



Tata Steel International (Australasia) Ltd

# Valves

Stainless Steel

Part  
S/n  
01

T-8  
824 gal.

**TATA STEEL**

# SECTION F

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# BUTTERFLY VALVE - HYGIENIC

## Working principal

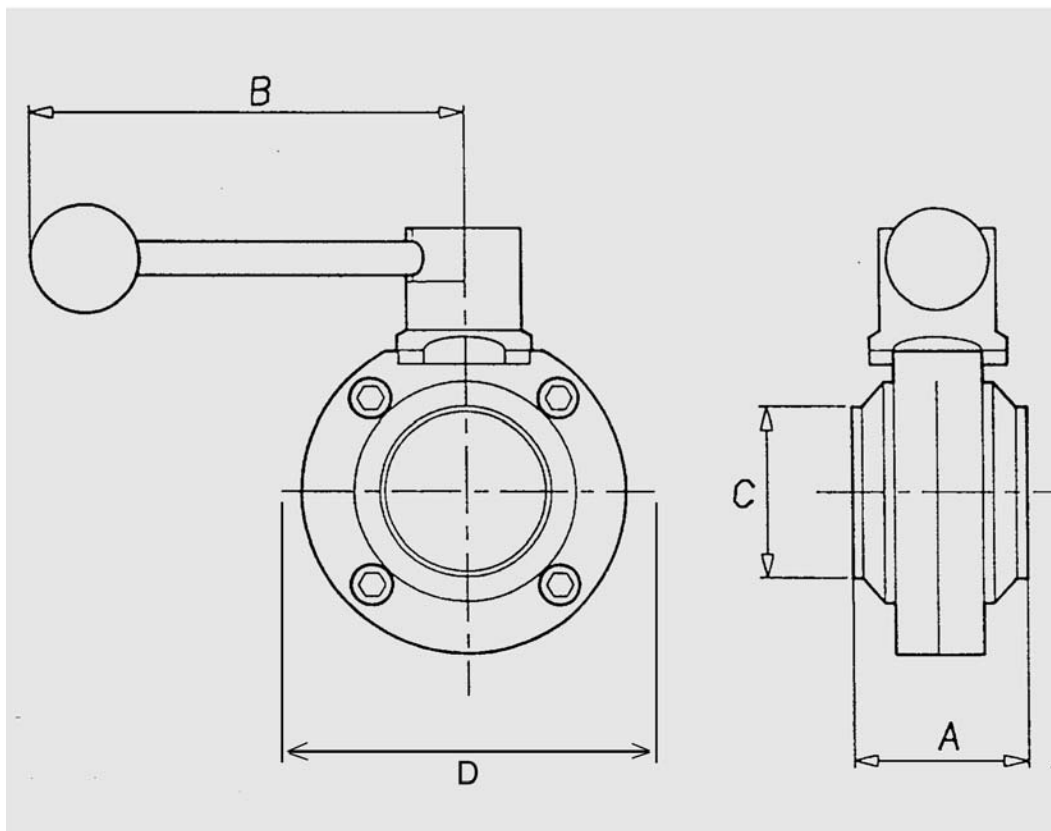
Type SS-BFV is manually operated by means of a handle, which can be disengaged from its locking position by pulling it outwards. When the handle is at right angles to the pipe line, a disc closes against a sealing ring. When the handle is turned 90° the disc is parallel to the liquid flow and the valve is fully opened.

## Optional extras

- A. Pneumatic motor
- B. Micro-switch unit for the airmotor

## Ordering

Specify SS type BFV – Manual or Automatic.  
Seal Material - Silicone



**DIMENSIONS (mm)**

SIZE	25	38	51	63.5	76	101.6
A	48	48	53	54	62	79
B	110	110	110	110	159	159
C	25.4	38.1	50.8	63.5	76.2	101.6
D	78	78	99	117	132	169

**CORUS METALS CAN ALSO OFFER A WIDE RANGE OF OTHER TYPES OF VALVES.  
PLEASE CONTACT YOUR NEAREST OFFICE.**

# NON-RETURN VALVE - HYGIENIC

Hygienic stainless steel non-return valve with butt weld ends suitable for process piping applications in the food, dairy and beverage industries.

