

VQ Series

True Union Ball Check Valve

Material:	PVC, CPVC (Corzan™), PP, PVDF
Size:	1/2" - 4" (2 1/2" -4" Single Union)
Pressure Rating:	150 psi
Seals/Seat:	EPDM or Viton
Connections:	IPS Socket Metric Socket NPT Threaded ANSI 150 Flanged Metric Butt Fusion



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

- PP:** Class PP 110B76383 per ASTM D4101
- PVDF:** Type I per ASTM D3222
- PVC:** Class 12454B per ASTM D1784
- CPVC:** Class 23447B per ASTM D1784
- Seals:** EPDM or Viton

Guide Specification: Ball Check valves shall be True Union Design 1/2 - 2" and single union 2 1/2 - 4". Materials of construction shall be as specified above. Ball shall be machined and tumbled to insure roundness. Seat/Seal shall be as specified above and shall work in conjunction with a gland ring to insure positive sealing without damage to the seat, as manufactured by SIMTECH.

Special Features

- True union end connectors allow easy maintenance
- Round machined and tumbled ball for perfect seating
- Internal splines provide very large open area around ball minimizing pressure drop
- Combination seat/seal provides effective seal with minimum back pressure
- Internal gland prevents damage to seat/seal in the event of excessive back pressure

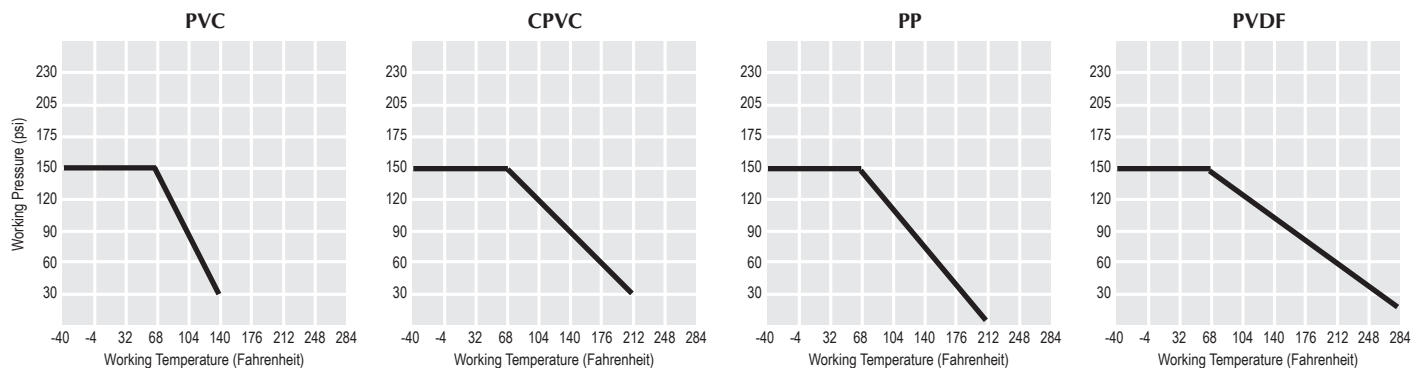
Flow Rate in Gallons Per Minute

ND	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Bore Size	.630	.787	.984	1.57	1.57	1.97	2.76	3.03	4.02
C_v	10	26	37	80	80	152	210	320	390

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 drop.

Pressure/Temperature Graph: Working PSI/Fahrenheit

Pressure Rating Correction Based on Operating Temperature of Media.



