







# **SAMAMAT FLOW CONTROL L.L.C.**



## SAMAMAT FLOW CONTROL L.L.C – COMPANY PROFILE



COMPANY LOCATION

Company Address: Plot No. 597-4904, Warehouse No. 6,

P.O. Box: 96047, DIP 2, Dubai, United Arab Emirates

Telephone No: + 971 4 884 2212 Fax: + 971 4 884 2213

Web: <u>www.samamatuae.com</u>
Contact: <u>info@samamatuae.com</u>

Employees: 80

COMPANY INFORMATION

**COMPANY SIZE** 

TRANSPORTATION

**CAPABILITY** 

Product:

Ball Valve, DBB Ball Valve, Butterfly Valve, Gate Valve, Check Valve, Globe Valve, Dual Plate Check Valve

½ "to 58 "

Product Size:
Machine Shop Area:

14,000 sq. ft.

Welding Shop Area:
Assembly & Testing Area:

2,000 sq. ft. 12,000 sq. ft.

Painting Area & Stores:

5,000 & 12,000 sq. ft.

Airport:

DXB 35.1 KM, DWC 10.5 KM

Seaport:

Jebel Ali 16.4 KM

MANUFACTURING:

Ball Valve (1/2"-46"), Gate Valve (1/2"-36"), Globe Valve (1/2"-20")

Check Valve (1/2"-24"), Butterfly Valve (1/2"-58"), Motor Operated Valve (MOV)

Emergency Shutdown Valves (ESD), Actuated Valves with Hydraulic Actuator, Gas over Oil,

Electro Pneumatic ETC....

SERVICING:

Refurbishment of all kind of Ball, GGC & Butterfly Valves, Integration of Actuators, Hydro Testing & FET, Machining & Painting.

**CLADDING:** 

Welding & Overlay of Valves & Flanges

Cladding from 4" to 36" Flanges and Valves.

Maximum Bore Depth: up to 300mm for 4" and up to 800mm from 6" up to 32"

Weldable Bore Dia.: 800mm



**Samamat Flow Control L.L.C.** is a UAE-based Valve-Manufacturing and Valve-Servicing Company for the process, power, and energy-related industries. Samamat has state-of-the-art manufacturing facility, producing high-quality valves to meet specific requirements of both local and international clients. This modern facility is supported by a specialized team of highly-skilled, ingenious technicians who ensure that the valves consistently deliver high performance and adherence to international standards.

**Samamat** has been specially organized to meet client requirements through an in-house testing facility of MT, PT, UT, Hardness, Chemical Analysis and PMI, in line with Machining, Assembling, Testing, Inspection, Welding and Packing. The facility is situated in Dubai Investment Park, Dubai, UAE.

**Samamat** also excels in delivering outstanding services to its customers. All team members are trained to work in a SMART, dedicated and timely basis to ensure that they keep their promise to stakeholders like customers, colleagues, suppliers, regulators, financiers, and shareholders.

#### Mission

To offer a wide range of products and specialized services for Valves and Flanges while ensuring that the customer's needs are met on time and according to specifications.

#### **Vision**

To become a global leader in providing innovative products and services for the Flow-Control industry, creating value in order to meet customer expectations in terms of quality, reliability and customer service.

#### **Values**

Integrity | Building Relationships
Ownership & Commitment | Teamwork | Customer Focus

## **Quality Policy**

It is the policy of Samamat Flow Control to achieve rapid and continual improvement in performance to ensure that Design, Development and Manufacturing of all product of Samamat Flow Control meet or exceed API/PED design specifications and customer requirements.

# **ABOUT US**



# **QUALITY CONTROL**

Samamat Flow Control L.L.C. is designed to achieve the goals to produce high quality of valves and flanges to meet the client requirements and complying to standards with State of the Art equipment, facilities and well skilled and trained workers supported by highly qualified and certified technical engineering staff.

**Samamat Flow Control L.L.C.** have been well organized to perform all testing requirements, with in-house facility to ensure the quality of the product by qualified NDT Inspector and AWS Certified Welding Inspector.

#### **Test Performed In-house are:**

- Magnetic Particle Examination (MT)
- Ultrasonic Examination (UT)
- Dye Penetrant Examination (DP)
- Positive Material Identification (PMI)
- Hardness Test
- Valve Pressure Test

**Samamat Flow Control**'s Quality Management System has been certified in accordance with: ISO 9001:2015, API Spec. Q1: 9th Edition, Pressure Equipment Directive 2014/68/EU (PED) and our products meets design standards API 6D, API 594, API 600, API 602 & PED 2014/68/EU and Fire Safe according to API 607, API 6FA & ISO 10497.



# **CERTIFICATES**

ISO 9001:2015



#### **API 6D - BALL VALVES**





**API SPEC Q1** 

#### **API 600 - GATE VALVES**



#### **API 602 - FORGED GGC VALVES**



#### **API 594 - CHECK VALVES**



# SIDE ENTRY FLOATING BALL VALVE

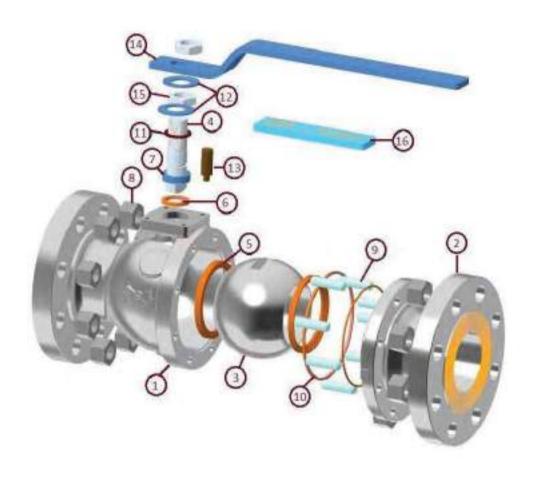


STANDARD FEATURE	
Construction	Two or Three Piece
Port	Reduced Bore or Full Bore
Stem Retention	Anti-blow-out stem
Antistatic Device	The ball valve design includes an electric conductive connection between the ball and body, providing the anti-static function.
Fire Safe	Soft Seated Ball Valves are designed and certified in accordance with API 607, API 6FA & ISO 10497 Fire Safe Standards.