## Technical Data

Material –

Body and product contact surfaces – Stainless Steel grade T316

Retaining nut (Round Slotted type) – Stainless Steel grade T316

“O” Ring and Disc Seal – EPDM

Differential pressure – Required to open valve when placed in vertical position.

Valve size – 19.0 mm to 25.4 mm = 3 Kpa (0.03 bar)

38.0 mm to 50.8 mm = 2 Kpa (0.02 bar)

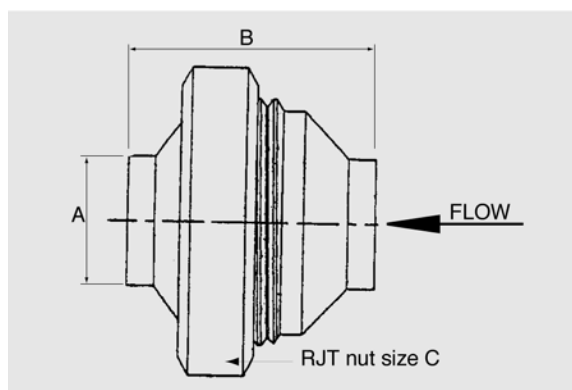
63.5 mm to 101.6 mm = 2 Kpa (0.02 bar)

Max. product pressure – 1000 Kpa

Max. temperature – 130°C

Min. temperature – -10°C

Size range – (to suit O.D. tube) 19.0, 25.4, 38.0, 50.8, 63.5, 76.1, and 101.6 mm.

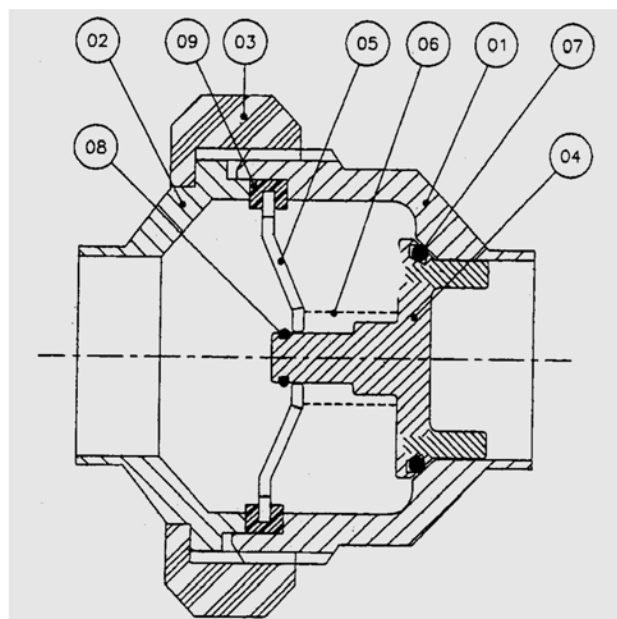


## DIMENSIONS (mm)

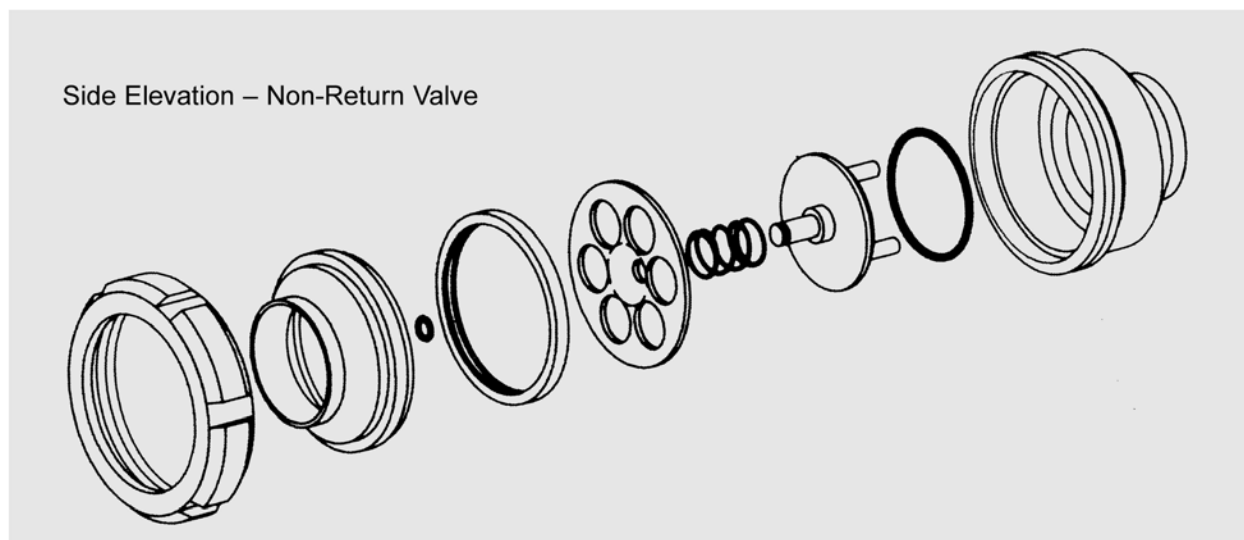
A TUBE DIAMETER	B O/A LENGTH	ROUND NUT SIZE
19.0	59.5	25.4
25.4	66.0	38.0
38.0	82.5	50.8
50.8	88.0	63.5
63.5	100.0	76.1
76.1	114.0	101.6
101.6	188.0	125.0

