



We Believe In
Quality



VALVES

& Automation



UNI-TECH VALVES



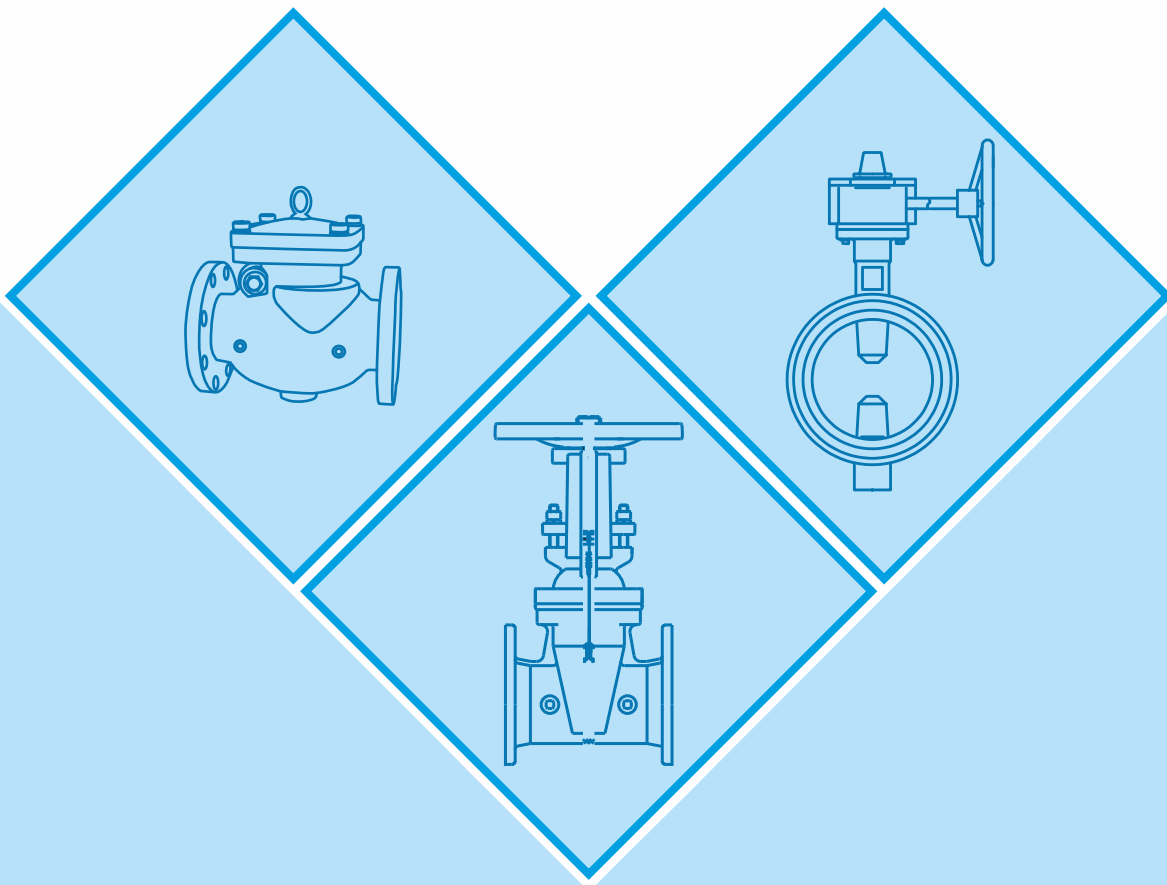
Since 2006

WHAT WE STAND FOR & OUR PRINCIPLES

We are pleasure to taking this opportunity to introducing ourselves as Manufacturer and Exporter of Industrial Valves, Electromagnetic Flow Meter & Instruments in Surat Region and surrounding area for the last one decade.

Following transparent business polices and ethics, we at Uni-Tech Valves & Automation, have been operating since 2006 for catering to the various valves need of the industry. Our company has acquired a respectable position as the leading manufacturer of different types of Valves like Ball Valves, Knife Gate Valves, Globe Valve, NRV Disc Check Valves, Cylinder Valves, "Y" Type Control Valve & Electromagnetic Flow Meters for commercial and industrial application. Our products and services are widely chosen by them, because we offer everything with commitment to ensure complete customer satisfaction.

We manufacture a comprehensive range of Valves that confirms to international standard quality norms. Every product is precision designed and developed by highly qualified engineers and many other skilled personnel. They work in close coordination with each other and incorporate qualitative material in production process.



UNI-TECH Ball Valves are built for reliable performance against most stringent industry uses and provide 18 months Warranty.

Here are our key points which make our valve reliable:

1. Handle

Specially Designed
Handle in 2 Piece Design for Grip
Stem Property to avoid Play in
Handle & Stem

2. Stem

Anti-Blowout
Stem provide higher strength at different
line pressures better stem sealing

3. Gland Packing

PTFE, GFT &
CFT for Zero Leakage

4. Actuator Mounting Pad

ISO 5211 mounting pad for
Actuator mounting.



5. Ball

Mirror finish Ball with
Ra value around 10
microns provides
smooth operation &
less torque.



6. Seats

PTFE Seats are for long life &
bubble tight shut off. PTFE
seats are with Slots which help
in releasing upstream pressure
that prevents damage of seats
in close condition.

7. Body & Connector

Investment Casting Body &
Connector up to 200mm for
MS/SS valves.

8. Body Connector Sealing

PTFE, GFT, CFT sealing to
prevent joint leakages.

9. Bolting

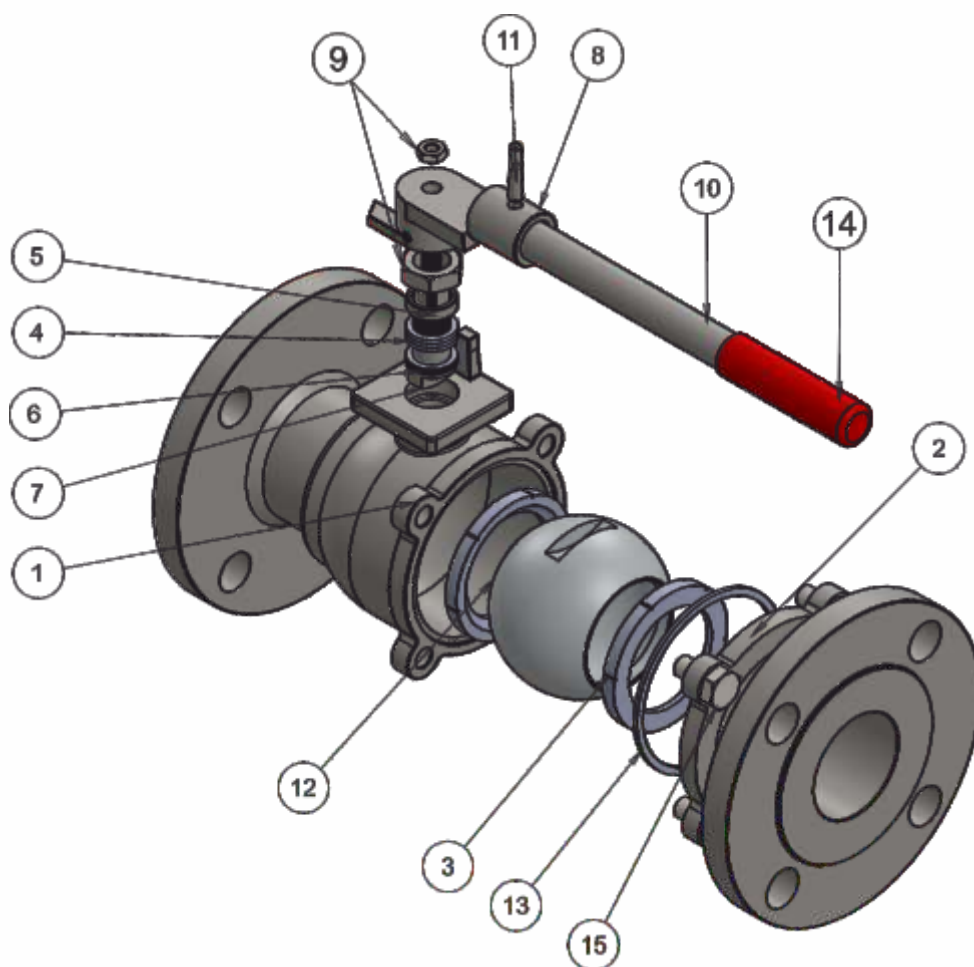
Tapping & Bolting
which maintains sturdiness
against vibrations occurring in
pipelines.

Special Features :-

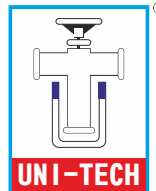
1. Uni-Tech Ball Valves are designed for easy operations & maintenance for various applications
2. Well designed Stem & Body sealing to prevent most common Ball Valve leakages.
3. Well designed Ball Seats with minimum cavity and less torques
4. 100% Investment Casting in MS & SS upto 200mm
5. 100% valves are marked with serial number for complete Traceability.
7. 100 % valves are manufactured & Tested as per Standards

No.	Part Name	QTY.
1	Body	1
2	Adaptor	1
3	Seat	2
4	Gland Packing	3
5	Gland	1
6	Stem Packing	3
7	Stem	1
8	Handle Stopper	1
9	Hex Nut	1
10	Handle Pipe	1
11	Pin	1
12	Ball	1
13	Body Seal	1
14	Handle Sleeve	1
15	Hex Bolt	4

★ Quantity Variation as per valve size



2 PIECE BALL VALVE



Model# UTBV2F1 / UTBV2F3

VALVES INSPECTION & TESTING

TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²
Seat (Air)	7 Kg / cm ²	7 Kg / cm ²



STANDARD MATERIAL OF CONSTRUCTION

Body :	WCB, CF8, CF8M, CF3, CF3M
Body Adapter :	WCB, CF8, CF8M, CF3, CF3M
Ball :	CF8, CF8M, CF3, CF3M, CA15
Stem :	SS410, SS304, SS304L, SS316, SS316L, 17-4PH, Nitronic 50
Seat :	PTFE, GFT, CFT, DEVLON
Stem Thrust Washer :	PTFE, GFT, CFT
Stem Packing :	PTFE / GRAPHOIL ★
Gland Bush :	SS410, SS304, SS316
● Spring (Antistatic) :	Steel
● Disc Spring :	Steel
Stem Nut :	Steel
Gasket :	PTFE / GRAPHOIL ★
Stud :	ASTM A193 Gr. B7, B8, B8M, L7
Nut :	ASTM A193 Gr. 2H, 8, 8M
Handle :	Steel Plated, Round Handle Seamless Sch-40 Pipe

NOTES :-

★ For Fire Safe Valve body & Stem Packing In GRAPHOIL and for Non Fire Safe Valve: Body & Stem Packing In PTFE. For Any Other Specification, Please Contact Us

- Anti Static - On Request
- All Valve are Available in Hollow & Solid Ball

CONFORMITY TO STANDARD & CODES

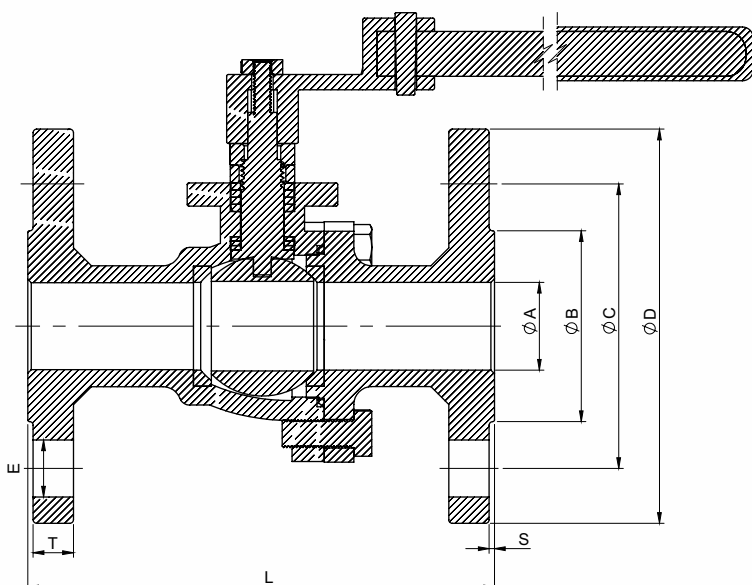
- **General Design & Manufacturing:**
ISO EN 17292 / ASME 16.34
- **Valve Testing :** API 598
- **Face to Face Standard :** ANSI B 16. 10
- **Flange Ends, Standard :** ANSI B 16.5
- **Fire Safe:** API 607 (On Request)
- **Antistatic:** (On Request)
- **Size Range :** 1/2" (15 mm) to 12" (300mm)
- **ISO Mounting Pad :** ISO 5211

APPLICATIONS

- Oil Refineries
- Chemical & Solvent Industries
- Petro Chemical Industries
- Process Industries
- Food and Pharmaceutical Industries
- Compressed Air Line
- Gas Industries
- Water Line Process

DESIGN FEATURES

- 2 Piece Body Construction
- Investment Casting Components
- Bore Type: Full Bore
- Blow Out Proof Stem
- Flange ASA 150# & 300#
- ISO 5211 Mounting Pad
- Low Torque / Floating Ball
- Mirror Finish Solid Ball & Hollow Ball
- 100% Interchange ability
- Fire Safe Construction (On Request)
- Electroplating Finishing For SS Valves
- Anti Statics Device (On Request)
- Leakage: VI Tight Shut Off
- Operation: Manual(Lever / Gear) Actuator
(Pneumatic / Electric)



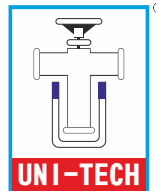
All Dimensions are in mm Unless Specified (150#)

Size	L	ØA	ØD	T	ØB	ØC	S	No. of holes
15	108	13	89	11.5	35	60.5	1.6	4
20	117	19	98	13	43	70	1.6	4
25	127	25	108	11.5	51	79.5	1.6	4
32	140	32	117	13	64	89	1.6	4
40	165	38	127	14.5	73	98.5	1.6	4
50	178	50	152	16	92	120.6	1.6	4
65	190	65	178	17.5	105	139.7	1.6	4
80	203	76	191	19.5	127	152.4	1.6	4
100	229	98	229	24	157	190.5	1.6	4
125	280	127	255	24	185.7	215.9	1.6	8
150	267	148	279	25.5	216	241.3	1.6	8
200	292	198	343	29	270	298.4	1.6	12
250	330	254	406	30.5	324	362	1.6	12
300	610	305	483	32	381	431.8	1.6	8

All Dimensions are in mm Unless Specified (300#)

Size	L	ØA	ØD	T	ØB	ØC	s	No. of holes
15	104	13	95	14.5	35	60.7	1.6	4
20	152	19	117	16	43	82.5	1.6	4
25	165	25	124	17.5	51	89	1.6	4
32	178	32	133	19.5	64	98.4	1.6	4
40	190	38	156	22	73	114.5	1.6	4
50	216	50	165	22.5	92	127	1.6	8
65	241	65	191	25.5	105	149.2	1.6	8
80	283	76	210	29	127	168.3	1.6	8
100	305	98	254	32	157	200	1.6	8
125	360	127	280	35	185.7	235	1.6	8
150	403	148	318	37	216	269.9	1.6	12
200	416	198	381	41.5	270	330.2	1.6	12
250	457	254	445	48	324	387.3	1.6	16
300	502	305	520	51	381	450.8	1.6	16

3 PIECE BALL VALVE



Model# UTBV3F1 / UTBV3F3

VALVES INSPECTION & TESTING

TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²
Seat (Air)	7 Kg / cm ²	7 Kg / cm ²



STANDARD MATERIAL OF CONSTRUCTION

Body :	WCB, CF8, CF8M, CF3, CF3M
Body Adapter :	WCB, CF8, CF8M, CF3, CF3M
Ball :	ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Stem :	ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Gland :	ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Seat :	PTFE, GFT, CFT
Stem Packing :	PTFE, GFT, CFT
Gland Packing :	PTFE, Grafoil, GFT, CFT
Body Seal :	PTFE, Grafoil, GFT, CFT
Gland Nut :	Stainless Steel
Body stud / Nut :	B7/2H, B8/B8M, SS202, SS304, Ss316
Handle :	Steel Plated, Round Handle Seamless Sch-40 Pipe

CONFORMITY TO STANDARD & CODES

- **General Design & Manufacturing:**
ISO/EN 17292 / ASME 16.34 / BS 5351
- **Valve Testing :** API 598
- **Face to Face Standard :** ANSI B 16. 10
- **Flange Ends, Standard :** ANSI B 16.5
- **Size Range :** 1/2" (15mm) to 15" (300mm)
- **ISO Mounting Pad :** ISO 5211

