



Certified to
NSF/ANSI 61 & 372

Actuator
Ready

TBH Series True Union Ball Valves

1/4" TO 2" / DN8 TO DN50 PVC AND CPVC

KEY FEATURES & BENEFITS

- System2™ Sealing Technology provides longer cycle life
- 250 PSI / 16 Bar, non-shock at 70°F / 23°C full pressure rating
- Consistent operating torque with adjustment-free design
- Lockout/Tagout mechanism that secures directly to valve body for enhanced safety
- Ergonomic handle for improved grip and comfort
- ISO mounting flange simplifies actuation
- Permanent markings, eliminates labels
- Integral footpad for skid or panel mount
- FPM or EPDM seals
- Double O-Ring stem seals
- Reversible PTFE seats – Standard
- Easy replacement for existing Hayward TB Series
- NSF / ANSI 61 and NSF / ANSI 372 Listed

OPTIONS

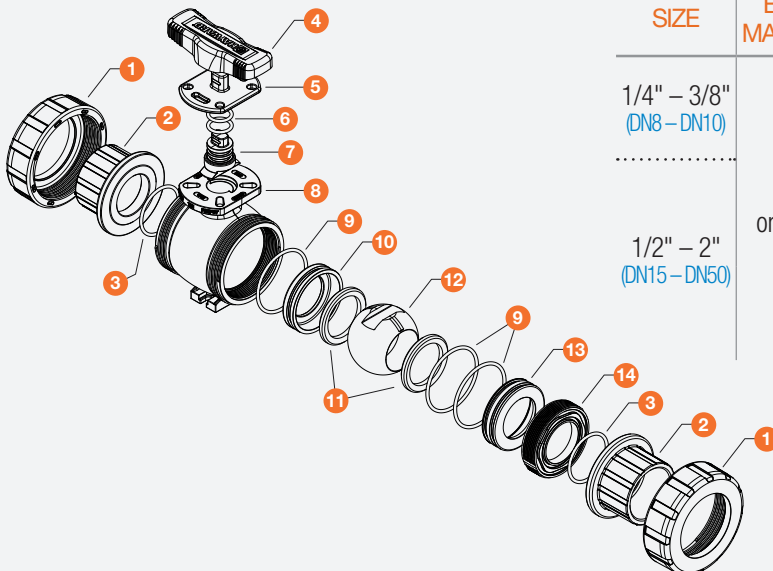
- Pneumatic or Electric Actuators
- Stem Extensions
- Manual Limit Switch
- Coupling for Actuator

MATERIALS

- PVC per ASTM D1784 Cell Class 12454
- CPVC per ASTM D1784 Cell Class 23447
- GFPP per ASTM D4101 Cell Class 85580 (Handle & Lock Plate)

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

SIZE	BODY MATERIAL	SEALS	END CONNECTION	PRESSURE RATING
1/4" – 3/8" (DN8 – DN10)	PVC or CPVC	FPM or EPDM	Socket or Threaded	250 PSI @ 70°F 16 Bar @ 21°C Non-Shock
1/2" – 2" (DN15 – DN50)			Socket or Threaded	250 PSI @ 70°F 16 Bar @ 21°C Non-Shock
			Flanged	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock

** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.
PP socket fusion ends per ASTM F2389 and threaded ends per BS21.
Flanged ends available in DIN / EN PN10.

"Patent Pending"

