Elite
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ELITE FLOW CONTROL USA LLC

"WE CONTROL THE FLOW"



BALL VALVES

www.eliteflowusa.com

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Profile:

Elite Flow Control is one of the leading and renowned brand of Valves having its own independent manufacturing facilities and global existence.

Our design and manufacturing range includes Ball Valves, Gate Valves, Globe Valves, Check Valves, Plug Valves, Butterfly Valves, Control Valves, Actuated Valves, and have a dedicated PTFE / PFA lining facility for PTFE / PFA Lined Valves, Pipe Spools, Pipe fittings, and associated equipment for high corrosive/chemical applications.

The material of construction capabilities includes but not limited to Carbon Steel, Stainless Steel, Alloy Steel, Duplex Steel, Super Duplex, Monel, Titanium, Hastelloy and each valve is manufactured in accordance with its applicable manufacturing standard such as ISO, API, PED / CE, BS 1873, BS 1868, MSS SP-67, MSS SP-68, ASME and Fire Safe Design in API 607 / API 6FA.

We have stringent Quality Management and Control System backed by qualification of ISO 9001:2015, PED (Pressure Equipment Directive), API 6D, API 607, API 6FA, SIL (Functional Safety Certificate), and our strong commitment to Environmental Management System, and Occupational Health and Safety Management Systems (OHSMS) is accredited with 14001:2015 and ISO 45001:2018 certification.

Mission:

Elite Flow Control focused to provide the superior quality valves at competitive prices to its customers around the world by utilizing the company's human resources and advanced technology equipment with the strong commitment to R&D, Health, Safety, Environment and company's core values.

Vision:

To make our brand "the first choice of customers".

Core Values:

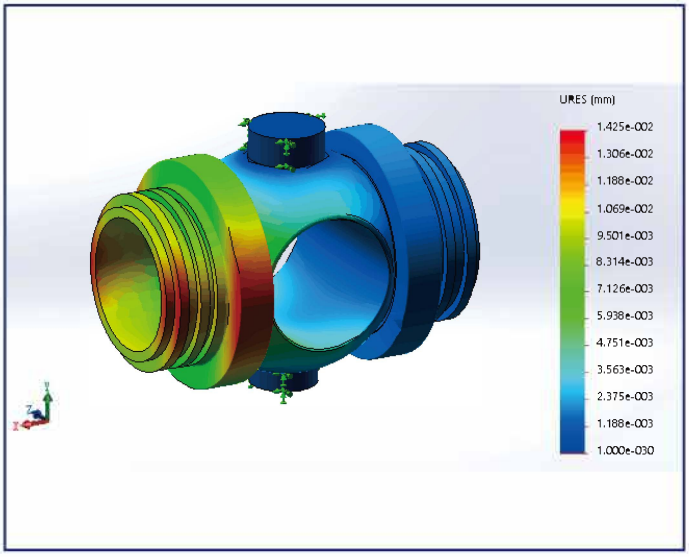
Quality: It is our primary focus to produce and deliver superior quality products.
Commitment: What we commit, We deliver.
Team Work: We believe on team work which is the most important element to accomplish the set objective.
Customer Satisfaction: To achieve customer satisfaction with our Quality, Commitment and Team Work.



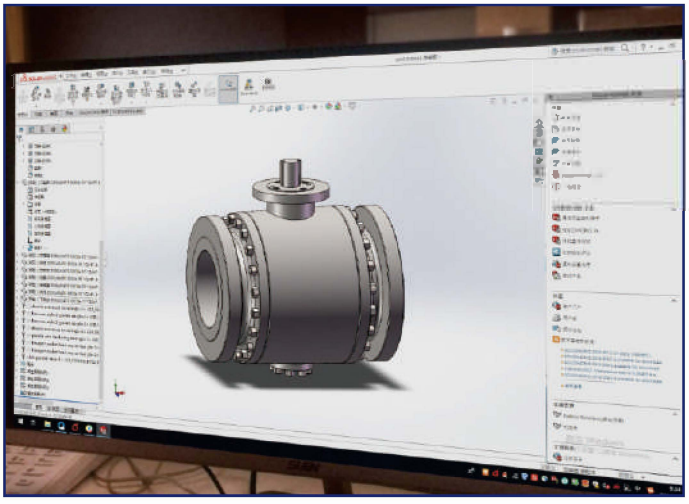
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Design Job:

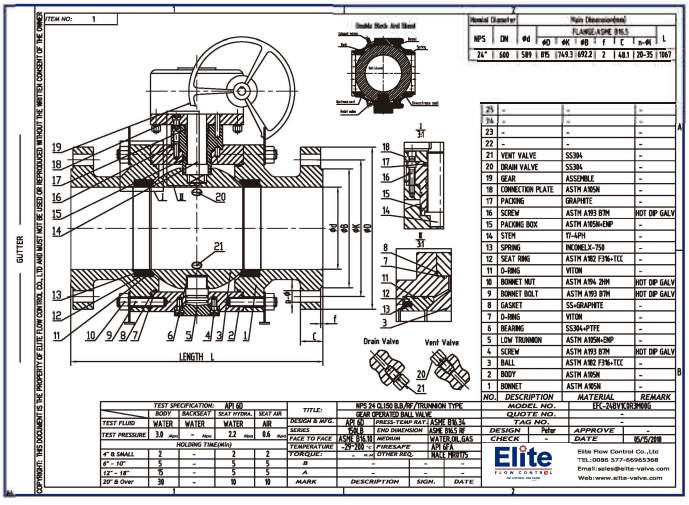
Elite Valves are manufactured as per international standards such as API, ANSI, ASME, ASTM, MSS, NACE. Our engineering team consistently monitors update to these standards and incorporates any applicable changes that affect the design, regulations and performance of our valves. Each steps of valve engineering and manufacturing can be validated using advance software starting from 3D model to finite element analysis of loads, tension and deformations and final stress test.



Finite Element Analysis



3D Model Design



Typical Valve Drawing

Quality Control:

Our Quality Management System (QMS) is very well established under supervision of various teams of qualified and certified Engineers in strict compliance with international recognized quality standards such as ISO 9001, CE, PED, API 6D, API 600 etc.

Elite Flow Control guarantees the performance and reliability of its products through the systematic 100% testing & Inspection.

All the tests are done internally in the dedicated testing area, by means of multiple and specifically designed (and certified) test benches that are used to control the output of the production line.

Quality is the one of Core Value of the Company and it complied but not limited to the following as minimum:

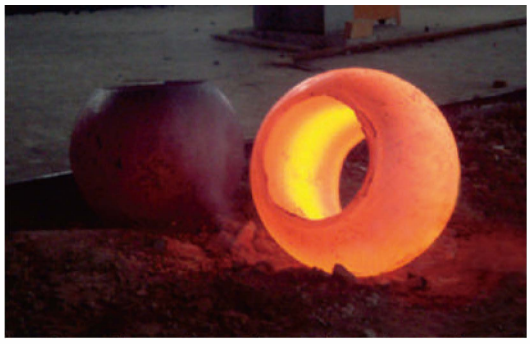
- Design Review
- Continuous Research for new materials either for construction and for sealing
- Material Properties Control (mechanical and chemical)
- Materials Quality (Volumetric Tests, Magnetic Test, Penetrate Test, PMI)
- Traceability of the materials and parts
- Inspection During Production Process in all its phases
- Performances of the Valves
- Accuracy in the final stage before shipment
- Issuing of complete documentation file in full compliance of project requirement
- Respect of the Contractual Delivery



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Raw Material Inspection:

Raw material quality is vital for valve quality, Elite Valve source casting and forging from selected vendor. Before machining, we will take 4 steps to guarantee the material quality.



Forging

1)Visual Test: Visual test as per MSS SP55, casting with obvious defects will be declined.

2)Valve wall thickness test: Random inspection on valve wall thickness by ultrasonic thickness meter , unqualified ones will be declined.

3)Chemical Component analysis: Random PMI test is performed to ensure qualification.

4)Dimension Check face to face; flange thickness will be check before process.



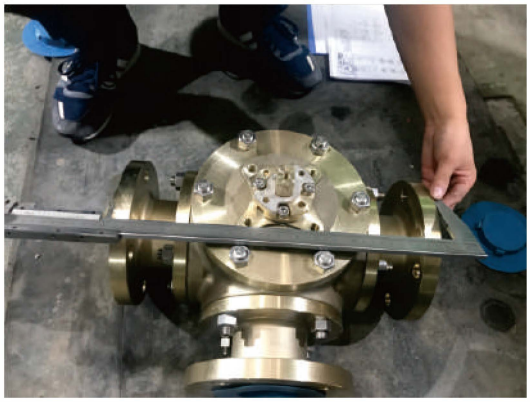
Casting



Forged Stock



PMI Inspection



Dimension Check

Production:

When the designs are approved by the customer, the production process starts. Our highly qualified staff works with high speed machines to produce valves accordingly as per requirement. After rough machining, 20% of valve component is checked dimensionally by Q.C inspectors and 100% after fine machining.



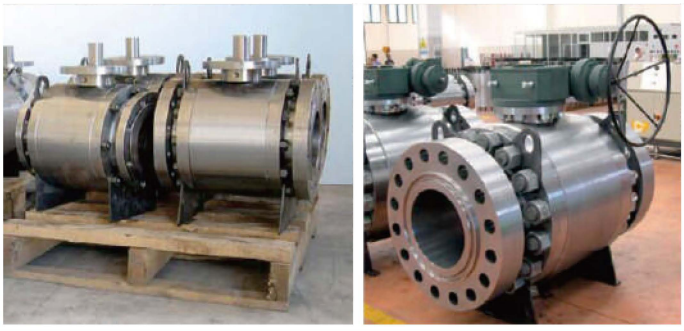
Machine Center



Engine Lathe



Assemblying



End Product



Dimension Check

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Valve Testing :

After the production process has finished 100% of valves are tested in-house. Our valves have to ensure a hydro-test on body and seat, followed by a low pressure air-test in excess of API 6D and API 598 requirements. Prior to shipping, additional tests on valves and materials can also be arranged by Elite Valves.

The following standard performance test are performed according to API 6D, API 598 or to customer specific requirements:

- Visual & Dimensional Check
- Hydrostatic Testing
- Low Pressure Gas Seat Testing
- High Pressure Gas Testing
- Cryogenic Gas Testing Down To -196 ℃ (-320,8 ° F)
- High Temperature Testing Up To 660℃(1220 ° F)
- Fugitive Emission Gas Testing
- Antistatic Testing
- Torque Testing
- Cavity Relief Testing
- Double Block & Bleed (DBB) Testing
- Double Isolation & Bleed (DIB-1,DIB-2) Testing

Non –destructive testing (NDT)

The following tests can be performed by 2nd level EN473-SIO9712/SN-TC-1A qualified personal or 3rd party appointed by client.

- VT (Visual testing)
- UT (Ultrasonic testing)
- PT (Penetrant testing)
- MT (Magnetic particle testing)
- LT (Leak testing)
- PMI (Positive Material Identification)
- Hardness test
- Ferrite Test



Cryogenic Testing



Hydrostatic Testing Picture



Pressure Test



Firesafe Test Hartmann



Fugitive Emission Gas testing



Visual Inspection



Ultrasonic Testing



PMI

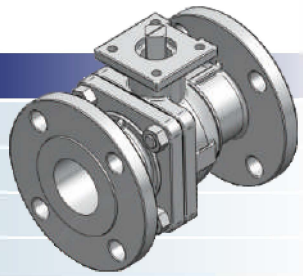


Magnetic Particle Testing

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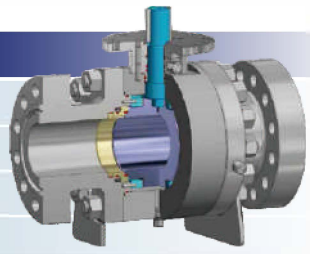
PRODUCT RANGE

SIDE-ENTRY FLOATING BALL VALVE(1PC、2PC、3PC)



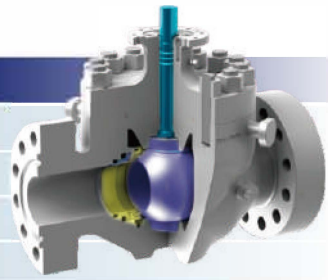
SERVICE	CL150~600	CL900	CL1500	CL2500
STANDARD	1/2"~6"	1/2"~2"	1/2"~2"	1/2"~1"
LOW TEMP. DOWN TO –196℃	1/2"~4"	1/2"~2"	1/2"~2"	1/2"~1"
UNDERGROUND	1/2"~4"	1/2"~2"	1/2"~2"	1/2"~1"
HIGH TEMP. +200℃ TO 425℃	1/2"~4"	1/2"~2"	1/2"~2"	1/2"~1"

SIDE-ENTRY TRUNNION BALL VALVE



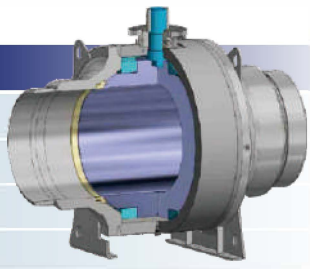
SERVICE	CL150~600	CL900	CL1500	CL2500
STANDARD	2"~48"	2"~48"	2"~24"	2"~12"
LOW TEMP. DOWN TO –196℃	2"~48"	2"~48"	2"~24"	2"~12"
UNDERGROUND	2"~48"	2"~48"	2"~24"	2"~12"
HIGH TEMP. +200℃ TO 425℃	2"~48"	2"~48"	2"~24"	2"~12"

TOP-ENTRY TRUNNION BALL VALVE



SERVICE	CL150~600	CL900	CL1500	CL2500
STANDARD	2"~36"	2"~24"	2"~24"	2"~12"
LOW TEMP. DOWN TO –196℃	2"~36"	2"~24"	2"~24"	2"~12"
UNDERGROUND	2"~36"	2"~24"	2"~24"	2"~12"
HIGH TEMP. +200℃ TO 425℃	2"~24"	2"~24"	2"~24"	2"~12"

FULLY-WELDED TRUNNION BALL VALVE & EXTENDED S



SERVICE	CL150~600	CL900	CL1500	CL2500
STANDARD	2"~48"	2"~48"	2"~24"	2"~12"
LOW TEMP. DOWN TO –196℃	2"~48"	2"~48"	2"~24"	2"~12"
UNDERGROUND	2"~48"	2"~48"	2"~24"	2"~12"
HIGH TEMP. +200℃ TO 425℃	2"~48"	2"~48"	2"~24"	2"~12"

APPLICABLE DESIGN STANDARDS

DESIGN	BODY THICKNESS	BOLTING	FACE-TO-FACE	DRIVE TRAIN SIZE	FIRESAFE
API 6D API 608	ASME B16.34 ASME VIII	ASME B16.34 ASME VIII	ASME API 6D ASME B16.10	ASME API 6D	API 607 API 6FA

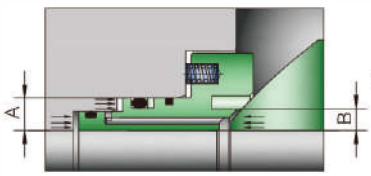
OTHERS	Materials：ASME II–D, ASTM, API Flanges：ASME B16.5, ASME B16.47 NDT：ASME, ASTM	Welding：ASME IX Welding ends：ASME B16.25 Sour service：NACE MR0175, NACE MR0103

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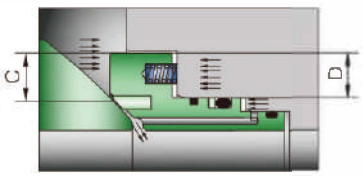
BALL VALVE TYPE & FEATURES

Double Block and Bleed(DBB)

- In closed position, blocks flow from both valve ends when the cavity between the seating surfaces is vented through a bleed connection provided on the body cavity.
- Pressure is released in the direction of low pressure.