3 PIECE BALL VALVE

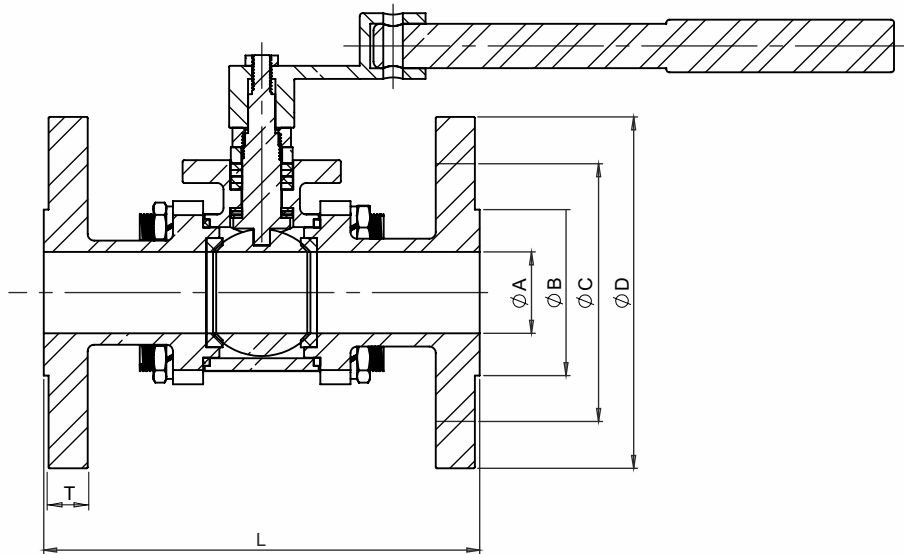


APPLICATIONS

- Oil Refineries
- Chemical & Solvent Industries
- Petro Chemical Industries
- Process Industries
- Food and Pharmaceutical Industries
- Compressed Air Line
- Gas Industries
- Water Line Process

DESIGN FEATURES

- 3 Piece Body Construction
- Investment Casting Components
- Bore Type: Full Bore
- Blow Out Proof Stem
- Flange ASA 150# & 300#
- ISO 5211 Mounting Pad
- Low Torque / Floating Ball
- Mirror Finish Solid Ball & Hollow Ball
- 100% Interchange / ability
- Electroplating Finishing For SS Valves
- Leakage: VI Tight Shut Off
- Operation: Manual(Lever / Gear) Actuator
(Panumatic / Electric)



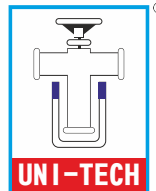
All Dimensions are in mm Unless Specified (150#)

Size	L	A	ØD	T	ØB	C	S	No. of holes
15	108	13	89	11.5	35	60.5	1.6	4
20	117	19	98	13	43	70	1.6	4
25	127	25	108	11.5	51	79.5	1.6	4
32	140	32	117	13	64	89	1.6	4
40	165	38	127	14.5	73	98.5	1.6	4
50	178	50	152	16	92	120.6	1.6	4
65	190	65	178	17.5	105	139.7	1.6	4
80	203	76	191	19.5	127	152.4	1.6	4
100	229	98	229	24	157	190.5	1.6	8
125	280	127	255	24	185.7	215.9	1.6	8
150	267	148	279	25.5	216	241.3	1.6	8
200	292	198	343	29	270	298.4	1.6	8
250	330	254	406	30.5	324	362	1.6	12
300	610	305	483	32	381	431.8	1.6	12

All Dimensions are in mm Unless Specified (300#)

Size	L	A	ØD	T	ØB	C	S	No. of holes
15	104	13	95	14.5	35	60.7	1.6	4
20	152	19	117	16	43	82.5	1.6	4
25	165	25	124	17.5	51	89	1.6	4
32	178	32	133	19.5	64	98.4	1.6	4
40	190	38	156	22	73	114.5	1.6	4
50	216	50	165	22.5	92	127	1.6	8
65	241	65	191	25.5	105	149.2	1.6	8
80	283	76	210	29	127	168.3	1.6	8
100	305	98	254	32	157	200	1.6	8
125	360	127	280	35	185.7	235	1.6	8
150	403	148	318	37	216	269.9	1.6	12
200	416	198	381	41.5	270	330.2	1.6	12
250	457	254	445	48	324	387.3	1.6	16
300	502	305	520	51	381	450.8	1.6	16

SCREW AND BALL VALVE



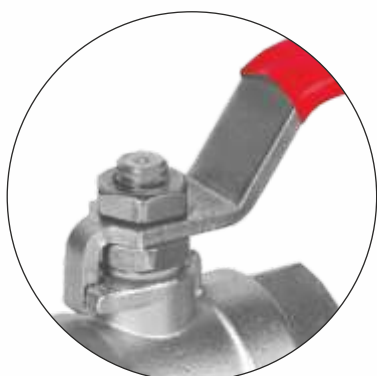
Model# UTBV3SE / UTBV1SE

VALVES INSPECTION & TESTING

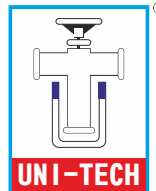
TEST	CLASS 150#
Body (Hyd.)	31 Kg / cm
Seat (Hyd.)	23 Kg / cm
Seat (Air)	7 Kg / cm

STANDARD MATERIAL OF CONSTRUCTION

Body :	WCB, CF8, CF8M, CF3, CF3M
Pipe End :	WCB, CF8, CF8M, CF3, CF3M
Gland :	ASNI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Ball :	ASNI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Stem :	ASNI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C
Seat :	PTFE, GFT, CFT
Stem Seal :	PTFE, GFT, CFT
Gland Packing :	PTFE, GFT, CFT
Body Seal :	PTFE, GFT, CFT
Gland Nut :	Carbon Steel
Body Stud / Nut :	B7/2H, B8/B8M



SCREW AND BALL VALVE



APPLICATIONS

- Oil Refineries
- Chemical & Solvent Industries
- Petro Chemical Industries
- Food and Pharmaceutical Industries
- Compressed Air / Gas / Water Steam

CONFORMITY TO STANDARD & CODES

→ Design & Manufacture :

BS 5351 / ASME B16.34

→ Testing & Inspection :

API 598

→ Face to Face :

Manufacturing Std.

→ Leakage Class :

Class VI (Zero Leakage)

→ Socket Weld Standard :

ASME B16.11

→ Screw End Standard :

ASME B1.20.1

DESIGN FEATURES

- 3 Piece & 1 Piece Body Construction
- Investment Casting Components
- Bore Type: Full Bore
- Blow Out Proof Stem
- Socket Weld / Screw End (BSP-F & NPT-F)
- Actuator Mounting Pad (On Request)
- Low Torque / Floating Ball
- Mirror Finish Ball
- 100% Interchange ability
- -20°C to 180°C Temperature Range
- 1000 PSI Suitable for Standard Application
- Operation: Manual(Lever / Gear) Actuator
(Pnumatic / Electric)

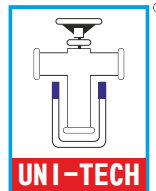
1 Piece Screw End (150# Class)

All Dimensions are in mm Unless Specified			
Size(mm)	F/F	Bore	ØD (BSP/NPT)
6	60	6.5	1/4"
10	60	9.5	3/8"
15	65	12.5	1/2"
20	75	19	3/4"
25	85	25	1"
32	95	32	1 1/4"
40	105	35	1 1/2"
50	125	45	2"
65	140.5	62	2 1/2"
80	158.5	74	3"
100	178.5	98	4"

3 Piece Screw End (150# Class)

All Dimensions are in mm Unless Specified			
Size(mm)	F/F	Bore	ØD (BSP/NPT)
15	64	12.5	1/2"
20	70	19	3/4"
25	88	25	1"
32	105	32	1 1/4"
40	114	38	1 1/2"
50	130	50	2"
65	170	62	2 1/2"
80	200	74	3"
100	210	98	4"

3 WAY BALL VALVE



REFERENCE STANDARDS

Design & Manufacturing	ASME B16.34/BS EN ISO 17292
Valve Face to Face	ASME B 16.10
Flange Standard Conformity	ASME B 16.5 Class 150, 300
Inspection & Testing	API 598 / ISO - 5208

TECHNICAL SPECIFICATION

Body : WCB / CF8 / CF8M / CF3 / CF3M

Connectors : WCB / CF8 / CF8M / CF3 / CF3M

Ball : CF8 / CF8M / CF3 / CF3M

Seat : PTFE / GFT / CFT

Stem Pin : SS410 / SS304 / SS316

Gland Bush : SS410 / SS304 / SS316

Gland : WCB / CF8 / CF8M

Gland Packing : PTFE / GFT / CFT

Body Seal : PTFE / GFT / CFT

Handle : Steel Plated

Sleeve : PVC

DESIGN FEATURES

Valve : 3-Way Ball Valve

Seat Type : PTFE, GFT, CFT

End Connection : Flanged/Screwed

Size Range : 15 NB to 150 NB for reduced Port/ Full Port

Pressure Rating : Class 150, & 300

Seat Leakage : Class VI - Soft Seat

Operation : Hand Lever/Gear/ Actuator (Electrical / Pneumatic)

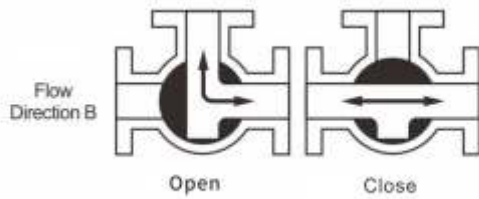
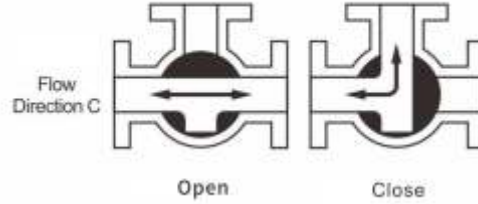
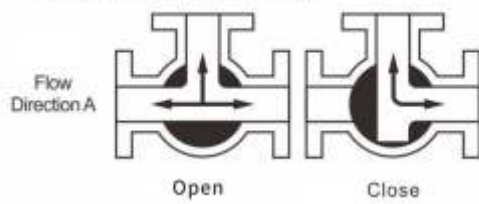
Port Type : L-Port / T-Port



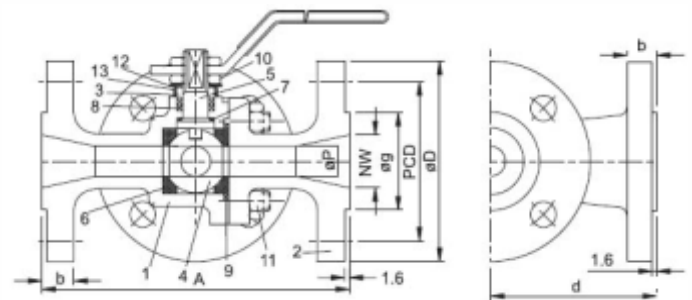
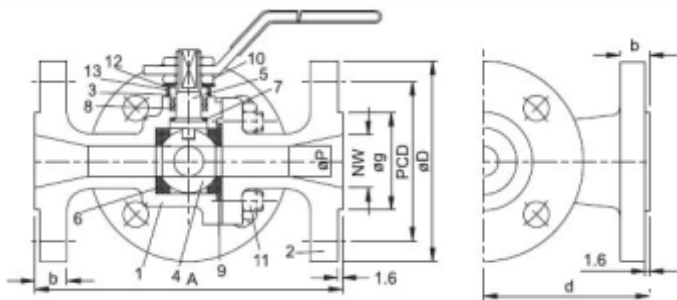
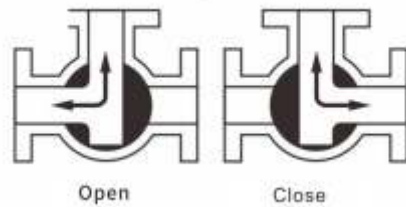
3 WAY BALL VALVE



T-Pattern Flow Direction Diagram



L-Pattern Flow Direction Diagram



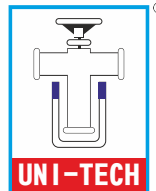
All Dimensions are in mm Unless Specified (150#)

Size	A	ØP	NW	ØD	d	b	Øg	PCD	Hole"	Hole
15	108	9.5	13	89	70	11.5	35	60.5	16	4
20	117	13	19	98	76	13	43	70	16	4
25	127	19	25	108	80	11.5	51	79.5	16	4
32	140	25	32	117	86	13	64	89	16	4
40	165	32	38	127	98	14.5	73	98.5	16	4
50	178	38	50	152	107	16	92	120.6	20	4
65	190	50	65	178	125	17.5	105	139.7	20	4
80	203	58	76	191	133	19.5	127	152.4	20	4
100	229	76	98	229	157	24	157	190.5	20	8
150	267	98	148	279	216	25.5	216	241.3	23	8

All Dimensions are in mm Unless Specified (300#)

Size	A	ØP	NW	ØD	d	b	Øg	PCD	HoleØ	Hole
15	140	9.5	13	95	76	14.5	35	66.7	16	4
20	152	13	19	117	96	16	43	82.5	20	4
25	165	19	25	124	100	17.5	51	89	20	4
32	178	25	32	133	106	19.5	64	98.4	20	4
40	190	32	38	156	120	22	73	114.3	23	4
50	216	38	50	165	125	22.5	92	127	20	8
65	241	50	65	191	140	25.5	105	149.2	23	8
80	283	58	76	210	152	29	127	168.3	23	8
100	305	76	98	254	178	32	157	200	23	8
150	403	98	148	318	215	37	216	269.9	23	12

FLUSH BOTTOM BALL VALVE



UNI TECH - Provides a well designed Flushbottom Ball Valves - full bore for better flow capacity for discharging of processed materials from the bottom portion or at the outlet of vessels, tanks, reactors, containers etc.

CONFORMITY TO STANDARD & CODES

Design & Manufacturing	ASME B16.34 / BS EN ISO 17292
Valve Face to Face	ASME B 16.10
Flange Drilling	ASME B 16.5, Class 150, 300
Inspection & Testing	API 598

VALVES INSPECTION & TESTING

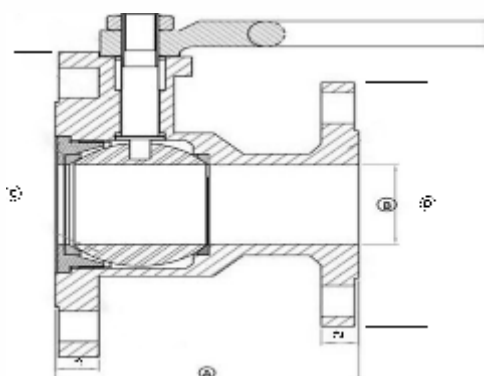
TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²
Seat (Air)	7 Kg / cm ²	7 Kg / cm ²
Duration	15 Second	15 Second

TECHNICAL SPECIFICATION

Body :	WCB / CF8 / CF8M / CF3 / CF3M
Retainer :	WCB / CF8 / CF8M / CF3 / CF3M
Ball :	CF8 / CF8M / CF3 / CF3M
Seat :	PTFE / GFT / CFT
Stem Pin :	SS410 / SS304 / SS316
Gland Bush :	SS410 / SS304 / Ss316
Gland :	WCB / CF8 / CF8M
Gland Packing :	PTFE / GFT / CFT
Handle :	Steel Plated
Sleeve :	PVC

SPECIAL FEATURES

1. **UNI-TECH** provides flexibility for selection of Inlet Flanges x Outlet flanges and complete body of the Valve is Single piece Investment Casted.
2. The Ball position is designed in such a way that it remains toward the vessel which provides zero hold up of material within the Valve.
3. Flexibility of handle opening downward is provided so handle opening doesn't get stuck with vessel.