## PARTS LIST

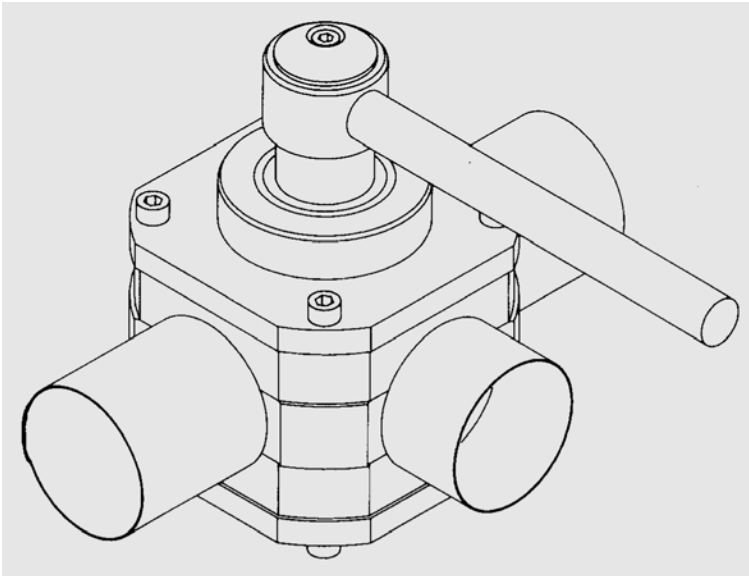
ITEM No.	DESCRIPTION
1	Threaded Body
2	Liner
3	Round Nut
4	Poppet Valve
5	Poppet Valve Retainer
6	Poppet Valve Spring
7	Disc Seal
8	Stem Retainer
9	Coupling Seal
SK	Seal Kit



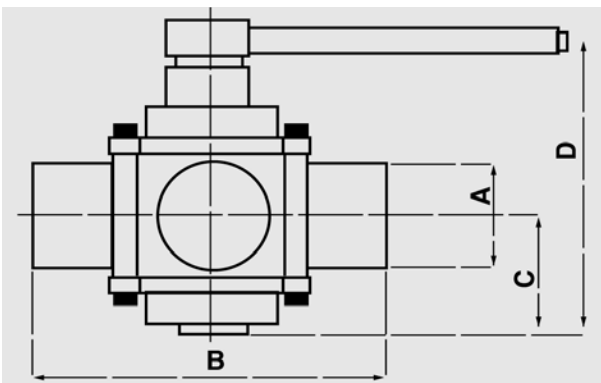
Side Elevation – Non-Return Valve



# 3-WAY VALVE - HYGIENIC



- All Pipework on same plane
- Minimal flow restriction
- Easily changed from manual to actuated
- Due to design fewer valves are required
- Designed for CIP (Cleaning in Place) without dismantling