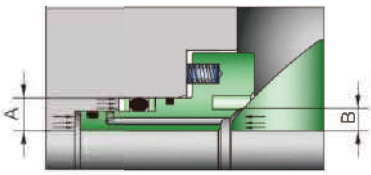
Area (A)>Area (B)
Upstream Seat Seal



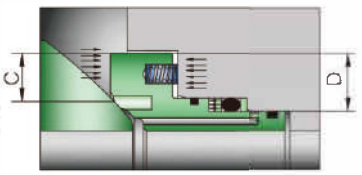
Area (C)>Area (D)
Low Pressure Seat Self–relief

Double Isolation and Bleed(DIB)

- Cavity pressure acts on both up stream and downstream seats to create a "Double piston" effect on seat rings that enhances sealing.
- Valves with Double Piston seats require an external cavity relief mechanism while handling non–compressible fluids.



Area (A)>Area (B)
Upstream Seat Seal



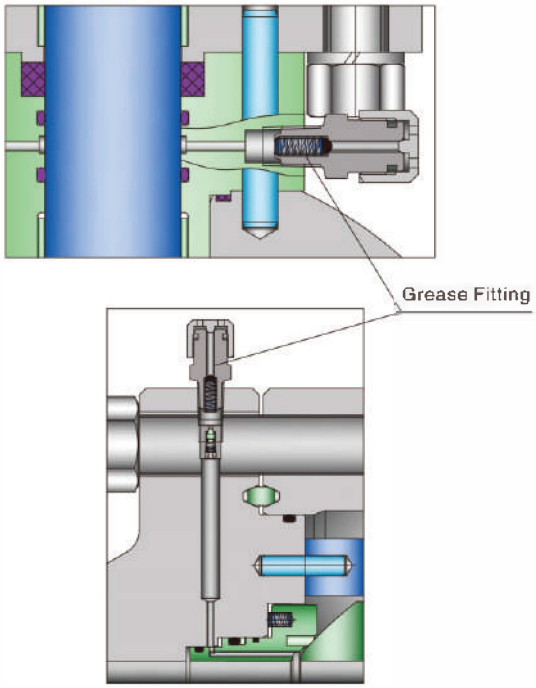
Area (C)<Area (D)
Downstream Seat Seal

Emergency Stem Sealing

- This feature is standard for trunnion ball valve.
- Designed to prevent stem leakage under live pipline pressure.

Emergency Seat Sealing

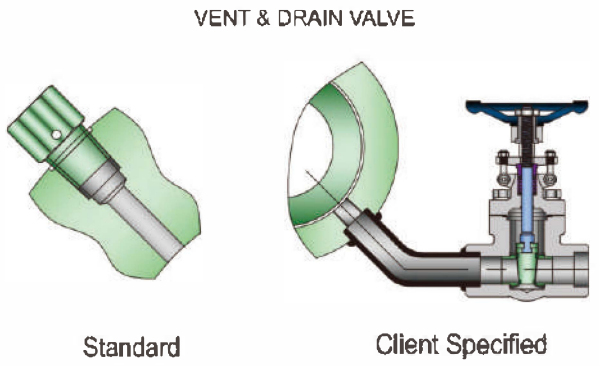
- This feature is standard for trunnion ball valve.
- For 6" and greater it is supplied with seat sealant.
- Prevent and repairs seat leakages, hence eliminates valve failures.
- It acts as sceondary sealing of the valve at emergency cases.



BALL VALVE TYPE & FEATURES

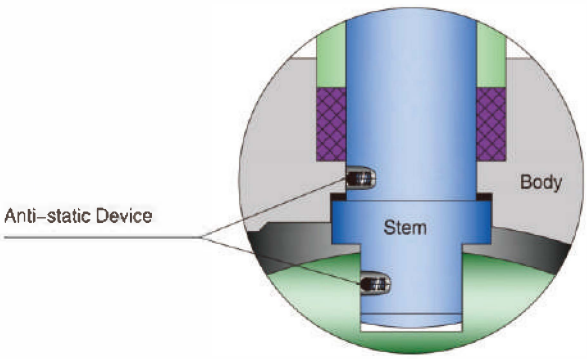
Vent & Drain Facility

- Each valve is supplied with an Anti–Blowout design vent valve and plugged drain connection according to ASME B16.34 / API 6D located at the upper and lower part of the body.
- As standard, vent & drain connections are NPT thread.
- Alternative vent & drain designs incorporating fully welded flange or a pad type flange connection fitted with blind flange with gate or ball valve are available.



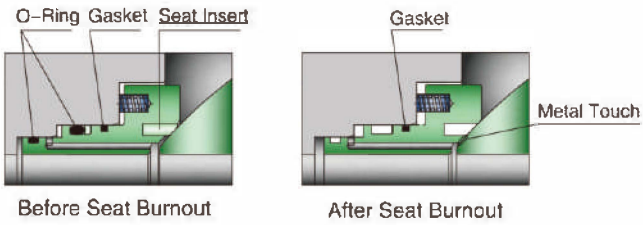
Blowout-Proof Stem

- The stem is designed with integral T–type shoulder to provide blow–out proof effectively.



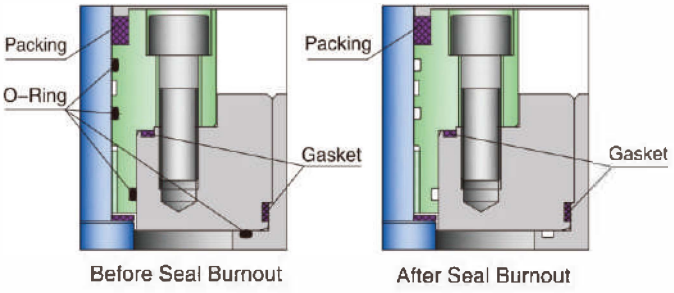
Anti-Static Device

- A spring loaded grounding ball ensures the electrical continuity between the Ball、Stem and Body to avoid sparks during the opening and closing of the valves.



Fire Safe Design

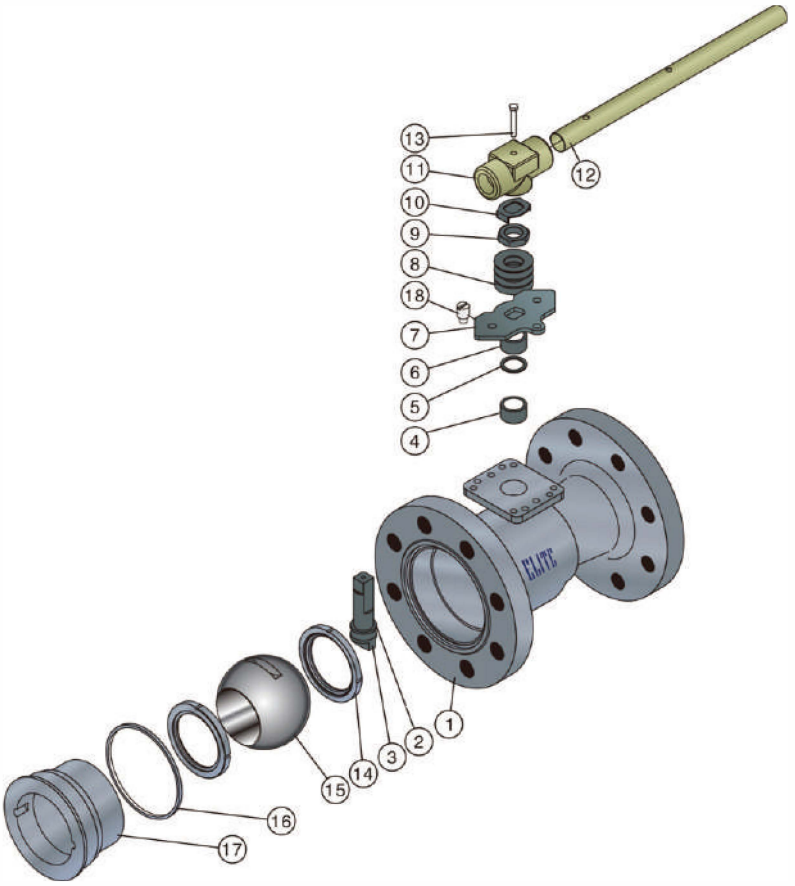
- Ball valve are fire–safe by design and meet the requirements of API 607 and API 6FA.
- The gaskets and stem seals are long lasting and resistant to high temperature.



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MODEL NO.:EFC-1/2BV1R1
Size:1/2"~6"(DN15~DN150)
Class:CL150~CL900

FLOATING TYPE (1PC)



Material

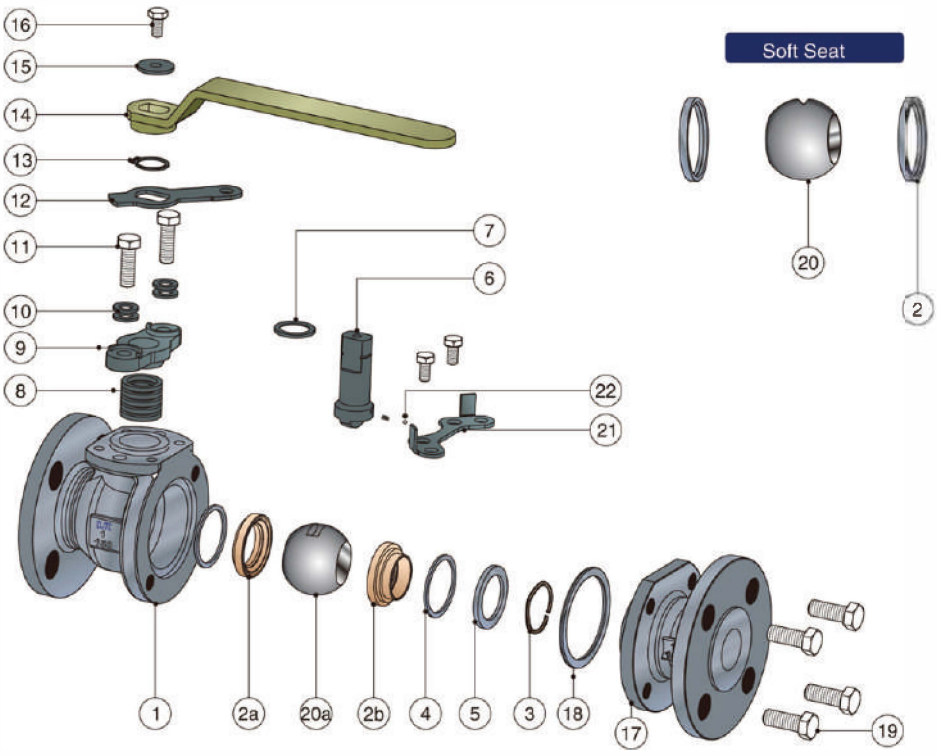
NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A216 WCB	A217 WC6	A351 CF8M	A995 4A
2	THRUST BEARING	PTFE/RPTFE			
3	STEM	A182 F6a/F304/F316		A182 F316/17–4PH/F51	A182 F51/F53/F55
4	STEM PACKING	PTFE/FLEXIBLE GRAPHITE			
5	WASHER	STAINLESS STEEL			
6	GLAND FLANGE	SS410/SS304/SS316		SS316	
7	STOP PLATE	Q235+Zn			
8	BELLEVILLE SPRING	17–7PH/INCONEL 625			
9	GLAND NUT	A194 2H		A194 8/8M	
10	LOCK TAB	STAINLESS STEEL			
11	WRENCH BLOCK	ASTM A216 WCB			
12	HANDLE PIPE	CARBON STEEL+Zn			
13	HANDLE BOLT	A193 B7		A193 B8/B8M	
14	SEAT	PTFE/RPTFE/DEVLON/DERLIN/PEEK			
15	BALL	A105+ENP/A182 F6a/F304/F316		A182 F316/F51	A182 F51/F53/F55
16	BODY GASKET	PTFE/ SS+PTFE/SS+GRAPHITE			
17	END CAP	A105	A182 F11	A182 F316	A182 F51
18	STOP PIN	300 SERIES STAINLESS STEEL			

The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 1/2=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 1=Floating, Split Body.

MODEL NO.:EFC-1/2BV1R1
Size:1/2"~6"(DN15~DN150)
Class:CL150~CL2500

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FLOATING TYPE (2PC)



Material

NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A105/A216 WCB	A182 F11/A217 WC6	A182 F316/A351 CF8M	A182 F51/A995 4A
2	SEAT RING	PTFE/RPTFE/DEVLON/DERLIN/PEEK			
2a	SEAT RING	A182 F304+TCC/NI55		A182 F316+TCC/Ni55	A182 F51+TCC/Ni55
2b	SEAT RING	A182 F304+TCC/NI55		A182 F316+TCC/Ni55	A182 F51+TCC/Ni55
3	SEAT SPRING	17–7PH/INCONELX–750			
4	SEAT BACKUP SEAL	GRAPHITE			
5	RETAINER	SS304		SS316	A182 F51/F53/F55
6	STEM	A182 F6a/F304/F316		A182 F316/17–4PH/F51	A182 F51/F53/F55
7	THRUST BEARING	PTFE/RPTFE			
8	STEM PACKING	PTFE/FLEXIBLE GRAPHITE			
9	GLAND FLANGE	A216 WCB		A351 CF8/A351 CF8M	
10	BELLEVILLE SPRING	17–7PH/INCONEL 625			
11	GLAND BOLT	A193 B7	A193 B16	A193 B8/A193 B8M	
12	STOPPER	Q235+Zn			
13	SNAP RING	AISI 1065			
14	LEVER	A216 WCB			
15	LEVER WASHER	SS304/SS316			
16	LEVER SET BOLT	A193 B7	A193 B16	A193 B8/A193 B8M	
17	CLOSURE	A105/A216 WCB	A182 F11/A217 WC6	A182 F316/A351 CF8M	A182 F51/A995 4A
18	CLOSURE GASKET	PTFE/ SS+PTFE/SS+GRAPHITE			
19	CLOSURE BOLT	A193 B7	A193 B16	A193 B8/A193 B8M	
20	BALL	A105+ENP/A182 F6a/F304/F316		A182 F316/F51	A182 F51/F53/F55
20a	BALL	A182 F304+TCC/NI60		A182 F316+TCC/Ni60	A182 F51+TCC/Ni60
21	LOCKING PLATE	Q235+Zn			
22	ANTI STATIC DEVICE	SS316			

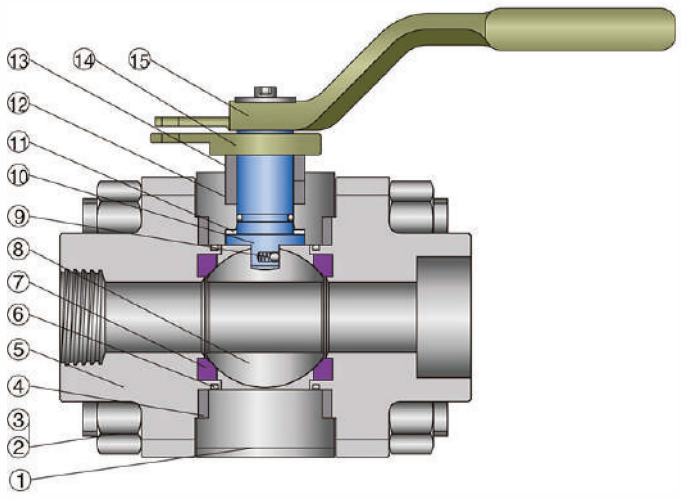
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 1/2=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 1=Floating, Split Body.