All Dimensions are in mm Unless Specified

SIZE	A	B	C	D	T1	T2	DRILL 1	DRILL 2
40x50	115.0	38.0	150.0	130.0	16.0	14.0	16x4	14x4
50x50	115.0	50.0	150.0	150.0	16.0	16.0	16x4	16x4
50x65	115.0	50.0	180.0	150.0	17.0	16.0	16x4	16x4
50x80	135.0	50.0	190.0	150.0	19.0	16.0	19x4	16x4
80x80	165.0	75.0	190.0	190.0	19.0	19.0	19x4	19x4
80x100	165.0	75.0	230.0	190.0	25.0	19.0	19x8	19x4

JACKETED BALL VALVE



VALVES INSPECTIONS & TESTINGS (150#)

Body (Hyd.)	31 Kg / cm2
Seat (Hyd.)	23 Kg / cm2
Seat (Air)	7 Kg / cm2
Jacket	7 Kg / cm2

CONFORMITY TO STANDARD & CODES

Design & Manufacturing	BS 5351
Valve Face to Face	ASME B 16.10
Flange Drilling	ASME B 16.5, Class 150, 300
Inspection & Testing	API 598

TECHNICAL SPECIFICATION

Body : WCB / SS 304 / SS 316

Return Nut : WCB / SS 304 / SS 316

Ball : SS 304 / SS 216

Stem : SS 304 / SS 316

Body Seat : Carbon Field Teflon

Nut Seat : PTFE

Stem Seat : Carbon Field Teflon

Gland : SS 304 / SS 316

Gland Seat : Carbon Field Teflon

Handle : M.S. / S.S.

Lock Nut : SS

Sleeve : PVC

Jacket : M.S. / S.S.

Coupling : M.S. / S.S. (1/2" BSP)

UNI TECH - Provides a complete range of floating Ball Valves with well-designed Jacketing facility

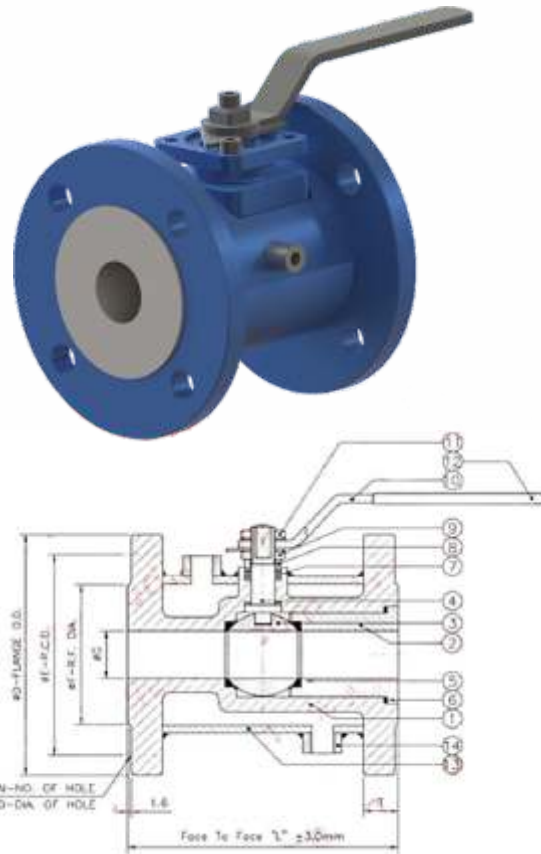
Jacketing is designed in such a way that it enables the Valve to handle highly viscous materials or materials that solidify at ambient or normal temperatures.

Jacketed Valves are used for steam, hot water, high temperature thermic fluid oil or other heat transfer media.

These Valves ensure free flow through the Valve and prevent clogging when the Valve is in close position

SPECIAL FEATURES

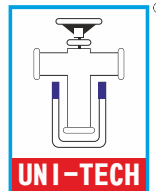
1. Full or Half Jacketing options can be availed depending upon the design of Valve.
2. Fully jacketed Valves are manufactured with One-Piece design Ball Valves. Valve body with flange is single piece Investment casting. No- welding is done in flanges.



All Dimensions are in mm Unless Specified

SIZE	ØG	L	ØF	ØE	ØD	T	DRILL
25x40	24.0	127.0	73.0	98.0	125.0	14.0	15x4
25x50	24.0	127.0	92.0	120.0	150.0	16.0	15x4
40x50	38.0	165.0	92.0	120.0	150.0	16.0	15x4
50x80	50.0	178.0	127.0	152.0	190.0	19.0	19x4
80x100	75.0	203.0	157.0	190.0	230.0	24.0	19x8
100x150	100.0	229.0	215.0	241.0	280.0	25.0	8x22

GATE VALVE



CONFORMITY TO STANDARD & CODES

Design & Manufacturing	API 600 / ASME B16.34
Inspection & Testing	API 598 / EN 12666 Part 1
Valve Face to Face	ANSI B 16.10
End Connection	ASME B 16.5, Class 150, 300
Pressure & Temp. Rating	ANSI B 16.34

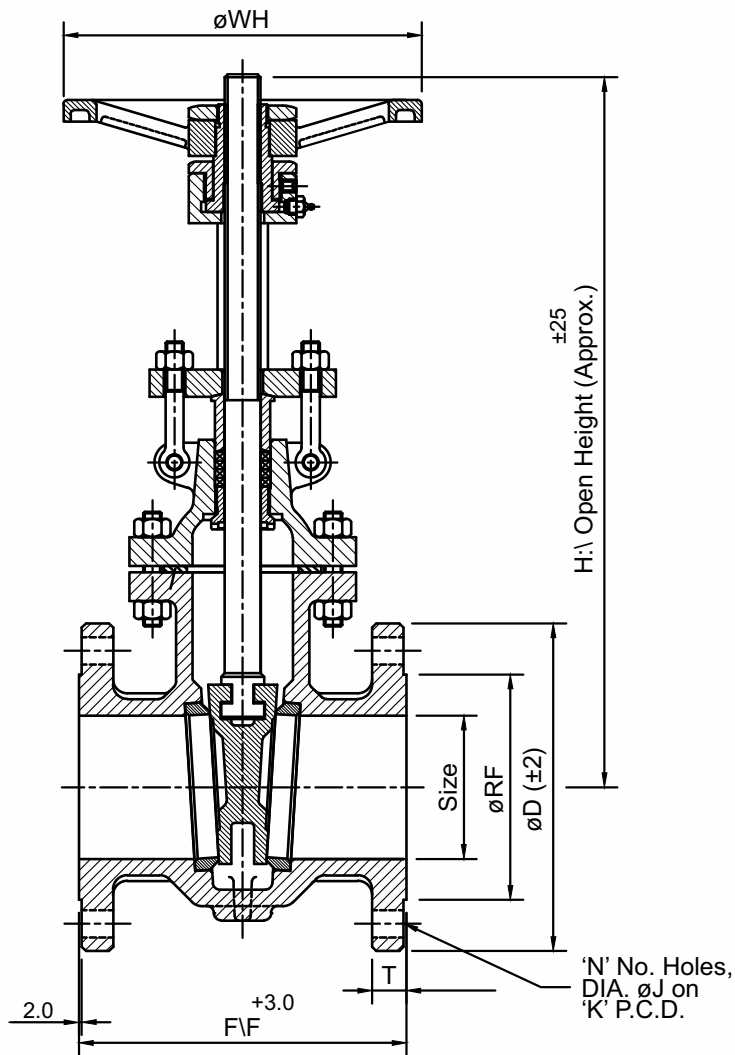
VALVES INSPECTION & TESTING

TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	58 Kg / cm ²	23 Kg / cm ²
Back Seat (Air)	23 Kg / cm ²	58 Kg / cm ²
Air Test (Seat Air)	7 Kg / cm ²	7 Kg / cm ²

STANDARD MATERIAL OF CONSTRUCTION

Body :	Cast Iron / ASTM A216 GR. WCB / ASTM A351 / GR. CF8 / CF8M
Bonnet :	Cast Iron / ASTM A216 Gr. WCB / ASTM A351 / GR. CF8 / CF8M
Seat Ring :	AISI 410 (13% Cr.) / SS304 / SS316
Wedge (Flexible) :	ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 / CF8M
Back Seat :	AISI 410 (13% Cr.) / SS304 / SS316
Stem :	AISI 410 (13% Cr.) / SS304 / SS316
Gland Packing :	Graphoil
Gland Flange :	MS / SS304 / Ss316
Bonnet Gasket :	Spiral Wound Gasket
Bonnet Stud & Nut :	ASTM A193 Gr. B7 / ASTM A194 Gr. 2H
Eye Bolt & Nut :	ASTM A193 Gr. B7 / ASTM A194 Gr. 2H
Cross Pin :	MS / SS304 / SS316
Yoke Sleeve :	Ni - Resist - Nodular Cast Iron
Yoke Nut :	MS / SS304 / SS316
Hand Wheel :	D.I.
Hand Wheel Nut :	ASTM A276 Type 410
Grease Nipple :	SS410 / SS304 / SS316
Grub Screw :	MS / SS304 / SS316





APPLICATIONS

- Oil, Gas & Water
- Steam
- Petrochemicals
- Up-to 400° C
- Food and Pharmaceutical Industries
- Compressed Air Line
- Gas Industries
- Water Line Process

SAILABLE FEATURES

- Non Rotating Rising System
- Flexible / Solid Wedge Design
- Flange End / Screw End / Butt Weld End Connections
- Actuator / Automation Available (On Request)
- Stelling on Seat & Wedge (On Request)

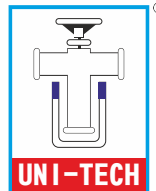
All Dimensions are in mm Unless Specified (150#)

SIZE	FF	ØD	ØRF	T	N	ØJ	'K' P.C.D	H	ØWH
25	127	110.0	51.0	11.6	4	16.0	79.4	285	100
40	165	125.0	73.0	14.7	4	16.0	98.4	310	150
50	203	150.0	92.0	16.3	4	19.0	120.7	360	150
65	216	180.0	105.0	17.9	4	19.0	139.7	425	150
80	203	190.0	127.0	19.5	4	19.0	152.4	443	200
100	229	230.0	157.0	24.3	8	19.0	190.5	577	200
125	254	255.0	186.0	24.3	8	22.0	215.5	685	250
150	267	280.0	216.0	25.9	8	22.0	241.0	790	250
200	292	345.0	270.0	29.0	8	22.0	298.5	1013	300
250	330	405.0	324.0	30.6	12	25.0	362.0	1215	300
300	356	485.0	381.0	32.2	12	25.0	431.8	1246	350

All Dimensions are in mm Unless Specified (300#)

SIZE	FF	ØD	ØRF	T	N	ØJ	'K' P.C.D	H	ØWH
25	165	125.0	51.0	17.5	4	19.0	88.9	285	150
40	190	155.0	73.0	19.1	4	22.0	114.3	310	200
50	216	165.0	92.0	20.7	8	19.0	127.0	390	200
65	241	190.0	105.0	23.9	8	22.0	149.2	500	250
80	283	210.0	127.0	27.0	8	22.0	168.3	500	250
100	305	255.0	157.0	30.2	8	22.0	200.0	577	300
125	381	280.0	186.0	33.4	8	22.0	235.0	790	350
150	403	320.0	216.0	35.0	12	22.0	269.9	790	400
200	419	380.0	270.0	39.7	12	25.0	330.2	1030	400
250	457	445.0	324.0	46.1	16	29.0	387.4	1215	450
300	502	520.0	381.0	49.3	16	32.0	450.8	1400	500

GLOBE VALVE



CONFORMITY TO STANDARD & CODES

Design & Manufacturing	API 600 / ASME B16.34 / BS1873
Inspection & Testing	API 598 / EN 12666 Part 1
Valve Face to Face	ANSI B 16.10
End Connection	ASME B 16.5, Class 150, 300
Pressure & Temp. Rating	ANSI B 16.34

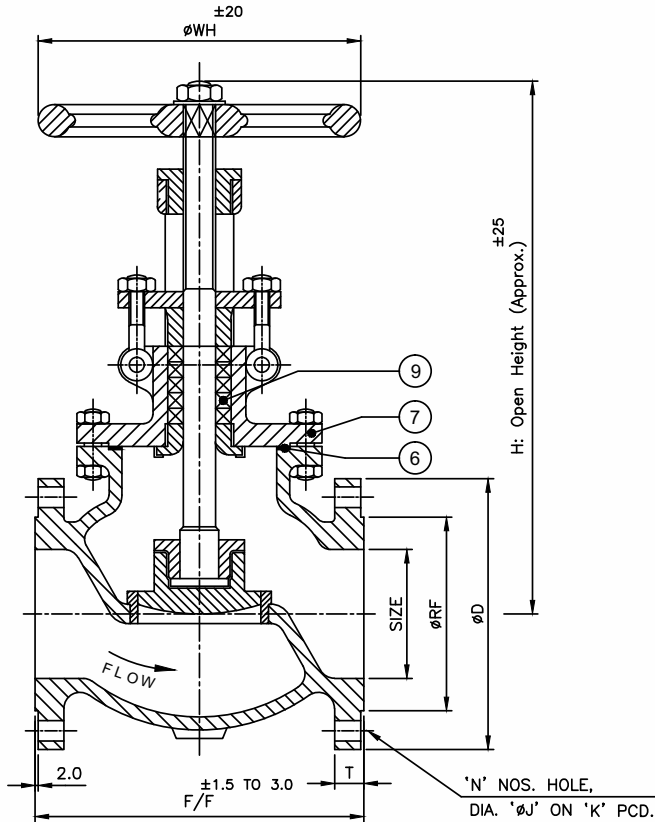
VALVES INSPECTION & TESTING

TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²
Back Seat (Air)	23 Kg / cm ²	58 Kg / cm ²
Air Test (SEAT AIR)	7 Kg / cm ²	7 Kg / cm ²

STANDARD MATERIAL OF CONSTRUCTION

Body :	Cast Iron / A216 Gr WCB / ASTM A351 Gr. CF8 \ CF8M
Bonnet :	Cast Iron / A216 Gr WCB / ASTM A351 Gr. CF8 \ CF8M
Disc :	AISI410 (13% Cr.) / SS304 / SS316
Stem :	AISI410 (13% Cr.) / SS304 / SS316
Seat :	AISI410 (13% Cr.) / SS304 / SS316
Disc Nut :	AISI410 (13% Cr.) / SS304 / SS316
Bonnet Gasket :	Spiral Wound Gasket
Back Seat Bush :	AISI 410 / Ss304 / SS316
Gland Packing :	Moulded Graphite
Bonnet Stud & Nut :	M.S. / S.S. / ASTM A193 Gr. B7 / ASTM A194 Gr. 2H
Gland Flange :	M.S. / SS304 / SS316
Cross Pin :	M.S. / SS304 / SS316
Eye Bolt :	M.S. / SS304 / SS316
Yoke Nut :	D.I / M.S.
Hand Wheel :	D.I.
Hand Wheel Nut :	M.S. / SS304 / Ss316
Grease Nipple :	(Optional)
Grub Screw :	(Optional)





APPLICATIONS

- Oil, Gas & Water
- Steam
- Petrochemicals
- Upto 400° C

SAILENT FEATURES

- Outside screw rising stem rising hand wheel construction threads are away from
- Body and bonnet made from high quality casting with liberal section.
- Seat ring screwed into the body are replaceable.
- Back seat ring features facilitate repacking of the stuffing box on line with valve in fully open position.
- Swinging eye bolts facilitate easy access to the stuffing box.
- Plug type disc design to give leak tight seat ring over a long period of in built wear life.
- Stellite seat ring and disc can also be offered on special request.
- The valve are higher pressure and bigger sizes are provided with thrust bearing and also with sear drive arrangement and flange also can be offered for different standards.

