



**THERMOPLASTIC VALVES INC.**

**ARRANGEMENT DRAWING  
BALL VALVE SAFETY BLOCK TRUE UNION**

**SIZE: 1/2" - 3"**

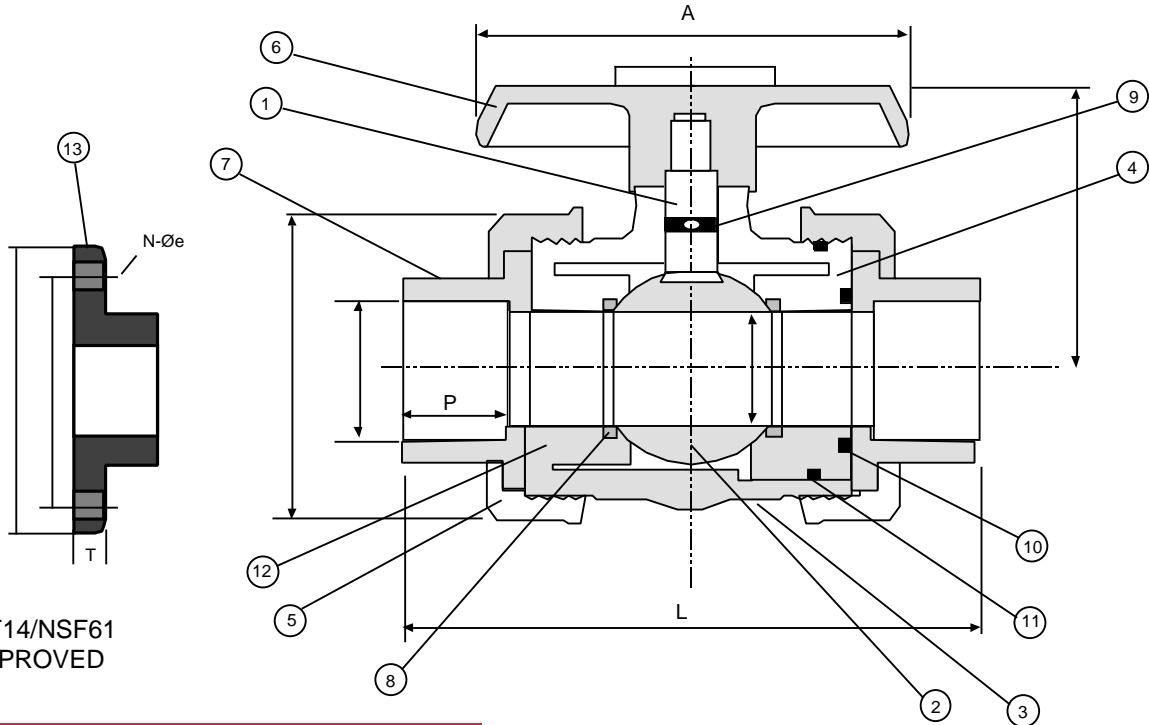
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**DWN BY  
CKP**

**DATE  
1-96**

**DWG NO.  
106-TUSBBV**

**CERTIFIED**  
**CORRECT FOR GENERAL DIMENSIONS** Date \_\_\_\_\_ Per: \_\_\_\_\_



**Materials of Construction**

Item	Parts	Pcs	Materials
1	Stem	1	PVC,PP,CPVC,PVDF
2	Ball	1	PVC,PP,CPVC,PVDF
3	Body	1	PVC,PP,CPVC,PVDF
4	Seat Carrier	1	PVC,PP,CPVC,PVDF
5	Union Nut	2	PVC,PP,CPVC,PVDF
6	Handle	1	ABS
7	End Connector	2	PVC,PP,CPVC,PVDF

Item	Parts	Pcs	Materials
8	Seat	2	TEFLON®
9	Stem O-Ring	1	EPDM,VITON®
10	Seat Carrier O-Ring	1	EPDM,VITON®
11	Body O-Ring	1	EPDM,VITON®
12	Solid End O-Ring	1	EPDM,VITON®
13	Flange	2	PVC,PP,CPVC,PVDF

VITON® and TEFLON® are trademarks of DuPont Performance Elastomers

**Ansi Dimensions**

Size Inch	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	d		e	n	P	L			A	T	H	B	Working Pressure (PSI)
				Socket	Thread				Socket	Thread	Flange					
1/2"	.591	2.375	3.500	0.840	NPT 1/2"	0.625	4	0.875	4.049	4.049	5.640	3.240	.590	2.028	2.114	235
3/4"	.799	2.750	3.875	1.050	NPT 3/4"	0.625	4	1.000	4.843	4.843	6.670	3.976	.590	2.638	2.500	235
1"	1.024	3.125	4.250	1.315	NPT 1"	0.625	4	1.125	5.689	5.689	7.090	4.390	.630	2.697	2.874	235
1 1/4"	1.20	3.500	4.625	1.660	NPT 1 1/4"	0.625	4	1.250	6.520	6.520	8.510	4.340	.630	2.768	3.228	235
1 1/2"	1.50	3.875	5.000	1.900	NPT 1 1/2"	0.625	4	1.375	7.160	7.160	9.280	4.780	.630	3.340	3.850	235
2"	1.89	4.750	6.000	2.375	NPT 2"	0.750	4	1.500	7.950	7.950	10.150	5.880	.787	3.850	4.733	235
2 1/2"	2.64	5.500	7.000	2.889	NPT 2 1/2"	0.750	4	1.750	8.860	8.860	11.540	7.480	.787	5.51	5.91	150
3"	3.15	6.000	7.500	3.516	NPT 3"	0.750	4	1.875	10.830	10.830	14.920	9.050	.866	6.54	7.20	150

Testing Procedure: Every valve is tested for bubble tight shutoff prior to leaving the factory.  
Pressure testing performed on PVC/EPDM valves at 73° water temperature, non-shock.

# TVI SAFETY BLOCK - TRUE UNION BALL VALVES

## DESIGN SPECIFICATIONS

Thermoplastic Ball Valves 1/2" - 4" are designed to safely block full system pressure in either direction to allow on-line system maintenance. Valve stem is of the blow-out proof design. Valve has full port for lowest possible pressure loss. Seats shall be easily adjustable and replaceable. Stem has an internal pressure sealed land to protect stem and stem seal from contaminants. Every valve is fully pressure and cycle tested before leaving the factory. Materials of construction shall be: (select as required for service)

## BODY/BALL/STEM/END NUTS AND CONNECTORS

PVC, CPVC, ASTM D-1784  
PP, ASTM D-4101  
PVDF, ASTM D-3222

## SEAT

PTFE (Polytetrafluoroethylene), Teflon® (DuPont Dow Elastomers)

## SEALS

EPDM, Ethylene Propylene Diene Monomer  
Fluorocarbon. Viton® (DuPont Dow Elastomers)  
Fluorel (3M Corp.)

## MANUAL LEVER

ABS, ASTM D-1788

End connectors shall conform to the following standards:

## SOCKET

ASTM - D-2467 (PVC, SCH-80)  
ASTM - F-439 (CPVC, SCH-80)

## THREADED

ASTM - D-2464 (PVC, SCH-80)  
ASTM - F-437 (CPVC, SCH-80)

## FLANGED -

ANSI - B16.5 Class 150

Both socket and threaded end connectors shall be supplied on all 1/2" - 2" PVC and CPVC valves. On 2 1/2" - 4" socket end connectors will be supplied unless otherwise specified.

Valves shall be backed by a full two (2) year guarantee.

Not recommended for compressed air or gas service.