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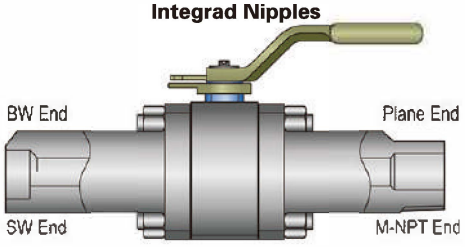
MODEL NO.:EFC-1/2BV8S1
Size:1/2"~2"(DN15~DN50)
Class:CL150~CL2500

FLOATING TYPE (3PC)

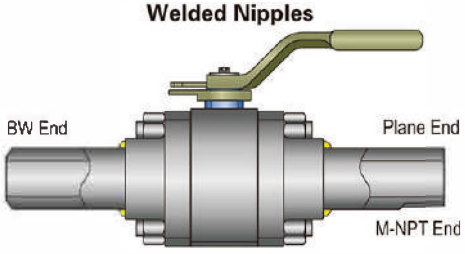
Standard Type



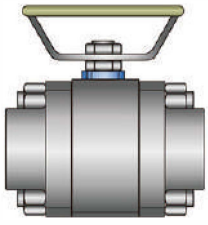
Integrad Nipples



Welded Nipples

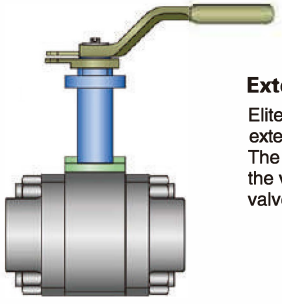


Available Options



Safety Oval Handle

Safety Oval Handle are used where the standard lever can be accidentally locked while opening or closing



Extended Bonnet For Insulation

Elite ball valve can be supplied with an extended bonnet .
The insulation can be installed all around the valve without blocking access to the valve or other operator

Material

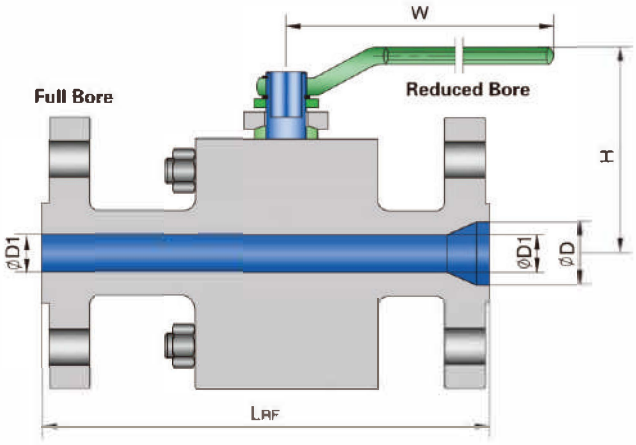
NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A105	A182 F11	A182 F316	A182 F51
2	BOLT	A193 B7	A193 B16	A193 B8/A193 B8M	
3	NUT	A194 2H	A194 4	A194 8/A194 8M	
4	GASKET	SS+GRAPHITE/SS+PTFE			
5	BONNET	A105	A182 F11	A182 F316	A182 F51
6	O–RING	NBR/HNBR/VITON			
7	SEAT RING	PTFE/RPTFE/DEVLON/PPL/PEEK			
8	BALL	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
9	ANTISTATIC SPRING	SS316			
10	STEM	A182 F6a/F304/F316/17–4PH		A182 F316/17–4PH/F51	A182 F51/F53/F55
11	THRUST WASHER	PTFE/RPTFE			
12	PACKING	GRAPHITE/PTFE			
13	GLAND	A276 410/304/316		A276 316	
14	GLAND FLANGE	A216 WCB/A351 CF8		A351 CF8	
15	THE HANDLE	A216 WCB/1025+Zn			

NOTE:Metal-to-metal seated ball valve designs are available upon request.
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 1/2=Size in inch | BV=Ball Valve | 8=800Lb | S=SW End | 1=Floating, Split Body.

FLOATING BALL VALVE

Dimension & Weights





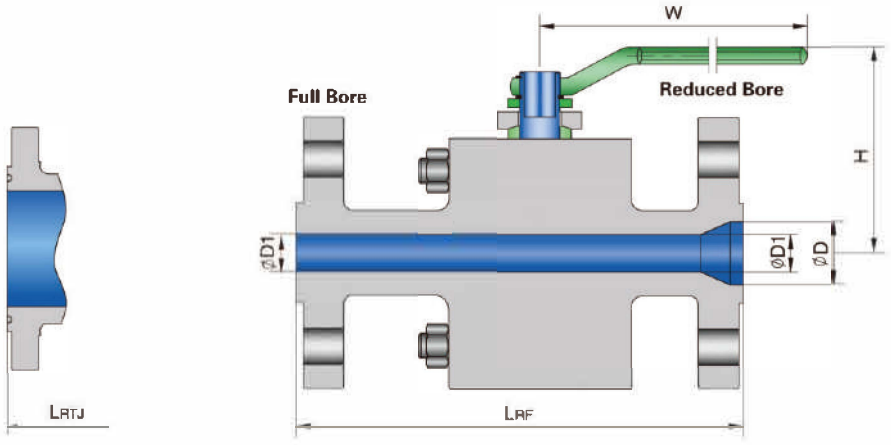
Full Bore

Nominal Pressure	Size		ØD	ØD1	L		W	H	Weight	
	NPS	DN			RF	RTJ			Lb	Kg
ASME 150	1/2"	15	13	13	108	–	160	76	4.4	2
	3/4"	20	19	19	117	–	200	108	7.0	3.2
	1"	25	25	25	127	140	200	111	10.1	4.6
	1 1/2"	40	38	38	165	178	260	130	15.9	7.2
	2"	50	49	49	178	191	260	160	24.2	11
	3"	80	74	74	203	216	400	184	50.6	23
	4"	100	100	100	229	242	700	203	83.6	38
	6"	150	150	150	394	407	800	272	220	100
ASME 300	1/2"	15	13	13	140	151	160	76	5.5	2.5
	3/4"	20	19	19	152	165	200	108	8.8	4.0
	1"	25	25	25	165	178	200	111	13.2	6.0
	1 1/2"	40	38	38	190	203	260	130	25.3	11.5
	2"	50	49	49	216	232	260	160	31.9	14.5
	3"	80	74	74	282	298	400	184	74.8	34
	4"	100	100	100	305	321	700	203	132	60

Elite FLOW CONTROL
WE CONTROL THE FLOW.

FLOATING BALL VALVE

Dimension & Weights

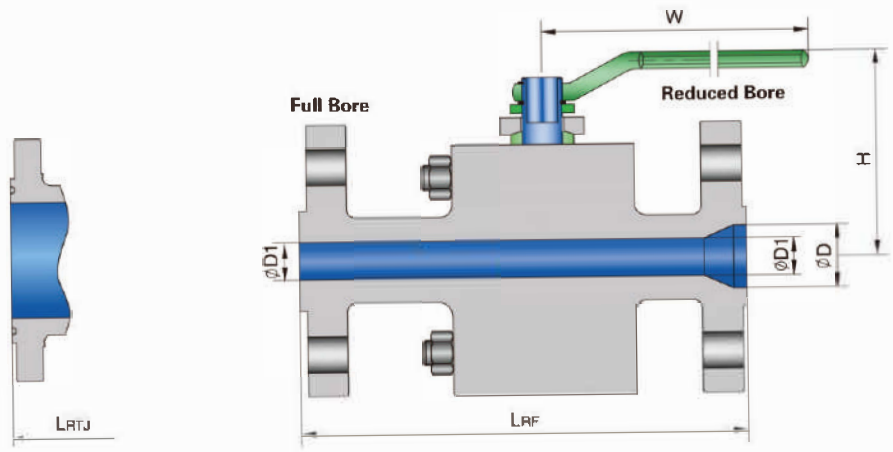


Full Bore

Nominal Pressure	Size		ØD	ØD1	L		W	H	Weight	
	NPS	DN			RF	RTJ			Lb	Kg
ASME 600	1/2"	15	13	13	165	163	165	80	9.9	4.5
	3/4"	20	19	19	190	190	200	105	13.2	6.0
	1"	25	25	25	216	216	200	110	17.6	8.0
	1 1/2"	40	38	38	241	241	260	130	35.3	16
	2"	50	49	49	292	295	360	140	48.5	22
	3"	80	74	74	356	359	450	185	99.2	45
ASME 900/1500	1/2"	15	13	13	216	216	200	100	15.6	7.1
	3/4"	20	19	19	229	229	200	110	23.1	10.5
	1"	25	25	25	254	254	260	125	38.6	17.5
	1 1/2"	40	38	38	305	305	360	158	63.4	29
	2"	50	49	49	368	371	360	165	83.8	38
ASME 2500	1/2"	15	13	13	264	264	200	100	22	10
	3/4"	20	19	19	273	273	200	110	30.9	14
	1"	25	25	25	308	308	260	125	44	20

FLOATING BALL VALVE

Dimension & Weights



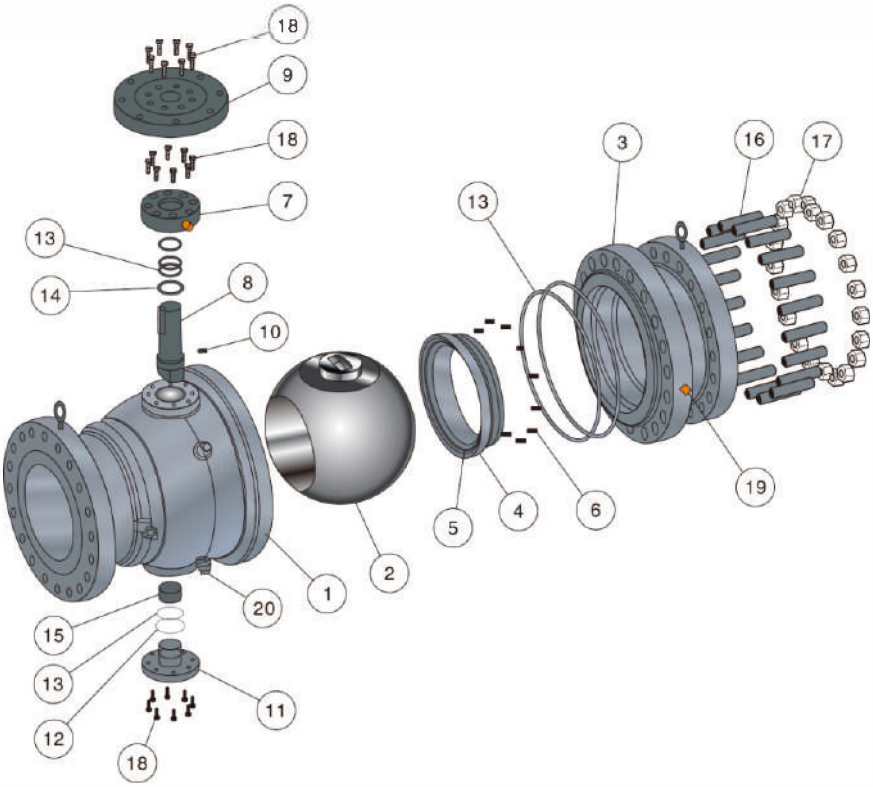
Reduced Bore

Nominal Pressure	Size		ØD	ØD1	L		W	H	Weight	
	NPS	DN			RF	RTJ			Lb	Kg
ASME 150	1/2"	15	13	10	108	–	160	76	4.0	1.8
	3/4"	20	19	13	117	–	160	76	5.5	2.5
	1"	25	25	19	127	140	200	108	7.9	3.6
	1 1/2"	40	38	32	165	178	200	111	12.1	5.5
	2"	50	49	38	178	191	260	130	18.7	8.5
	3"	80	74	49	203	216	260	160	41.8	19
	4"	100	100	74	229	242	400	184	63.8	29
	6"	150	150	100	394	407	700	203	154	70
ASME 300	1/2"	15	13	10	140	151	160	76	4.8	2.2
	3/4"	20	19	13	152	165	160	76	7.3	3.3
	1"	25	25	19	165	178	200	108	11	5.0
	11/2"	32	38	32	190	203	200	111	20.3	9.2
	2"	50	49	38	216	232	260	130	28.6	13
	3"	80	74	49	282	298	260	160	59.4	27
	4"	100	100	74	305	321	400	184	99	45
	6"	150	150	100	403	419	700	203	176	80

Elite FLOW CONTROL
WE CONTROL THE FLOW.

MODEL NO.:EFC-02BV1R3
Size:2"~48"(DN50~DN1200)
Class:CL150~CL900

TRUNNION TYPE (CASTING)



Material

NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A216 WCB	A217 WC6	A351 CF8M	A995 4A
2	BALL	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
3	CLOSURE	A216 WCB	A217 WC6	A351 CF8M	A995 4A
4	SEAT RING	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
5	SEAT INSERT	PTFE/RPTFE/NYLON/DEVLON/PEEK			
6	SPRING	17-7PH/INCONELX-750			
7	STUFFING BOX	A105+ENP	A105+ENP	A182 F316	A182 F51
8	STEM	A182 F6a/F304/F316/17-4PH		A182 F316/17-4PH/F51	A182 F51/F53/F55
9	CONNECTION PLATE	A105	A105	A182 F316	A182 F51
10	ANTI STATIC DEVICE	SS316			
11	LOW TRUNNION	A105+ENP	A105+ENP	A182 F316	A182 F51
12	CLOSURE GASKET	SS+GRAPHITE/SS+PTFE			
13	O-RING	VITON/NBR/HNBR/FVMQ			
14	THRUST WASHER	PTFE/RPTFE			
15	BEARING	SS+PTFE/SS			
16	CLOSURE STUD	A193 B7	A193 B16	A193 B8/A193 B8M	
17	CLOSURE NUT	A194 2H	A194 4	A194 8/A194 8M	
18	CAP SCREW	A193 B7	A193 B16	A193 B8/A193 B8M	
19	SEALANT FITTING	CARBON STEEL		SATINLESS STEEL	
20	DRAIN VALVE	CARBON STEEL		SATINLESS STEEL	

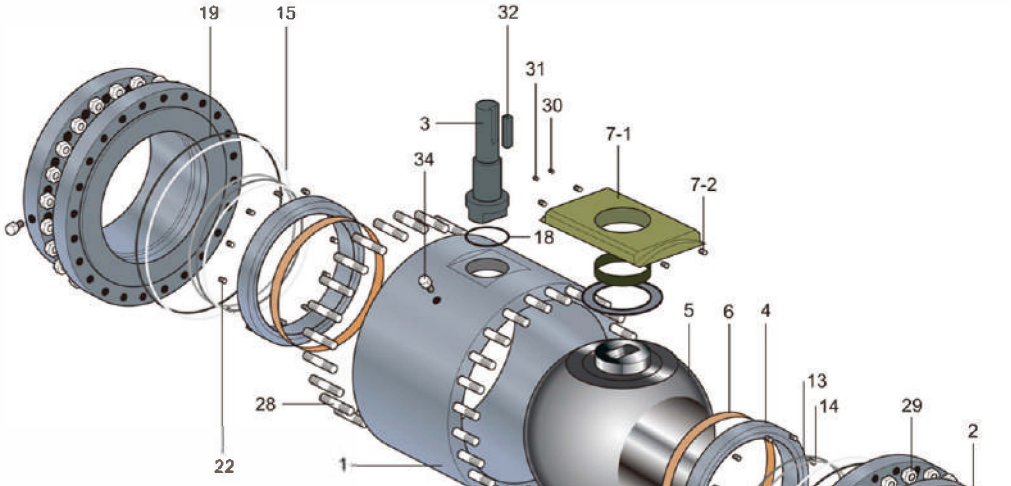
NOTE:Metal-to-metal seated ball valve designs are available upon request.
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 3=Trunnion, Split Body.