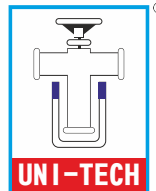
All Dimensions are in mm Unless Specified (150#)

SIZE	FF	ØD	ØRF	T	N	ØJ	'K' P.C.D	H	ØWH
25	127	110.0	51.0	11.6	4	16.0	79.4	285	100
40	165	125.0	73.0	14.7	4	16.0	98.4	310	150
50	203	150.0	92.0	16.3	4	19.0	120.7	360	200
65	216	180.0	105.0	17.9	4	19.0	139.7	425	200
80	241	190.0	127.0	19.5	4	19.0	152.4	443	225
100	292	230.0	157.0	24.3	8	19.0	190.5	577	250
125	356	255.0	286.0	24.3	8	22.0	215.5	685	350
150	406	280.0	216.0	25.9	8	22.0	241.0	790	400
200	495	345.0	270.0	29.0	8	22.0	298.5	1013	450
250	622	405.0	324.0	30.6	12	25.0	362.0	1215	600
300	698	485.0	381.0	32.2	12	25.0	431.8	1246	650

All Dimensions are in mm Unless Specified (300#)

SIZE	FF	ØD	ØRF	T	N	ØJ	'K' P.C.D	H	ØWH
25	203	125.0	51.0	17.6	4	19.0	88.9	285	200
40	229	155.0	73.0	19.1	4	22.0	114.3	310	200
50	267	165.0	92.0	20.7	8	19.0	127.0	390	250
65	292	190.0	105.0	23.9	8	22.0	149.2	500	250
80	318	210.0	127.0	27.0	8	22.0	168.3	500	300
100	356	255.0	157.0	30.2	8	22.0	200.0	577	350
125	400	280.0	186.0	33.4	8	22.0	235.0	790	400
150	445	320.0	216.0	35.0	12	22.0	269.9	790	450
200	533	380.0	270.0	39.7	12	25.0	330.2	1030	500
250	622	445.0	324.0	46.1	16	29.0	387.4	1215	600
300	711	520.0	381.0	49.3	16	32.0	450.8	1400	700

FORGED STEEL PISTON VALVE



TECHNICAL SPECIFICATION

Design Standard	B16.34/EN12516.2
Testing Standard	API 598
Face to Face Standard	Manufacture's Standard
Socket Weld Standard	ASME B 16.11
Screwed End Standard	ASME B 1.20.1
Butt Weld Standard	ASME B16.25
Flange End Standard	ASME B16.5

VALVES INSPECTION & TESTING

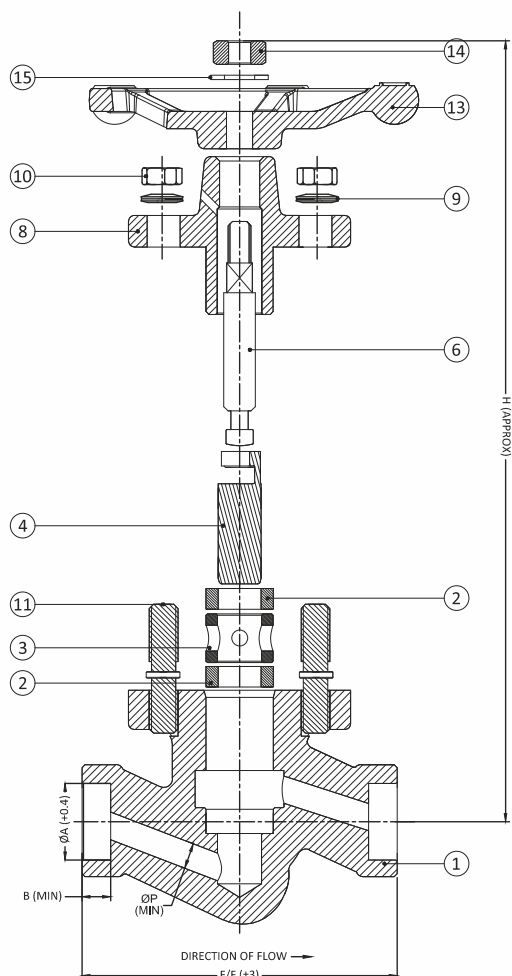
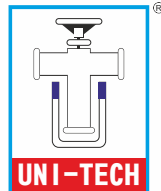
TEST	Pressure Rating for 800#
Body (Hyd.)	209 Kg / cm ²
Seat (Air)	7 Kg / cm ²



All Dimensions are in mm Unless Specified

800#	15mm (1/2")	20mm (3/4")	25mm(1")	40mm (1-1/2")
F/F (mm)	110	110	126	165
Øp	9	12	17	28
H OPEN (mm)	130	130	171	232
H CLOSE (mm)	105	105	137	191
ØWh (mm)	86	86	116	150
B (mm)	9.5	12.5	12.5	12.5
ØA (mm)	21.8	27.2	33.9	48.8
Approx Weight (Kg)	1.9	1.9	4	5.3

FORGED STEEL PISTON VALVE



DESIGN FEATURES

→ MSV Piston Valve is basically Seatless and Glandless Valve and by virtue of its design can replace both, the conventional type of Gate & Globe valves. with distinct advantages over them.

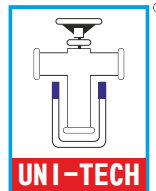
→ Piston Valve works on the principle of Resilient rings in conjunction with a Metallic Stainless Steel Piston, that moves vertically between the rings. giving a Seal that is both effective as well as Durable. This sealing system gives a bubble tight shut off.

Material of Construction

	DESCRIPTION	MATERIAL	MATERIAL	MATERIAL
		MOC A105	MOC F - 304	MOC F - 316
1	BODY	ASTM A 105	ASTM A 182 GR. F - 304	ASTMA 182 GR. F - 316
2	SEALING RING	GRAPHITE WITH SS304 REINFORCED	GRAPHITE WITH SS304 REINFORCED	GRAPHITE WITH SS304 REINFORCED
3	LANTERN BUSH	ASTM A 276 TYPE SS410	ASTM A 276 TYPE SS410	ASTM A 276 TYPE SS316
4	PISTON	ASTM A 276 TYPE SS304 / A315 GR. CF8	ASTM A 276 TYPE SS304 / A315 GR. CF8	ASTM A 276 TYPE SS316 / A315 GR. CF8M
5	SPLIT NUT WASHER	BRASS	BRASS	BRASS
6	SPINDLE	ASTM A 276 TYPE SS 410	ASTM A 276 TYPE SS 410	ASTM A 276 TYPE SS 316
7	SPLIT NUT	BRASS IS319 GR. 1	BRASS IS319 GR. 1	BRASS IS319 GR. 1
8	BONNET	ASTM A 105	ASTM A 182 GR. F - 304	ASTM A 182 GR. F - 316
9	BELLEVILLE WASHER	50CR V4 / ASTM240 GR. 302	50CR V4 / ASTM240 GR. 302	50CR V4 / ASTM240 GR. 302
10	NUT	ASTM A 194 GR. 2H	ASTM A 194 GR. B8	ASTM A 194 GR. B8M
11	STUD	ASTM A 193 GR. B7	ASTM A 193 GR. B8	ASTM A 193 GR. B8M
12	HANDWHEEL WASHER	MS	MS	MS
13	HANDWHEEL	MI / SGIRON	MI / SGIRON	MI / SGIRON
14	HANWHEEL NUT	ASTM A 194 GR. 2H	ASTM A 194 GR. B8	ASTM A 194 GR. B8M
15	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL

Note : Alloy Steel, Stainless Steel, Duplex is also available on request.

CAST STEEL PISTON VALVE



TECHNICAL SPECIFICATION

Design Standard	B16.34/EN12516.2
Testing Standard	API 598
Face to Face Standard	ASME B 16.10
Flange End Standard	ASME B16.5

MAXIMUM OPERATING TESTING PRESSURE

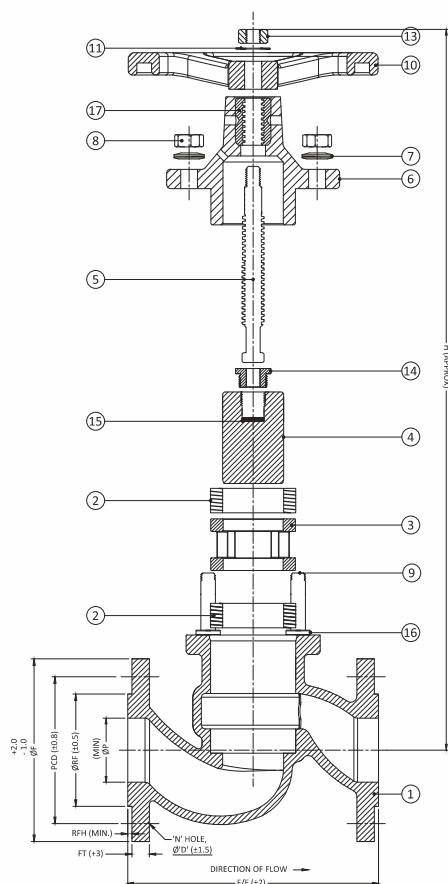
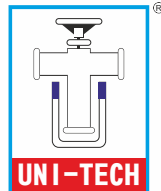
Pressure Rating for	150#	300#
Body (Hyd.)	32	78
Seat (Hyd.)	22	56
Seat (Air.)	7	7



All Dimensions are in mm Unless Specified

CLASS	150#				300#		
DIMENSION	80mm (3")	100mm (4")	150mm (6")	200mm (8")	80mm (3")	100mm (4")	150mm (6")
F/F (mm)	241	292	406	495	318	356	444
ØP (mm)	80	100	152	200	80	100	152
H OPEN (mm)	400	510	615	720	400	510	615
H CLOSE (mm)	330	420	495	575	330	420	495
ØF (mm)	190	230	280	245	210	255	320
ØRF (mm)	127.0	157.2	215.9	269.9	127.0	157.2	215.9
FT (mm)	17.5	22.3	23.9	27.0	27.0	30.2	35.0
RFH (mm)	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PCD (mm)	152.4	190.5	241.3	298.5	168.3	200.0	269.9
N	4	8	8	8	8	8	12
ØWH (mm)	300	300	350	400	300	300	350
ØD (mm)	19.0	19.0	22.2	22.3	19.0	19.0	22.2
WEIGHT APPROX (Kg)	21.0	35.5	56.7	110.4	25.2	40.7	68.7

CAST STEEL PISTON VALVE



DESIGN FEATURES

→ MSV Piston Valve is basically Seatless and Glandless Valve and by virtue of its design can replace both, the conventional type of Gate & Globe valves. with distinct advantages over them.

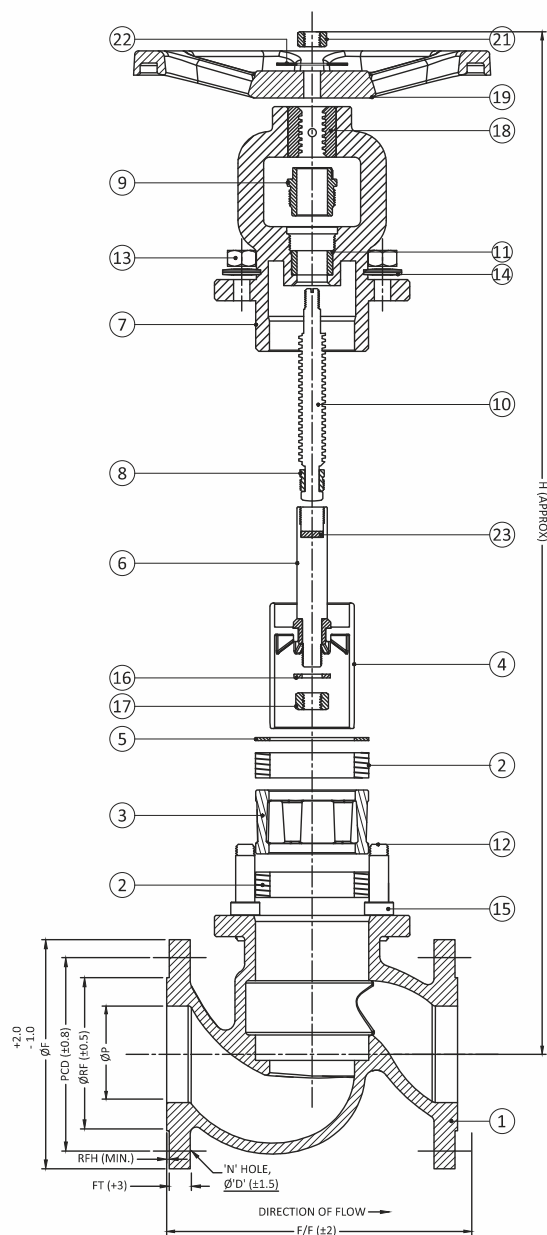
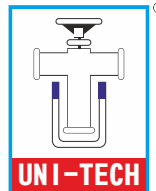
→ Piston Valve works on the principle of Resilient rings in conjunction with a Metallic Stainless Steel Piston, that moves vertically between the rings. giving a Seal that is both effective as well as Durable. This sealing system gives a bubble tight shut off.

Material of Construction

	DESCRIPTION	MATERIAL	15-20mm	25mm	40mm	50mm
1	BODY	ASTM A 216 GR. WCB	1	1	1	1
2	SEALING RING	GRAPHITE WITH SS304 REINFORCED	2	2	2	2
3	LANTERN BUSH	ASTM A 276 TYPE Ss410 / A217 GR.CA15	1	1	1	1
4	PISTON	ASTM A 276 TYPE SS304 / A315 GR. CF8	1	1	1	1
5	SPINDLE	ASTM A 276 TYPE SS410	1	1	1	1
6	BONNET	ASTM A 105	1	1	1	1
7	BELLEVILLE WASHER	50CR V4 / ASTM240 GR.302	4	8	8	8
8	NUT	ASTM A 194 GR. 2H	2	4	4	4
9	STUD	ASTM A 193 GR. B7	2	4	4	4
10	HANDWHEEL	MI / SGIRON	1	1	1	1
11	NAME PLATE	STAINLESS STEEL	1	1	1	1
12	HANDWHEEL WASHER	MS	1	1	1	1
13	HANDWHEEL NUT	ASTM A 194 GR. 2H	1	1	1	1
14	SPLIT NUT	BRASS IS319 GR.1	NA	NA	1	1
15	SPLIT NUT WASHER	BRASS	NA	NA	1	1
16	GAP RING	ASTM A 276 TYPE SS 410	NA	NA	NA	4
17	THREADED BUSH	BRASS IS319 GR.1	NA	NA	NA	1

Note : Alloy Steel, Stainless Steel, Duplex, Super Duplex is also available on request.

CAST STEEL PISTON VALVE



Forged Steel
#800
(Screwed /
Socket weld)

Maximum Operating Pressure	136.2 bar
Maximum Operating Temperature	425° C
Maximum Hydraulic Test Pressure	209 bar

Cast Steel
#150
(Flanged)

Maximum Operating Pressure	19.6 bar
Maximum Operating Temperature	425° C
Maximum Hydraulic Test Pressure	32 bar

Cast Steel
#300
(Flanged)

Maximum Operating Pressure	51.1 bar
Maximum Operating Temperature	425° C
Maximum Hydraulic Test Pressure	78 bar

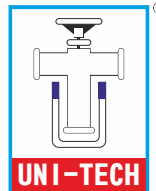
MAXIMUM OPERATING TESTING PRESSURE

Pressure Rating for 800#	150#	300#
Hydro Test Pressure (Body) Kg/cm ²	32	78
Hydro Test Pressure (Seat) Kg/cm ²	22	56
Pneumatic Test Pressure Kg/cm ²	7	7

TECHNICAL SPECIFICATION

Design Standard	B16.34/EN12516.2
Testing Standard	API 598
Face to Face Standard	ASME B 16.10
Flange End Standard	ASME B16.5

CAST STEEL PISTON VALVE



Material of Construction

	DESCRIPTION	MATERIAL	80mm	100mm	150mm	200mm
1	BODY	ASTM A 216 GR. WCB	1	1	1	1
2	SEALING RING	GRAPHITE WITH SS304 REINFORCED	2	2	2	2
3	LANTERN BUSH	ASTM A 276 TYPE SS410 / A217 GR.CA15	1	1	1	1
4	PISTON	ASTM A 217 GR. CA15 / A351 GR. CF8	1	1	1	1
5	BONNET SEALING RING	GRAPHITE	1	1	1	1
6	SPINDLE	ASTM A 276 TYPE SS 410	1	1	1	1
7	BONNET	ASTM A 105 / ASTM A 216 GR. WCB	1	1	1	1
8	SPLIT NUT	BRASS IS319 GR.1	1	1	1	1
9	GLAND NUT	ASTM A 276 TYPE SS 410	1	1	1	1
10	SREM	ASTM A 276 TYPE SS 410	1	1	1	1
11	STEM SEAL RING	GRAPHITE WITH SS304 REINFORCED	1	1	1	1
12	STUD	ASTM A 193 GR. B7	6	8	8	8
13	NUT	ASTM A 194 GR. 2H	6	8	8	8
14	BELLEVILLE WASHER	50CR V4 / ASTM240 GR.302	12	16	16	16
15	GAP RING	ASTM A 276 TYPE SS 410	3	4	4	4
16	FLAT WASHER	ASTM A 276 TYPE SS 410	1	1	1	1
17	SPINDLE NUT	ASTM A 194 GR. 2H	1	1	1	1
18	YOKE	BRONZE	1	1	1	1
19	HANDWHEEL	MI / SGIRON	1	1	1	1
20	HANDWHEEL WASHER	MS	1	1	1	1
21	HANDWHEEL NUT	ASTM A 194 GR. 2H	1	1	1	1
22	NAME PLATE	STAINLESS STEEL	1	1	1	1
23	THRUST PLATE	ASTM A 276 TYPE SS 410	1	1	1	1

Note : Alloy Steel, Stainless Steel, Duplex, Super Duplex is also available on request.

