



# THERMOPLASTIC VALVES INC.

## ARRANGEMENT DRAWING

SIZE: 28" THRU 40"

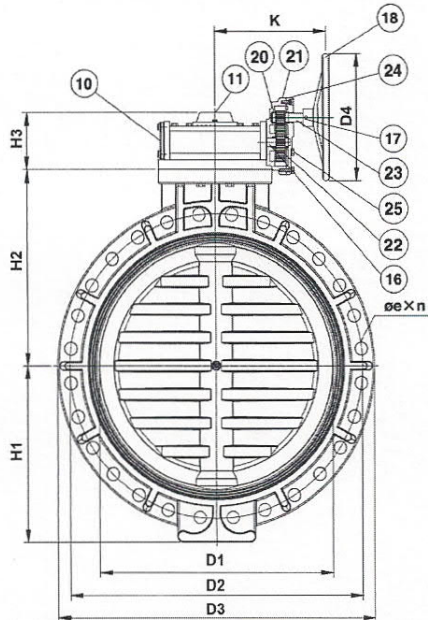
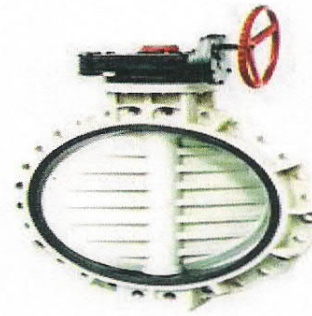
DWN BY  
CKP

DATE: 11-2009

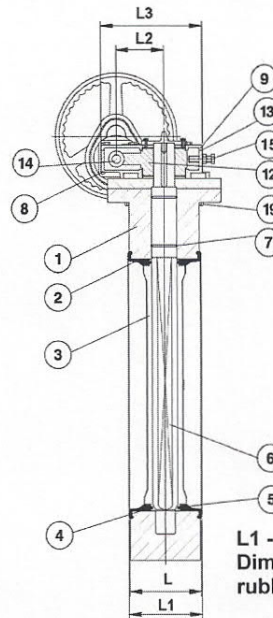
DWG NO.  
109-PSV

CERTIFIED CORRECT FOR GENERAL DIMENSIONS

DATE: 11-2009 PER: DFB



DN700~DN1200



L1 - Face to Face  
Dimension (includes  
rubber liner)

### MATERIALS OF CONSTRUCTION

No.	Parts	Pcs.	Materials	No.	Parts	Pcs.	Materials
1	Body	1	PP	14	Bearing	1	Steel
2	Seat	1	EPDM, VITON, NBR	15	Adjustable Bolt	2	Steel
3	Disc	1	UPVC, PP, CPVC, PPG, PVDF	16	Worm Shaft	1	Steel
4	Disc O'ring (A)	2	EPDM, VITON, NBR	17	Set Pin	1	K7
5	Disc O'ring (B)	2	EPDM, VITON, NBR	18	Hand Wheel	1	Cast Iron
6	Stem	1	SUS 410	19	Tightening Bolt	4	SUS304
7	Stem O'Ring	2	EPDM, VITON, NBR	20	Bearing	4	Copper
8	Gear box	1	Cast Iron	21	Spur Gear Body	1	Cast Iron
9	Gear Box Cap	1	Cast Iron	22	Spur Gear Body	1	Steel
10	Side Cap	1	Cast Iron	23	Spur Gear Shaft	1	Steel
11	Indicator Plate	1	Cast Iron	24	Spur Gear Cover	1	Cast Iron
12	Gear	1	Ductile Iron	25	Bolt	6	Steel
13	Oil Seal	1	Paper				

### ANSI DIMENSION TABLE

Nom. Size DN (Inch)	D1	D2	D3	n	e	H1	H2	H3	K	D4	L	L1	Test Press (PSI)	Working Press (PSI)
700 (28")	26.77	33.99	36.54	24	1.37	19.65	22.17	4.90	12.04	16	7.87	8.11	100	75
800 (32")	30.70	38.50	41.73	24	1.61	22.24	24.80	5.59	14.58	16	9.21	9.60	100	75
900 (36")	34.25	42.75	46.38	32	1.62	24.57	27.32	5.59	14.58	16	9.21	9.64	100	75
1000 (40")	38.18	46.25	50.63	32	1.62	26.93	30.00	8.27	18.54	20	11.57	11.85	100	75
1100 (44")	42.12	51.75	55.25	40	1.62	28.03	32.48	8.27	18.54	20	11.57	11.85	90	60

Testing Procedure: Every valve is tested for bubble tight shutoff. Testing performed on PVC/PP/EPDM valves at 73°F water temperature, non-shock.

53 S. 7<sup>th</sup> Street, Emmaus, PA 18049  
Ph: 610-967-6388 Fax: 610-967-6448  
Email: [tvi2@fast.net](mailto:tvi2@fast.net)  
[www.plasticvalves.com](http://www.plasticvalves.com)

# TVI Large Diameter Butterfly Valve 28" thru 40"

## DESIGN SPECIFICATIONS

Thermoplastic Butterfly Valves 28" thru 40" are wafer style to fit between Ansi B16.5 Class 150 flanges. Disc is smooth and contoured for the lowest possible pressure drop (highest Cv). Shaft is 410 SS and of one piece, through shaft design, with square drive through entire length of blade. Valves shall have epoxy coated gear actuators with handwheel. Seat liner shall be full faced with integral, ribbed flanges. No auxiliary gaskets shall be required for installation. Seat liners shall effectively isolate the body & shaft from the flow media. Seat liners shall also thermally insulate the body from the internal operating temperature. Valve Liner and seals are replaceable. Materials of construction shall be : (selected as required for service)

### BODY

PPG

### DISC

PP, PPG ASTM D-4101 (PPG – Standard Disc)  
PVC, ASTM D-1784  
CPVC, ASTM D-1784 (CPVC disc Standard in CPVC Valves)  
PVDF, ASTM D-3222

### SHAFT

ASTMA A-240, TYPE 410 S.S. (Standard) 304 S.S., and 316 S.S.

### SEALS/SEAT

EPDM, Ethylene Propylene Diene Monomer  
Nitrile (Butadiene) Rubber (BUNA N)  
Fluorocarbon, Viton (Dupont Dow Elastomers) ~ Available in the near future  
Hypalon – Available in the near future

### GEAR BOX

Cast Iron Housing ASTM A-53, EPOXY Coated

OTHER MATERIALS AVAILABLE UPON REQUEST.  
Not recommended for compressed air or gas service