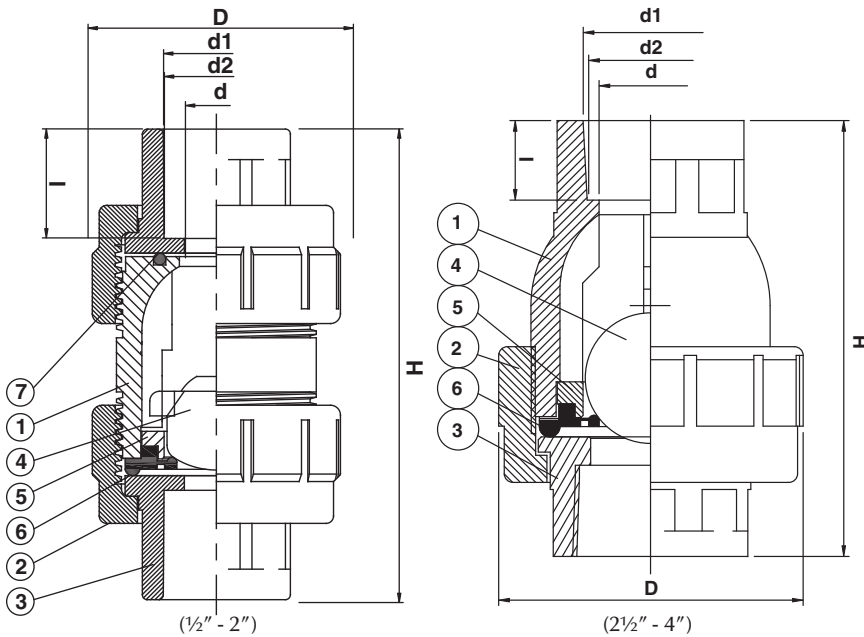
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Dimensional Data

Nom. Size	PVC & CPVC			PP & PVDF			d	D
	d1	d2	l	d1	d2	l		
1/2"	0.85	0.84	0.87	0.80	0.80	0.59	0.51	1.97
3/4"	1.06	1.05	1.00	0.80	1.00	0.63	0.79	2.44
1"	1.32	1.31	1.01	1.00	1.27	0.71	0.98	2.83
1 1/4"	1.67	1.66	1.25	1.27	1.59	0.83	0.98	3.82
1 1/2"	1.91	1.89	1.38	1.59	1.98	0.94	1.57	3.82
2"	2.39	2.37	1.50	1.98	2.49	1.06	1.97	4.21
2 1/2"	2.89	2.87	1.75	2.49	2.96	1.22	2.76	6.42
3"	3.52	3.49	1.88	2.96	3.56	1.42	3.03	6.42
4"	4.52	4.49	2.25	3.56	4.34	1.61	4.02	8.86

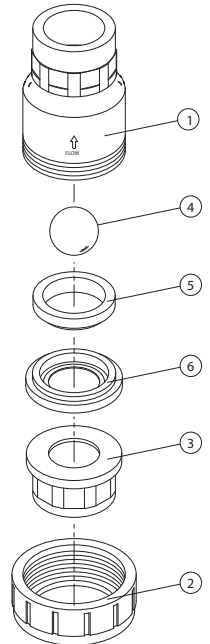
Socket / Threaded PVC & CPVC	Socket PP & PVDF	Flanged PVC & CPVC	Flanged PP & PVDF
H	H	H	H
3.78	3.21	5.00	5.14
4.41	3.67	6.50	5.62
5.00	4.40	7.22	6.59
6.26	5.41	8.60	7.85
6.26	5.40	8.98	8.19
7.28	6.41	10.14	9.54
10.31	9.26	13.03	12.27
10.31	9.40	13.35	13.08
12.64	11.37	16.05	15.22

* For metric spigot dimensions, contact factory

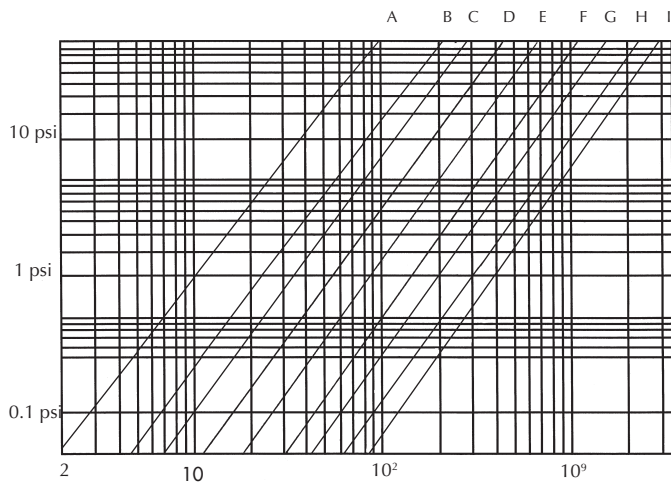


Parts Listing

1. Body
2. Union Nut
3. Connector
4. Ball
5. Gland
6. Seal
7. O-ring



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"

Foot Valve Screen Option

Easily converted to a foot valve by addition of optional plastic screen.