All Dimensions are in mm Unless Specified

CLASS	150#					300#				
DIMENSION	15mm (1/2")	20mm (3/4")	25mm (1")	40mm (1-1/2")	50mm (2")	15mm (1/2")	20mm (3/4")	25mm (1")	40mm (1-1/2")	50mm (2")
F/F (mm)	108	117	127	165	203	152	178	203	229	267
ØP (mm)	15.7	20.9	25.0	40.0	50.0	15.7	20.9	25.0	40.0	50.0
H OPEN (mm)	127	127	176	140	270	127	127	176	240	270
H CLOSE (mm)	104	104	142	193	223	104	104	142	193	223
ØF (mm)	90	100	110	125	150	95	115	125	155	165
ØRF (mm)	34.9	42.9	50.8	73.0	92.1	34.9	42.9	50.8	73.0	92.1
FT (mm)	9.6	11.2	12.7	12.7	14.3	12.7	14.3	15.9	19.1	20.7
RFH (mm)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PCD (mm)	60.3	69.9	79.4	98.4	120.7	66.7	82.6	88.9	114.3	127.0
N	4	4	4	4	4	4	4	4	4	8
ØWH (mm)	86	86	116	150	200	86	86	116	150	200
ØD (mm)	15.9	15.9	15.9	15.9	19.0	15.9	19.0	19.0	22.2	19.0
WEIGHT APPROX (Kg)	1.6	1.9	6.7	6.7	10.5	1.9	2.6	4.7	8.7	12.2



DESCRIPTION

The Mechseal piston valve (MSV) is a linear movement valve in which a stainless steel piston travels between the upper and lower seal ring. These rings are separated by a lantern bushing which supports the piston and creates a bubble tight seal. Known for their extraordinary performance and long life, piston valves can handle a variety of media such as steam, thermic fluid, condensate and many other liquids and gases. They can be used in on/off and throttling applications. Mechseal valve offers glandless piston valve for reliable long-term performance in steam, condensate as well as process lines. The versatile valve can be used for both isolation and throttling applications.

INSTALLATION

The valve should be installed in the direction of flow indicated on the body. The valve can be installed in any plane, except with the hand wheel on the lower side. Sealing is affected by the linear motion of the piston, between upper and lower valve rings- when the piston engages with the lower ring, the valve closes and when the piston aligns with the upper ring, the valve opens. Further, the piston in conjunction with the upper ring prevents leakage to atmosphere.

FEATURE

- Bubble tight (ANSI leakage class VI)
- Reinforced sealing rings and Belleville washer-compensates for thermal expansion, reliability.
- Sealing not affected by the presence of dirt or any other impurities in the media
- Other serviceable-sealing rings can be replaced without removing the valve from line
- Can be used for throttling applications
- Robust and maintenance free
- No erosion of sealing surface
- Long service life
- Effective sealing area is large, as compared to the conventional linear movement of valves
- Can be easily serviced inline
- Easy to repair: The only wearing parts are sealing rings which are easily replaceable
- Low cost of ownership
(Cost of ownership included maintenance, inventory cost in addition to the purchase cost)

MAINTENANCE

In case any leakage is observed the bonnet nuts should be tightened with the valve in the fully closed position. Tightened the bonnet nuts may be repeated as and when required until the rings are worn out and no further adjustment or tightening is possible. At this stage the sealing rings need to be replaced.

No undue force should be used when tightening the nuts, as they should rotate easily with a standard spanner. Care should be taken while tightening the nuts to avoid tilting of the valve. Undue force should not be used to shut the valve as this may damage the spindle or the wheel.

1) To stop stem leakage

- I) In piston valve, the bonnet must be tightened down to prevent stem gland seal & lower seat leakage. Applying the recommended torque to nut will ensure any steam leaks are avoided.
- II) The piston valve is designed for either bonnet assembly replacement which includes all the necessary internal parts, or simple in-line replacement of the upper and lower sealing rings.
- III) The valve spindle should be checked at regular interval to ensure adequate grease is present to ensure efficient valve operation.
- IV) When piston valve fitted on high temperature application or where severe weather condition prevails, the grease should be checked more rapidly.

PISTON VALVE USAGE & FEATURES



2) To Replace Sealing Ring & Position

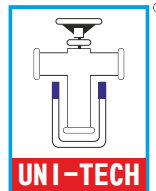
- II) Close the piston valve.
- II) Remove the bonnet nuts and washer
- III) Withdraw the bonnet complete with spindle and piston
- IV) Remove the upper sealing rings, lantern bush and lower sealing ring
- V) Ensure the inside surface & sealing ring's sitting surface of the valve are clean
- VI) Fit the new lower sealing ring, lantern bush (it available) and upper sealing ring
- VII) Refit the bonnet complete with spindle and piston and tighten nuts to the recommended torque.

Comparison Between Bellow Seal, Piston & Traditional Valves

	Bellow Seal Valve	Piston Valve	Conventional Valve
Stream Seal	Metallic Bellow Gland Packing	Sealing Ring	Gland Packing
Stem Leakage	Not Possible Since Metallic Bellow are designed to several thousands cycle	Not Possible till the ring wear out	Very Common Due to friction between stem & gland
Equipment Downtime	Nil	Low for replacing ring	Very High for replacing gland packing
Safety	Can be used safely for almost any media	can be used for limited media steam, hot water	Highly unsafe when the media is poisonous / hazardous
Valve Life	Very High in Years	High compared to Conventional Valve	Very low due to leakage through gland occur in some month



KNIFE EDGE GATE VALVE



Uni-Tech make Knife Edge Gate Valves are advantageous in sledge and slurry applications because their blades cut right through thick liquids easily. They are generally specified in larger sizes for handling thick flows of heavy Oils, Light Grease, Slurry, Paper & Pulp, Varnish and Wastewater to name but a few Knife Gate Valve applications.

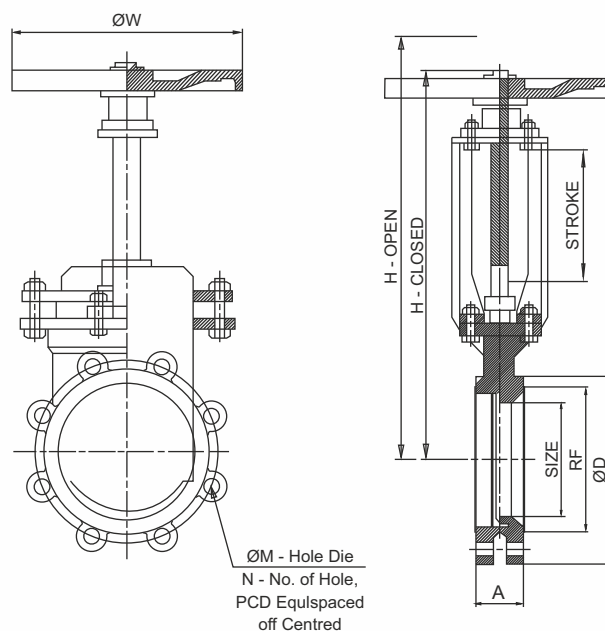
TECHNICAL SPECIFICATION	
Design Standard	MSS - SP - 81
Face to Face Standard	----
End Connections	----
Testing Standard	MSS - SP - 81

TEST	CLASS 150#
Body (Hyd.)	425 PSIG
Seat (Hyd.)	40 PSIG
Temperature	220° F
Working Pressure	150 PSIG (21 Kg / cm ²)

Note : 2" to 14" Lugged type 16" to above flange end 150#

TECHNICAL SPECIFICATION

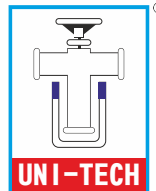
- Body :** WCB / CF8 / CF8M
- Gate :** SS410 / SS304 / SS316
- Seat :** Metal to Metal / EPDM / PTFE
- Gland Packing :** PTFE / Graphite
- Gland :** C.I. / WCB / CF8 / CF8M
- Stem :** SS410 / SS304
- Yoke Sleeve :** Gun Metal
- Stem Nut :** S.G. Iron
- Hand Wheel:** S.G. Iron
- Nut & Bolts :** C.S. / M.S.



All Dimensions are in mm Unless Specified

Inch	MM	A	ØD	ØC	ØM	N	PCD	ØW	H OPEN	H CLOSED
2"	50	47.6	152	92	16	4	120	203	406.4	346
3"	80	50.8	184	152	16	4	152	203	501	406.4
4"	100	50.8	228.6	156	16	8	190.5	203	549	450
6"	150	57.15	279	216	19	8	241.3	305	705	549
8"	200	69.85	343	270	19	8	298.5	305	882	680
10"	250	69.85	406	324	22	12	362	381	1085	816
12"	300	76.20	482	381	22	12	432	381	1235	924
14"	350	76.20	533	413	25	12	476	381	1403	1066.8
16"	400	82.50	597	470	25	16	540	508	1603	1187
18"	457	82.50	635	533	28.5	16	578	508	1790	1330
20"	508	108	198.5	584	28.5	20	635	508	2457	1936
24"	610	108	813	693	31.75	20	750	508	2949	2317

SPHERICAL DISC BUTTERFLY VALVE



Uni-Tech make Spherical Disc Type Butterfly Valves are giving extremely high performance at very lower operating torque with some significant features like lower weight, compact design, replaceable seat and easy maintenance. PTFE seat ensures smooth working life under temperature Upto 210° centigrade. For higher size these valves are stringly recommended.

TECHNICAL SPECIFICATION

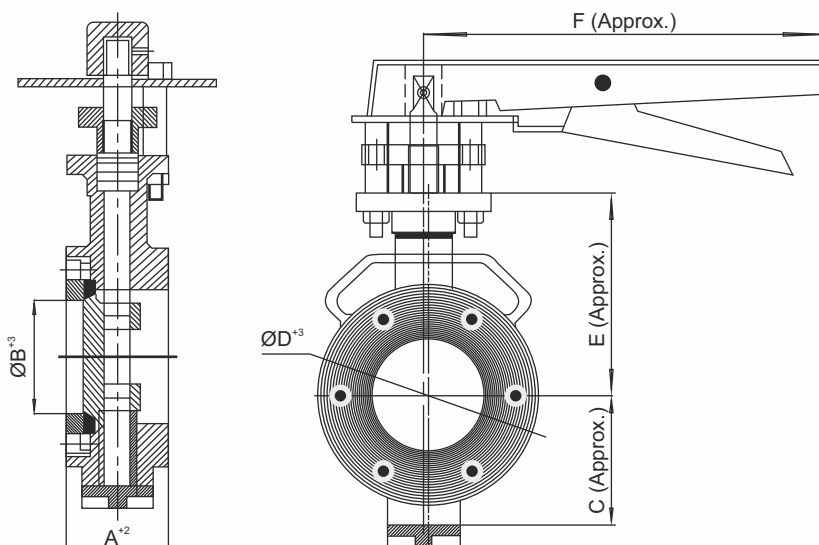
Design & Manufacture	API 609
Face to Face Dimension	BS 5155 / API 609 Category B
Top Flange Drilling	ISO 5211
Inspection & Testing	BS 6722 Part-1 / API 598 / EN 12233-1
Flange Standard	ANSI 150 / IS 6392 NP 1.0 / 1.6

VALVE INSPECTIONS TESTING

Test	PN 10
Body (Hyd.)	15 Kg / cm ²
Seat (Hyd.)	10 Kg / cm ²
Seat (Air)	7 Kg / cm ²

TECHNICAL SPECIFICATION

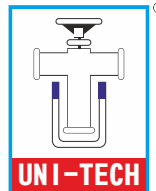
Body :	WCB / CF8 / CF8M
Disc :	CF8 / CF8M
Retainer :	WCB / CF8 / CF8M
Seat Ring :	PTFE / GFT / VITON
Shaft :	AISI 410 / 304 / 316
Shaft Bearing Bush :	AISI 410 / 304 / 316
Gland :	WCB / CF8
Gland Packing :	PTFE
Bottom Cover :	WCB / CF8
L. N. Bolt :	S.S. 202 / S.S. 304
Lever :	M.S.



All Dimensions are in mm Unless Specified

Inch	MM	A	ØB	C	ØD	E	F
1.1 / 2"	40	42	40	51	85	85	180
2"	50	45	51	58	98	90	180
2.1 / 2"	65	48	61	63	115	102	180
3"	80	48	72	70	131	120	215
4"	100	54	100	86	159	134	215
5"	125	57	123	105	188	154	265
6"	150	57	143	120	219	170	265
8"	200	63	192	145	272	200	325
10"	250	72	240	175	325	230	----
12"	300	83	290	215	385	270	----

FORGED VALVE (GATE - GLOBE - CHECK VALVE)



REFERENCE STANDARDS

Design	API 602 / BS 5352
Face to Face Standard	B16.10

DESIGN FEATURES

Size Range	15 NB to 50 NB
Pressure Rating	Class 800#
Seat Leakage	Class IV
Operation	Manual / Self Acting
End Connection	Screwed / Socket Weld

TECHNICAL SPECIFICATION

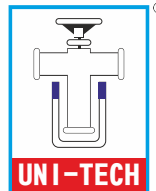
- Body :** A 105
- Wedge :** A 217 CA 15
- Disc :** A 276 Gr 410 + 13% Cr.
- Stem :** A 479 Gr 410
- Bonnet :** A 105
- Seat Ring :** A 276 Gr 410 + 13%Cr. + Stellite Composition
- Cover :** A 105
- Gasket :** SSPW + Graphite



Material of Construction

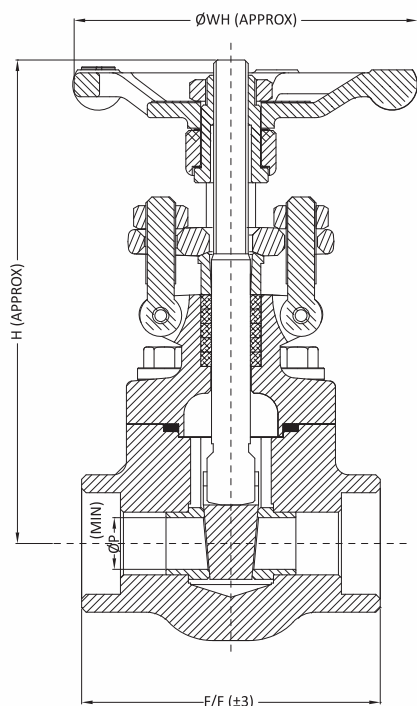
	DESCRIPTION	MATERIAL	MATERIAL	MATERIAL	MATERIAL	MATERIAL
		MOC A 105	MOC F - 304	MOC F - 316	MOC F - 22	MOC F - 51
1	BODY	ASTM A 105	ASTM A 182 GR. F - 304	ASTM A 182 GR. F - 316	ASTM A 182 GR. F - 22	ASTM A 182 GR. F - 51
2	SEAT RING	13% CR. INREGREL	ASTM A 182 GR.F-304 NTEGRAL	ASTM A 182 GR.F-316 NTEGRAL	13% CR. NTEGRAL	ASTM A 182 F-51 NTEGRAL
3	PLUG/WEDGE	ASTM A 217 GR CA-15	ASTM A 351 GR. CF8	ASTM A 351 GR. CF8M	ASTM A 351 GR. CA-15	ASTM A 351 GR. F-51
4	STEM	ASTM A 182 GR. FGA	ASTM A 182 GR. F-304	ASTM A 182 GR. F-316	ASTM A 217 GR. F-F6A	ASTM A 182 GR. F-51
5	GASKET (*)	SS-304 SPW + GRAPHITE	SS-304 SPW + GRAPHITE	SS-316 SPW + GRAPHITE	3SS-304 SPW + GRAPHITE	3SS-316 SPW + GRAPHITE
6	BONNET	ASTM A 105	ASTM 182 GR. F-304	ASTM 182 GR. F-316	ASTM A 182 GR. F-33	ASTM A 182 GR. F-51
7	HEX BOLT (*)	ASTM A 193 GR. B7	ASTM A 193 GR. B8	ASTM A 193 GR. B8M	ASTM A 193 GR. F-B16	ASTM A 193 GR. F-B8M
8	EYE BOLT PIN	ASTM A 276 TYPE SS-410	ASTM A 276 TYPE SS-304	ASTM A 276 TYPE SS-316	ASTM A 276 TYPE SS-410	ASTM A 276 TYPE SS-316
9	GLAND BUSH	ASTM A 276 TYPE SS-410	ASTM A 276 TYPE SS-304	ASTM A 276 TYPE SS-316	ASTM A 276 TYPE SS-410	ASTM A 276 TYPE F-51
10	EYE BOLT	ASTM A 193 GR. 2H	ASTM A 182 GR. F-304	ASTM A 182 GR. F-316	ASTM A 193 GR. B7	ASTM A 193 GR. F-316
11	GLAND FLANGE	ASTM A 105	ASTM A 182 GR. F-304	ASTM A 182 GR. F-316	ASTM A 182 GR. F-22	ASTM A 182 GR. F-51
12	EYE BOLT NUT	ASTM A 194 GR. 2H	ASTM A 194 GR. B8	ASTM A 194 GR. B8M	ASTM A 194 GR. 2H	ASTM A 194 GR. B8M
13	YOKE SLEEVE	ASTM A 582 GR. SS-416	ASTM A 582 GR. SS-303	ASTM A 582 GR. SS-303	ASTM A 582 GR. SS-416	ASTM A 582 GR. SS-303
14	STEAM NUT	ASTM A 194 GR. 2H	ASTM A 194 GR. B8	ASTM A 194 GR. B8M	ASTM A 194 GR. 2H	ASTM A 194 GR. B8M
15	NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
16	HAND WHEEL	MI / SGIRON	MI / SGIRON	MI / SGIRON	MI / SGIRON	MI / SGIRON
17	GLAND PACKING	FLEXIBLE GRAPHITR RINGS	FLEXIBLE GRAPHITE RINGS	FLEXIBLE GRAPHITE RINGS	FLEXIBLE GRAPHITE RINGS	FLEXIBLE GRAPHITE RINGS
18	BACK SEAT	INTEGRAL	INTIGRAL	INTIGRAL	INTIGRAL	INTIGRAL
19	SPRING	ASTM A 313 SS-304	ASTM A 313 SS-304	ASTM A 313 SS-316	ASTM A 313 SS-304	ASTM A 313 SS-316
20	CHECK PLATE	ASTM A 105	ASTM A 182 GR. F-304	ASTM A 182 GR. F-316	ASTM A 182 GR. F-22	ASTM A 182 GR. F-51