TECHNICAL DATA	
Design	API 6D, API 608, ISO 17292
Design Pressure	ASME B16.34, ISO 17292, BS 5351
Body Wall Thickness	ASME B16.34, ASME VIII Div. 1, ISO 17292
Face to Face	ASME B16.10, API 6D
End Connection	ASME B16.5
Testing	API 6D / API 598 (Other standard upon request)
NACE	MR 0175 (on Customer request)



## PART LIST OF SIDE ENTRY FLOATING BALL VALVE



SL. No	Parts			
1	Body			
2	End Piece			
3	Ball			
4	Stem			
5	Seat			
6	Thrust Washer			
7	Stem Packing			
8	Nut			

SL. No	Parts
9	Stud Bolt
10	Body Gasket
11	Stem O-ring
12	Washer
13	Stop Pin
14	Lever
15	Lever Nut
16	Lever Sleeve

#### **FLOATING BALL VALVE FEATURES**

#### **FIRE SAFE SEALING FEATURE**

Samamat Soft Seated Ball Valves are designed and certified in accordance with API 607, API 6FA & ISO 10497 Fire Safe Standards.





**BEFORE FIRE** 

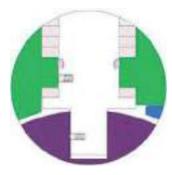
**AFTER FIRE** 

#### **ENLARGED VIEW OF FIRE SAFE SEALING**

When Floating Non-Metal Resilient Seated Ball Valves are destroyed in fire, the upstream medium pressure pushes the ball into the downstream metal seat lip to cut off the line fluid and prevent the internal leakage ensuring a degree of tightness.

#### **ANTI-BLOW OUT PROOF STEM & ANTI-STATIC DEVICE**

The stem is designed with Integral T-type shoulder or Stem Housing to provide blow-out proof effectively. Hence the stem will not eject out under pressure.

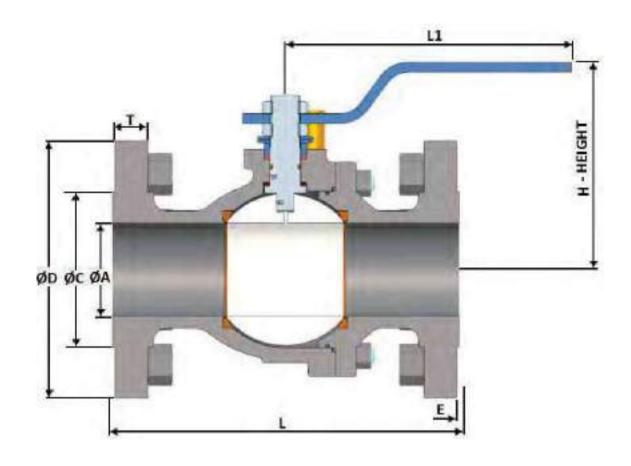


#### **Enlarged View of Antistatic and Anti blow out proof design**

Anti-static spring is used to ensure the electrical continuity between Ball, Stem & Body to eliminate the static charge development in the Valve. The use of Anti-static device ensures all valve metal parts are grounded.



# **DIMENSIONAL DETAILS OF FLOATING BALL VALVE**



CLASS 150 All Dimensions are in mm							are in mm	
NPS	1/2"	3/4"	1"	1 ½"	2"	3"	4"	6"
L (RF)	108	117	127	165	178	203	229	394
L (BW)	140	152	165	190	216	283	305	457
L (RTJ)	119	130	140	178	191	216	241	406
ØΑ	13	19	25	38	49	74	100	152
ØC	34.9	42.9	50.8	73	92.1	127	157.2	216
ØD	90	100	110	125	150	190	230	280
T (MIN.)	8	8.9	9.6	12.7	14.3	17.5	22.3	23.9
E	2	2	2	2	2	2	2	2
L1	155	160	220	290	290	390	570	1000
Н	70	75	90	125	130	165	250	320
Weight (KG) (RF)	3	4	5	9	16	29	48	66
Weight (KG) (BW)	2	3	4	7.5	14	27	45	62

CLASS 300						All	Dimensions	are in mm
NPS	1/2"	3/4"	1"	1 ½"	2"	3"	4"	6"
L (RF)	140	152	165	190	216	283	305	403
L (BW)	140	152	165	190	216	283	305	457
L (RTJ)	151	165	178	203	232	298	321	419
ØΑ	13	19	25	38	49	74	100	152
ØC	34.9	42.9	50.8	73	92.1	127	157.2	216
ØD	95	115	125	155	165	210	255	320
T (MIN.)	12.7	14.3	15.9	19.1	20.7	27	30.2	35
E	2	2	2	2	2	2	2	2
L1	155	160	225	290	290	390	570	1000
Н	70	75	90	125	130	175	250	320
Weight (KG) (RF)	4	5.5	8	13	18	42	60	90
Weight (KG) (BW)	3	4	6	11	15	39	55	83

CLASS 600						All	Dimensions	are in mm
NPS	1/2"	3/4"	1"	1 ½"	2"	3"	4"	6"
L (RF)	165	190	216	241	292	356	432	559
L (BW)	165	190	216	241				
L (RTJ)	165	190	216	241				
ØA	13	19	25	38	49	74	100	150
ØC	34.9	42.9	50.8	73	92.1	127	157.2	215.9
ØD	95	115	125	155	165	210	275	355
T (MIN.)	14.3	15.9	17.5	22.3	25.4	31.8	38.1	47.7
E	7	7	7	7	7	7	7	7
L1	215	225	290	290	390	575	575	1000
Н	80	85	110	125	140	195	270	350
Weight (KG) (RF)	5	7	10	16	26	50	90	190
Weight (KG) (BW)	3.5	6	9	14	24	44	86	183

CLASS 900	LASS 900 All Dimensions are in mm					
NPS	1/2"	3/4"	1"	1 ½"	2"	
L (RF)	216	229	254	305	368	
L (BW)	216	229	254	305	368	
ØΑ	13	19	25	38	51	
ØC	34.9	42.9	50.8	73	92.1	
ØD	120	130	150	180	215	
T (MIN.)	22.3	25.4	28.6	31.8	38.1	
E	7	7	7	7	7	
L1	140	180	250	400	500	
Н	95	101	128	153	170	
Weight (KG) (RF)	8	11	13	23	33	
Weight (KG) (BW)	6.5	9	10	20	29	



