

TC Series True Union Ball Check Valves

1/4″ TO 3/8″ PVC, 1/2″ TO 2″ PVC, CPVC AND PP AND 2-1/2″ TO 6″ PVC AND CPVC

KEY FEATURES

- PVC, CPVC and PP
- For Horizontal or Vertical Installation*
- 1/2″ to 6″ are Sure Block Design
- 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

NSF
1/4″ – 4″
PVC and CPVC

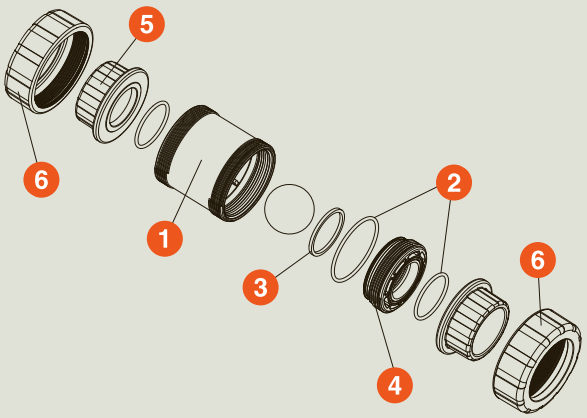


Ball check valve with foot valve screen installed

* 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	235 PSI @ 70°F Non-Shock
	PP**	Threaded		150 PSI @ 70°F Non-Shock
2-1/2″ – 4″ (DN65 – DN100)	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

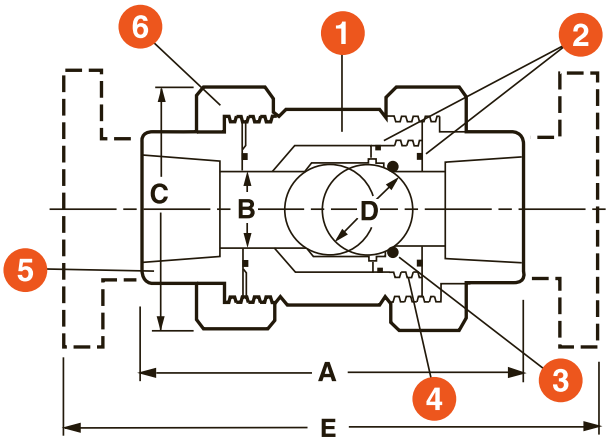
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TECHNICAL INFORMATION, *CONTINUED*

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

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
2-1/2/65*	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	SIZE in/DN	Cv VALUES
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	2-1/2/65	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

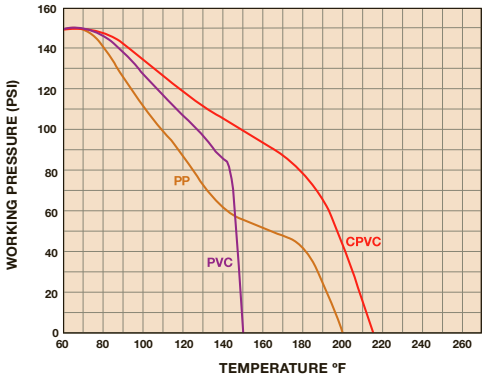
$$\Delta P = \left[\frac{Q}{Cv}\right]^2$$

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

OPERATING TEMPERATURE/PRESSURE



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