FORGED VALVE (GATE - GLOBE - CHECK VALVE)

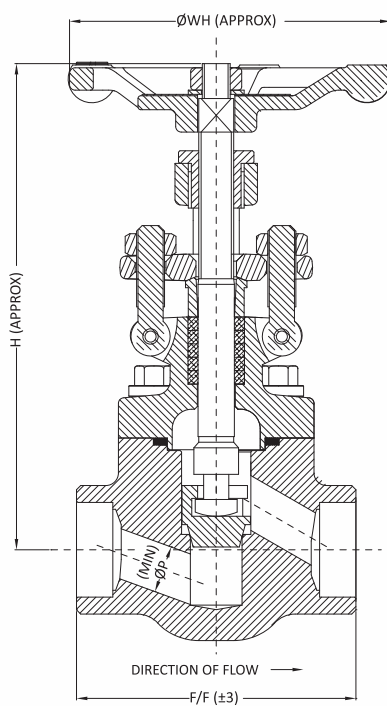


APPLICATIONS

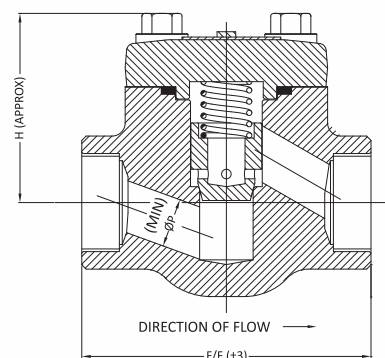
- Oil, Gas & Water
- Steam, Petrochemicals
- Upto 400° C



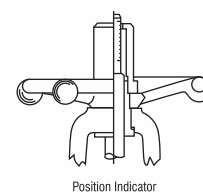
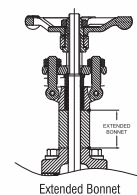
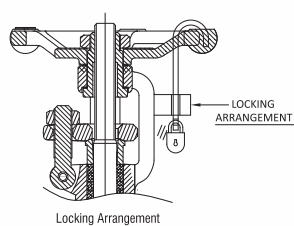
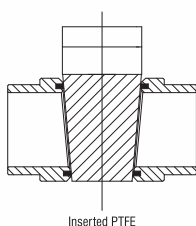
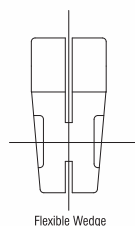
GATE VALVE



GLOBE VALVE



CHECK VALVE



DESIGN FEATURES

- Body and Bonnet Made from high quality casting with liberal section
- Seat ring Screwed into the body are replaceable.
- Back Seat ring Features facilitate repacking of the stuffing box on line with valve in fully open position
- Swinging eye bolts Facilitate easy access to the stuffing box.
- Plug type disc design to give leak tight seat ring over a long period of in built wear life.
- Setellite Seat Ring and disc Can also Be offered on special request.

All Dimensions are in mm Unless Specified

SIZE		GATE VALVE						GLOBE VALVE						CHECK VALVE			
INCH	MM	F/F	ØP	H OPEN	H CLOSE	ØWh	Approx Weight	F/F	ØP	H OPEN	H CLOSE	ØWh	Approx Weight	F/F	ØP	H	Approx Weight
1/2	15	73	9.5	151	135	86	1.5	73	9.5	159	143	86	1.6	73	9.5	53	1.0
3/4	20	80	12.7	157	137	86	1.8	80	12.1	162	146	86	1.8	80	12.7	56	1.2
1	25	100	17.5	186	162	116	3.1	100	17.5	191	171	116	3.1	100	17.5	66	2.1
1 1/2	40	120	28.6	237	201	150	6.1	145	28.6	228	199	150	6.3	145	28.6	86	4.7
2	50	130	36.5	268	223	150	8.3	160	36.5	265	236	150	9.4	160	36.5	104	7.7

CONTROL VALVE 3 WAY / 2 WAY



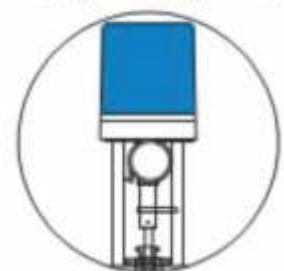
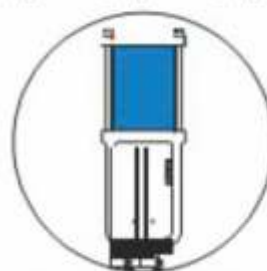
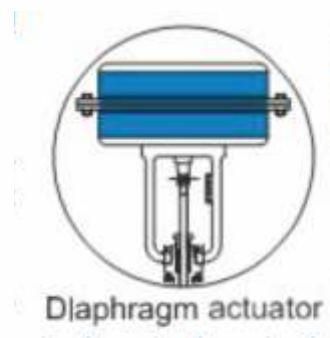
CONFORMITY TO STANDARD & CODES

Design & Manufacturing	BS 1873 / API 600
Inspection & Testing	API 598 / BS 6755 Part-1
Valve Face to Face	ANSI B 16.10
End Connection	ASME B 16.5, Class 150, 300
Pressure & Temp. Rating	ANSI B 16.34

TEST	CLASS 150#	CLASS 300#
Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²
Back Seat (Air)	23 Kg / cm ²	58 Kg / cm ²
Pneumatics (SEAT)	7 Kg / cm ²	7 Kg / cm ²

STANDARD MATERIAL OF CONSTRUCTION

Body :	ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 \ CF8M
Bonnet :	ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 \ CF8M
Seat :	AISI 304 / AISI 316 AISI 410
Plug :	AISI 304 / AISI 316 AISI 410
Tail Piece :	ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 \ CF8M
Stem:	AISI 304 / AISI 316 AISI 410
Gasket :	SS 304 SPW + GRAPHITE
Gland :	GRAPHOIL
Check Nut :	MS
Gland Nut :	AISI 304 / AISI 316 AISI 410
Actuator Stand :	SG Iron / ASTM A216 Gr. WCB
Setting Nut :	ASTM 193 B7 / ASTM A194 Gr. 2H
Spring :	STAINLESS STEEL
Cylinder :	Aluminium / Ss316 / SS304
Piston :	SG Iron
v Seal :	Nitrile Rubber / Viton
Actuator Cover :	SG Iron / ASTM A216 Gr. WCB
Stud & Nut :	ASTM 193 B7 / ASTM A194 Gr. 2H



CONTROL VALVE 3 WAY / 2 WAY

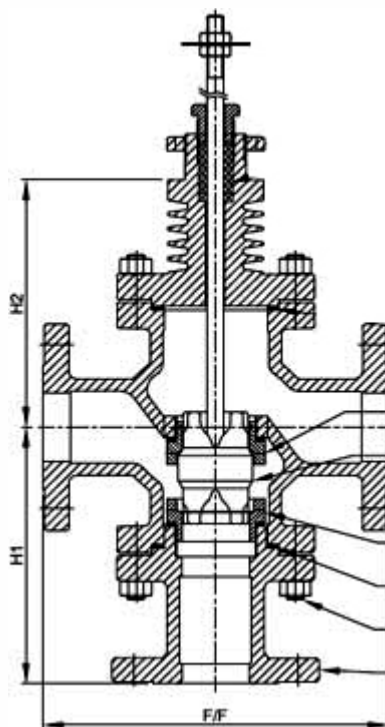


APPLICATIONS

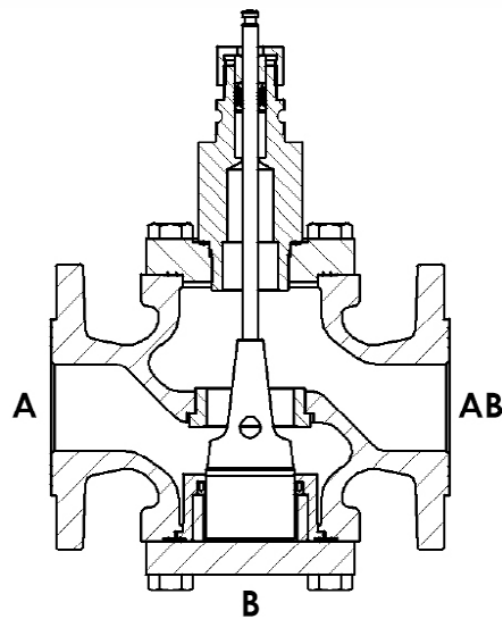
- Oil, Gas & Water
- Steam
- Petrochemicals
- Upto 400° C

SAILENT FEATURES

- The product designs are in accordance to ASME B16.34 / BS 1873 with reliable sealing & sturdy construction to ensure excellent performance.
- Back Seat arrangement to provide isolation of stuffing box for on-line serviceability.
- All trim material available as per API 600.
- Pressure sealed bonnet for ASME 150# and above to provide excellent sealing against increased line pressure.
- Self aligning disc is provided for proper sealing.
- Full range of Body / Bonnet & Trim material available.
- Valve Bypass / Deep stuffing box arrangement optionally available.
- Valves are available in Flange End & Butt Weld End connections.
- Pneumatic / Electrical operator can be provided if required.
- Locking arrangement can be provided with hand wheel / Gear operator, if required.
- Position indicator / limit switches for ON-OFF indication provided on request.
- Parabolic disc can be provided on request.



3 Way Type

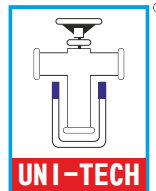


2 Way Type

All Dimensions are in mm Unless Specified

SIZE (NB)	25	40	50	65	80	100	125	150	200
FACE TO FACE	184	222	254	276	298	352	356	406	495
H1	133	178	189	207	219	285	280	288	347
H2	133	173	182	205	215	344	353	367	384
PCD	80	99	121	140	153	191	216	242	299
NO OF HOLES	4	4	4	4	4	8	8	8	8

SWING TYPE NRV VALVE



CONFORMITY TO STANDARD & CODES

Design & Manufacturing	BS 1868
Inspection & Testing	API 598 / BS 6755 Part-1
Valve Face to Face	ANSI B 16.10
End Connection	ASME B 16.5, Class 150, 300
Pressure & Temp. Rating	ANSI B 16.34

TEST CLASS 150# CLASS 300#

Body (Hyd.)	31 Kg / cm ²	78 Kg / cm ²
Seat (Hyd.)	23 Kg / cm ²	58 Kg / cm ²

TECHNICAL SPECIFICATION

Body : Cast Iron / ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 / CF8M

Bonnet Cover : Cast Iron / ASTM A216 Gr. WCB / ASTM A351 Gr. CF8 / CF8M

Disc : AISI 410 / AISI 304 / AISI 316

Body Seat : AISI 410 / AISI 304 / AISI 316

Disc Seat : AISI 410 / AISI 304 / AISI 316

Washer : AISI 410 / AISI 304 / AISI 316

Disc Nut : AISI 410 / AISI 304 / AISI 316

Hinge Pin : AISI 410 / AISI 304 / AISI 316

Hinge : ASTM A216 Gr. WCB / SS304 / SS 316

Guide Bush : AISI 410 / AISI 304 / AISI 316

Gasket : Spiral Wound With Graphite Filler

Stud & Nut : M.S. / S.S. / ASTM A193 Gr. B7 / ASTM A194 Gr. 2H



All Dimensions are in mm Unless Specified (150#)

Size	F/F	ØD	ØRF	T	N	ØJ	'K'PCD
25	127	110.0	51.0	11.6	4	16.0	79.4
40	165	125.0	73.0	14.7	4	16.0	98.4
50	203	150.0	92.0	16.3	4	19.0	120.7
65	216	180.0	105.0	17.9	4	19.0	139.7
80	241	190.0	127.0	19.5	4	19.0	152.4
100	292	230.0	157.0	24.3	8	19.0	190.5
125	356	255.0	186.0	24.3	8	22.0	251.9
150	406	280.0	216.0	25.9	8	22.0	241.3
200	495	345.0	270.0	29.0	8	22.0	298.5
250	622	405.0	324.0	30.6	12	25.0	362.0
300	698	485.0	381.0	32.2	12	25.0	431.8

SWING TYPE NRV VALVE

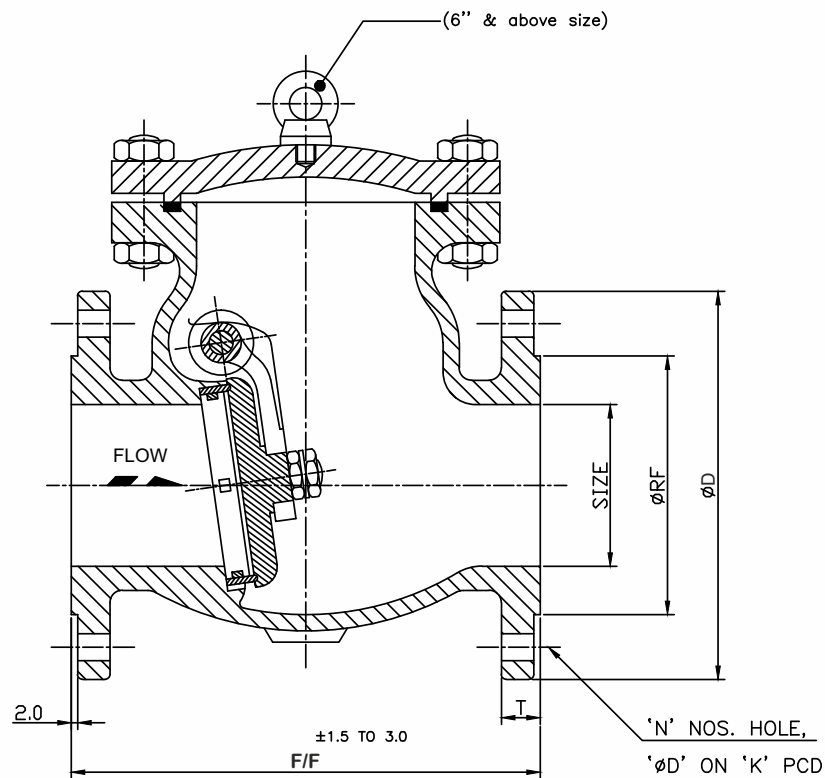


APPLICATIONS

- Oil, Gas & Water
- Steam
- Petrochemicals
- Upto 400° C

SAILENT FEATURES

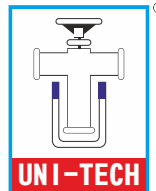
- Body & Cover made from high quality casting.
- The castings are precision machined for high performance of valve.
- Bolted Cover design
- Body Seat Ring & Disc machined to close Tolerances providing smooth action and accurate seating.
- Seat Ring sealweld to the body
- Replaceable (Renewable) type Seat Ring & Integral Seat can also available on special request.
- Stellite Hard Face F6 Seat Ring & Disc also supply on requirement.



