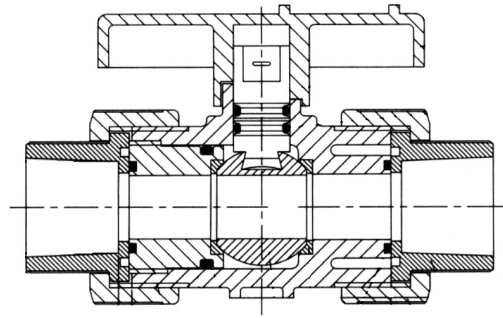


VB Series

True Union Blocking Ball Valve

- Material:** PVC, CPVC (Corzan™), PP, PVDF
- Size:** 1/2" - 4"
- Pressure Rating:** 230 psi 1/2" - 2"; 150 psi 2 1/2" - 4"
- Seats:** PTFE
- Seals:** EPDM or FPM
- Connections:** IPS Socket (PVC & CPVC only)
Metric Socket (PP & PVDF only)
NPT Threaded
ANSI 150 Flanged
Metric Butt Fusion (PP & PVDF only)



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

- PVC:** Class 12454B per ASTM D1784
- CPVC:** Class 12454B per ASTM D1784
- PP:** Class PP 110B76383 per ASTM D4101
- PVDF:** Type 1 per ASTM D3222
- Seals:** EPDM, FPM (Viton)
- Seats:** PTFE

Guide Specification: All ball valves constructed of the materials indicated. Valves shall be single end entry with an adjustable carrier, threaded into the body to ensure the valve is blocking in both directions. Valve stem shall be a safety shear stem with double O-ring seals. Body shall have unions on both ends and handle shall incorporate a spanner for adjusting and removing the carrier, teflon seat shall be energized by O-ring, ball shall be machined and tumbled to ensure roundness, as supplied by SIMTECH.

Special Features

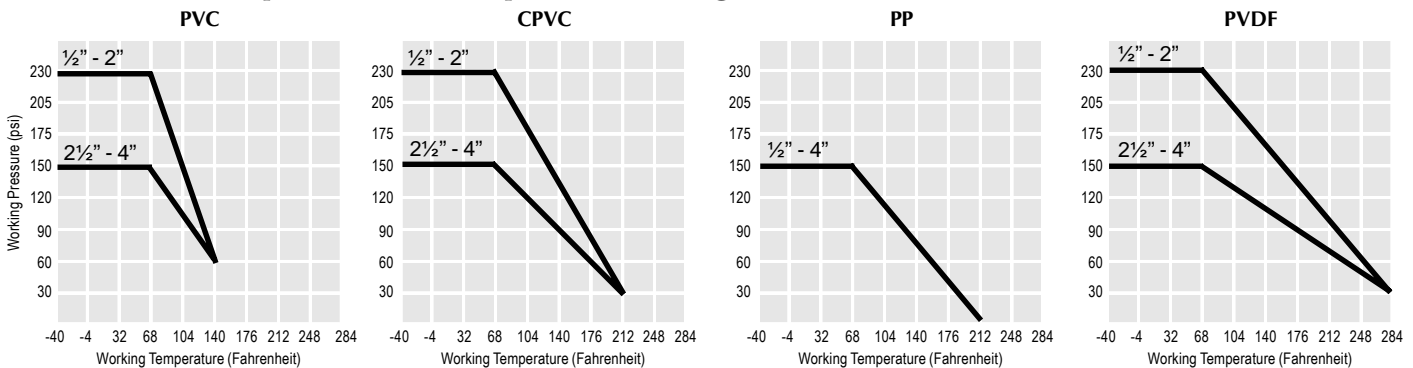
- Full port
- Bidirectional flow
- Low maintenance and extended operational life
- Handle equipped as a spanner device to adjust carrier
- Teflon seat energized by O-ring
- Ball machined and tumbled to ensure roundness
- Special mounting pads are molded on body for actuator mounting or valve anchoring
- Blowout proof stem
- Safety shear stem design
- Double O-Ring Seal on Stem

Flow Rate in Gallons Per Minute

ND	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Bore Size	.512	.709	.910	1.18	1.50	1.89	2.36	2.72	3.94
C_v	12.5	28	50.9	81	150	230	360	485	768

C_v is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Pressure/Temperature Graph: Working PSI/Fahrenheit



SIMTECH

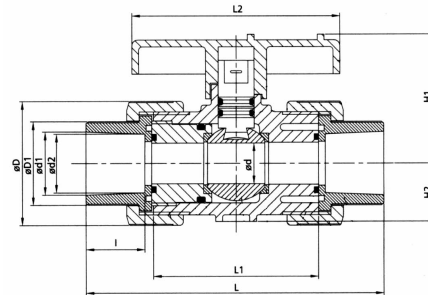
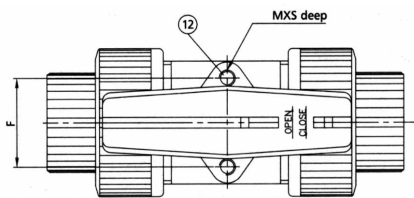
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VB Series