MODEL NO.:EFC-02BV1R3
Size:2″~48″(DN50~DN1200)
Class:CL150~CL2500

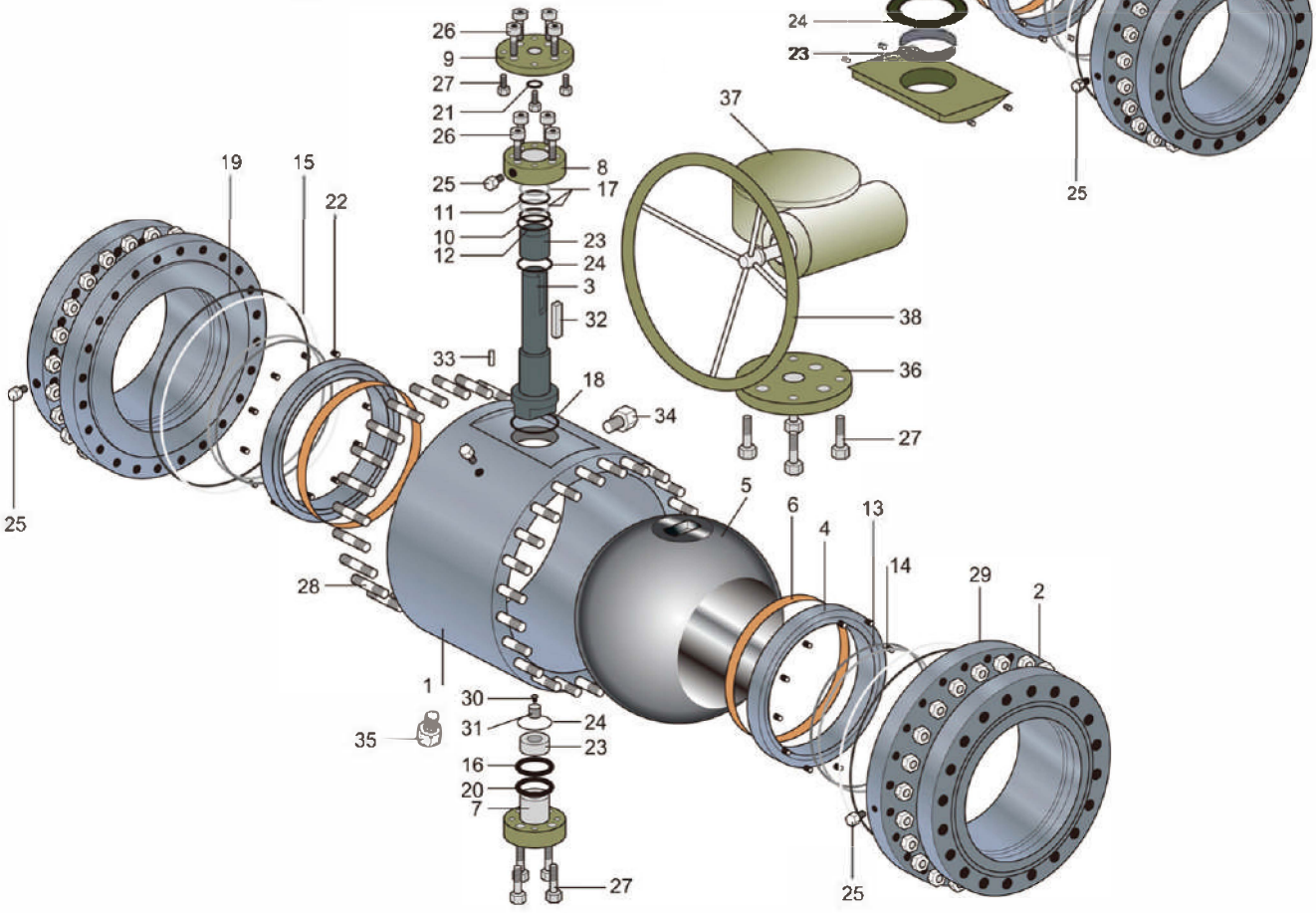
Elite FLOW CONTROL
WE CONTROL THE FLOW.

TRUNNION TYPE (FORGED)

Trunnion Block(8"~48")



Trunnion Mounting(2"~48")



The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 3=Trunnion, Split Body.

Elite
FLOW CONTROL
WE CONTROL THE FLOW.

MODEL NO.:EFC-02BV1R3
Size:2"~48"(DN50~DN1200)
Class:CL150~CL2500

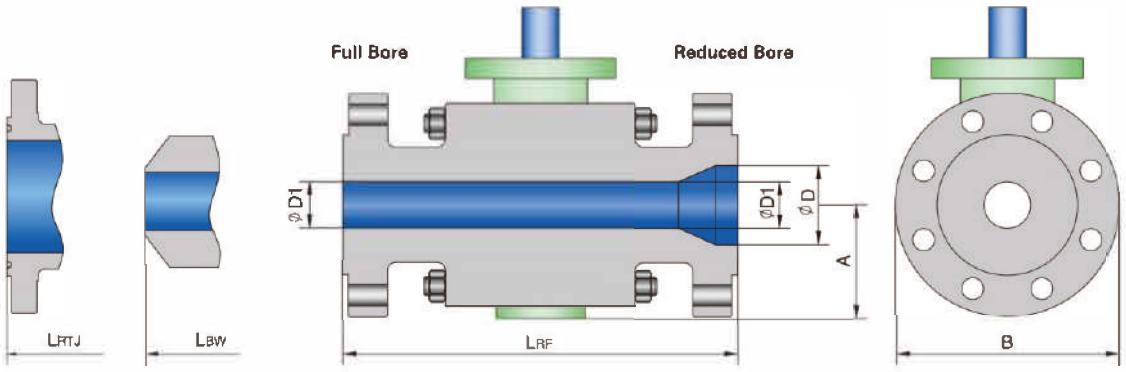
TRUNNION TYPE (FORGED)

NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A105	A182 F11	A182 F316	A182 F51
2	CLOSURE	A105	A182 F11	A182 F316	A182 F51
3	STEM	A182 F6a/F304/F316/17–4PH		A182 F316/F51	A182 F51/F53/F55
4	SEAT RING	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
5	BALL	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
6	SEAT INSERT	PTFE/RPTFE/NYLON/DEVLON/PEEK			
7	TRUNNION MOUNTING	A105+ENP/A182 F11		A182 F316	A182 F51
7–1	TRUNNION BLOCK	A105+ENP/A182 F11		A182 F316	A182 F51
7–2	TRUNNION BLOCK PIN	SS410/SS304/SS316		SS316	SS316
8	STUFFING BOX	A105+ENP		A182 F316	A182 F51
9	CONNECTION PLATE	A105+ENP		A182 F316	A182 F51
10	STEM O–RING	VITON/NBR/HNBR/FVMQ			
11	STEM O–RING	VITON/NBR/HNBR/FVMQ			
12	GLAND O–RING	VITON/NBR/HNBR/FVMQ			
13	SEAT O–RING	VITON/NBR/HNBR/FVMQ			
14	SEAT SUBSEAL	VITON/NBR/HNBR/FVMQ/GRAPHITE			
15	CLOSURE O–RING	VITON/NBR/HNBR/FVMQ			
16	TRUNNION O–RING	VITON/NBR/HNBR/FVMQ			
17	BACKUP RING	PTFE/NYLON			
18	GLAND GASKET	SS+GRAPHITE/SS+PTFE			
19	CLOSURE GASKET	SS+GRAPHITE/SS+PTFE			
20	TRUNNION O–RING	VITON/NBR/HNBR/FVMQ			
21	STEM PACKING	PTFE/GRAPHITE			
22	SEAT SPRING	17–7PH/INCONELX–750			
23	BEARING	SS+PTFE/SS+NITRIDING			
24	THRUST WASHER	PTFE/RPTFE/DEVLON			
25	SEALANT FITTING	CARBON STEEL		STAINLESS STEEL	
26	SCREW	A193 B7	A193 B16	A193 B8(M)	
27	SCREW	A193 B7	A193 B16	A193 B8(M)	
28	STUD	A193 B7	A193 B16	A193 B8(M)	
29	NUT	A194 2H	A194 4	A194 8(M)	
30	GROUNDING BALL	STAINLESS STEEL			
31	GROUNDING SPRING	STAINLESS STEEL			
32	STEM KEY	AISI 1045			
33	POSITIONING PIN	CARBON STEEL		STAINLESS STEEL	
34	VENT PLUG	CARBON STEEL		STAINLESS STEEL	
35	DRAIN PLUG	CARBON STEEL		STAINLESS STEEL	
36	CONNECTION PLATE	A105	A105/A182 F11	A182 F316	A182 F51
37	GEAR	DUCTILE IRON,CARBON STEEL			
38	HANDWHEEL	DUCTILE IRON,CARBON STEEL			

NOTE:Metal–to–metal seated ball valve designs are available upon request.
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 3=Trunnion, Split Body.

TRUNNION BALL VALVE

Dimension & Weights



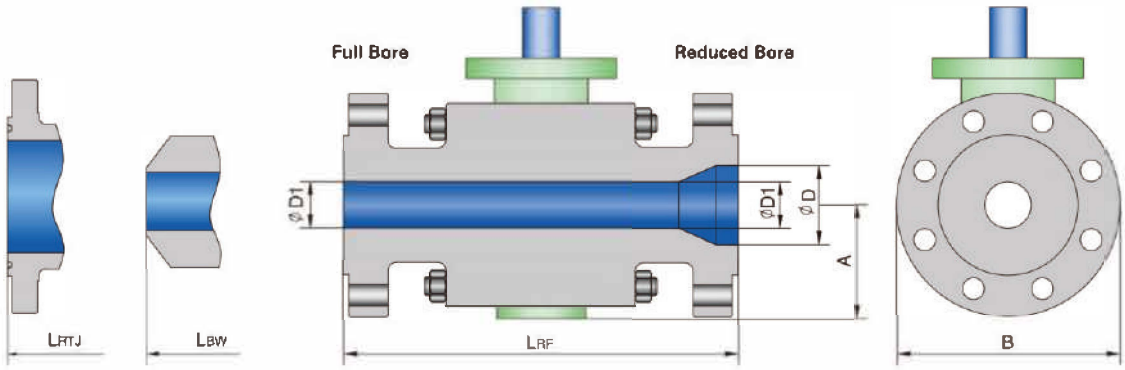
ASME CLASS 150 FULL BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2 50	1.94 49	1.94 49	7 178	7.5 191	8.5 216	3.4 86	5.9 150	40 18	35 16
2 1/2 65	2.44 62	2.44 62	7.5 190	8 203	9.5 241	3.9 100	7.3 185	62 28	55 25
3 80	2.94 74	2.94 74	8 203	8.5 216	11.12 282	4.9 125	7.8 198	73 33	66 30
4 100	3.94 100	3.94 100	9 229	9.5 242	12 305	5.2 132	9 230	110 50	99 45
6 150	5.94 150	5.94 150	15.5 394	16 407	18 457	7.2 184	12.6 320	286 130	271 123
8 200	7.94 201	7.94 201	18 457	18.5 470	20.5 521	9 228	15.7 398	506 230	484 220
10 250	9.94 252	9.94 252	21 533	21.5 546	22 559	10.6 268	19.1 485	847 385	770 350
12 300	11.94 303	11.94 303	24 610	24.5 623	25 635	12.9 327	22.2 565	1342 610	1232 560
14 350	13.19 334	13.19 334	27 686	27.5 699	30 762	14.8 375	14 610	1760 800	1703 774
16 400	15.19 385	15.19 385	30 762	30.5 775	33 838	16 405	27.9 708	2640 1200	2420 1100
18 450	17.19 436	17.19 436	34 864	34.5 877	36 914	18.3 465	30.1 765	3388 1540	3124 1420
20 500	19.19 487	19.19 487	36 914	36.5 927	39 991	21.7 550	34.3 870	4048 1840	3850 1750
22 550	21.19 538	21.19 538	39 991	39.5 1004	43 1092	22.5 572	37 940	4928 2240	4774 2170
24 600	23.19 589	23.19 589	42 1067	42.5 1080	45 1143	24 610	40.4 1026	6820 3100	6006 2730
26 650	24.94 633	24.94 633	45 1143	– –	49 1245	24.8 630	43.7 1110	8030 3650	7524 3420
28 700	26.94 684	26.94 684	49 1245	– –	53 1346	27 685	46.3 1175	9636 4380	9064 4120
30 750	28.94 735	28.94 735	51 1295	– –	55 1397	28 710	49.8 1265	11814 5370	10780 4900
32 800	30.69 779	30.69 779	54 1372	– –	60 1524	30.3 770	53.1 1350	13310 6050	12716 5780
34 850	32.69 830	32.69 830	58 1473	– –	64 1626	31.3 795	55.1 1400	15180 6900	14146 6430
36 900	34.44 874	34.44 874	60 1524	– –	68 1727	35.6 905	58.3 1480	18920 8600	16720 7600
40 1000	38.44 976	38.44 976	70.87 1800	– –	70.87 1800	37 940	66.9 1700	24200 11000	21340 9700
42 1050	40.19 1020	40.19 1020	74.8 1900	– –	74.8 1900	38.4 975	66.9 1700	31900 14500	24816 11280
48 1200	45.94 1166	45.94 1166	82.68 2100	– –	82.68 2100	42.7 1085	76.4 1940	39600 18000	35420 16100

Elite FLOW CONTROL
WE CONTROL THE FLOW.