All Dimensions are in mm Unless Specified (300#)

Size	F/F	ØD	ØRF	T	N	ØJ	'K'PCD
25	216	125.0	51.0	17.5	4	19.0	88.9
40	241	155.0	73.0	19.1	4	22.0	114.3
50	267	165.0	92.0	20.7	8	19.0	127.0
65	292	190.0	105.0	23.9	8	22.0	149.2
80	318	210.0	127.0	27.0	8	22.0	168.3
100	356	255.0	157.0	30.2	8	22.0	200.0
125	400	280.0	186.0	33.4	8	22.0	235.0
150	445	320.0	216.0	35.0	12	22.0	269.9
200	533	380.0	270.0	39.7	12	25.0	330.2
250	622	445.0	324.0	46.1	16	29.0	387.4
300	711	520.0	381.0	49.3	16	32.0	450.8

DISC CHECK VALVE



CONFORMITY TO STANDARD & CODES

Design & Manufacturing	DIN EN 558-2
Inspection & Testing	API 598 / BS 6755 Part-1
Valve Face to Face	DIN EN 558-2
End Connection	Sandwich between ANSI B16.5

DESIGN FEATURES

Size Range	15 NB to 150 NB
Pressure Rating	PN 25 / PN 40
Seat Leakage	Class IV (Metal Seated) Class VI (Zero leakage in soft seat)
Operation	Self Acting
Operating Temp	-25° C to 200° C

TECHNICAL SPECIFICATION

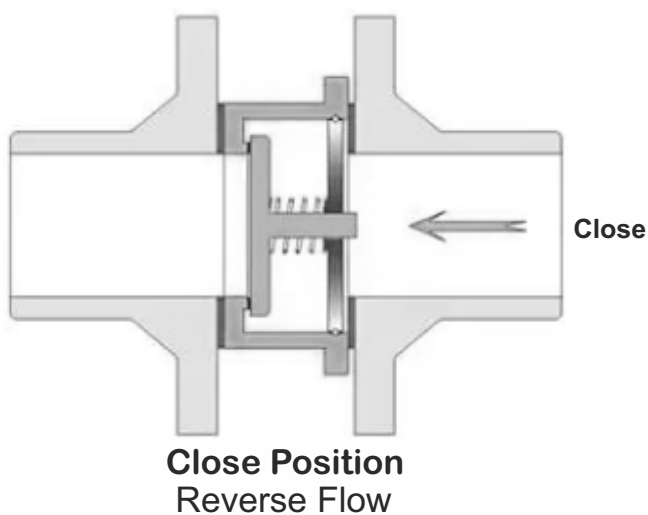
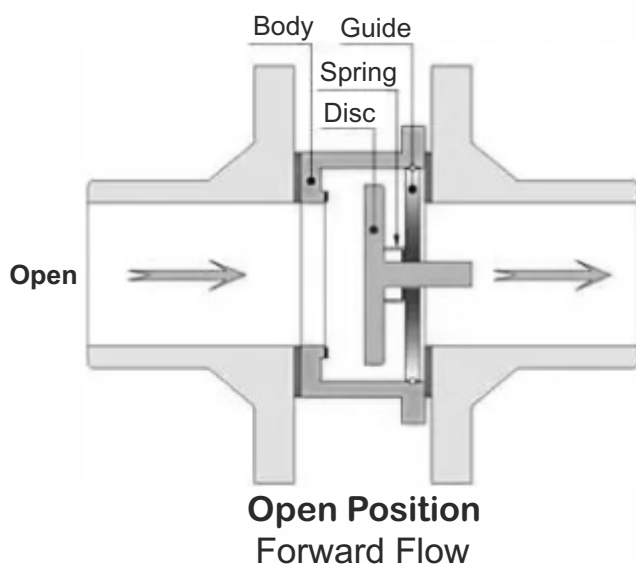
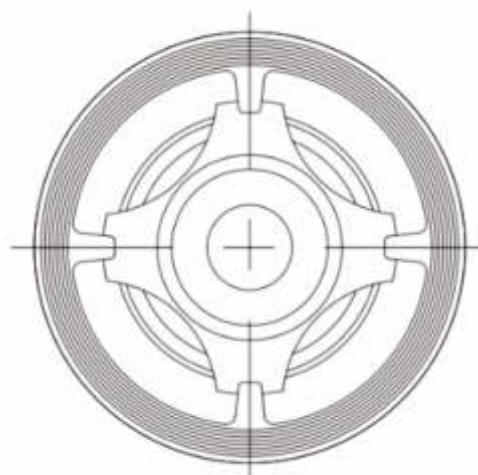
Body & Disc : ASTM A215 Gr. WCB / ASTM A351 Gr. CF8/CF8M

Disc : ASTM A215 Gr. WCB / ASTM A351 Gr. CF8/CF8M

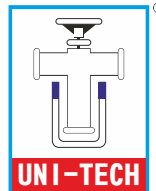
Spring : SS304, SS316

Lock Plate : SS304, SS316

Seat : Metal to Metal / PTFE (On Request)



DISC CHECK VALVE

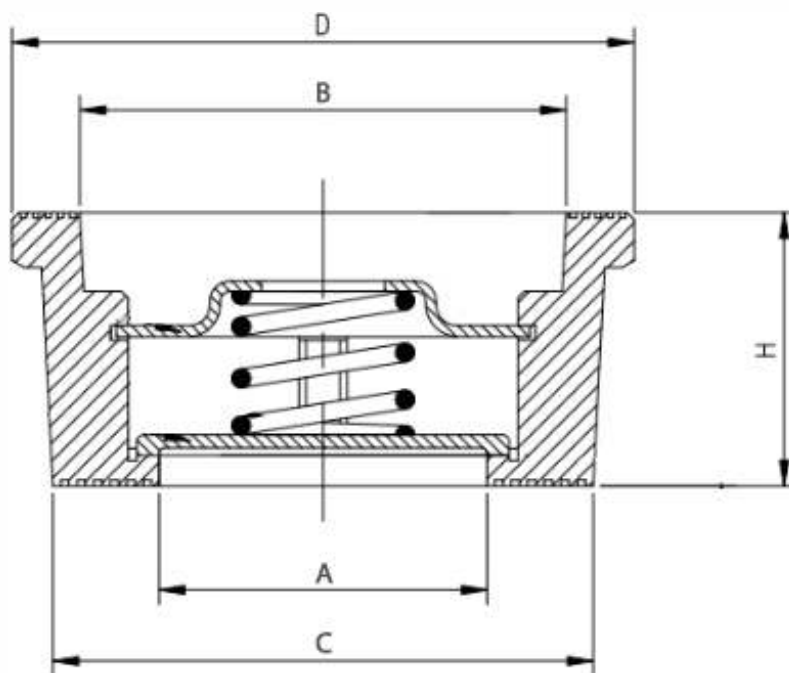


APPLICATIONS

- Oil Refineries , Chemical & Solvent Industries
- Petrochemicals Industries
- Process Industries Compressed
Air/ Gas/ Water/ Steam

SAILENT FEATURES

- Investment Casting Construction
- Compact & Rugged Design
- Stronger, Lighter and Smaller than Conventional Swing
Check Valve, Hence Less Expensive to Install and Maintain
- Single Disc Type
- Spring Loaded Disc to Prevent Reverse Flow in Pipe Lines
- Easy To Installation between Two Pipe Flanges
- Metal To Metal or Soft Seat (On Request)
- Maintenance Free Design
- Zero Leakage (In Soft Seat)
- Full Port Opening
- Wafer, Flangeless, Sandwich Type
- Shorter Length, Required minimum space



All Dimensions are in mm Unless Specified

SIZE(mm)	A	B	C	D	H
15	12.5	28.5	37.5	39	16
20	20.5	36	45.5	47.5	20
25	23	44	54.5	57	23
40	38	60	75.5	78	32
50	50	77	93	94	40
65	64	93	108	110	47
80	79	114	127	129	50
100	99	132	147	154	61

CONFORMITY TO STANDARD & CODES

General Design & Face to Face Dimensions	ASME B 16.10 / API 6D
Valve Testing	API 598
Flange Standard	ASTM B 16.5 #150, DIN EN1092-PN10 & PN 16 BS 10 Table D & E

Hydrostatic Test Pressure (kg / cm²)

Rating	Body	Seat
Class 150	31	23
PN 16	24	16
PN 10	15	10

TECHNICAL SPECIFICATION

Discription : Single Plate Wafer Type Swing Check Valve

Body Type : Short Pattern wafer Type

Size Range : DN 25 to DN 600

Pressure Rating : PN16 (max)

Operating Temp : -25°C to 200°C (depending on MOC)

Seat Leakage : Zero Leak/Tight shut off

Body : Cast Iron, Carbon Steel ASTM 216 WCB, Stainless Steel ASTM A351 CF8, CF8M

Disc : DI, CF8, CF8M, Al Bron, Duplex, Super Duplex

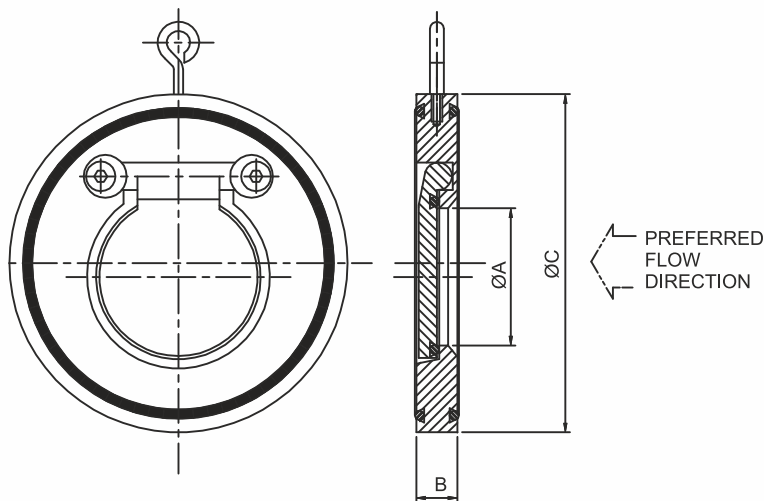
O Ring : EPDM, Buna-N, Viton, Hyplon, Butyle, Silicon, Neoprene, PTFE

Eye Bolt : MS, SS



KEY FEATURES

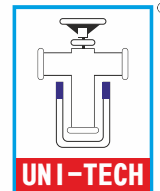
- Very low face to face dimensions hence space required for mounting is less than 10% of that of conventional valves.
- Very low weight total weight is only approximately 1/6 the weight of a conventional check valve
- Short wafer body enables mounting the valve with shorter length fasteners of lesser number compared to flanged swing check valve
Approximately 50% saving in cost of fasteners.
- Considerable secondary advantages resulting in substantial savings in handling, packing, transportation, installation and maintenance
- Saving in terms of overall length required for piping
- Tightening torque to be applied on the companion flange bolting is lower due to face sealing O-rings.
- Practically maintenance free due to fewer number of parts and simple construction
- Self centering in pipeline due to controlled outside diameter, enables easy installation



All Dimensions are in mm Unless Specified

VALVE SIZE	ØA	B	ØC				
			PN10	PN16	BS10D	BS10E	ANSI#150
25	14	16	72	72	69	69	64
40	22	19	93	93	86	86	83
50	30	19	108	108	97	97	102
65	40	19	128	128	110	110	121
80	52	19	143	143	129	129	134
100	71	19	163	163	161	161	172
125	93	19	193	193	193	193	194
150	114	19	219	219	218	215	220
200	157	28.5	274	274	274	272	277
250	195	28.5	329	329	225	335	337
300	230	38	379	385	285	383	407
350	270	44.5	438	444	446	446	448
400	310	51	489	496	496	496	512
450	360	60	538	555	559	559	545
500	406	64	593	616	616	616	602
600	490	70	695	733	727	724	714

ELECTROMAGNETIC FLOW METER



REFERENCE STANDARDS

Uni-Tech's Electromagnetic flow meter model U-MAG 20 is designed for flow measurement of conductive liquids with no moving parts and a PTFE lining. Electromagnetic flow meter is suitable for measurement of flow of conductive liquids, which is based on Faraday's law of Electromagnetic induction, according to which a voltage is induced in electrically conducting body moving in a magnetic field & this voltage is directly proportional to the velocity. Standard outputs include analog, frequency, RS485 or GSM/GPRS connectivity. Local and remote display models are available. They meet the most demanding requirements on high measurement precision, long-term stability and hygienic standard.

DESIGN FEATURES

Display Version :	Integral Mounted(Default), Remote Display
Display :	LCD Graphical Display
High Accuracy :	Up to 0.5% accuracy (Standard 1% Accuracy)
Wide Flow Range :	Diameter from 15mm to 500mm
Resolution :	5 digits Flowrate, Totalizer, 10 digits Totalizer
Electrode Material :	SS 316L (Default) Hastelloy C/Titanium/Tantalum
Application :	All Conductive liquids having conductivity >20u/cm
Empty Pipe Detection :	Yes

ELECTRONICS PARAMETERS

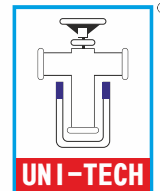
Flowrate :	5 Digit and Auto Adjust With Line Size
Flow Totalizer :	10 Digit Totalizer Value
Real Time Clock :	Available
Bargraph :	Corresponds to 0-100% Flowrate
Tag Id :	User Configure Id (Numeric)
Velocity :	5Digit Velocity 0.000 M/s to 10.000 M/s
Power Supply :	90-260 VAC 50/60Hz, 24VDC
Protection Class :	IP65 (Standard)



CONFIGURATION FUNCTIONS/PARAMETERS

Configuration Data :	4 Tactile Membrane Keys for Data Configuration
Flow Totalizer Reset :	Totalizer Reset Facility by Password Protection
Measuring Units :	Selectable: M ³ /H, L/H, L/M, L/S, KG/H, KG/M, KG/S
Low Cut-Off :	User Configurable
Flow Direction :	Software Selection for Forward / Reverse Flow Direction
Flow Indication :	Reverse/Forward Flow Indication with Sign Indication
Damping Time :	User Configurable

ELECTROMAGNETIC FLOW METER



REFERENCE STANDARDS

Uni-Tech's Electromagnetic flow meter model U-MAG 20 is designed for flow measurement of conductive liquids with no moving parts and a PTFE lining. Electromagnetic flow meter is suitable for measurement of flow of conductive liquids, which is based on Faraday's law of Electromagnetic induction, according to which a voltage is induced in electrically conducting body moving in a magnetic field & this voltage is directly proportional to the velocity. Standard outputs include analog, frequency, RS485 or GSM/GPRS connectivity. Local and remote display models are available. They meet the most demanding requirements on high measurement precision, long-term stability and hygienic standard.

DESIGN FEATURES

Display Version :	Integral Mounted(Default), Remote Display
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High Accuracy :	Up to 0.5% accuracy (Standard 1% Accuracy)
Wide Flow Range :	Diameter from 15mm to 500mm
Resolution :	5 digits Flowrate, Totalizer, 10 digits Totalizer
Electrode Material :	SS 316L (Default) Hastelloy C/Titanium/Tantalum
Application :	All Conductive liquids having conductivity >20u/cm
Empty Pipe Detection :	Yes

ELECTRONICS PARAMETERS

Flowrate :	5 Digit and Auto Adjust With Line Size
Flow Totalizer :	10 Digit Totalizer Value
Real Time Clock :	Available
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Low Cut-Off :	User Configurable
Flow Direction :	Software Selection for Forward / Reverse Flow Direction
Flow Indication :	Reverse/Forward Flow Indication with Sign Indication
Damping Time :	User Configurable

CENTRIC WAFER BODY BUTTERFLY VALVE FEATURES



1. STEM Precision double "D" disc to stem connection drives the disc without the need for screws or pins. The close tolerance, double "D" connection that drives the valve disc is an exclusive feature of the Pascal valve. Disassembly of the Pascal stem is just a matter of pulling the stem out of the disc.

2. STEM RETAINING : The stem is retained in the body by means of a unique stainless steel Spirolox retaining ring, manufactured from stainless steel as standard,

3. Top plate drilled to fit iso 5211 dimensions. All handles, gear operators and pneumatic actuators are designed to mount directly.

4. STEM BUSHING : An Upper stem bushing, retained by a stainless steel ring, is provided to absorb actuator side thrusts and is PTFE as standard

5. STEM SEAL : Double "U" cup seal design is self-adjusting and gives positive sealing in both directions. Keeps environmental contaminants from entering the stem bore.

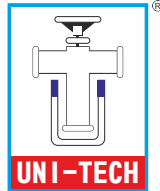
6. BODY: One piece wafer or lug style allows for ease of assembly and maintenance.

7. SEAT: Pascal's Replaceable tongue and groove seat design provides complete isolation of flowing media from the body. The seat also features a moulded o-ring which eliminates the need of flange gaskets.