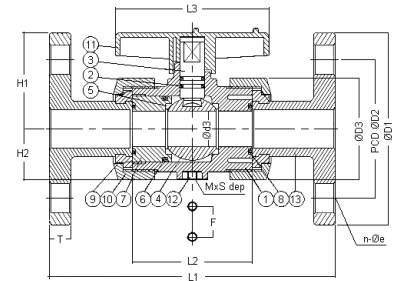
Dimensional Data - True Union

d Inches	PVC & CPVC			PP & PVDF			d	D1	D	L	L1	L2	H1	H2	F	S	M
	d1	d2	I	d1	d2	I											
1/2	.848	.836	.875	.799	.79	.630	.512	1.77	1.22	4.37	2.36	3.07	1.89	-	-	-	-
3/4	1.06	1.05	1.00	.996	.988	.748	.709	2.17	1.46	5.12	2.87	3.62	2.28	1.02	1.30	.315	M6
1	1.33	1.31	1.13	1.27	1.26	.866	.910	2.60	1.73	5.71	3.07	3.94	2.56	1.30	1.57	.433	M6
1 1/2	1.67	1.66	1.25	1.59	1.58	1.02	1.18	3.19	2.13	6.50	3.43	4.33	2.97	1.50	1.85	.433	M8
1 1/4	1.91	1.89	1.38	1.98	1.97	1.22	1.50	3.78	2.56	6.73	3.62	4.76	3.46	1.65	2.0	.433	M8
2	2.39	2.37	1.50	2.49	2.48	1.50	1.89	4.69	3.07	7.87	4.41	5.79	4.23	2.09	2.76	.591	M8
2 1/2	2.89	2.87	1.75	2.96	2.96	1.73	2.36	5.35	3.58	10.83	-	7.09	4.69	-	-	-	-
3	3.52	3.49	1.88	3.56	3.55	2.01	2.72	6.14	4.21	11.81	-	9.41	5.08	-	-	-	-
4	4.52	4.49	2.25	4.35	4.33	2.40	3.94	8.82	5.71	12.91	-	10.94	6.93	-	-	-	-

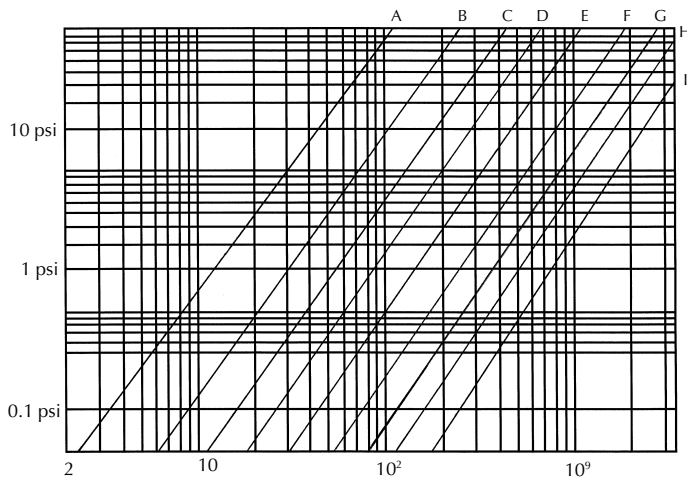


Dimensional Data - Flanged

d Inches	D	D1	D2	L	H1	T	n-Øe
1/2	3.50	2.36	1.77	5.63	1.89	.511	4-16
3/4	3.86	2.76	2.17	6.77	2.28	.551	4-16
1	4.25	3.11	2.60	7.36	2.56	.551	4-16
1 1/2	4.61	3.86	3.78	8.35	3.46	.630	4-16
1 1/4	5.00	3.86	3.78	8.35	3.46	.630	4-16
2	5.98	4.74	4.69	9.21	4.23	.630	4-19
2 1/2	7.01	5.51	2.36	10.20	4.65	.710	4-19
3	7.52	5.98	2.72	11.97	5.12	.710	4-19
4	9.02	7.52	3.94	14.65	6.97	.710	4-19



Pressure Loss—Flow Diagram



- A = 1/2"
- B = 3/4"
- C = 1"
- D = 1 1/4"
- E = 1 1/2"
- F = 2"
- G = 2 1/2"
- H = 3"
- I = 4"

Parts Listing

- 1 Body
- 2 Stem O-ring
- 3 Stem
- 4 Ball
- 5 Seat Seal
- 6 Carrier O-ring
- 7 End Connector
- 8 Union O-ring
- 9 End Connector
- 10 Union Nut
- 11 Handle
- 12 Inserted Nut