CLASS 1500	CLASS 1500 All Dimensions are in mm						
NPS	1/2"	3/4"	1"	1 ½"	2"		
L (RF)	216	229	254	305	368		
L (BW)	216	229	254	305	368		
ØΑ	13	19	25	38	49		
ØC	34.9	42.9	50.8	73	92.1		
ØD	120	130	150	180	215		
T (MIN.)	22.3	25.4	28.6	31.8	38.1		
E	7	7	7	7	7		
L1	140	180	250	400	500		
Н	75	91	108	133	150		
Weight (KG) (RF)	5	8	10	20	30		
Weight (KG) (BW)	4	7	8	18	27		

<b>CLASS 2500</b>	CLASS 2500 All Dimensions are in mm						
NPS	1/2"	3/11	1"	1 ½"	2"		
L (RF)	264	273	308	384	451		
L (BW)	264	273	308	384	451		
ØΑ	13	19	25	38	42		
ØC	34.9	42.9	50.8	73	92.1		
ØD	135	140	160	205	235		
T (MIN.)	30.2	31.8	35	44.5	50.9		
E	7	7	7	7	7		
L1	230	230	300	400	500		
Н	88	117	128	148	183		
Weight (KG) (RF)	7.5	12	15	30	37.5		
Weight (KG) (BW)	6	10	13	27	35		



# **HIGH PRESSURE FORGED STEEL BALL VALVE 3000 PSI**

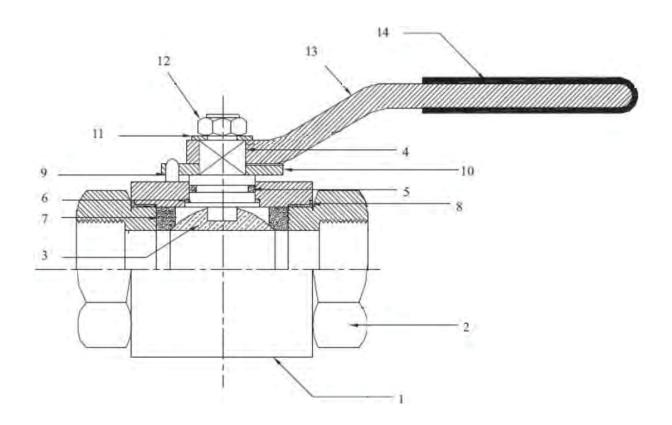


STANDARD FEATURE	
Construction	Three Piece
Port	Reduced Bore or Full Bore
Stem Retention	Anti-blow-out stem
Antistatic Device	The ball valve design includes an electric conductive connection between the ball and body, providing the anti-static function.
Fire Safe	Soft Seated Ball Valves are designed and certified in accordance with API 607, API 6FA & ISO 10497 Fire Safe Standards.

TECHNICAL DATA	
Design	ASME B16.34
Body Wall Thickness	ASME B16.34, ASME VIII Div. 1.
Face to Face	MANUFACTURE STANDARD
End Connection	ASME B1.20.1 NPT / ASME B16.11 SOCKET WELD
Testing	API 598 (Another standard upon request)
NACE	MR 0175 / MR 0103 (on Customer request)



# PART LIST HIGH PRESSURE STEEL BALL VALVE

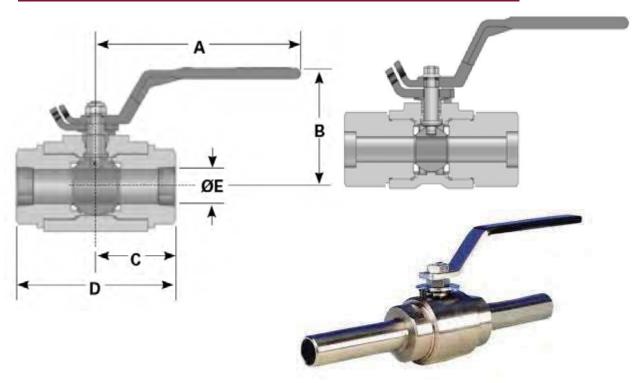


SL. No	Parts				
1	Body				
2	End Piece				
3	Ball				
4	Stem				
5	O-Ring				
6	Thrust Washer				
7	Seat				

SL. No	Parts
8	Gasket
9	Stop Pin
10	Lock plate
11	Washer
12	Nut
13	Lever Nut
14	Lever Sleeve



## **DIMENSIONAL DETAILS OF HIGH-PRESSURE BALL VALVE 3000 PSI**



**NPT ENDS** 

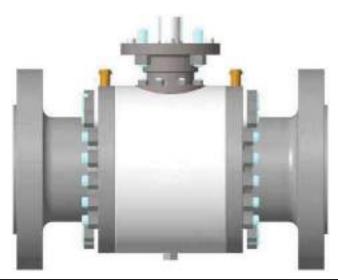
SOCKET WELD ENDS
(INTEGRAL PUP PIECE ON REQUEST)

## All Dimensions are in mm

	REDUCE PORT DIMENSION & WEIGHTS												
SIZE (IN)	Α	В	С	ØE	D		WEIGHT (KG)						
SIZE (IIV)	A	Ь	C	WΕ	NPT	SW	WEIGHT (KG)						
3/4"	127	83	56	12.7	111	171	1.5						
1"	178	105	54	19.1	108	171	2.2						
1 1/2"	216	124	76	23.9	154	191	4.5						
2"	267	152	80	38.1	159	217	7.6						
3"	305	181	127	50.8	254	324	17						

	FULL PORT DIMENSION & WEIGHTS												
CIZE (INI)	_	В		ØE	D		WEIGHT (KC)						
SIZE (IN)	Α	В	С	ØΕ	NPT	SW	WEIGHT (KG)						
1/2"	127	83	56	12.7	111	127	1.4						
3/4"	178	105	54	19.1	108	171	2						
1"	216	124	70	23.9	140	191	4						
1 1/2"	267	152	80	38.1	159	217	7.3						
2"	305	181	80	50.8	159	324	12						

