



NEW PRODUCT PREVIEW

TWH/TNH/TPH Series Three-Way True Union Ball Valves

1/2" TO 2" / DN15 TO DN50 PVC AND CPVC

KEY FEATURES & BENEFITS

- **NEW** ISO5211 ISO Top Works for Ease of Actuation
- **NEW** Lockout/Tag-out Mechanism Secures Directly to Valve Body
- **NEW** Ergonomic Handle for Improved Grip and Comfort
- Available in PVC and CPVC
- PTFE Seats
- FPM or EPDM O-Rings
- Double O-Ring Stem Seal Design
- Permanent Ball Port Indicators on Handle
- Direct Replacement for TW Series True Union Three-Way Ball Valve in service

OPTIONS

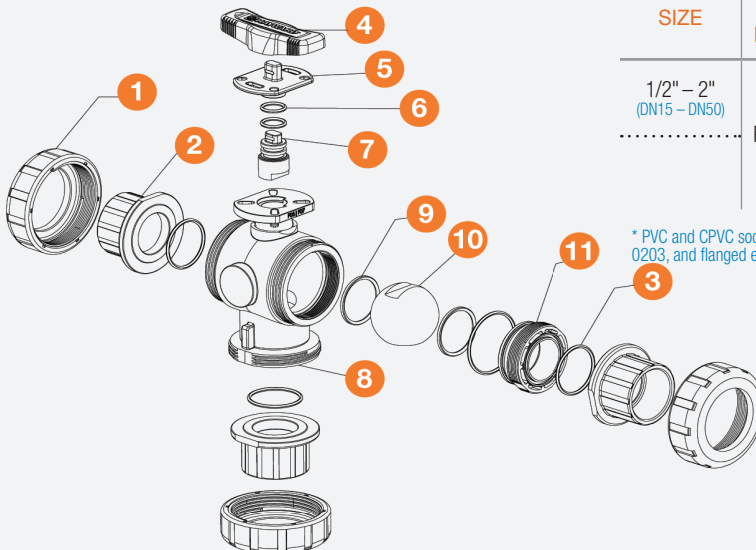
- Pneumatic and Electric Actuators
- Socket, Threaded, or Flanged Connections
- Can be used with HDPE Transition Fittings

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

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

* PVC and CPVC socket ends available to ISO 727-1/JIS K 6734, threaded ends to BS21/JIS B 0203, and flanged ends to DIN / EN PN10 and JIS10K (specific sizes)

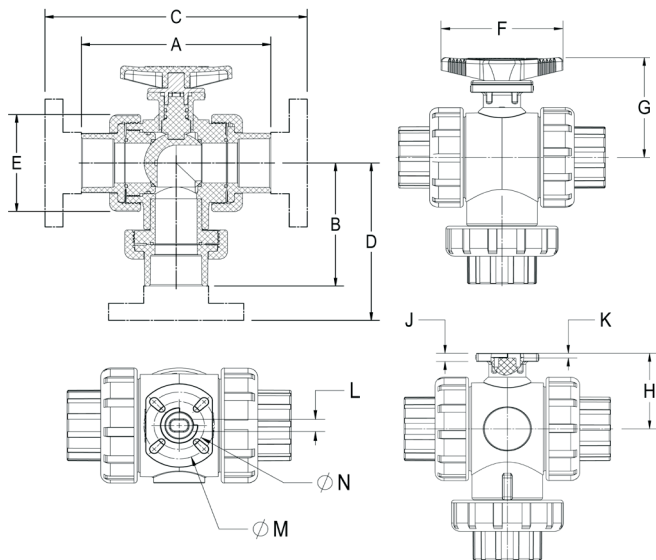
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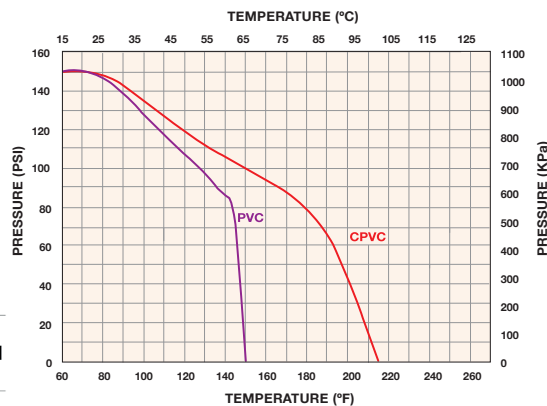
TECHNICAL INFORMATION, CONTINUED