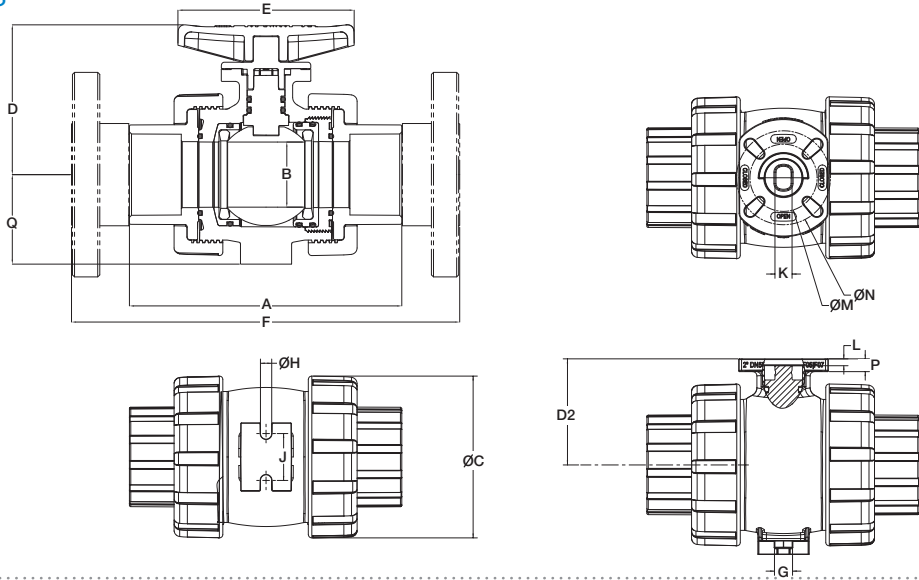
TBH Series True Union Ball Valves

1/4" TO 2" / DN8 TO DN50 PVC AND CPVC

TECHNICAL INFORMATION, CONTINUED

PARTS LIST / 2D DRAWINGS

1. Nut (2)
2. End Connector (2)
3. End Connector O-Ring (2)
4. Handle
5. Lock Plate
6. Stem O-Rings (2)
7. Stem
8. Body
9. Seat Carrier O-Ring (3)
10. Closed End Seat Carrier
11. Seats (2)
12. Ball
13. Open End Seat Carrier
14. Seat Retainer



DIMENSIONS – INCHES / MILLIMETERS

SIZE	A	B	C	D1	D2	E	F	G	H	J	K	L	M	N	P	Q
inches / DN	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm
1/4 / 8	4.63 / 118	0.53 / 13	2.25 / 57	2.82 / 72	1.75 / 44	3.50 / 89	N/A	0.45 / 11	0.27 / 7	0.75 / 19	0.50 / 13	0.17 / 4	1.97 / 50	N/A	0.29 / 7	1.37 / 35
3/8 / 10	4.63 / 118	0.53 / 13	2.25 / 57	2.82 / 72	1.75 / 44	3.50 / 89	N/A	0.45 / 11	0.27 / 7	0.75 / 19	0.50 / 13	0.17 / 4	1.97 / 50	N/A	0.29 / 7	1.37 / 35
1/2 / 15	4.65 / 118	0.53 / 13	2.25 / 57	2.82 / 72	1.75 / 44	3.50 / 89	6.65 / 169	0.45 / 11	0.27 / 7	0.75 / 19	0.50 / 13	0.17 / 4	1.97 / 50	N/A	0.29 / 7	1.37 / 35
3/4 / 20	4.79 / 122	0.72 / 18	2.62 / 67	2.98 / 76	1.91 / 49	3.50 / 89	7.17 / 182	0.45 / 11	0.27 / 7	0.75 / 19	0.50 / 13	0.17 / 4	1.97 / 50	N/A	0.29 / 7	1.56 / 40
1 / 25	5.34 / 136	0.94 / 24	3.00 / 76	3.25 / 83	2.18 / 55	4.00 / 102	8.05 / 204	0.45 / 11	0.27 / 7	1.00 / 25	0.50 / 13	0.20 / 5	1.97 / 50	N/A	0.29 / 7	1.75 / 44
1-1/4 / 32	6.83 / 173	1.48 / 38	4.00 / 102	3.89 / 99	2.60 / 66	5.17 / 131	9.61 / 244	0.53 / 13	0.33 / 8	1.38 / 35	0.50 / 13	0.20 / 5	1.97 / 50	2.76 / 70	0.34 / 9	2.25 / 57
1-1/2 / 40	7.39 / 188	1.48 / 38	4.00 / 102	3.89 / 99	2.60 / 66	5.17 / 131	10.65 / 271	0.53 / 13	0.33 / 8	1.38 / 35	0.50 / 13	0.20 / 5	1.97 / 50	2.76 / 70	0.34 / 9	2.25 / 57
2 / 50	7.99 / 203	1.91 / 49	4.75 / 121	4.40 / 112	3.11 / 79	5.17 / 131	11.51 / 292	0.53 / 13	0.33 / 8	1.38 / 35	0.50 / 13	0.20 / 5	1.97 / 50	2.76 / 70	0.34 / 9	2.63 / 67

* 1-1/4" and 1-1/2" are 0.56" (14mm) longer than TB Series.

