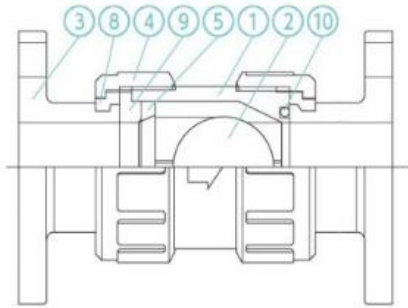
mm	inch	d	D ₁	FLANGED								SOCKET								SPIGOT								THREADED							
				DIN PN10				L				U-PVC C-PVC				PVDF PP				U-PVC				PP				PVDF				d ₁	ℓ	L	
				D	C	n	h	U-PVC C-PVC	PP PVDF	t	d ₁	ℓ	L	d ₁	d ₁ '	ℓ	L	d ₃	t	ℓ	L	t	ℓ	L	t	ℓ	L	U-PVC C-PVC	PP PVDF						
15	1/2	15	48	95	65	4	14	130	128	12	20	16	84	19.50	19.30	14	79	20	2.5	16	113	2.5	19	102	1.9	19	102	Rp 1/2	15	86	83				
20	3/4	20	60	105	75	4	14	155	154	14	25	19	100	24.50	24.30	16	93	25	2.5	18.5	127	2.7	19	110	1.9	19	110	Rp 3/4	17	103	98				
25	1	25	70	115	85	4	14	165	163	14	32	22	113	31.50	31.30	18	103	32	3.5	22	132	3	19	118	2.4	19	118	Rp 1	20	113	109				
40	1 1/2	40	96	150	110	4	18	192	190	16	50	31	158	49.45	49.20	23	141	50	5.0	31	174	4.6	19	145	2.9	19	145	Rp 1 1/2	25	151	147				
50	2	51	106	165	125	4	18	214	211	16	63	38	190	62.50	62.10	27	167	63	6.5	37.5	204	5.8	19	164	3	19	164	Rp 2	28	177	171				

■ ANSI (Unit: inch)

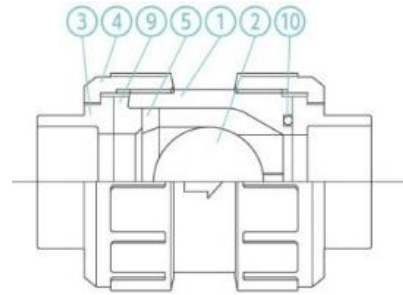
inch	mm	d	D ₁	FLANGED										SOCKET								THREADED			
				ANSI CLASS 150				L		t ₁	U-PVC C-PVC				PVDF PP				d ₁	ℓ	L				
				D	C	n	h	U-PVC C-PVC	PP		ASTM SCH40				L	d ₁	d ₁ '	ℓ			L	U-PVC C-PVC	PP PVDF		
1/2	15	0.59	1.89	3.50	2.38	4	0.62	5.12	5.04		0.47	0.848	0.836	0.688	3.43	0.831	-	0.630			3.23	1/2 - 14NPT	0.59	3.39	3.27
3/4	20	0.79	2.36	3.88	2.75	4	0.62	6.10	6.06	0.55	1.058	1.046	0.719	3.86	1.041	-	1.000	4.37	3/4 - 14NPT	0.67	4.06	3.86			
1	25	0.98	2.76	4.25	3.12	4	0.62	6.50	6.42	0.55	1.325	1.310	0.875	4.37	1.305	-	0.827	4.29	1 - 11 1/2NPT	0.79	4.45	4.29			
1 1/2	40	1.57	3.78	5.00	3.88	4	0.62	7.56	7.48	0.63	1.912	1.894	1.094	5.94	1.889	-	1.260	6.22	1 1/2 - 11 1/2NPT	0.98	5.94	5.79			
2	50	2.01	4.17	6.00	4.75	4	0.75	8.43	8.31	0.63	2.387	2.369	1.156	6.77	2.365	-	1.260	6.93	2 - 11 1/2NPT	1.10	6.97	6.73			

Parts list

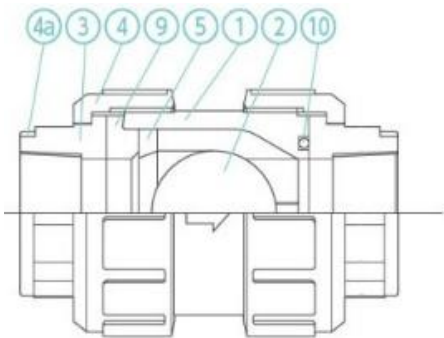
FLANGED



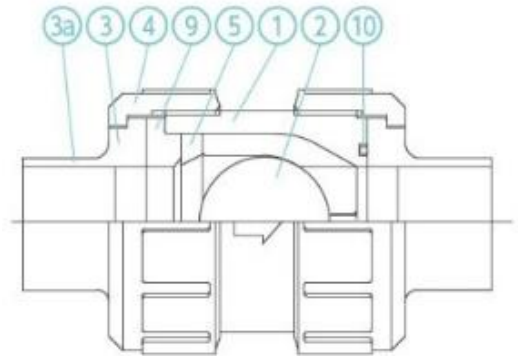
SOCKET



THREADED



SPIGOT



PART NO./NAME	QTY	MATERIAL	PART NO./NAME	QTY	MATERIAL
1 BODY	1	U-PVC, C-PVC, PP, PVDF	8 STOP RING (B) ⁽²⁾	2	PVDF
2 BALL	1		9 SEAT	1	EPDM, FKM, etc.
3 END CONNECTOR	2		10 O-RING	1	EPDM, FKM, etc.
4 UNION NUT	2		4a RING ⁽¹⁾	2	STAINLESS STEEL
5 STOP RING (A)	1		3a End Connector	2	U-PVC, PP, PVDF

(1) Used for 15 to 25 mm for C-PVC threaded type. (2) Used for flanged type.

DATASHEET

Cv value for full open

TRUE UNION BALL CHECK VALVE

mm	15	20	25	40	50
inch	1/2	3/4	1	1 1/2	2
FULL-OPEN Cv VALUE	6.5	17	25	86	130

The values shown are reference values, not guaranteed values.

Product weight

TRUE UNION BALL CHECK VALVE

UNIT : kg

mm	inch	FLANGED			SOCKET				THREADED				SPIGOT		
		U-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF	U-PVC	C-PVC	PP	PVDF	U-PVC	PP	PVDF
15	1/2	0.3	0.3	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20	3/4	0.4	0.4	0.7	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2
25	1	0.6	0.7	1.0	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3
40	1 1/2	1.1	1.1	2.0	0.6	0.6	0.3	0.7	0.6	0.7	0.4	0.7	0.6	0.3	0.7
50	2	1.8	1.6	3.4	0.8	0.9	0.5	1.1	0.8	0.9	0.6	1.0	0.8	0.5	1.1

Product model code list

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
V	TC	ZZ	*	*	*	*	***
:	:	:	:	:	:	:	:
V MANUAL VALVE	TC TRUE UNION BALL CHECK	ZZ NONE	U U-PVC C C-PVC P PP F PVDF	E EPDM V FKM	S SOCKET N THREADED F FLANGED P SPIGOT	1 JIS 10K 5 JIS 5K D DIN A ANSI J JIS	015 15mm 5 050 50mm

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please refer IOM at below link"

http://www.asahi-yukizai.co.jp/en/product/mt_pdf/a_manual_valve_4_03.pdf