PARTS LIST

1. Nut (3)
2. End Connector (3)
3. End Connector O-Ring (3)
4. Handle
5. Lock Plate
6. Stem O-Rings (2)
7. Stem
8. Body
9. Seats (2)
10. Ball
11. Seal Retainer



OPERATING TEMPERATURE/PRESSURE



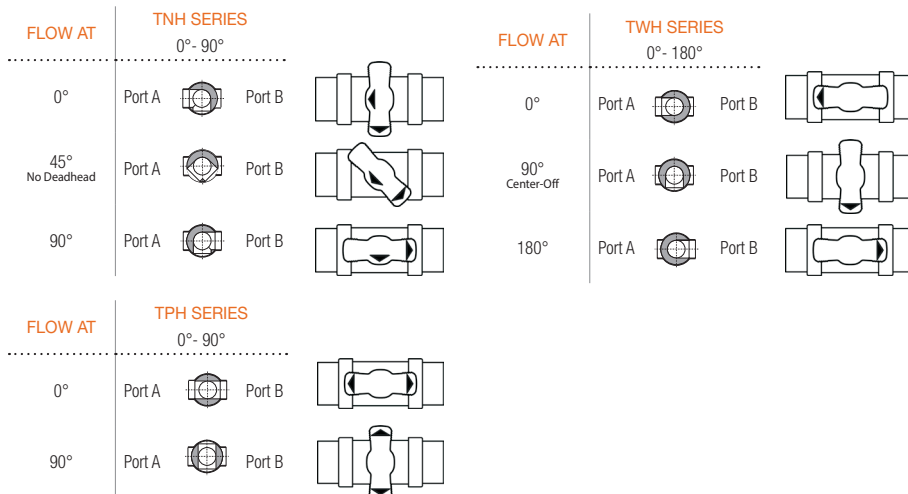
DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	J in / mm	K in / mm	L in / mm	M in / mm	N in / mm
1/2 / 15	4.73 / 120	2.37 / 60	6.73 / 171	3.37 / 86	2.24 / 57	3.50 / 89	3.12 / 79	2.05 / 52	.31 / 8	.18 / 5	.50 / 13	1.97 / 50	1.85 / 47
3/4 / 20	5.17 / 131	3.66 / 93	7.55 / 192	4.85 / 123	2.62 / 67	3.50 / 89	3.29 / 84	2.22 / 56	.31 / 8	.18 / 5	.50 / 13	1.97 / 50	1.85 / 47
1 / 25	5.97 / 152	4.17 / 106	8.59 / 218	5.48 / 139	2.98 / 76	4.00 / 102	3.67 / 93	2.60 / 66	.31 / 8	.19 / 5	.50 / 13	1.97 / 50	1.85 / 47
1-1/4 / 32	8.77 / 223	6.01 / 153	11.55 / 293	7.4 / 188	4.75 / 121	5.17 / 131	4.75 / 121	3.47 / 88	.38 / 10	.22 / 6	.50 / 13	2.76 / 70	1.97 / 50
1-1/2 / 40	8.59 / 218	5.92 / 150	11.91 / 303	7.58 / 193	4.75 / 121	5.17 / 131	4.75 / 121	3.47 / 88	.38 / 10	.22 / 6	.50 / 13	2.76 / 70	1.97 / 50
2 / 50	8.77 / 223	6.01 / 153	12.25 / 311	7.75 / 197	4.75 / 121	5.17 / 131	4.75 / 121	3.47 / 88	.38 / 10	.22 / 6	.50 / 13	2.76 / 70	1.97 / 50

Cv VALUES

SIZE in / DN	Cv VALUES
1/2 / 15	3.0
3/4 / 20	7.0
1 / 25	10.0
1-1/4 / 32	25.0
1-1/2 / 40	30.0
2 / 50	58.0

FLOW SCHEMATICS – TOP VIEW



PRESSURE LOSS CALCULATION FORMULA

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

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = Flow Coefficient



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