** Dimensions are subject to change without notice - consult factory for installation information.

WEIGHT – LBS / KG

SIZE	Weight with Socket/Threaded Ends		Weight with Flanged Ends	
	lbs / kg	lbs / kg	lbs / kg	lbs / kg
1/2 / 15	0.70 / 0.32	1.12 / 0.51	0.59 / 0.27	1.01 / 0.46
3/4 / 20	0.90 / 0.41	1.50 / 0.68	0.79 / 0.36	1.39 / 0.63
1 / 25	1.18 / 0.54	1.98 / 0.90	1.05 / 0.48	1.85 / 0.84
1-1/4 / 32	2.57 / 1.17	3.51 / 1.59	2.32 / 1.05	3.26 / 1.48
1-1/2 / 40	2.62 / 1.19	3.82 / 1.73	2.37 / 1.08	3.57 / 1.62
2 / 50	3.87 / 1.76	6.37 / 2.89	3.62 / 1.64	6.12 / 2.78

CV VALUES

SIZE	Cv VALUES
in / DN	
1/4 / 8	1.0
3/8 / 10	2.8
1/2 / 15	8.0
3/4 / 20	16.0
1 / 25	29.0
1-1/4 / 32	75.0
1-1/2 / 40	90.0
2 / 50	150.0

PRESSURE LOSS
CALCULATION FORMULA

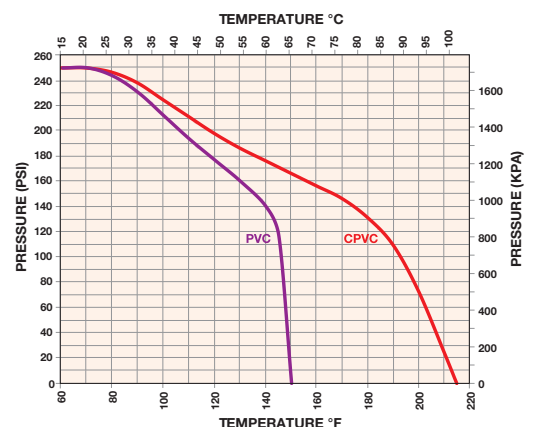
$$\Delta P = \left[\frac{Q}{C_v} \right]^2$$

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

PRESSURE / TEMPERATURE CHART*



* Flanged valves rated to 150 PSI at 70°F non-shock



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Hayward Flow Control has been a leading manufacturer of industrial thermoplastic valves and process control products for more than 60 years. In fact, Hayward was one of the originators of the first thermoplastic ball valves. Since then, we have remained committed to producing the highest quality products while providing outstanding service.

Liquid Filters and Strainers



Bag Filter vessel

- GFPP
- PVC
- CPVC



Y Strainers

- PVC
- CPVC
- Clear PVC
- PVDF



Simplex Strainers

- PVC
- CPVC
- GFPP
- PVDF
- Eastar® (Clear)



Duplex Strainers

- PVC
- CPVC
- GFPP
- Eastar® (Clear)

Valves and Flow Control



Ball Valves

- PVC
- CPVC
- GFPP
- PVDF



Check Valves

- Ball Check Valves
- Y-Check Valves
- Wafer Check Valves
- Swing Check Valves



Pressure & Chemfeed

- Injection Quills
- Back Pressure
- Pressure Relief
- Diaphragm Valves
- Needle Valves
- Angle Globe Valves



Butterfly Valves

- PVC
- CPVC
- GFPP
- PP
- PVDF



Actuation

- Electric
- Pneumatic



Solenoid Valves

- PVC
- CPVC
- PVDF



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