TRUNNION BALL VALVE

Dimension & Weights

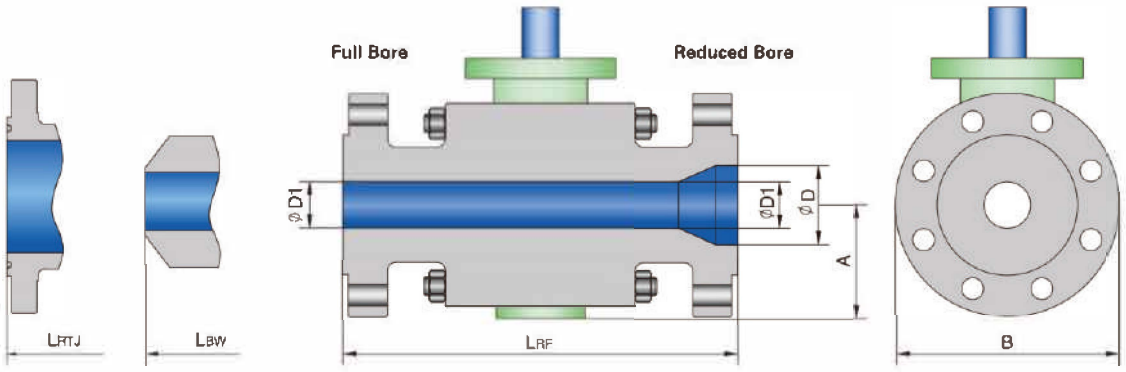


ASME CLASS 150 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ Lb/kg)	BW Lb/kg)
2×1 1/2	1.94	1.5	7	7.5	8.5	3.3	5.9	33	26
50×40	49	38	178	191	216	86	150	15	12
2 1/2×2	2.44	1.94	7.5	8	9.5	3.3	7.1	49	42
65×50	62	49	190	203	241	86	180	22	19
3×2	2.94	1.94	8	8.5	11.12	3.3	7.5	55	48
80×50	74	49	203	216	282	86	190	25	22
4×3	3.94	2.94	9	9.5	12	4.9	9.1	97	81
100×80	100	74	229	242	305	125	230	44	37
6×4	5.94	3.94	15.5	16	18	5.5	11	154	147
150×100	150	100	394	407	457	140	280	70	67
8×6	7.94	5.94	18	18.5	20.5	7.2	13.6	436	414
200×150	201	150	457	470	521	184	345	198	188
10×8	9.94	7.94	21	21.5	22	9	1.6	715	671
250×200	252	201	533	546	559	228	405	325	305
12×10	11.94	9.94	24	24.5	25	10.6	19.1	913	843
300×250	303	252	610	623	635	268	485	415	383
14×10	13.19	9.94	27	27.5	30	10.6	21	1151	1104
350×250	334	252	686	699	762	268	535	523	502
16×12	15.19	11.94	30	30.5	33	12.9	23.4	1639	1551
400×300	385	303	762	775	838	327	595	745	705
18×14	17.19	13.19	34	34.5	36	14.8	25	2288	2002
450×350	436	334	864	877	914	375	635	1040	910
20×16	19.19	15.19	36	36.5	39	15.9	27.6	2574	2134
500×400	487	385	914	927	991	405	700	1170	970
24×20	23.19	19.19	42	42.5	45	21.7	34.3	4213	4026
600×500	589	487	1067	1080	1143	550	870	1915	1830
30×24	28.94	23.19	51	–	55	24	40.4	8052	7744
750×600	735	589	1295	–	1397	610	1026	3660	3520
36×30	34.44	28.94	60	–	68	28	49.8	13420	12760
900×750	874	735	1524	–	1727	710	1265	6100	5800

TRUNNION BALL VALVE

Dimension & Weights



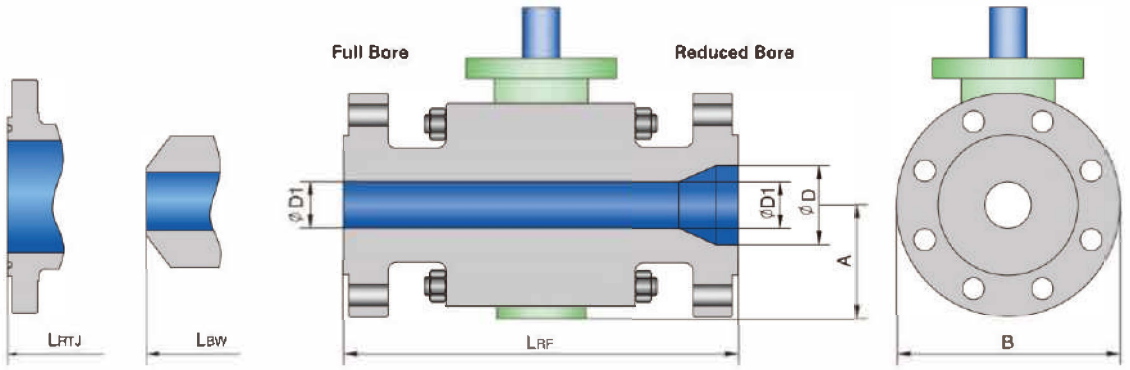
ASME CLASS 300 FULL BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ (Lb/kg)	BW (Lb/kg)
2 50	1.94 49	1.94 49	8.5 216	9.12 232	8.5 216	3.6 91	6.5 165	62 28	51 23
2 1/2 65	2.44 62	2.44 62	9.5 241	10.12 257	9.5 241	3.7 95	7.3 185	99 45	92 42
3 80	2.94 74	2.94 74	11.12 282	11.74 298	11.12 282	5 126	8.3 210	123 56	92 42
4 100	3.94 100	3.94 100	12 305	12.62 321	12 305	5.2 132	10 255	172 78	132 60
6 150	5.94 150	5.94 150	15.88 403	16.5 419	18 457	7.4 189	13 330	396 180	308 140
8 200	7.94 201	7.94 201	19.75 502	20.37 518	20.5 521	9 228	15.7 398	647 294	539 245
10 250	9.94 252	9.94 252	22.38 568	23 584	22 559	10.6 268	19.1 485	869 395	726 330
12 300	11.94 303	11.94 303	25.5 648	26.12 664	25 635	12.9 327	23.2 590	1463 665	1232 560
14 350	13.19 334	13.19 334	30 762	30.62 778	30 762	15.2 385	24.8 630	2178 990	1892 860
16 400	15.19 385	15.19 385	33 838	33.62 854	33 838	15.9 405	28.2 716	2829 1286	2277 1035
18 450	17.19 436	17.19 436	36 914	36.62 930	36 914	18.9 480	31.5 800	3520 1600	3080 1400
20 500	19.19 487	19.19 487	39 991	39.75 1010	39 991	21.7 550	34.3 870	4268 1940	3872 1760
22 550	21.19 538	21.19 538	43 1092	43.88 1114	43 1092	22.6 575	37.8 960	5390 2450	4840 2200
24 600	23.19 589	23.19 589	45 1143	45.88 1165	45 1143	24 610	40.6 1030	6622 3010	6336 2880
26 650	24.94 633	24.94 633	49 1245	50 1270	49 1245	24.8 630	43.1 1095	8404 3820	7810 3550
28 700	26.94 684	26.94 684	53 1346	54 1371	53 1346	27.6 700	46.9 1190	10604 4820	9372 4260
30 750	28.94 735	28.94 735	55 1397	56 1422	55 1397	28 710	49.8 1265	12320 5600	11330 5150
32 800	30.69 779	30.69 779	60 1524	61.12 1552	60 1524	30.7 780	53.1 1350	14190 6450	12430 5650
34 850	32.69 830	32.69 830	64 1626	65.12 1654	64 1626	31.9 810	47.8 1215	15510 7050	14190 6450
36 900	34.44 874	34.44 874	68 1727	69.12 1755	68 1727	35.6 905	58.3 1480	19800 9000	18480 8400
40 1000	38.44 976	38.44 976	76.77 1950	– –	76.77 1950	37 940	65 1650	24200 11000	22660 10300
42 1050	40.19 1020	40.19 1020	82.68 2100	– –	82.68 2100	38.2 970	66.9 1700	31900 14500	29920 13600
48 1200	45.94 1166	45.94 1166	85.43 2170	– –	85.43 2170	44.1 1120	77.4 1965	39600 18000	37620 17100

Elite FLOW CONTROL
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TRUNNION BALL VALVE

Dimension & Weights

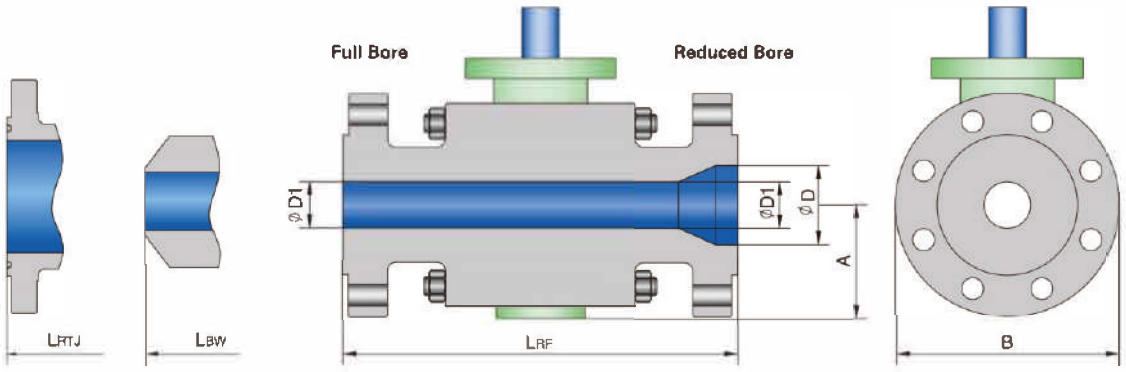


ASME CLASS 300 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ Lb/kg)	BW Lb/kg)
2 × 1 1/2	1.94	1.5	8.5	9.12	8.5	3.5	6.5	40	26
50 × 40	49	38	216	232	216	90	165	18	12
2 1/2 × 2	2.44	1.94	9.5	10.12	9.5	3.6	6.5	57	48
65 × 50	62	49	241	257	241	91	165	26	22
3 × 2	2.94	1.94	11.12	11.74	11.12	3.6	8.3	70	51
80 × 50	74	49	282	298	282	91	210	32	23
4 × 3	3.94	2.94	12	12.62	12	5	10	119	90
100 × 80	100	74	305	321	305	128	255	54	41
6 × 4	5.94	3.94	15.88	16.5	18	6.3	12.6	220	165
150 × 100	150	100	403	419	457	160	320	100	75
8 × 6	7.94	5.94	19.75	20.37	20.5	7.5	15	495	451
200 × 150	201	150	502	518	521	190	380	225	205
10 × 8	9.94	7.94	22.38	23	22	9	17.5	803	748
250 × 200	252	201	568	584	559	228	445	365	340
12 × 10	11.94	9.94	25.5	26.12	25	10.6	20.5	1320	1239
300 × 250	303	252	648	664	635	268	520	600	563
14 × 10	13.19	9.94	30	30.62	30	10.6	23	1430	1327
350 × 250	334	252	762	778	762	268	585	650	603
16 × 12	15.19	11.94	33	33.62	33	12.9	25.6	1782	1586
400 × 300	385	303	838	854	838	327	650	810	721
18 × 14	17.19	13.19	36	36.62	36	15.2	28	3300	3102
450 × 350	436	334	914	930	914	385	710	1500	1410
20 × 16	19.19	15.19	39	39.75	39	16	30.5	4290	3630
500 × 400	487	385	991	1010	991	405	775	1950	1650
24 × 20	23.19	19.19	45	45.88	45	21.7	36	5500	4950
600 × 500	589	487	1143	1165	1143	550	915	2500	2250
30 × 24	28.94	23.19	55	56	55	24	42.9	9350	8492
750 × 600	735	589	1397	1422	1397	610	1090	4250	3860
36 × 30	34.44	28.94	68	69.12	68	28	50	13900	12892
900 × 750	874	735	1727	1755	1727	710	1270	6350	5860

TRUNNION BALL VALVE

Dimension & Weights



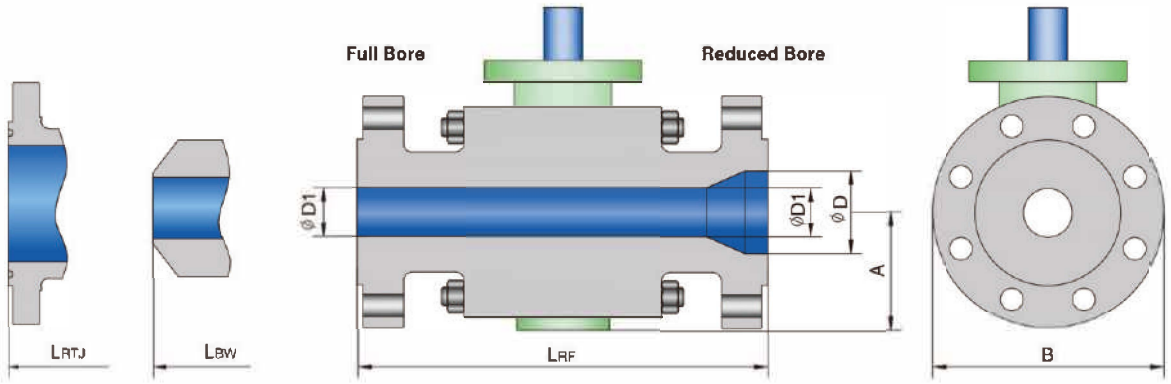
ASME CLASS 600 FULL BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2 50	1.94 49	1.94 49	11.5 292	11.62 295	11.5 292	3.7 95	6.5 165	73 33	62 28
2 1/2 65	2.44 62	2.44 62	13 330	13.12 333	13 330	3.9 100	7.7 195	119 54	106 48
3 80	2.94 74	2.94 74	14 356	14.12 359	14 356	5 128	8.3 210	150 68	110 50
4 100	3.94 100	3.94 100	17 432	17.12 435	17 432	5.8 148	11.6 295	242 110	209 95
6 150	5.94 150	5.94 150	22 559	22.12 562	22 559	7.7 195	14 355	528 240	444 202
8 200	7.94 201	7.94 201	26 660	26.12 663	26 660	9.6 245	16.5 420	796 362	638 290
10 250	9.94 252	9.94 252	31 787	31.12 790	31 787	11.4 290	20 510	1166 530	898 408
12 300	11.94 303	11.94 303	33 838	33.12 841	33 838	14.2 360	22.8 580	1727 785	1430 650
14 350	13.19 334	13.19 334	35 889	35.12 891	35 889	15.6 395	25 635	2376 1080	2002 910
16 400	15.19 385	15.19 385	39 991	39.12 994	39 991	16.7 425	28.3 720	3564 1620	3080 1400
18 450	17.19 436	17.19 436	43 1092	43.12 1095	43 1092	19.3 490	32.3 820	3982 1810	3630 1650
20 500	19.19 487	19.19 487	47 1194	47.25 1200	47 1194	22.6 575	36.2 920	5500 2500	4814 2190
22 550	21.19 538	21.19 538	51 1295	51.38 1305	51 1295	23.2 590	37.8 960	6270 2850	5544 2520
24 600	23.19 589	23.19 589	55 1397	55.38 1407	55 1397	23.8 605	41 1043	8492 3860	7612 3460
26 650	24.94 633	24.94 633	57 1448	57.5 1461	57 1448	25.6 650	43.9 1115	9504 4320	8470 3850
28 700	26.94 684	26.94 684	61 1549	61.5 1562	61 1549	26.8 680	48 1220	12848 5840	11660 5300
30 750	28.94 735	28.94 735	65 1651	65.5 1664	65 1651	29.9 760	51.8 1315	15686 7130	14080 6400
32 800	30.69 779	30.69 779	70 1778	70.62 1794	70 1778	31.1 790	55.5 1410	20240 9200	18260 8300
34 850	32.69 830	32.69 830	76 1930	76.62 1946	76 1930	33.1 840	56.3 1480	22660 10300	20900 9500
36 900	34.44 874	34.44 874	82 2083	82.62 2099	82 2083	35 890	60.9 1546	25740 11700	23100 10500
40 1000	38.44 976	38.44 976	80.71 2050		80.71 2050	37.8 960	65.6 1665	31460 14300	29172 13260
42 1050	40.19 1020	40.19 1020	82.68 2100		82.68 2100	40.9 1040	72.8 1850	36080 16400	33660 15300
48 1200	45.94 1166	45.94 1166	94.49 2400		94.49 2400	46.9 1190	78.3 1990	49940 22700	46200 21000

Elite FLOW CONTROL
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TRUNNION BALL VALVE