8. DISC/STEM: One piece design. The disc edge is spherically machined and hand polished to produce a bubble tight shut off, minimum torque, and longer seat life. For erosion and abrasion resistance.



CENTRIC WAFER BODY BUTTERFLY VALVE



TECHNICAL SPECIFICATION

Design & Manufacturing Standards

API 609/BS EN-593/IS13095/ASME B16.5/ISO 7005

Testing Standard

API 598/API6D/BSEN 12266-1

Valve face to face Dimension

Category A API 609/IS13095/EN593/ISO5752Tab5

TOP Flange Drilling

ISO 5211

Flang Standard

DIN EN 1092-PN6, PN10, Class 150, Bs10
Tab D&E, IS6392, Tab 11/17, JIS 5K/10K

MATERIAL OF CONSTRUCTION

Body : Cast Iron, ASTM A126 Class B IS 210 FG 260 Ductile Iron, ASTM A 395 (60-40-18) WCB (CS) ASTM A 216 Stainless Steel (CF8M/CF8) ASTM A 351M/351

Disc : Cast Iron, ASTM A126 Class B IS 210 FG 260 Ductile Iron, ASTM A 395 (60-40-18) WCB (CS) ASTM A 216 Stainless Steel (CF8M/CF8) ASTM A 351M/351 Alluminium Bronze, Duplex , Super Duplex ***DISC also available with Rubber Lining in EBBONITE/ EPDM/NBR/NYLON/HYPLON (with Gurranted Spark Test Pass)**

Seat : EPDM / White EPDM (FOOD GRADE) BUNA-N / White-BUNA N (Food Garde) (NITRILE - NBR) Viton, Hyplon, Butyle, Silicon, Neoprene, Natural Rubber

Stem : Stainless Steel ASTM A 479 TYPE 410 Stainless Steel ASTM A 276 TYPE 316 Stainless Steel ASTM A 276 TYPE 304 Duplex, Super Duplex, Monel, Bronze

Stem Bushing : PTFE, ACETAL

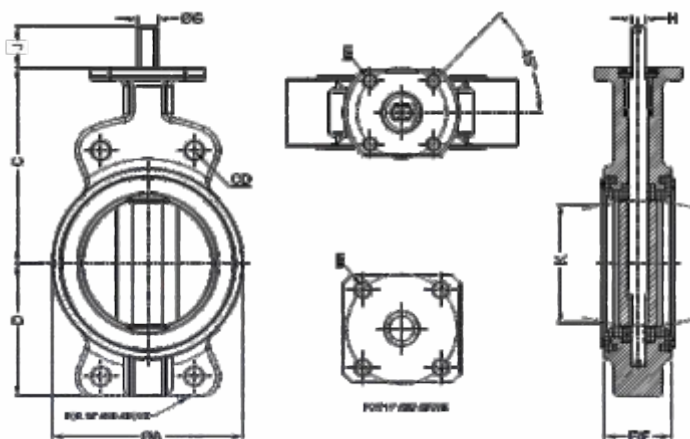
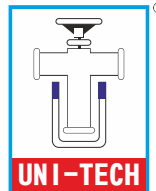
Oil Seal (Stem Seal) : EPDM

Washer : SS304

Retaining Circlip : SPRING STEEL



DIMENSION SPECIFICATION



All Dimensions are in mm Unless Specified

Valve Size		ØA	F/F	C	D	Top Mounting Flange			ØG	H	J	K	Bolting Dia	
Inch	DIN					E	No. of Holes	Hole Dia					ASME B16.5 CD	ISD 7005 CD
1.5	40	71.80	43.00	87.00	47.00	F05	4	8.00	12.00	8.00	30.00	-	98.40	110.00
2	50	91.00	43.00	113.00	59.00	F05	4	8.00	14.00	10.00	29.40	30.98	120.70	125.00
2.5	65	96.80	46.00	110.00	61.00	F05	4	8.00	14.00	10.00	30.00	48.741	139.70	145.00
3	80	116.80	46.00	128.00	73.00	F05	4	8.00	14.00	10.00	30.00	66.42	152.40	160.00
4	100	149.00	52.00	154.00	91.00	F07	4	9.00	16.00	11.00	31.40	90.64	190.50	180.00
5	125	168.90	56.00	169.00	105.00	F07	4	9.00	19.00	13.00	32.00	115.10	215.90	210.00
6	150	202.00	56.00	189.00	122.00	F07	4	9.00	19.00	13.00	30.00	140.23	241.30	240.00
8	200	250.00	60.00	214.00	146.00	F07/F10	4/4	9.00/11.00	22.00	16.00	30.00	189.53	298.50	295.00
10	250	308.00	68.00	251.00	185.00	F10	4	11.00	28.00	20.00	32.00	240.99	362.00	350.00
12	300	361.40	78.00	289.00	214.00	F10	4	11.00	30.00	22.00	32.00	289.68	431.80	400.00
14	350	413.00	78.00	340.00	262.00	F12	4	14.50	35.00	27.00	52.00	325.65	476.30	460.00
16	400	474.00	102.00	373.00	294.00	F12	4	14.50	35.00	27.00	52.00	374.88	539.80	515.00
18	450	528.00	114.00	407.00	219.00	F16	4	21.00	47.00	36.00	59.00	424.97	577.90	565.00
20	500	582.00	127.00	436.00	254.00	F16	4	21.00	49.00	36.00	59.00	473.25	635.00	620.00
22	550	634.00	127.00	464.00	381.00	F16	4	21.00	49.00	36.00	59.00	525.88	692.10	-
24	600	690.00	154.00	494.00	422.00	F16	4	21.00	59.00	46.00	80.00	517.61	749.30	725.00

Torque Rating (NM) for RUBBER LINE WAFER BUTTERFLY VALVE

VALVE		1.5"	2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
Full Rated	3.5	7	7	13	14	29	44	58	102	164	269	251	418	659	769	996	1091
Pressure	7	8	8	14	18	30	47	65	118	183	317	401	504	825	957	1295	1412
Valve ΔP Bar	10	8	8	14	18	30	48	66	122	198	337	450	585	989	1144	1684	1760
(PSI)	12	12	12	18	23	34	53	73	131	218	369	540	702	1186	1373	2189	2288
	16	17	17	22	32	45	65	110	210	319	468	800	1025	1730	2002	2845	3080

CENTRIC LUG BODY BUTTERFLY VALVE FEATURES



1. STEM Precision double "D" disc to stem connection drives the disc without the need for screws or pins. The close tolerance, double "D" connection that drives the valve disc is an exclusive feature of the Pascal valve. Disassembly of the Pascal stem is just a matter of pulling the stem out of the disc.

2. STEM RETAINING : The stem is retained in the body by means of a unique stainless steel Spirolox retaining ring, manufactured from stainless steel as standard,

3. Top plate drilled to fit iso 5211 dimensions. All handles, gear operators and pneumatic actuators are designed to mount directly.

4. STEM BUSHING : An Upper stem bushing, retained by a stainless steel ring, is provided to absorb actuator side thrusts and is PTFE as standard

5. STEM SEAL : Double "U" cup seal design is self-adjusting and gives positive sealing in both directions. Keeps environmental contaminants from entering the stem bore.

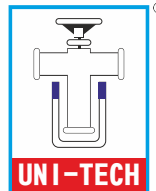
6. BODY: One piece wafer or lug style allows for ease of assembly and maintenance.

7. SEAT: Pascal's Replaceable tongue and groove seat design provides complete isolation of flowing media from the body. The seat also features a moulded o-ring which eliminates the need of flange gaskets.

8. DISC/STEM: One piece design. The disc edge is spherically machined and hand polished to produce a bubble tight shut off, minimum torque, and longer seat life. For erosion and abrasion resistance.



CENTRIC LUG BODY BUTTERFLY VALVE



TECHNICAL SPECIFICATION

Design & Manufacturing Standards

API 609/BS EN-593/IS13095/ASME B16.5/ISO 7005

Testing Standard

API 598/API6D/BSEN 12266-1

Valve face to face Dimension

Category A API 609/IS13095/EN593/ISO5752Tab5

TOP Flange Drilling

ISO 5211

Flang Standard

DIN EN 1092-PN6, PN10, Class 150, Bs10
Tab D&E, IS6392, Tab 11/17, JIS 5K/10K

MATERIAL OF CONSTRUCTION

Body : Cast Iron, ASTM A126 Class B IS 210 FG 260 Ductile Iron, ASTM A 395 (60-40-18) WCB (CS) ASTM A 216 Stainless Steel (CF8M/CF8) ASTM A 351M/351

Disc : Cast Iron, ASTM A126 Class B IS 210 FG 260 Ductile Iron, ASTM A 395 (60-40-18) WCB (CS) ASTM A 216 Stainless Steel (CF8M/CF8) ASTM A 351M/351 Alluminium Bronze, Duplex , Super Duplex ***DISC also available with Rubber Lining in EBBONITE/ EPDM/NBR/NYLON/HYPLON (with Gurranted Spark Test Pass)**

Seat : EPDM / White EPDM (FOOD GRADE) BUNA-N / White-BUNA N (Food Garde) (NITRILE - NBR) Viton, Hyplon, Butyle, Silicon, Neoprene, Natural Rubber

Stem : Stainless Steel ASTM A 479 TYPE 410 Stainless Steel ASTM A 276 TYPE 316 Stainless Steel ASTM A 276 TYPE 304 Duplex, Super Duplex, Monel, Bronze

Stem Bushing : PTFE, ACETAL

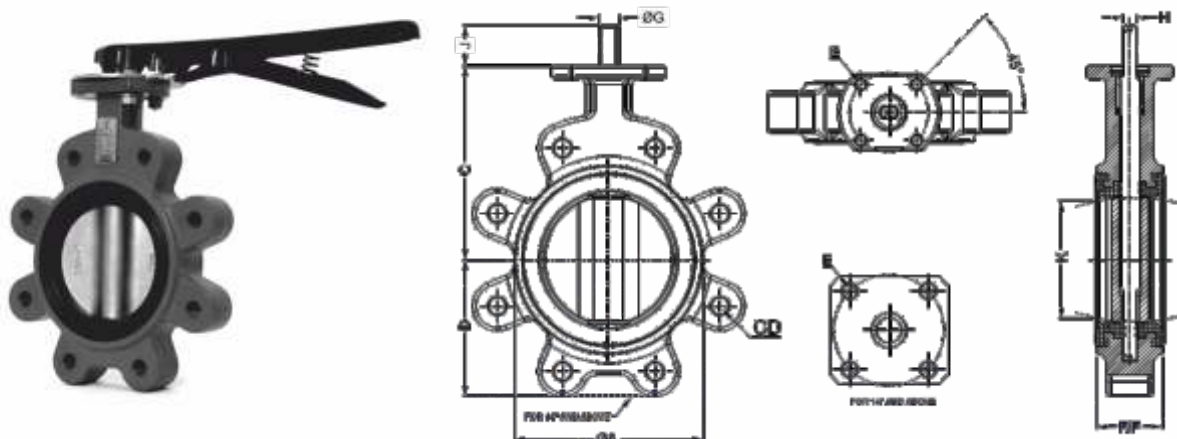
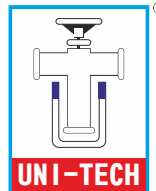
Oil Seal (Stem Seal) : EPDM

Washer : SS304

Retaining Circlip : SPRING STEEL



DIMENSION SPECIFICATION



All Dimensions are in mm Unless Specified

Valve Size		ØA	F/F	C	D	Top Mounting Flange			ØG	H	J	K	Bolting Dia		
Inch	DIN					E	No. of Holes	Hole Dia					ASME B16.5 CD	No. of Holes	Threads UNC-2B
1.5	40	71.80	43.00	87.00	47.00	F05	4	8.00	12.00	8.00	30.00	-	98.40	4	1/2-13
2	50	91.00	43.00	113.00	59.00	F05	4	8.00	14.00	10.00	29.40	30.98	120.70	4	5/8-11
2.5	65	96.80	46.00	110.00	61.00	F05	4	8.00	14.00	10.00	30.00	48.741	139.70	4	5/8-11
3	80	116.80	46.00	128.00	73.00	F05	4	8.00	14.00	10.00	30.00	66.42	152.40	4	5/8-11
4	100	149.00	52.00	154.00	91.00	F07	4	9.00	16.00	11.00	31.40	90.64	190.50	8	5/8-11
5	125	168.90	56.00	169.00	105.00	F07	4	9.00	19.00	13.00	32.00	115.10	215.90	8	3/4-10
6	150	202.00	56.00	189.00	122.00	F07	4	9.00	19.00	13.00	30.00	140.23	241.30	8	3/4-10
8	200	250.00	60.00	214.00	146.00	F07/F10	4/4	9.00/ 11.00	22.00	16.00	30.00	189.53	298.50	8	3/4-10
10	250	308.00	68.00	251.00	185.00	F10	4	11.00	28.00	20.00	32.00	240.99	362.00	12	7/8-9
12	300	361.40	78.00	289.00	214.00	F10	4	11.00	30.00	22.00	32.00	289.68	431.80	12	7/8-9
14	350	413.00	78.00	340.00	262.00	F12	4	14.50	35.00	27.00	52.00	325.65	476.30	12	1-8
16	400	474.00	102.00	373.00	294.00	F12	4	14.50	35.00	27.00	52.00	374.88	539.80	16	1-8
18	450	528.00	114.00	407.00	319.00	F16	4	21.00	47.00	36.00	59.00	424.97	577.90	16	11/8-7
20	500	582.00	127.00	436.00	354.00	F16	4	21.00	49.00	36.00	59.00	473.25	635.00	20	11/8-7
22	550	634.00	127.00	464.00	381.00	F16	4	21.00	49.00	36.00	59.00	525.88	692.10	20	11/4-7
24	600	690.00	154.00	494.00	422.00	F16	4	21.00	59.00	46.00	80.00	517.61	749.30	20	11/4-7

Torque Rating (NM) for RUBBER LINE LUG BUTTERFLY VALVE

VALVE		1.5"	2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
Full Rated	3.5	7	7	13	14	29	44	58	102	164	269	351	418	659	769	996	1091
Pressure	7	8	8	14	18	30	47	65	118	183	317	401	504	825	957	1295	1412
Valve ΔP Bar	10	8	8	14	18	30	48	66	122	198	337	450	585	989	1144	1684	1760
(PSI)	12	12	12	18	23	34	53	73	131	218	369	540	702	1186	1373	2189	2288
	16	17	17	22	32	45	65	110	210	319	468	800	1025	1730	2002	2845	3080



BARE SHAFT

Valve up to Size 24" for customizes Operating System available in Different Shape & Size Stem Direct Mounting



LEVER

Valve up to 12" Size Depending on pressure rating can be supplied with lever handles for manual operation. Pad locking can also be provided for preventing unauthorized operation.



GEAR

Valve up to 24" Size can be direct mounted with gear operators for manual operation gear operates can be attached with chain wheel operators for opening or closing valves located on pipe lines at high elevators.



ACTUATOR

Au valves can be direct mounted with pneumatic Actuator or Electric Actuators and access for complete automation options controlled valves can be mounted with manual override.

SEAT SELECTION GUIDE

Seat Type	Temperature Range		Media
	Max	Max	
EPDM / White EPDM	-20° F (-29°C)	302°F (150°C)	Water + Steam + Chemical
Buna-N / White Buna-N (Nitrile)	0°F (-18°C)	212°F (100°C)	Oils
Viton (FKM)	0°F (-18°C)	392°F (200°C)	All Oils
Silicon	0°F (-18°C)	392°F (200°C)	Hot Air Application & All Food Ind. Goods Whether Resistance
Neoprene	0°F (-18°C)	240°F (120°C)	Moderate Oil Resistant
Viton Extreme	0°F (-18°C)	536°F (280°C)	All Oils

PRODUCTS



Y. Type Strainer



Safety Valve



**Plug Valve-Jacketed /
Non Jacketed / Lined**



Globe Control Valve



Y. Type Control Valve



Diaphragm Valve



Piston Valve



**Dual Plate
Check Valve**

ACCESSORIES



Elec. Pneu. Positioner
YTC / Rotex



Pneumatic Actuator
EI-O-Matic / Neles



Electric Actuator
Rotork / Auma



Proximity Sensors
P&F



Gear Box
Uni-Tech



Limit Switch
Neles / Flucon



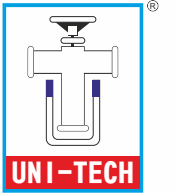
FRL
Shavo / Janatics



Solenoid-Valves
Rotex

OUR REPUTED CLIENTS



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**UNI-TECH
VALVES & AUTOMATION**



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