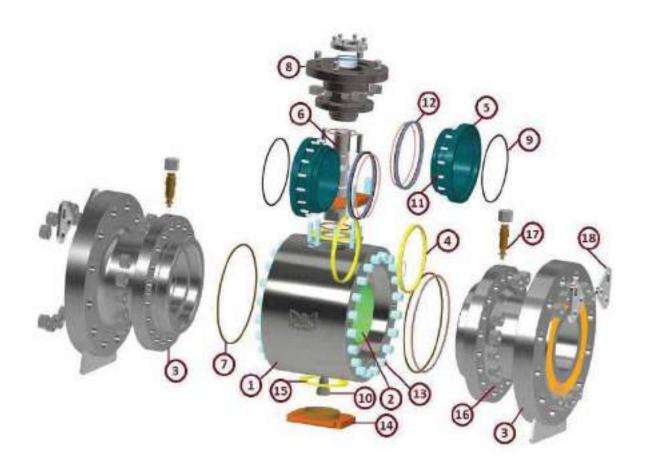
# SIDE ENTRY TRUNNION BALL VALVE



STANDARD FEATURE	
Construction	Two or Three Piece
Port	Reduced Bore or Full Bore
Stem Retention	Anti-blow-out stem
Antistatic Device	The ball valve design includes an electric conductive connection between the ball and body, giving the anti-static function.
Pressure Relief	Auto Cavity Relief to prevent overpressure in the body cavity (self-relieving seats).
Sealing	Bi-Directional, Double Block & Bleed (DBB) with sealing in both direction. (DIB- 1&2 can be provided upon request) & Single & Double Piston effect.
Drain & Vent	Drilled and threaded connection for all sizes, Flanged or Welded Drain and Vent can be provided upon request.
Stem & Seat Grease Injector Lifting Point & Support Feet	Shall be provided for Size 6" (DN150) and above; upon request for below 6" (DN150)
Stem Extension	upon request
Valve Operation	Lever, Gear Box or Actuator.
Fire Safe	Soft Seated Ball Valves are designed and certified in accordance with ISO 10497, API 607, API 6FA & ISO 10497 Fire Safe Standards.
TECHNICAL DATA	
Design	API 6D
Design Pressure	ASME B16.34
Body Wall Thickness	ASME B16.34, ASME VIII Div. 1
Face to Face	ASME B16.10, API 6D
End Connection	ASME B16.5, ASME B16.25
Testing	API 6D / API 598 (Other standards upon request)
NACE	MR 0175 (on Customer request)



### PART LIST OF SIDE ENTRY TRUNNION BALL VALVE



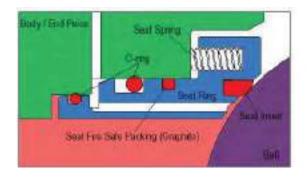
SL. No	Parts
1	Body
2	Ball
3	End Piece
4	Seat Insert
5	Seat Ring
6	Stem
7	Body Gasket
8	Stem Housing
9	Back Up Ring

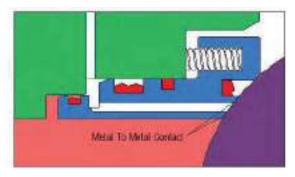
SL. No	Parts
3L. NO	Parts
10	Drain Plug
11	Springs
12	O Ring
13	Stud Bolt
14	Trunnion Plate
15	Trunnion Gasket
16	Nuts
17	Seat Injector
18	Lifting Lug

#### TRUNNION BALL VALVE FEATURES

#### **FIRE SAFE SEALING FEATURE**

Samamat Soft Seated Ball Valves are designed and certified in accordance with API 607, API 6FA & ISO 10497 Fire Safe Standards.





#### **BEFORE FIRE**

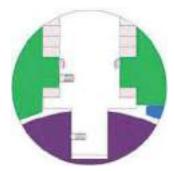
**AFTER FIRE** 

#### **ENLARGED VIEW OF FIRE SAFE SEALING**

When Trunnion Non- Metal Resilient Seated Ball Valves are destroyed in fire, the upstream medium pressure pushes the Metallic Seat Ring towards the ball hence a metal to metal sealing is made ensuring a degree of tightness.

#### **ANTI-BLOW OUT PROOF STEM & ANTI-STATIC DEVICE**

The stem is designed with Integral T-type shoulder or Stem Housing to provide blow-out proof effectively. Hence the stem will not eject out under pressure.



#### **ENLARGED VIEW OF ANTISTATIC AND ANTI BLOW OUT PROOF DESIGN**

Anti-static spring is used to ensure the electrical continuity between Ball, Stem & Body to eliminate the static charge development in the Valve. The use of Anti-static device ensures all valve metal parts are grounded.

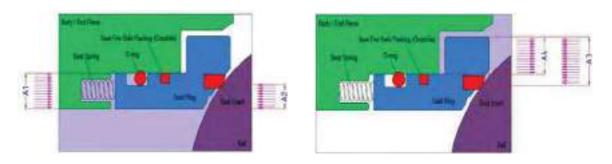


#### **EMERGENCY SEALANT INJECTION FACILITY**

Emergency Stem and Seat Injector fitting is provided through which the sealant can be injected in case of damage of the soft seals and seats.

#### SINGLE PISTON EFFECT FEATURE (SELF RELIEVING)

During normal operation, upstream or downstream pressure in combination with force created by the seat springs pushes the seat ring against the ball creating positive shutoff (A1>A2).



#### **ENLARGED VIEW OF SINGLE PISTON EFFECT**

With media trapped in the body cavity any increase in media pressure attempts to push the seat ring away from the ball (A3). As pressure in the cavity continues to increase a point is reached where the pressure in the cavity can now overcome the spring force and any other forces (A4).

The resultant force pushes the seat assembly away from the ball (A3>A4). Seat assemblies with this feature are referred to as "self-relieving". Once the excess pressure is relieved the seat returns to the ball under spring action to ensure the integrity of the valve.

A valve with two single piston effect seats has a double block and bleed (DBB) design.