Dimension & Weights



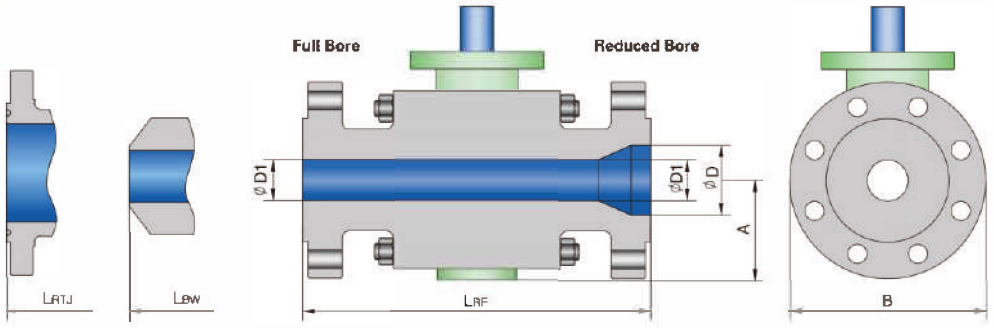
ASME CLASS 600 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ Lb/kg)	BW Lb/kg)
2 × 1 1/2	1.94	1.5	11.5	11.62	11.5	3.7	6.5	48	35
50 × 40	49	38	292	295	292	94	165	22	16
2 1/2 × 2	2.44	1.94	13	13.12	13	3.7	7.5	64	55
65 × 50	62	49	330	333	330	95	190	29	25
3 × 2	2.94	1.94	14	14.12	14	3.7	8.3	81	55
80 × 50	74	49	356	359	356	95	210	37	25
4 × 3	3.94	2.94	17	17.12	17	5.4	10.8	163	110
100 × 80	100	74	432	435	432	138	275	74	50
6 × 4	5.94	3.94	22	22.12	22	7	14	330	187
150 × 100	150	100	559	562	559	178	355	150	85
8 × 6	7.94	5.94	26	26.12	26	8.3	16.5	638	528
200 × 150	201	150	660	663	660	210	420	290	240
10 × 8	9.94	7.94	31	31.12	31	9.6	20	1067	880
250 × 200	252	201	787	790	787	245	510	485	400
12 × 10	11.94	9.94	33	33.12	33	11.4	22	1463	1100
300 × 250	303	252	838	841	838	290	560	665	500
14 × 10	13.19	9.94	35	35.12	35	11.4	23.8	2266	2002
350 × 250	334	252	889	892	889	290	605	1030	910
16 × 12	15.19	11.94	39	39.12	39	14.1	27	2530	2200
400 × 300	385	303	991	994	991	360	685	1150	1000
18 × 14	17.19	13.19	43	43.12	43	15.6	29.3	3630	2860
450 × 350	436	334	1092	1095	1092	395	745	1650	1300
20 × 16	19.19	15.19	47	47.25	47	16.7	32	5632	4620
500 × 400	487	385	1194	1200	1194	425	815	2560	2100
24 × 20	23.19	19.19	55	55.38	55	22.6	37	6710	5720
600 × 500	589	487	1397	1407	1397	575	940	3050	2600
30 × 24	28.94	23.19	65	65.5	65	23.8	42.9	10780	9240
750 × 600	735	589	1651	1664	1651	605	1090	4900	4200
36 × 30	34.44	28.94	82	82.62	82	35	60.9	20020	17600
900 × 750	874	735	2083	2099	2083	890	1546	9100	8000

Elite FLOW CONTROL
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TRUNNION BALL VALVE

Dimension & Weights



ASME CLASS 900 FULL BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2	1.94	1.94	14.5	14.62	14.5	4.3	8.5	128	75
50	49	49	368	371	368	108	215	58	34
2 1/2	2.44	2.44	16.5	16.62	16.5	4.7	9.4	165	123
65	62	62	419	422	419	120	240	75	56
3	2.94	2.94	15	15.12	15	4.8	9.6	183	152
80	74	74	381	384	381	123	245	83	69
4	3.94	3.94	18	18.12	18	5.7	11.4	356	319
100	100	100	457	460	457	145	290	162	145
6	5.94	5.94	24	24.12	24	7.3	15	715	517
150	150	150	610	613	610	185	380	325	235
8	7.94	7.94	29	29.12	29	7.7	18.5	1047	772
200	201	201	737	740	737	295	470	476	351
10	9.94	9.94	33	33.12	33	13.8	21.5	1969	1650
250	252	252	838	841	838	350	545	895	750
12	11.94	11.94	38	38.12	38	14.6	24	2519	2189
300	303	303	965	968	965	370	610	1145	995
14	12.69	12.69	40.5	40.88	40.5	16.9	26.2	3278	2519
350	322	322	1029	1039	1029	430	665	1490	1145
16	14.69	14.69	44.5	44.88	44.5	17.7	29.5	4092	3190
400	373	373	1130	1140	1130	450	750	1860	1450
18	16.69	16.69	48	48.5	48	19.3	32.3	5841	4554
450	423	423	1219	1232	1219	490	820	2655	2070
20	18.56	18.56	52	52.5	52	23.2	36.5	6952	5357
500	471	471	1321	1334	1321	590	928	3160	2435
24	22.44	22.4	61	61.75	61	24.8	41.7	11220	8360
600	570	570	1549	1568	1549	630	1060	5100	3800
26	24.31	24.31	65	65.87	65	26.8	45.7	14850	11968
650	617	617	1651	1672	1651	680	1160	6750	5440
30	28.06	28.06	74	74.87	74	31.5	53.5	25300	21340
750	712	712	1880	1901	1880	800	1360	11500	9700

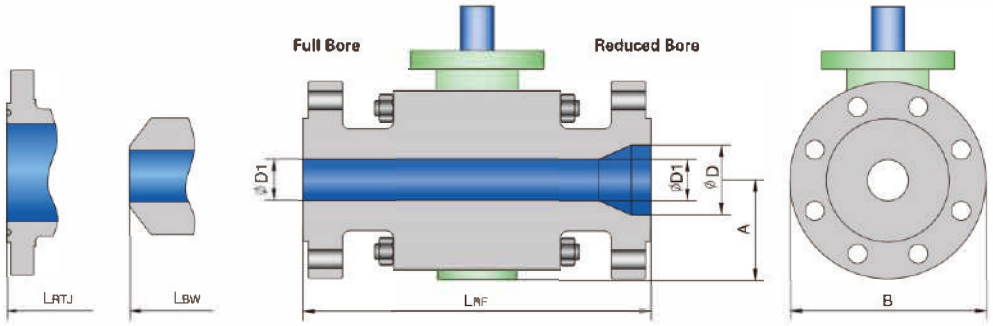
ASME CLASS 900 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2×1 1/2	1.94	1.5	14.5	14.62	14.5	4.3	8.5	99	55
50×40	49	38	368	371	368	108	215	45	25
2 1/2×2	2.44	1.94	16.5	16.62	16.5	4.3	9.6	123	81
65×50	62	49	419	422	419	108	245	56	37
3×2	2.94	1.94	15	15.12	15	4.3	9.4	143	110
80×50	74	49	381	384	381	108	240	65	50
4×3	3.94	2.94	18	18.12	18	5.7	11.4	238	172
100×80	100	74	457	460	457	145	290	108	78
6×4	5.94	3.94	24	24.12	24	7.5	15	462	330
150×100	150	100	610	613	610	190	380	210	150
8×6	7.94	5.94	29	29.12	29	9.3	18.5	715	528
200×150	201	150	737	740	737	235	470	325	240
10×8	9.94	7.94	33	33.12	33	11.3	21.5	902	638
250×200	252	201	838	841	838	295	545	410	290
12×10	11.94	9.94	38	38.12	38	13	24	2420	1936
300×250	303	252	965	968	965	330	610	1100	880
14×10	12.69	9.94	40.5	40.88	40.5	13	25.2	3190	2816
350×250	322	252	1029	1039	1029	330	640	1450	1280
16×12	14.69	11.94	44.5	44.88	44.5	14.6	27.7	3608	2970
400×300	373	303	1130	1140	1130	370	705	1640	1350
18×14	16.69	12.69	48	48.5	48	16.9	30.9	5280	4290
450×350	423	322	1219	1232	1219	430	785	2400	1950
20×16	18.56	14.69	52	52.5	52	17.7	33.7	6292	4730
500×400	471	373	1321	1334	1321	450	855	2860	2150
24×20	22.44	18.56	61	61.75	61	23.2	40.9	9240	6336
600×500	570	471	1549	1568	1549	590	1040	4200	2880
30×24	28.06	22.44	74	74.87	74	24.8	48.4	15620	12760
750×600	712	570	1880	1901	1880	630	1230	7100	5800

Elite FLOW CONTROL
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TRUNNION BALL VALVE

Dimension & Weights



ASME CLASS 1500 FULL BORE

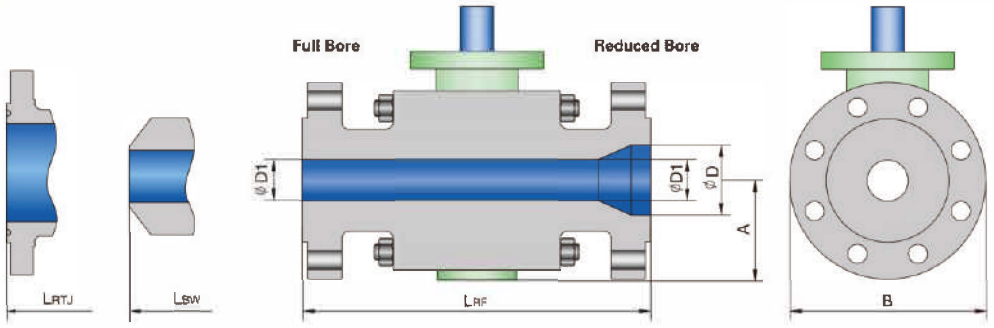
Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(lb/kg)	BW(lb/kg)
2	1.94	1.94	14.5	14.62	14.5	4.3	8.5	128	75
50	49	49	368	371	368	108	215	58	34
2 1/2	2.44	2.44	16.5	16.62	16.5	4.8	9.6	174	136
65	62	62	419	422	419	123	245	79	62
3	2.94	2.94	18.5	18.62	18.5	5.5	10.4	216	154
80	74	74	470	473	470	140	265	98	70
4	3.94	3.94	21.5	21.62	21.5	6.5	12.2	365	317
100	100	100	546	549	546	165	310	166	144
6	5.69	5.69	27.75	28	27.75	9.6	16.3	1030	834
150	144	144	705	711	705	219	415	468	379
8	7.56	7.56	32.75	33.13	32.75	11.6	19.1	1478	964
200	192	192	832	842	832	295	485	672	438
10	9.44	9.44	39	39.38	39	14.2	23.6	2222	1716
250	239	239	991	1001	991	360	600	1010	780
12	11.31	11.31	44.5	45.12	44.5	15.7	27.2	3388	2420
300	287	287	1130	1146	1130	400	692	1540	1100
14	12.44	12.44	49.5	50.25	49.5	19.3	30.7	6820	5280
350	315	315	1257	1276	1257	490	780	3100	2400
16	14.19	14.19	54.5	55.38	54.5	24.8	35.5	9900	6072
400	360	360	1384	1406	1384	629	900	4500	2760
18	16	16	60.5	61.38	60.5	25.2	39.4	13420	10670
450	406	406	1537	1559	1537	640	1000	6100	4850
20	17.88	17.88	65.5	66.38	65.5	25.6	41.9	16720	12540
500	454	454	1664	1686	1664	650	1065	7600	5700
24	21.5	21.5	76.5	77.62	76.5	29.9	50.2	21120	15840
600	546	546	1943	1971	1943	760	1275	9600	7200

ASME CLASS 1500 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(lb/kg)	BW(lb/kg)
2×1 1/2	1.94	1.5	14.5	14.62	14.5	4.3	8.5	95	48
50×40	49	38	368	371	368	108	215	43	22
2 1/2×2	2.44	1.94	16.5	16.62	16.5	4.3	9.6	141	92
65×50	62	49	419	422	419	108	245	64	42
3×2	2.94	1.94	18.5	18.62	18.5	4.3	10.6	165	106
80×50	74	49	470	473	470	108	265	75	48
4×3	3.94	2.94	21.5	21.62	21.5	6.1	12.2	286	167
100×80	100	74	546	549	546	155	310	130	76
6×4	5.69	3.94	27.75	28	27.75	7.8	15.6	605	374
150×100	144	100	705	711	705	198	395	275	170
8×6	7.56	5.69	32.75	33.13	32.75	9.6	19.1	1320	924
200×150	192	144	832	842	832	243	485	600	420
10×8	9.44	7.56	39	39.38	39	11.6	23	1848	1078
250×200	239	192	991	1001	991	295	585	840	490
12×10	11.31	9.44	44.5	45.12	44.5	14.2	26.6	2750	1760
300×250	287	239	1130	1146	1130	360	675	1250	800
14×10	12.44	9.44	49.5	50.25	49.5	14.2	29.5	3630	2970
350×250	315	239	1257	1276	1257	360	750	1650	1350
16×12	14.19	11.31	54.5	55.38	54.5	15.7	32.5	4517	3520
400×300	360	287	1384	1406	1384	400	825	2053	1600
18×14	16	12.44	60.5	61.38	60.5	18.7	36	10956	8690
450×350	406	315	1537	1559	1537	475	915	4980	3950
20×16	17.88	14.19	65.5	66.38	65.5	24.8	38.8	12188	9350
500×400	454	360	1664	1686	1664	629	985	5540	4250
24×20	21.5	17.88	76.5	77.62	76.5	25.6	46.1	24200	18920
600×500	546	454	1943	1971	1943	650	1170	11000	8600

TRUNNION BALL VALVE

Dimension & Weights



ASME CLASS 2500 FULL BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2 50	1.69 42	1.69 42	17.75 451	17.87 454	17.75 451	5.5 139	9.3 235	260 118	154 70
2 1/2 65	2.06 52	2.06 52	20 508	20.25 514	20 508	5.2 133	10.4 265	378 172	275 125
3 80	2.44 62	2.44 62	22.75 578	23 584	22.75 578	6.3 160	12 305	484 220	363 165
4 100	3.44 87	3.44 87	26.5 673	26.88 683	26.5 673	7.4 188	14 355	803 365	715 325
6 150	5.19 131	5.19 131	36 914	36.5 927	36 914	10.8 275	19.1 485	1650 750	1375 625
8 200	7.06 179	7.06 179	40.25 1022	40.87 1038	40.25 1022	15 380	24.2 615	4620 2100	3608 1640
10 250	8.81 223	8.81 223	50 1270	50.88 1292	50 1270	18.9 480	31.9 810	6600 3000	5588 2540
12 300	10.44 265	10.44 265	56 1422	56.88 1444	56 1422	19.7 500	33.9 860	9240 4200	7700 3500

