



## TW Series Horizontal Three-Way True Union Ball Valves

1/2" TO 6" PVC AND CPVC

### KEY FEATURES

- Available in PVC and CPVC
- Position Indicator
- Easily Actuated
- PTFE Seats
- FPM or EPDM O-Rings
- Double O-Ring Stem Seal

### OPTIONS

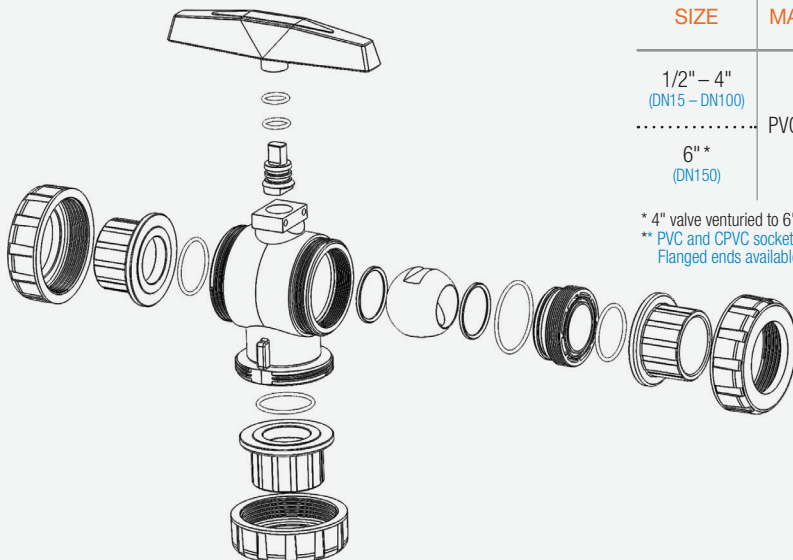
- Lockouts Available
- Pneumatic and Electric Actuators
- Cross-Flow Ball
- TN Ball
- TP Ball

### MATERIALS

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

## TECHNICAL INFORMATION

### EXPLODED VIEW



### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock
6"* (DN150)		Flanged		

\* 4" valve venturied to 6"

\*\* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN / EN PN10.

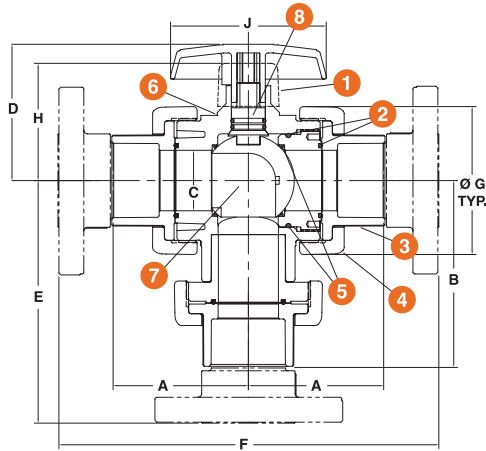
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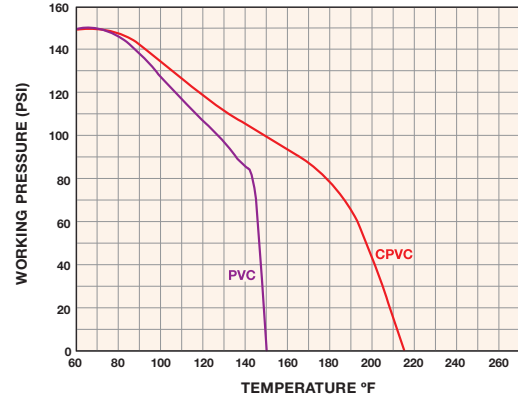
## TECHNICAL INFORMATION, CONTINUED

### PARTS LIST

1. Actuation Mount
2. O-Ring Seals
3. End Connector
4. Assembly Nut
5. PTFE Seats
6. Body
7. Ball
8. Stem



### 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
1/2 / 15	2.30 / 58	3.29 / 84	0.50 / 13	2.94 / 75	3.87 / 98	6.72 / 171	2.25 / 57	2.53 / 64	3.50 / 89
3/4 / 20	2.56 / 65	3.57 / 91	0.75 / 19	2.97 / 75	4.60 / 117	7.50 / 191	2.63 / 67	2.82 / 72	3.50 / 89
1 / 25	2.98 / 76	4.14 / 105	1.00 / 25	3.21 / 82	4.77 / 121	8.50 / 216	3.00 / 76	3.08 / 78	4.00 / 102
1-1/4 / 32	4.39 / 112	5.94 / 151	2.00 / 51	3.63 / 92	5.19 / 132	11.54 / 293	4.00 / 102	3.50 / 89	4.00 / 102
1-1/2 / 40	4.30 / 109	5.87 / 149	2.00 / 51	3.63 / 92	6.00 / 152	11.85 / 301	4.00 / 102	3.50 / 89	4.00 / 102
2 / 50	4.38 / 111	6.00 / 152	2.00 / 51	4.31 / 109	6.75 / 171	12.25 / 311	4.75 / 121	3.95 / 100	5.00 / 127
2-1/2 / 65	5.90 / 150	7.59 / 193	3.00 / 76	7.02 / 178	8.68 / 220	15.92 / 404	6.40 / 163	5.88 / 149	10.50 / 267
3 / 80	5.90 / 150	7.59 / 193	3.00 / 76	7.02 / 178	8.72 / 221	16.00 / 406	6.40 / 163	5.88 / 149	10.50 / 267
4 / 100	7.00 / 178	9.33 / 237	4.00 / 102	8.02 / 204	10.44 / 265	18.88 / 480	8.56 / 217	8.88 / 226	10.50 / 267
6 / 150	N/A	N/A	4.00 / 102	8.02 / 204	11.25 / 286	20.25 / 514	8.56 / 217	8.88 / 226	10.50 / 267

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

### Cv VALUES

SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	3.0	2 / 50	58.0
3/4 / 20	7.0	3 / 80	190.0
1 / 25	10.0	4 / 100	450.0
1-1/2 / 40	30.0	6 / 150	340.0

### FLOW SCHEMATICS – TOP VIEW

FLOW AT	TN BALL	FLOW AT	CROSS FLOW BALL
0°	Port A  Port B	0°	Port A  Port B
45° <i>No Deadhead</i>	Port A  Port B	90°	Port A  Port B
90°	Port A  Port B	180°	Port A  Port B
FLOW AT	TW BALL	FLOW AT	TP BALL
0°	Port A  Port B	0°	Port A  Port B
90° <i>Center-Off</i>	Port A  Port B	90°	Port A  Port B
180°	Port A  Port B		

### PRESSURE LOSS CALCULATION FORMULA

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

$\Delta P$  = Pressure Drop  
 $Q$  = Flow in GPM  
 $C_v$  = Flow Coefficient



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