#### **DOUBLE BLOCK & BLEED FEATURE**

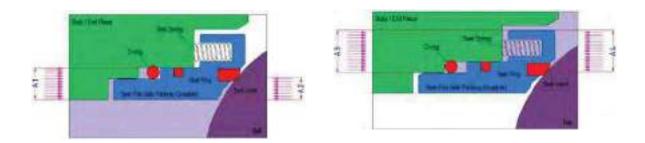
When the ball is in the closed position, each seat of the ball valve can cut off the medium independently on the upstream and downstream side to realize double block function. The body cavity is isolated from each side of the valve, the body cavity pressure could be released through the vent or drain connection.

#### **DOUBLE PISTON EFFECT FEATURE**

#### **DOUBLE ISOLATION AND BLEED DIB-1 (BOTH SEATS BIDIRECTIONAL)**

During normal operation, upstream or downstream pressure in combination with force created by the seat springs pushes the seat ring against the ball creating positive shutoff (A1>A2).

With media trapped in the body cavity any increase in media pressure acts to push the seat ring against the ball (A3). As a result, regardless of whether the pressure is from upstream, downstream or within the body cavity, the seat ring is always pushed against the ball.



#### **ENLARGED VIEW OF DOUBLE PISTON EFFECT**

The movement of the seat ring against the ball is created due to differences in the effective pressure influenced area of the upstream and downstream side of the seat assembly (A3>A4). Seat assemblies with this feature are not self-relieving.

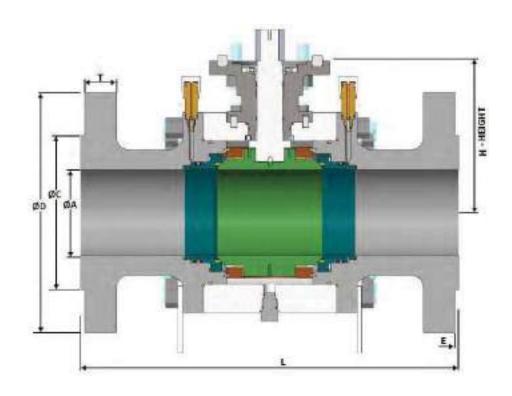
A valve with two double piston effect seats has a double isolation and bleed (DIB-1) design.

# DOUBLE ISOLATION AND BLEED DIB-2 (ONE SEAT UNIDIRECTIONAL AND ONE SEAT BIDIRECTIONAL)

In order to overcome the Non-self-relieving function of DIB1 seats, it is possible to adopt double piston effect on one side only i.e. the valve will have one seat unidirectional and the other side bi-directional seat; hence this eliminates the need for a pressure relief valve, however it does make the valve uni-directional.



# **DIMENSIONAL DETAILS OF TRUNNION BALL VALVE**



CLASS 150							All	Dimensions	are in mm
NPS	2"	3"	4"	6"	8"	10"	12"	14"	16"
L (RF)	178	203	229	394	457	533	610	686	762
L (BW)	216	282	305	457	521	559	635	762	838
L (RTJ)	191	216	241	406	470	546	622	699	775
ØΑ	51	76	100	150	201	252	303	334	385
ØС	92.1	127	157.2	215.9	269.9	323.8	381	412.8	469.9
ØD	150	190	230	280	345	405	485	535	595
T (MIN.)	14.3	17.5	22.3	23.9	27	28.6	30.2	33.4	35
E	2	2	2	2	2	2	2	2	2
Н	140	177	206	305	398	495	580	625	720
Weight (KG) (RF)	15	24	40	95	170	255	390	510	820
Weight (KG) (BW)	13	21	38	90	165	249	381	501	812

CLASS 150	CLASS 150 All Dimensions are in									
NPS	18"	20"	24"	26"	28"	30"	32"	34"	36"	
L (RF)	864	914	1067	1143	1245	1295	1372	1473	1524	
L (BW)	914	991	1143	1245	1346	1397	1524	1626	1727	
L (RTJ)	876	927	1080	-	-	-	-	-	-	
ØΑ	436	487	589	633	684	735	779	830	874	
ØС	533.4	584.2	692.2	749	800	857	914	965	1022	
ØD	635	700	815	870	925	985	1060	1110	1170	
T (MIN.)	38.1	41.3	46.1	66.7	69.9	73.1	79.4	81	88.9	
E	2	2	2	2	2	2	2	2	2	
н	770	840	920	870	935	1010	1060	1077	1115	
Weight (KG) (RF)	1010	1828	2100	3200	4045	4820	5490	6704	7615	
Weight (KG) (BW)	1003	1820	2090	3189	4036	4809	5480	6695	7603	

Note: For other sizes up on request.

CLASS 300	CLASS 300 All Dimensions are in a									
NPS	2"	3"	4"	6"	8"	10"	12"	14"	16"	
L (RF)	216	282	305	403	502	568	648	762	838	
L (BW)	216	282	305	457	521	559	635	762	838	
L (RTJ)	232	298	321	419	517	584	664	778	854	
ØA	51	76	100	150	201	252	303	334	385	
ØС	92.1	127	157.2	215.9	269.9	323.8	381	412.8	469.9	
ØD	165	210	255	320	380	445	520	585	650	
T (MIN.)	20.7	27	30.2	35	39.7	46.1	49.3	52.4	55.6	
E	2	2	2	2	2	2	2	2	2	
н	140	177	206	305	398	495	580	625	720	
Weight (KG) (RF)	20	33	55	135	210	391	550	710	1250	
Weight (KG) (BW)	18	30	50	129	201	389	539	698	1237	



CLASS 300	CLASS 300 All Dimensions are in										
NPS	18"	20"	24"	26"	28"	30"	32"	34"	36"		
L (RF)	914	991	1143	1245	1346	1397	1524	1626	1727		
L (BW)	914	991	1143	1245	1346	1397	1524	1626	1727		
L (RTJ)	930	1010	1165	1270	1372	1422	1550	1654	1756		
ØA	436	487	589	633	684	735	779	830	874		
ØС	533.4	584	692.2	749	800	857	914	965	1022		
ØD	710	775	915	970	1035	1090	1150	1205	1270		
T (MIN.)	58.8	62	68.3	77.8	84.2	90.5	96.9	100.1	103.2		
E	2	2	2	2	2	2	2	2	2		
Н	770	840	875	900	958	1035	1087	1104	1143		
Weight (KG) (RF)	1300	2180	2890	3200	4575	5590	6240	7370	8435		
Weight (KG) (BW)	1289	2169	2877	3190	4563	5577	6228	7355	8420		

Note: For other sizes up on request.