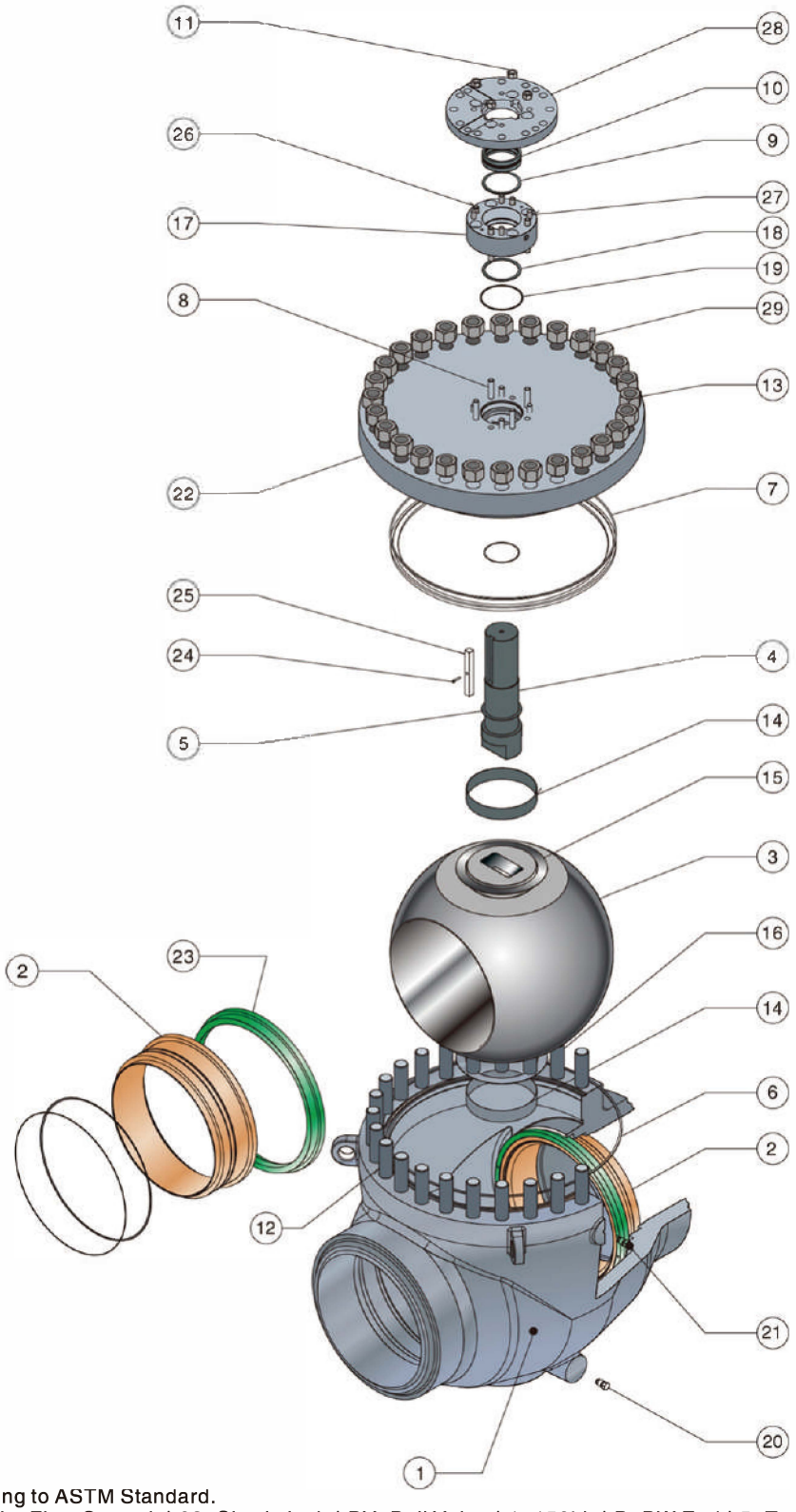
ASME CLASS 2500 REDUCED BORE

Size in/mm	ØD	ØD1	L			A	B	Weight	
			RF	RTJ	BW			RF/RTJ(Lb/kg)	BW(Lb/kg)
2×1 1/2 50×40	1.69 42	1.5 38	17.75 451	17.87 454	17.75 451	4.6 118	9.3 235	189 86	97 44
2 1/2×2 65×50	2.06 52	1.69 42	20 508	20.25 514	20 508	5.5 139	10.4 265	297 135	242 110
3×2 80×50	2.44 62	1.69 42	22.75 578	23 584	22.75 578	5.5 139	12 305	341 155	220 100
4×3 100×80	3.44 87	2.44 62	26.5 673	26.88 683	26.5 673	7 178	14 355	627 285	374 170
6×4 150×100	5.19 131	3.44 87	36 914	36.5 927	36 914	9.6 243	19.1 485	1254 570	737 355
8×6 200×150	7.06 179	5.19 131	40.25 1022	40.87 1038	40.25 1022	10.8 275	21.7 550	2332 1060	1914 870
10×8 250×200	8.81 223	7.06 179	50 1270	50.88 1292	50 1270	15 380	26.6 675	5720 2600	4862 2210
12×10 300×250	10.44 265	8.81 223	56 1422	56.88 1444	56 1422	18.9 480	31.9 810	8074 3670	6864 3120

Elite
FLOW CONTROL
WE CONTROL THE FLOW.

MODEL NO.:EFC-02BV1B5
Size:2″~36″(DN50~DN900)
Class:CL150~CL2500

TOP ENTRY BALL VALVE



The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | B=BW End | 5=Top Entry

MODEL NO.:EFC-02BV1B5
Size:2"~36"(DN50~DN900)
Class:CL150~CL2500

Elite FLOW CONTROL
WE CONTROL THE FLOW.

TOP ENTRY BALL VALVE

NO.	PART NAME	STANDARD MATERIALS			
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	DUPLEX STEEL
1	BODY	A216 WCB	A217 WC6	A351 CF8M	A995 4A
2	SEAT RING	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
3	BALL	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
4	STEM	A182 F6a/F304/F316/17–4PH		A182 F316/F51	A182 F51/F53/F55
5	THRUST WASHER	PTFE/RPTFE/DEVLON			
6	BODY GASKET	SS+GRAPHITE/SS+PTFE			
7	BONNET O–RING	VITON/NBR/HNBR/FVMQ			
8	GLAND STUD	A193 B7	A193 B16	A193 B8(M)	
9	STEM O–RING	VITON/NBR/HNBR/FVMQ			
10	STEM PACKING	PTFE/GRAPHITE			
11	GLAND NUT	A194 2H	A194 4	A194 8(M)	
12	BONNET STUD	A193 B7	A193 B16	A193 B8(M)	
13	BONNET NUT	A194 2H	A194 4	A194 8(M)	
14	BEARING	SS+PTFE/SS+Nitriding			
15	THRUST WASHER	SS+PTFE			
16	THRUST WASHER	SS+PTFE			
17	STUFFING BOX	A105+ENP		A182 F316	A182 F51
18	GLAND GASKET	SS+GRAPHITE/SS+PTFE			
19	GLAND O–RING	VITON/NBR/HNBR/FVMQ			
20	DRAIN PLUG	CARBON STEEL		SATINLESS STEEL	
21	SEALANT FITTING	CARBON STEEL		SATINLESS STEEL	
22	BONNET	A216 WCB	A217 WC6	A351 CF8M	A995 4A
23	SPRING HOLDER RING	A105+ENP/A182 F6a/F304/F316/F51		A182 F316/F51	A182 F51/F53/F55
24	STEM KEY SCREW	A193 B7	A193 B16	A193 B8(M)	
25	STEM KEY	AISI 1045			
26	STUFFING BOX STUD	A193 B7	A193 B16	A193 B8(M)	
27	STUFFING BOX PIN	AISI 1065/SS410/SS304/SS316			
28	CONNECTION PLATE	A105+ENP	A182 F316	A182 F51	
29	BONNET PIN	SS410/SS304/SS316			

DESIGN FEATURES

- Sealant injection to stem and/or seat area.
- Metal seated or primary metal seat with secondary soft insert.
- Extended Bonnet for low or high temperature service.
- Extended Stem for underground installation.
- Locking & interlocking facilities.
- Drain and Vent connections with thread protection or valve(ball/gate..) vent & drain valve fitted.
- Pneumatic、Electric or Hydraulic Automation.
- Emergency Shut Down applications.

The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | B=BW End | 5=Top Entry

Elite FLOW CONTROL
WE CONTROL THE FLOW.

MODEL NO.:EFC-02BV1B4
Size:2"~48"(DN50~DN1200)
Class:CL150~CL2500

FULLY WELDED TRUNNION & EXTENDED STEM BALL VALVE

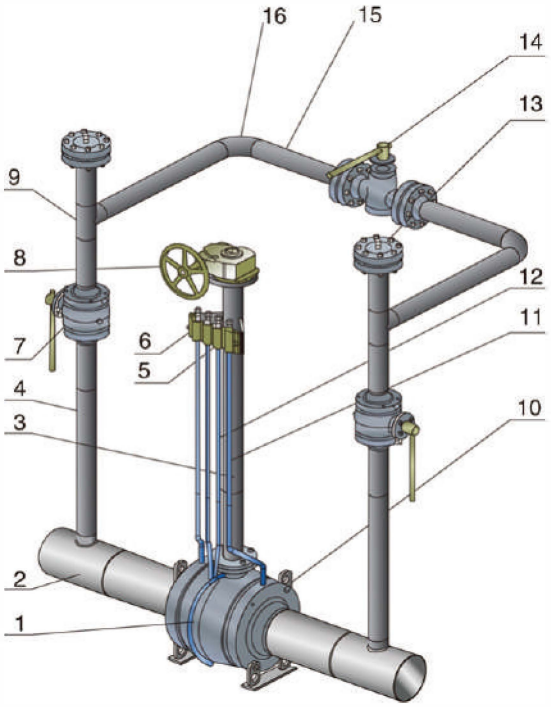
DESIGN FEATURES

Transition Pups

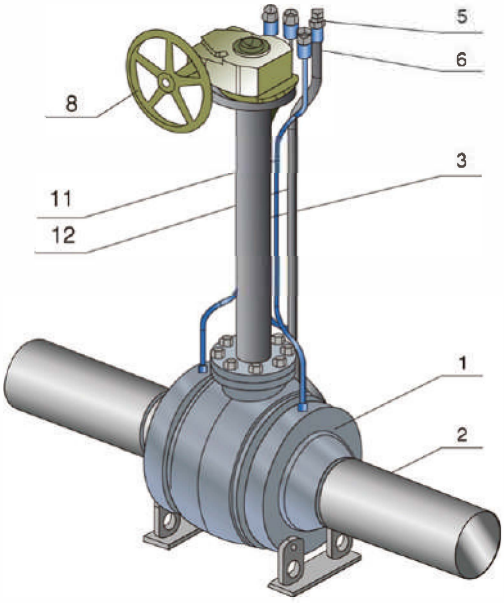
- Transition pups are supplied on request for welded end valves

Extended Stem

- Valves installed underground or in remote loactions can be operated with an optional extended stem.
- All the drain,vent and emergency sealant connections can be operated using extended connecting pipes firmly attached to the stem protective cover.



COMPLETE BY-PASS SYSTEM



EXTENDED STEM BALL VALVE

Design Feture:

- Full Welded Body and End
- Full Bore
- Trunnion Mounted Ball
- Low Torque
- Under Ground
- Stem and Seat Sealant Injection
- Fire Safely Design
- Anti-blow Out Stem

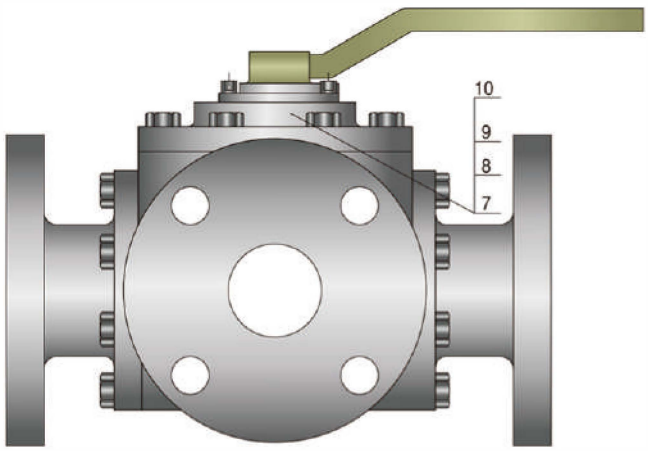
NO.	PART NAME	SAMPLE MATERIALS	NO.	PART NAME	SAMPLE MATERIALS
1	VALVE	ASTM A105	9	TEE	CARBON STEEL
2	PUPS	API 5L GR.B	10	LIFT LUG	CARBON STEEL
3	EXTEND PIPE	CARBON STEEL	11	LUBRICANT PIPE	ASTM A106
4	BLOW PIPE	ASTM A106	12	DRAIN PIPE	ASTM A106
5	DRAIN VALVE	CARBON STEEL	13	BLIND FLANGE	ASTM A105
6	LUBRICANT FITTING	CARBON STEEL	14	BY–PASS VALVE	ASTM A105
7	CONNECTION VALVE	ASTM A105	15	BY–PASS PIPE	ASTM A106
8	GEAR	ASSEMBLY	16	ELBOW	CARBON STEEL

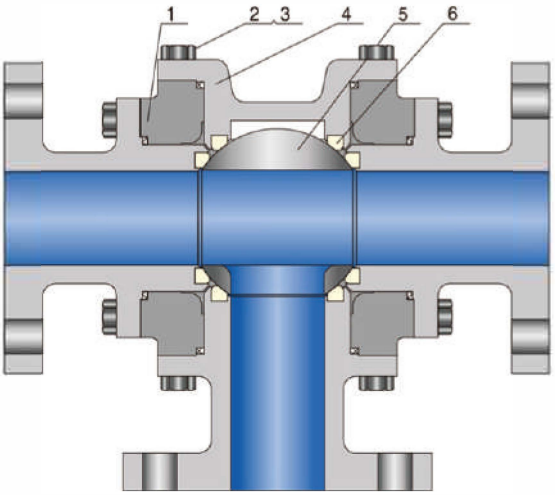
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | B=BW End | 4=Trunnion, Welded Body.

MODEL NO.:EFC-02BV1R8
SIZE:1/2"~24"(DN15~DN600)
Class:CL150~CL2500

Elite FLOW CONTROL
WE CONTROL THE FLOW.

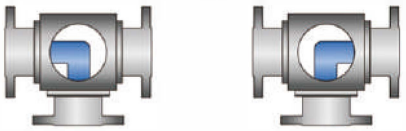
THREE-WAY BALL VALVE



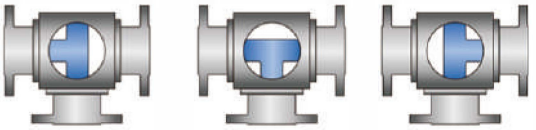


FLOW COMBINATIONS CHART

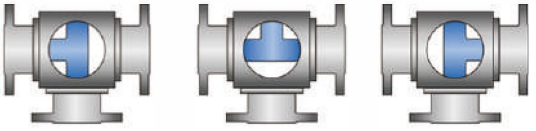
L Type



T Type



INVERTED T Type



NO.	PART NAME	SAMPLE MATERIALS		
		CARBON STEEL	ALLOY STEEL	STAINLESS STEEL
1	BODY	ASTM A216 WCB/A105	ASTM A217 WC6/A182 F11	ASTM A351 CF8/A182 F304
2	BONNET BOLT	ASTM A193 B7	ASTM A193 B16	ASTM A193 B8
3	BONNET NUT	ASTM A194 2H	ASTM A194 4	ASTM A194 8
4	BONNET	ASTM A216 WCB/A105	ASTM A217 WC6/A182 F11	ASTM A351 CF8/A182 F304
5	BALL	A105+ENP/A182 F6a/F304/F316/F51		ASTM A182 F304/F316/F51
6	SEAT	PTFE/RPTFE/NYLON/DEVLON/PEEK		
7	STEM	ASTM A182 F6a/F304/F316/F51		ASTM A182 F304/F316
8	THRUST WASHER		PTFE/RPTFE	
9	STEM PACKING	GRAPHITE	GRAPHITE	GRAPHITE
10	LEVER	CARBON STEEL	CARBON STEEL	CARBON STEEL

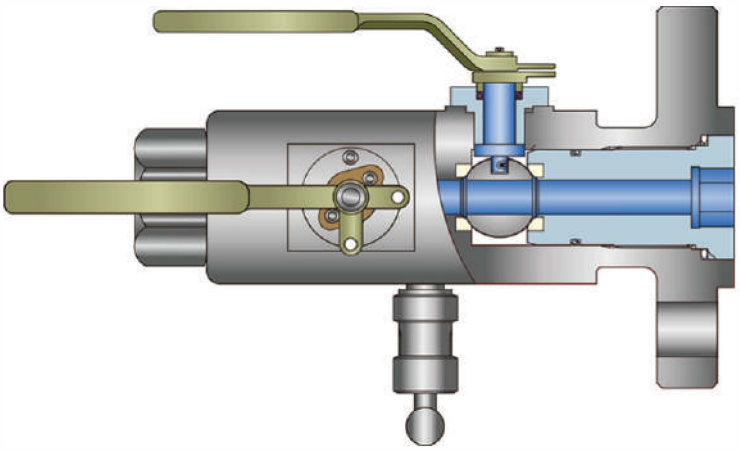
NOTE:Metal–to–metal seated ball valve designs are available upon request.
The material is according to ASTM Standard
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 8=Three–Way

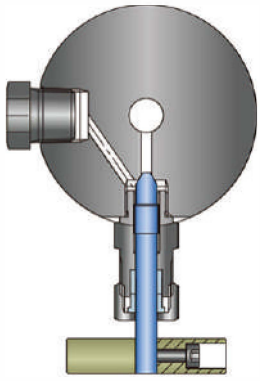
Elite FLOW CONTROL
WE CONTROL THE FLOW.