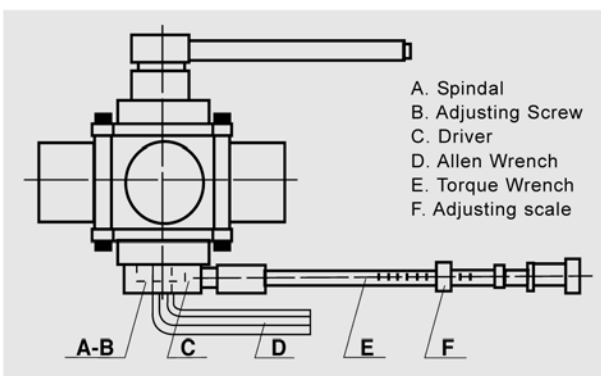


**3-Way Valve Welding**

Ømm	25	38	51	63.6	76	102
A	25	38	51	63.5	76	101.6
B	110	140	162	210	220	310
C	42	56	62	70	80	117
D	116	149	161	178	204	260
Kg	1.8	3.2	4.6	6.7	10.3	25

For adjustment instructions see below

## SHUTTER ADJUSTMENT INSTRUCTIONS FOR 3-WAY VALVE



**Guiding Values for adjusting**

Valve Size	Driver	Torsional amount for adjusting strain	
		Nm	Kpm
25 1"	21	5	0.5
38 1 1/2"	27	15	1.5
51 2"	36	20	2.0
63 2 1/2"	36	30	3.0
76 3"	36	45	4.5
89 3 1/2"	41	55	5.5
102 4"	50	85-110	8.5 – 11.0

- The shutter can be tightened manually.
- The tightness of the valve shutter by means of a torque wrench is adjusted as follows:
  - Put a torque wrench with correct driver on to spindle, as shown on the picture
  - Adjust the torque wrench to the torsional moment given in the above table, depending on the valve size
  - Tighten the regulating screw by the Allen wrench, testing at the same time from the torque wrench, until the desired torsional moment of the spindle is reached.
- If the shutter is tightened too much, it can be damaged.
- It should be observed that new valves are always delivered from the factory with the shutter pressure released after pressure test.

# BALL VALVES - BSP

## 2PC Type 1/4" to 1"

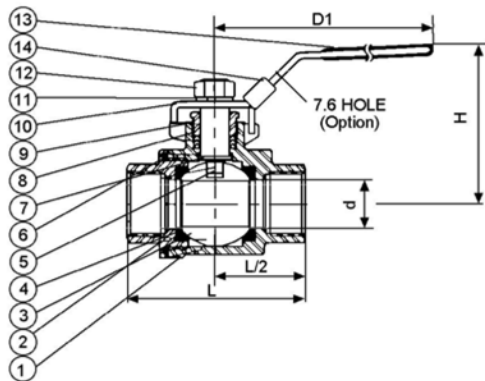
Full Port, 1000WOG, Blow-out proof stem.  
 Pipe Threads in accordance with ANSI B2.1, BS21 1973 or DIN 259.  
 W/15% Glassfibre reinforced teflon seat and seals.  
 BSP Threaded Ends.

### SPECIFICATIONS

Investment cast body & end cap.  
 End Type: Threaded BSP or NPT.  
 Bottom loaded.  
 Adjustable stem packing.  
 Easy actuator mounting.  
 Stainless steel handle with vinyl grip.  
 OPTION: Locking device.

### APPLICATIONS

For general chemical and industrial services.  
 Pressure Rating: 1000 PSI WOG (non shock)  
 Steam Rating: 150 PSI WSP  
 Temperature Range: -29°C - +200°C



### PARTS LIST

ITEM No.	DESCRIPTION	SPECIFICATION
1	Body	ASTM A351 GR.CF 8M
2	End cap	ASTM A351 GR.CF 8M
3	Ball	ASTM A351 GR.CF 8M
4	Ball seats	PTFE
5	Stem	S.S.316
6	End seal	PTFE
7	Thrust washer	PTFE
8	Stem Packings	PTFE
9	Gland	S.S.304
10	Handle	S.S.304
11	Handle washer	S.S.304
12	Handle Nut	S.S.304
13	Handle sleeve	Vinyl Grip
14	Locking plate	S.S.304

