TC Series True Union Ball Check Valves

1/4" TO 6" PVC, CPVC AND PP

NSF

Sizes 1/4" – 4" PVC and CPVC

Ball check valve with foot valve screen installed

KEY FEATURES

- PVC, CPVC and PP
- For Horizontal or Vertical Installation*
- Square Cut Seat for Positive Sealing
- Seats with Minimum Back Pressure
- 1/4" and 3/8" are Trim Check Design

OPTIONS

- Foot Valve Screens

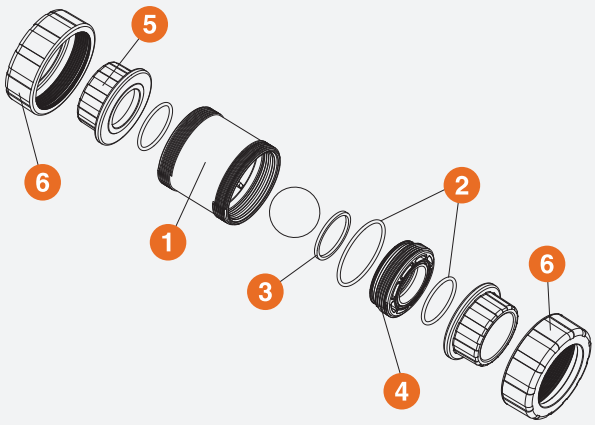
MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- PP per ASTM D4101
- FPM and EPDM O-Ring Seals

* For installation information, see IOM manual

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" – 3/8" * (DN8 – DN10)	PVC	Socket or Threaded	FPM	150 PSI @ 70°F Non-Shock
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded or Flanged****	FPM or EPDM	
	PP**	Threaded		
2-1/2" – 4" (DN15 – DN50)	PVC or CPVC	Socket, Threaded or Flanged		
6" *** (DN150)		Flanged		

* Trim Checks ** 2" PP is rated to 100 PSI @ 70°F Non-Shock *** 4" valve venturied to 6"
**** All flanged valves are rated to 150 PSI @ 70°F Non-Shock

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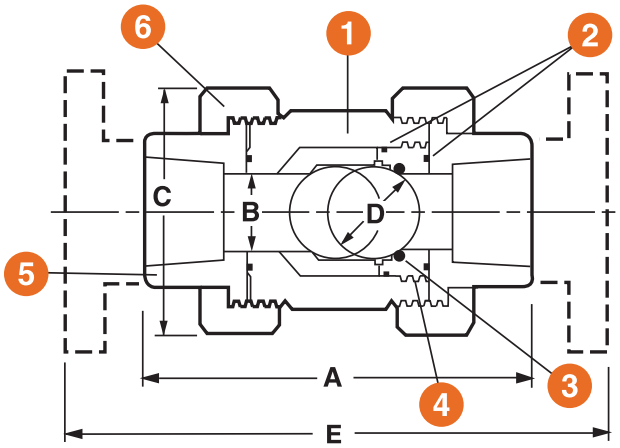
1/4" TO 6" PVC, CPVC AND PP

TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Body
2. O-Ring Seals
3. Square Cut O-Ring Seat
4. Seal Retainer
5. End Connector
6. Union Nut



Ball check valve with foot valve screen installed

DIMENSIONS – INCHES / MILLIMETERS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED
1/4 / 8	3.06 / 78	.31 / 8	1.38 / 35	.50 / 13	N/A	N/A	N/A	.13 / .06	N/A
3/8 / 10	3.06 / 78	.31 / 8	1.38 / 35	.50 / 13	N/A	N/A	N/A	.13 / .06	N/A
1/2 / 15	4.63 / 118	.50 / 13	2.25 / 57	.75 / 19	6.75 / 171	4.88 / 124	2.32 / 59	.75 / .34	1.00 / .45
3/4 / 20*	4.75 / 121	.75 / 19	2.63 / 67	1.00 / 25	7.13 / 181	5.00 / 127	2.60 / 66	.75 / .34	1.38 / .63
1 / 25*	5.25 / 133	1.00 / 25	3.00 / 76	1.25 / 32	7.75 / 197	5.88 / 149	2.88 / 73	1.25 / .57	2.13 / .97
1-1/4 / 32*	6.30 / 160	1.25 / 32	4.00 / 102	1.75 / 44	9.19 / 233	6.94 / 176	3.75 / 95	2.00 / .91	3.75 / 1.70
1-1/2 / 40*	6.75 / 171	1.50 / 38	4.00 / 102	1.75 / 44	9.75 / 248	7.06 / 179	3.75 / 95	2.00 / .91	3.75 / 1.70
2 / 50*	8.00 / 203	1.94 / 49	4.75 / 121	2.25 / 57	11.25 / 286	8.56 / 217	4.50 / 114	3.75 / 1.70	5.75 / 2.61
2-1/2 / 63*	10.68 / 271	2.88 / 73	6.56 / 167	3.25 / 83	14.38 / 365	11.25 / 286	2.50 / 64	10.00 / 4.54	14.00 / 6.35
3 / 80	10.56 / 268	2.88 / 73	6.56 / 167	3.25 / 83	14.38 / 365	11.25 / 286	2.50 / 64	10.00 / 4.54	14.00 / 6.35
4 / 100	12.94 / 329	4.00 / 102	8.56 / 217	4.25 / 108	17.00 / 432	14.63 / 372	4.25 / 108	17.00 / 7.71	25.00 / 11.34
6 / 150	N/A	4.00 / 102	N/A	4.25 / 108	19.19 / 487	N/A	N/A	N/A	30.20 / 13.70

Dimensions are subject to change without notice – consult factory for installation information

Hayward TC Ball Check Valves require a minimum of 2 PSI to seat and 1-1/2 PSI cracking pressure to open

* Metric End Connections Available In: BSP – Straight Thread, BSP TR – Tapered Thread and Metric Socket for PVC and CPVC Valves Only

Cv VALUES

SIZE in / DN	Cv VALUES GPM	SIZE in / DN	Cv VALUES GPM
1/4 / 8	1.0	1-1/2 / 40	45.0
3/8 / 10	3.0	2 / 50	130.0
1/2 / 15	4.8	2-1/2 / 63	170.0
3/4 / 20	7.7	3 / 80	250.0
1 / 25	11.0	4 / 100	400.0
1-1/4 / 32	25.0	6 / 150	340.0

PRESSURE LOSS CALCULATION FORMULA

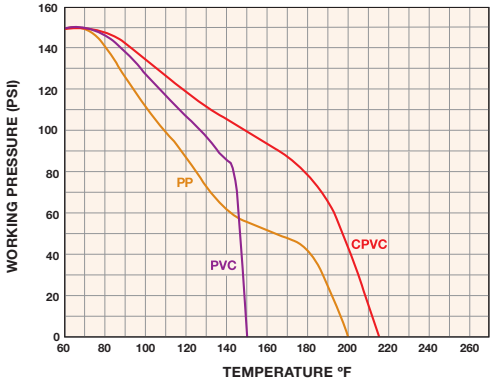
$$\Delta P = \left[\frac{Q}{Cv}\right]^2$$

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

OPERATING TEMPERATURE / PRESSURE



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