CLASS 600	CLASS 600 All Dimensions are in m								
NPS	2"	3"	4"	6"	8"	10"	12"	14"	16"
L (RF)	292	356	432	559	660	787	838	889	991
L (BW)	292	356	432	559	660	787	838	889	991
L (RTJ)	295	359	435	562	664	791	841	892	994
ØA	51	76	100	150	201	252	303	334	385
ØС	92.1	127	157.2	215.2	269.9	323.8	381	412.8	469.9
ØD	165	210	275	355	420	510	560	605	685
T (MIN.)	25.4	31.8	38.1	47.7	55.6	63.5	66.7	69.9	76.2
E	7	7	7	7	7	7	7	7	7
Н	145	182	211	435	530	615	680	720	840
Weight (KG) (RF)	25	50	86	250	437	735	1050	1300	1775
Weight (KG) (BW)	22	46	82	245	429	725	1040	1289	1764

CLASS 600 All Dimensions are in mm									
NPS	18"	20"	24"	26"	28"	30"	32"	34"	36"
L (RF)	1092	1194	1397	1448	1549	1651	1778	1930	2083
L (BW)	1092	1194	1397	1448	1549	1651	1778	1930	2083
L (RTJ)	1095	1200	1407	1461	1562	1664	1794	1946	2099
ØΑ	436	487	589	633	684	735	779	830	874
ØС	533.4	584.2	692.2	749	800	857	914	965	1022
ØD	745	815	940	1015	1075	1130	1195	1245	1315
T (MIN.)	82.6	88.9	101.6	108	111.2	114.3	117.5	120.7	123.9
E	7	7	7	7	7	7	7	7	7
Н	890	925	980	980	990	1035	1087	1104	1143
Weight (KG) (RF)	2100	3100	4750	5250	6060	6690	7825	8460	10650
Weight (KG) (BW)	2087	3088	4736	5239	6046	6678	7212	8449	10639

Note: For other sizes up on request.

CLASS 900	CLASS 900 All Dimensions are in mm										
NPS	2"	3"	4"	6"	8"	10"	12"				
L (RF)	368	381	457	610	737	838	965				
L (BW)	368	381	457	610	737	838	965				
L (RTJ)	-	1140	1232	1568	-	-	-				
ØΑ	49	74	100	150	201	252	303				
ØС	92.1	127	157.2	215.9	269.9	323.8	381				
ØD	215	240	290	380	470	545	610				
T (MIN.)	38.1	38.1	44.5	55.6	63.5	69.9	79.4				
E	7	7	7	7	7	7	7				
н	193	302	332	350	365	495	600				
Weight (KG) (RF)	52	87	160	385	560	820	1125				
Weight (KG) (BW)	48	83	151	376	545	806	1112				



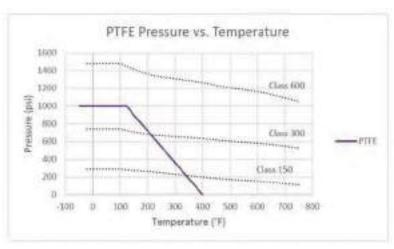
CLASS 1500 All Dimensions are in mm										
NPS	2"	3"	4"	6"	8"	10"	12"			
L (RF)	368	470	546	705	832	991	1130			
L (BW)	368	470	546	705	832	991	1130			
L (RTJ)	371	473	549	711	841	1000	1146			
ØΑ	49	74	100	144	192	239	287			
ØС	92.1	127	157.2	215.9	269.9	323.8	381			
ØD	215	265	310	395	485	585	675			
T (MIN.)	38.1	47.7	54	82.6	92.1	108	123.9			
E	7	7	7	7	7	7	7			
Н	193	270	275	325	501	536	614			
Weight (KG) (RF)	60	115	194	580	752	1195	1970			
Weight (KG) (BW)	55	106	177	563	738	1181	1956			

<b>CLASS 2500</b>	CLASS 2500 All Dimensions are in mm										
NPS	2"	3"	4"	6"	8"	10"	12"				
L (RF)	451	578	673	914	1022	1270	1422				
L (BW)	451	578	673	914	1022	1270	1422				
L (RTJ)	454	584	683	927	1038	1292	1445				
ØA	42	62	87	131	179	223	265				
ØС	92.1	127	157.2	215.9	269.9	323.8	381				
ØD	235	305	356	483	550	675	760				
T (MIN.)	51	67	76.5	108	127	165.5	184.2				
E	7	7	7	7	7	7	7				
н	230	284	303	394	488	600	872				
Weight (KG) (RF)	90	200	385	778	1352	2137	3267				
Weight (KG) (BW)	85	188	372	765	1338	2122	3251				

#### **SOFT SEAT OPTIONS FOR BALL VALVES**

#### PTFE (100% VIRGIN POLYTETRAFLUOROETHYLENE)

Commonly referred to as DuPont's Teflon®, PTFE is a thermoplastic fluoropolymer that consists of Carbon and Fluorine. This structure allows PTFE to be non-reactive to many chemicals and applied to severe chemical environments. PTFE is ideal for low cycle life applications. Do not use in molten alkali metal and molten Fluorine applications.



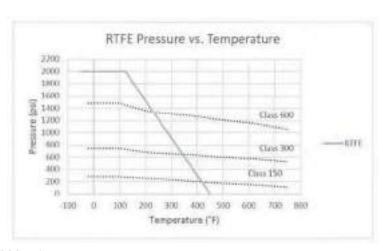
Temperature Range: -50°F to 400°F

Max Pressure at Room Temperature: 1000 psi

Color: White

#### RTFE (REINFORCED TEFLON®: 85% PTFE, 15% GLASS FIBER)

RTFE has improved wear and abrasion resistance over PTFE while maintaining its chemical compatibility. Its versatile temperature characteristics allow RTFE to be used in saturated steam applications. RTFE is the standard seat material for A-T Controls ball valves. This seat should not be used in caustic (sodium hydroxide, potassium hydroxide, etc.) service.