### DIMENSIONS (mm)

SIZE	d	L	H	D1	Cv Factor
1/4"	11.0	60.0	53.5	102	6.0
3/8"	12.5	60.0	56.4	102	12.0
1/2"	15.0	64.0	58.0	102	19.0
3/4"	20.0	77.0	68.0	123	37.0
1"	25.0	90.8	72.0	123	64.0

# BALL VALVES - BSP

## V3 Type 1/4" to 4"

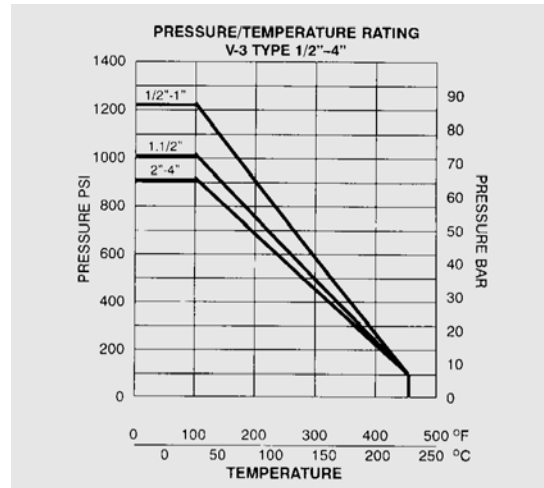
### 3-Piece Stainless Steel AISI 316 (DIN 1.4408)

Full Port, Lug Body, 1000WOG, Blow-out proof stem.

Pipe Threads in accordance with ANSI B2.1, BS21 1973 or DIN 259.

W/15% Glassfibre reinforced teflon seat and seals.

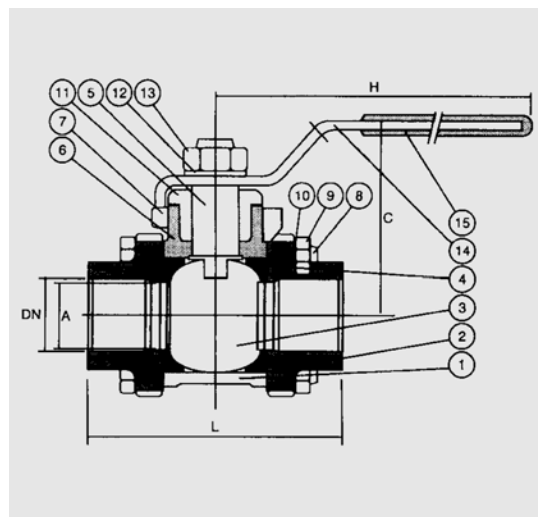
BSP Threaded Ends.



ØDN	A	L	C	H	CV FACTOR	TORQUE INCH/LBS	KG
1/4"	11.6	65	42	98	6	36	0.41
3/8"	12.7	65	42	98	7	36	0.40
1/2"	15	66	49	115	10	43	0.65
3/4"	20	83	52	115	25	65	0.80
1"	25.4	95	62	143	35	101	1.20
1 1/4"	32	111	66	143	46	158	2.05
1 1/2"	38	130	77	178	80	187	2.80
2"	50.8	151	85	178	110	230	4.35
2 1/2"	65	185	139	250	310	430	8.40
3"	80	212	150	250	360	2.200	14.50
4"	100	270	173	280	820	3.400	26.50

Ø Thread: DIN 259, BSP

NR	PART	QTY	V3-316
1	Body	1	A351 CF8M
2	Cap	2	A351-CF8M
3	Ball	1	316
4	Seat	2	15% R-PTFE
5	Stem	1	316
6	Thrust Washer	1	15% R-PTFE
7	Stem Packing	2	15% R-PTFE
8	Bolt	4	304
9	Hex Nut	4	304
10	Bolt Washer	4	304
11	Gland Nut	1	304
12	Stem Washer	1	304
13	Stem Nut	1	304
14	Handle	1	304
15	Plastic Cover	1	Plastic



# 3 WAY T PORT VALVES (reduced bore) - BSP



Full Port, 1000WOG, Blow-out proof stem.  
 Pipe Threads in accordance with ANSI B2.1, BS21 1973 or DIN 259.  
 W/15% Glassfibre reinforced teflon seat and seals.  
 BSP Threaded Ends.

## SPECIFICATIONS

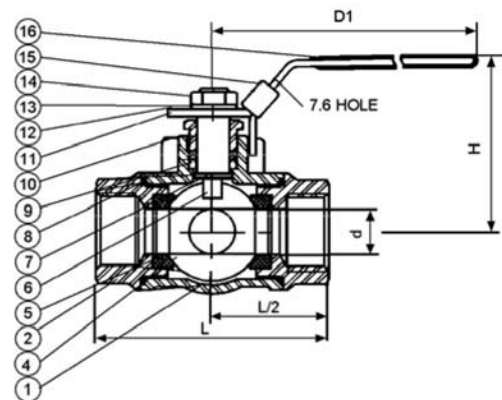
Investment cast body & end cap.  
 End Type: Threaded BSP or NPT.  
 Bottom loaded.  
 Adjustable stem packing.  
 Easy actuator mounting.  
 Stainless steel handle with vinyl grip.  
 OPTION: Locking device.

## APPLICATIONS

For general chemical and industrial services.  
 Pressure Rating: 1000 PSI WOG (non shock)  
 Steam Rating: 150 PSI WSP  
 Temperature Range: -29°C - +200°C

## PARTS LIST

ITEM No.	DESCRIPTION	SPECIFICATION
1	Body	ASTM A351 GR.CF 8M
2	End cap	ASTM A351 GR.CF 8M
3	Blind cap	ASTM A351 GR.CF 8M
4	Ball	ASTM A351 GR.CF 8M
5	Ball seats	Reinforced PTFE
6	Stem	S.S.316
7	Thrust washer	Reinforced PTFE
8	End seal	Reinforced PTFE
9	Stem Packings	Reinforced PTFE
10	Gland	S.S.304
11	Handle	S.S.304
12	Flow Indicator Plate	Aluminum
13	Handle washer	S.S.304
14	Handle Nut	S.S.304
15	Locking Plate	S.S.304
16	Handle Sleeve	Vinyl Grip



## DIMENSIONS (mm)

SIZE	d	L	H	D1
1/4"	11.0	68	58	106
3/8"	11.0	68	58	106
1/2"	12.7	75	59	126
3/4"	16.0	85	64	126
1"	20.0	100	80	145
1 1/4"	25.0	115	90	145
1 1/2"	32.0	125	96	204
2"	38.1	148	106	204

# SWING CHECK VALVE - BSP

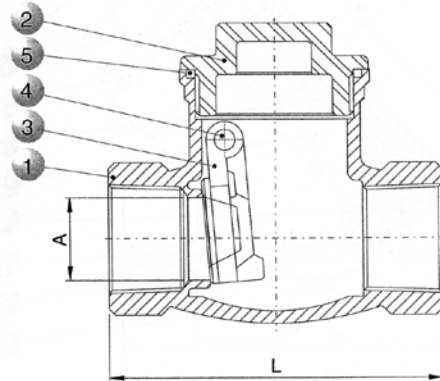
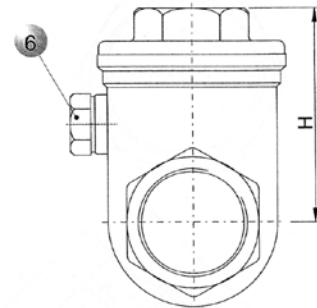


## DESIGN FEATURES:

- Pressure rating: 200 PSI WOG (non shock)
- Steam rating: 150 PSI WSP
- Investment cast body and cap
- Screwed Cap
- Swing type disc

## PARTS LIST

No.	DESCRIPTION	SPECIFICATION	QTY
1	Body	ASTM A351 GR.CF 8M	1
2	Cap	ASTM A351 GR.CF 8M	1
3	Disc	ASTM A351 GR.CF 8M	1
4	Hinge Pin	SS316	1
5	Gasket	PTFE	1
6	Plug	SS316	1