Temperature Range: -50°F to 450°F

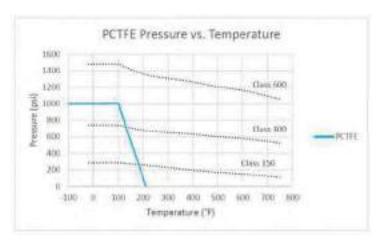
Max Pressure at Room Temperature: 2000 psi

Color: Off-White



#### PCTFE (POLYCHLOROTRIFLUOROETHENE)

PCTFE is ideal in applications with low and cryogenic temperatures. It offers comparable chemical compatibility to PTFE, with few differences (should not be used for Ethylene Oxide applications, for example).



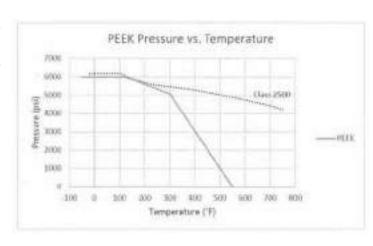
Temperature Range: -320°F to 212°F

Max Pressure at Room Temperature: 1000 psi

Color: Transparent White

#### PEEK (POLYETHER ETHER KETONE)

PEEK has good chemical resistance, and also high temperature tolerance. Ideal for high pressure applications. Other thermoplastics should be used for low pressure applications. Use of PEEK seats require the use of a 17-4 PH® stem. Do not use in applications prone to thermal shock, or in Chlorine and Sulfuric Acid applications.



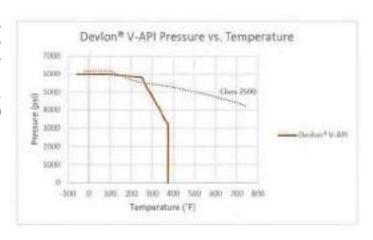
Temperature Range: -50°F to 550°F

Max Pressure at Room Temperature: 6000 psi

Color: Beige

#### **DEVLON® V-API**

Devlon® V-API is a polyamide that has mechanical properties that are comparable to PEEK but does not share its high temperature characteristics. It is able to withstand high pressures and is standard on our Class 150/300 (larger than 12") and Class 600 trunnion ball valves. Avoid using with alcohols, amines, and acids.



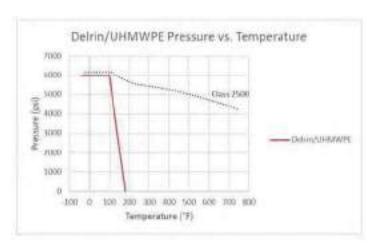
**Temperature Range:** -58°F to 375°F

Max Pressure at Room Temperature: 6000 psi

Color: Yellow

#### **DELRIN®** (**DUPONT™ POLYOXYMETHYLENE**)

Delrin® has decent chemical resistance and is ideal for high pressure characteristics. Do not use in Oxygen service.



Temperature Range: -40°F to 180°F

Max Pressure at Room Temperature: 6000 psi

Color: White



# ON/OFF VALVES, MOTOR OPERATED (MOV) & EMERGENCY SHUTDOWN VALVES (ESDV)

The valves manufactured in Samamat Flow controls can be supplied with all type of actuators and controls like:

- Electric Actuators for Motor Operated Valves (MOV).
- Pneumatic Actuators (Rack & Pinion & Scotch Yoke) for ESDV Single & Double acting.
- Gas over Oil Actuators.
- Hydraulic Actuators.
- Electro-Hydraulic Actuators.

The actuators can be supplied with all kind of accessories like:

- Limit Switches
- Interlocks
- Control Panels
- Accumulators / Air Storage Tanks
- Hydraulic Powerpacks, etc.

We can supply our valves equipped with any actuator Brand as per needed by the customer and / or the Project specification.

The actuators are sized, assembled, regulated and functional tested by Samamat Flow Control L.L.C, assuring correct integration & performance of the valve & actuator.





# **TOP ENTRY BALL VALVE**

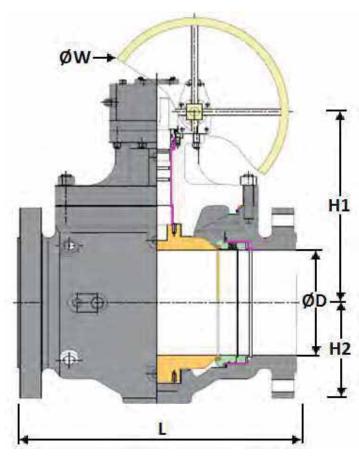




STANDARD FEATURE	
Construction	Uni-body / One Piece Symmetric Body (Cast)
Port	Reduced Bore or Full Bore (Available in Both Floating & Trunnion)
Stem Retention	Anti-blow-out stem
Antistatic Device	The ball valve design includes an electric conductive connection between the ball and body, providing the anti-static function.
Pressure Relief	Automatic Cavity Relief to prevent overpressure in the body cavity (self-relieving seats).
Sealing	Bi-Directional, Double Block & Bleed (DBB) with sealing in both direction. (DIB-1&2 can be provided upon request) & Single & Double piston effect.
Drain & Vent	Drilled and threaded connection for all sizes, Flanged or Welded Drain and Vent can be provided upon request
Stem & Seat Grease Injector Lifting Point & Support Feet	Shall be provided for Size 6" (DN150) and above; upon request for below 6" (DN150)
Stem Extension	Upon request
Valve Operation	Lever, Gear Box or Actuator.
TECHNICAL DATA	
Design	API 6D
Design Pressure	ASME B16.34
Body Wall Thickness	ASME B16.34, ASME VIII Div. 1
Face to Face	ASME B16.10, API 6D
End Connection	ASME B16.5, ASME B16.25
Testing	API 6D / API 598 (Other standards upon request)
NACE	MR 0175



## **DIMENSIONAL DETAILS OF TOP ENTRY TRUNNION BALL VALVE**



CLASS 150 All Dimensions are in m										
NPS	ØВ	L	H1	H2	w	Approx. Weight (Kgs)				
2"	51	292	170	76	285	30				
3"	76	356	210	95	285	60				
4"	102	432	250	115	400	92				
6"	152	559	265	140	400	190				
8"	203	660	355	172	400	345				
10"	254	787	385	203	600	495				
12"	305	838	400	242	600	705				
14"	337	889	450	267	600	859				
16"	387	991	510	299	600	1020				
18"	438	1092	565	381	600	1440				
20"	489	1194	620	349	600	1918				
24"	591	1397	680	407	700	2803				

CLASS 300 All Dimensions are in mr										
NPS	ØВ	L	H1	H2	w	Approx. Weight (Kgs)				
2"	51	292	170	83	285	31				
3"	76	356	210	105	285	69				
4"	102	432	250	127	400	110				
6"	152	559	265	159	400	211				
8"	203	660	355	191	500	376				
10"	254	787	385	222	600	540				
12"	305	838	400	261	600	763				
14"	337	889	450	292	600	900				
16"	387	991	510	324	600	1300				
18"	438	1092	565	356	700	1715				
20"	489	1194	620	388	700	2090				
24"	591	1397	680	457	700	2220				

CLASS 6	CLASS 600 All Dimensions are in mm										
NPS	ØВ	L	H1	H2	w	Approx. Weight (Kgs)					
2"	51	292	180	83	282	45					
3"	76	356	220	105	285	80					
4"	102	432	260	137	400	150					
6"	152	559	275	175	400	248					
8"	203	660	370	210	400	438					
10"	254	787	398	254	600	701					
12"	305	838	410	280	700	925					

CLASS 900 / 1500 All Dimensions are in mm											
NDC	Ø	В	ı	L		H1		12	VAZ	Approx.	
NPS	900	1500	900	1500	900	1500	900	1500	W	Weight (Kgs)	
2"	51	51	368	368	190	195	108	108	760	90	
3"	76	76	381	470	230	233	121	134	400	200	
4"	102	102	457	546	270	276	146	156	500	385	
6"	152	146	610	705	320	324	191	197	600	778	
8"	203	194	737	832	375	397	235	242	700	1352	
10"	254	241	838	991	440	462	273	292	700	2137	
12"	305	289	965	1130	498	493	305	337	760	3267	



# **CLADDING**

**Cladding** is a process that provides protection for metallic components by welding a layer of corrosion-resistant alloy to areas at risk of corrosion and wear exists. It can be applied to an entire component, or only to specific areas of concern.

#### **PURPOSE OF CLADDING:**

The main purpose of cladding on components is for corrosion resistance or wear resistance. While most components will have corrosion allowance built into their wall thickness the wastage rate can still be excessive for certain materials such as carbon steels or low alloy steels. Cladding provides a surface protection which then allows the substrate material to provide strength requirements to meet codes and standards.

#### **BENEFITS OF CLADDING:**

- Cladding offers superior corrosion and wear resistance properties extending the part life dramatically and reducing the risk of corrosion and wear exists.
- Another very important consideration is the dilution of the clad layer by the substrate material, as dilution can have a dramatic effect on the corrosion resistance of the cladding.
- And improve the life span of material and reducing the maintenance & shutdown operations in working severe conditions.
- Fully cladding a carbon steel component with alloy 625, as opposed to producing it in solid alloy 625, can reduce costs by as much as 50 to 60%.

#### **CLADDING PROCESS & CAPACITY:**

Samamat Flow Control L.L.C. has the capacity to process from 4" to 36" Flanges and Valves.

Maximum Bore Depth: up to 600mm

Weldable Bore Dia.: 800mm

Welding Speed: 340 to 450mm/min. Deposition Rate: 1.7 to 2.5kg/hr

The process is usually applied to increase the availability work sources for Gas Metal Arc Welding (GMAW) & Gas Tungsten Arc Welding (GTAW) cladding of the walls with metal alloys that are more resistant to wear.

#### **HOW CLADDING WILL IMPROVE QUALITY OF COMPONENTS:**

- Unusual alloy castings can include sub-surface defects, Cladding the surface produces a very high-Quality layer with minimal imperfections.
- Cladding process that builds up the corrosion resistant alloy (CRA) layer of 1.5 to 3 mm on the welded parts of flange and Valve. It protects the piping system's integrity and provides a low cost and long-term solution.
- A full range of NDT provides reassurance of quality.



# **FACILITY DETAILS**

SL.NO.	MACHINE NAME	MACHINE TYPE	QUANTITY
1	Horizontal Turning Center	CNC	1 No.
2	Horizontal Turning Mill Center	CNC	1 No.
3	Vertical Machining Center	CNC	1 No.
4	Vertical Turning Lathe	CNC	1 No.
5	Surface Grinding Machine	Semi-Automatic	1 No.
6	Radial Drilling Machine	Manual	1 No.
7	Pillar Drilling Machine	Manual	1 No.
8	Heavy Duty Lathe	Manual	2 No's.
9	Medium Duty Lathe	Manual	2 No's
10	Light Duty Lathe	Manual	3 No's.
11	Universal Milling Machine	Manual	1 No.
12	Band Saw Cutting Machine	Semi-Automatic	2 No's.
13	Horizontal Boring Machine	Manual	1 No.
14	Vertical Slotting Machine	Manual	2 No's.
15	Thread Cutting Machine	Manual	2 No's.
16	Air Compressor	Automatic	1 No.
17	MIG Welding Machine	Semi-Automatic	1 No.
18	TIG Welding Machine	Manual	1 No.
19	ARC Welding Machine	Manual	1 No.
20	Vertical Hydro Testing Machine	Manual	1 No.
21	Horizontal Hydro Testing Machine	Manual	1 No.
22	Mobile Hydro Testing Machine	Manual	1 No.
23	Wedge Lapping Machine	Manual	1 No.
24	Body Lapping Machine 2" - 12"	Manual	1 No.
25	Body Lapping Machine 14" - 24"	Manual	1 No.
26	Marking Machine	Manual	1 No.
27	A Frame Crane	6 Tons	1 No.
28	A Frame Crane	3 Tons	3 No's.







# ON/OFF VALVES, MOTOR OPERATED (MOV) & EMERGENCY SHUTDOWN VALVES (ESDV)

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