## DIMENSIONS (mm)

SIZE		A		L		H		Cv Factor
inch	mm	inch	mm	inch	mm	inch	mm	
1/4"	8	0.39	10	2.56	65.0	1.77	45	6
3/8"	10	0.47	12	2.56	65.0	1.77	45	12
1/2"	15	0.59	15	2.60	66.0	1.81	46	30
3/4"	20	0.79	20	3.19	81.0	2.13	54	37
1"	25	0.98	25	3.58	91.0	2.36	60	54
1 1/4"	32	1.26	32	4.19	106.5	2.83	72	103
1 1/2"	40	1.57	40	4.76	121.0	2.95	75	143
2"	50	1.97	50	5.59	142.0	3.23	82	360
2 1/2"	65	2.56	65	6.26	159.0	3.54	90	440
3"	80	3.15	80	7.48	190.0	4.09	104	520

# 300 WOG Y STRAINER, THREADED,

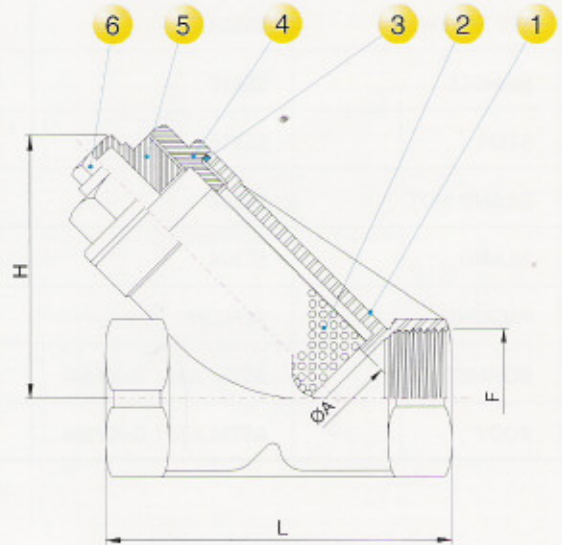
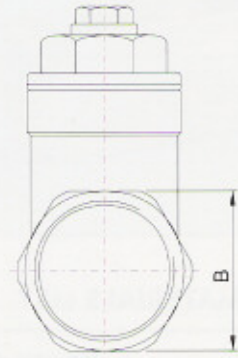


## DESIGN FEATURES:

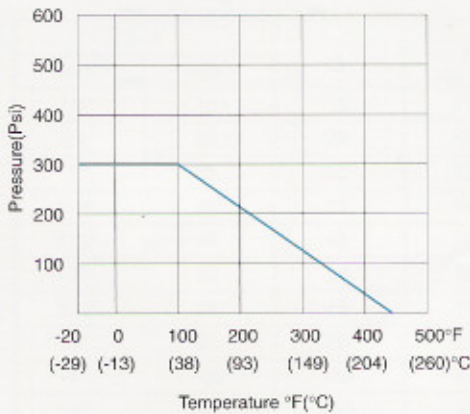
- INVESTMENT CAST BODY & CAP
- SS316 SCREEN 60 MESH
- SCREWED-IN CAP
- CONNECTING THREADS: ANSI B2.1/BS21

## MATERIALS LIST

NO.	PART NAME	MATERIAL	Q'TY
1	BODY	ASTM A351 Gr.CF8M	1
2	SCREEN	SS316 60 MESH	1
3	GASKET	TEFLON	1
4	CAP	ASTM A351 Gr.CF8M	1
5	O-RING	TEFLON	1
6	PLUG	ASTM A351 Gr.CF8M	1



## PRESSURE TEMPERATURE RATINGS (BODY)



## DIMENSIONS

SIZE		A		B		H		L		F	Cv Factor
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		
1/4"	8	0.31	8	1.02	26	2.01	51	2.56	65	1/4" BSP	6
3/8"	10	0.39	10	1.02	26	2.01	51	2.56	65	3/8" BSP	12
1/2"	15	0.59	15	1.02	26	2.01	51	2.56	65	1/2" BSP	19
3/4"	20	0.79	20	1.30	33	2.36	60	3.15	80	3/4" BSP	37
1"	25	0.98	25	1.61	41	2.83	72	3.54	90	1" BSP	64
1 1/4"	32	1.26	32	1.93	49	3.03	77	4.13	105	1 1/4" BSP	103
1 1/2"	40	1.57	40	2.20	56	3.43	87	4.72	120	1 1/2" BSP	143
2"	50	1.97	50	2.72	69	4.06	103	5.51	140	2" BSP	360



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