MODEL NO.:EFC-1/2BV1R6
Size:1/2"~6"(DN15~DN150)
Class:CL150~CL2500

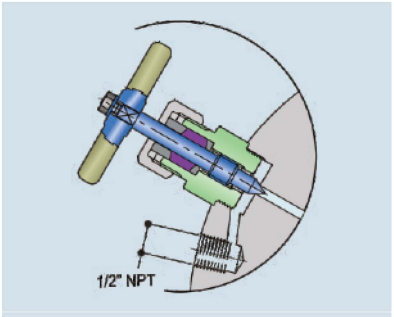
DOUBLE BLOCK AND BLEED BALL VALVE

FLOATING TYPE



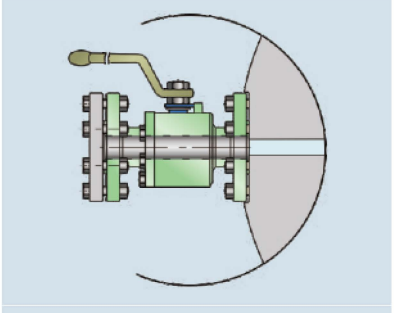


Bleeder Type:



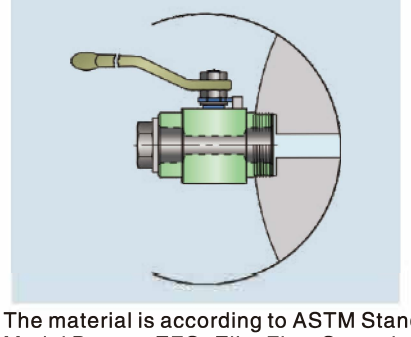
A
Standard Version:
Needle valve screwed into the valve body with 1/2" NPTF bleed.





B
Floating Ball Valve, Bolted to the valve body; that valve is provided with blind flange.





C
Floating Ball Valve, Screwed to the valve body; that valve is provided with plug.



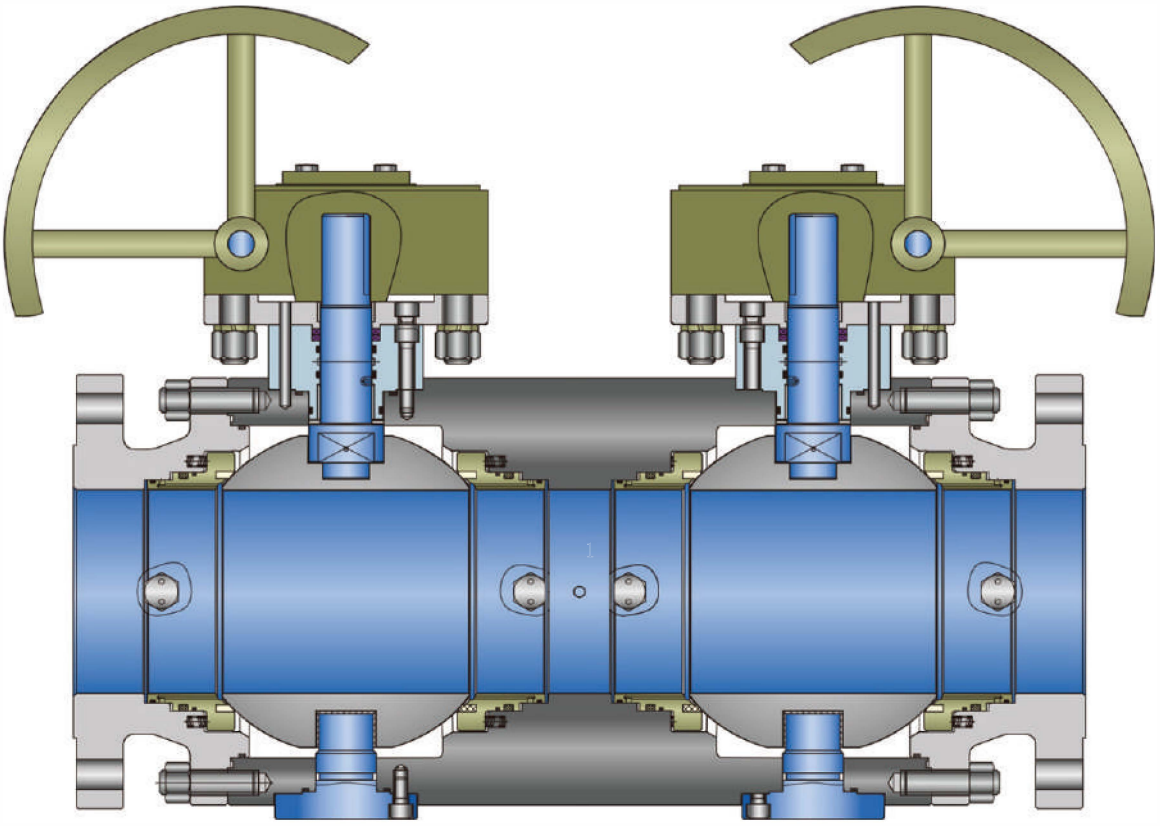
The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 1/2=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 6=Floating, DBB Type.

MODEL NO.:EFC-02BV1R7
Size:2″~24″(DN50~DN600)
Class:CL150~CL2500

Elite FLOW CONTROL
WE CONTROL THE FLOW.

DOUBLE BLOCK AND BLEED BALL VALVE

TRUNNION TYPE



PRODUCT RANGE				
SERVICE	CL150~600	CL900	CL1500	CL2500
FLOATING TYPE	1/2"~6"	1/2"~2"	1/2"~2"	1/2"~1"
TRUNNION TYPE	2"~24"	2"~24"	2"~24"	2"~12"

DESIGN FEATURES

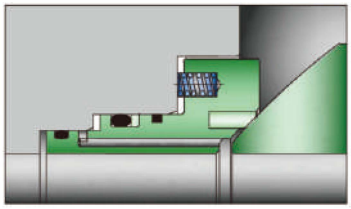
- Forged Body
- Flange Connection according. to ASME B16.5
- Face to Face according. to supplier recommendation
- Lever lockable and removable,Gear box operation as Standard.Actuator mounting flanges,unless otherwise specified,are in full according with IS0 5211
- Soft Seat or Metal Seat
- Double Piston Effect
- Vent Connections:
  Integral Vent Valve-- Needle Type
  Screwed Bonnet or Flanged Bonnet
  Screwed Vent Valve--Ball Valve

The material is according to ASTM Standard.
Model Denote:EFC=Elite Flow Control | 02=Size in inch | BV=Ball Valve | 1=150Lb | R=RF End | 7=Trunnion, DBB Type.

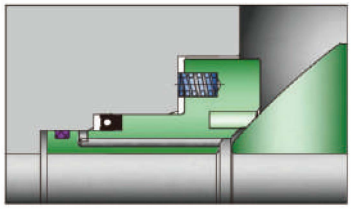
Elite FLOW CONTROL
WE CONTROL THE FLOW.

SEAT & SEAL DESIGN FEATURES

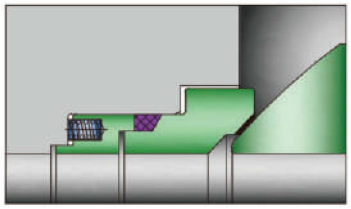
Standard



Low Temperature



High Temperature



Optional Seat Selections

Material	Operating Temperature	Operating Pressure	Description
PTFE	−80~120℃ −112~248°F	150LB	PTFE is a fluorocarbon–based polymer.This material has the lowest operational torques due to its lower coefficient of friction.
RPTFE	−80~120℃ −112~248°F	150~600LB	RPTFE(Reinforced PTFE). Properties are enhanced by adding a percentage of filler material to provide improved strength, stability, and wear resistance.
PCTFE	−190~120℃ −310~248°F	150~300LB	PCTFE is a thermoplastic chlorofluoropolymer,dimensionally stable, rigid, and resistant to cold flow,Very low gas permeation and outgassing,Low deformation under load
PPL	−45~250℃ −49~482°F	150~300LB	PPL (Polyparaphenylene) is an excellent seat material with low coefficient of friction, highly resistant to pressure and temperature.
NYLON	−29~80℃ −20~176°F	150~1500LB	Nylon is offered for high pressure applications. The material is ideal for use in high pressure air, oil, and other gas media but is not suitable for strong oxidizing agents
MOLON	−29~130℃ −20~266°F	150~1500LB	Molon is a modified Nylon(Nylon+MoS2),It's performance is similar to nylon, but the use temperature is higher than nylon
DEVLON	−50~150℃ −58~302°F	150~2500LB	Devlon is a polyamide with additives。This material covers a wide range of applications while having excellent wear poperties, low friction, and improved impact strength.
PEEK	−100~260℃ −148~500°F	150~2500LB	PEEK is a high performance engineered thermoplastic. It is excellent in water/chemical resistance and it is unaffected by continuous exposure to hot water/steam
Metal	As request	150~2500LB	Metal seat is usually used for high temperature, wear resistance, impact resistance, granular media conditions

Optional Seal Selections

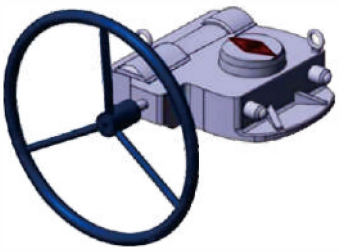
Material	Operating Temperature	Operating Pressure	Description
EPDM	−46~150° C −50~302° F	150~600LB	EPDM is a type of synthetic rubber,have excellent chemical resistance to a variety of acids and alkalines, but can not resistant to petroleum conditions
NBR	−40~80° C −40~176° F	150~2500LB	NBR is typically resistant to mineral oil–based lubricants and greases, hydraulic fluids, hydrocarbons, and water.
HNBR	−40~80° C −40~176° F	150~2500LB	HNBR (Hydrogenated NBR) has similar media stability to NBR but with significantly better heat and oxidization stability.
HNBR AED	−40~80° C −40~176° F	600~2500LB	HNBR AED are typically used in high pressure applications encountered in the Oil and Gas industry.
VITON	−29~200° C −20~392° F	150~2500LB	VITON (fluorocarbon) is a fluorocarbon elastomer that is compatible with a broad range of chemicals,Viton offers excellent resistence to aggressive fuels and chemicals.
FVMQ	−60~177° C −76~351° F	150~2500LB	FVMQ is a silicone polymer chain ,this material is far more resistent to oils and fules than other silicones.

VALVE OPERATION/GEAR & ACTUATOR DETAILS

We Elite Flow Control Co. Ltd offered Handheld, Gear Box & Actuates as per client request and project requirements.

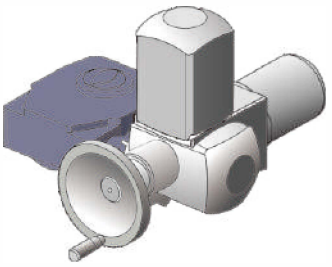
Gear Box Operated Valves

- It could be operated faster while the number of turns will increase.
- Where the torque needed would decrease through usage of reduction gear.



Combination of Electric Actuators & Gear Box Operated Valves

- It can be operated electrically, more labor-saving.
- Besides, it would be more economical than Electric Actuators but the operational time would increase.



Electric Actuators For Valves

- The alternatives are to be used with electric actuation at various differential pressures.
- The remote & local control, lock hand control options are available.
- Ex-proof types are used at plants of Natural Gas, Crude Oil or Fuel.
- All actuators are protected as per IP67 or higher class.



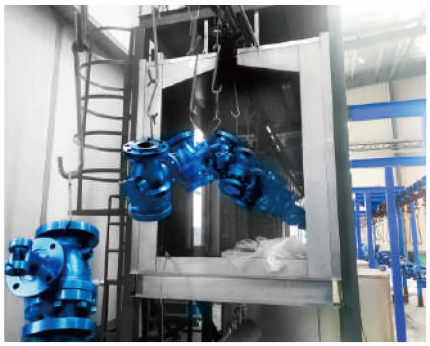
Pneumatic Actuators For Valves

- Pneumatic control valve actuator converts energy (typically in the form of compressed air) into mechanical motion. The motion can be rotary or linear, depending on the type of actuator.
- Limit switches, Solenoid Valve and regulating filter accessories are delivered when required.
- Remote/Local controls, lockable and hand control options are available.



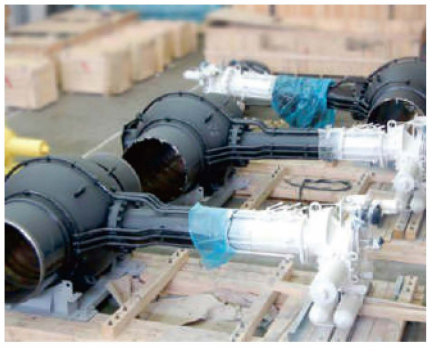
Elite FLOW CONTROL
WE CONTROL THE FLOW.

PAINTING & PACKING


Painting


Painting


Painting


Packing


Packing


Packing


Packing


Packing


Packing


Packing Inspection


Final Packing Box


Final Packing Box

HOW TO AVOID PROBLEMS

How to Avoid Problems:

- Ball valves shall be transported and stored with the ball in the fully open position.
- Flanged ends and welded ends shall be protected.
- End protection shall be removed only when the valve is installed in the line.
- Valves shall be handled using the proper lifting lugs.
- Valves shall be stored according to Elite storage procedures. Long term storage shall be avoided.
- For welded-end valves, advice Elite if there will be a post weld heat treatment (transition pups may be necessary to avoid damages to seals).
- Flush and clean the line before operating the valve.
- Make sure no line-testing fluid is left in the line and/or the valve body.
- Avoid leaving the valve body filled with salt water to prevent internal corrosion.
- During line-testing, valves shall be left in the partially open position for the minimum possible amount of time.
- Standard ball valves shall be used for on-off service only. Throttling service (use of the valve with the ball partially open) can damage the seats.
- Make sure to take into consideration the actual service conditions when selecting materials for O-rings and seat inserts.
- Always specify anti-explosive decompression material for valves to be used in high pressure gas service.
- Make sure the selected actuator has been properly sized (an oversized actuator can be as dangerous as an undersized one).
- Advise Elite of cycle frequency to ensure proper sizing of actuator.
- Do not use the actuator to lift the valve

Warranty Clause:

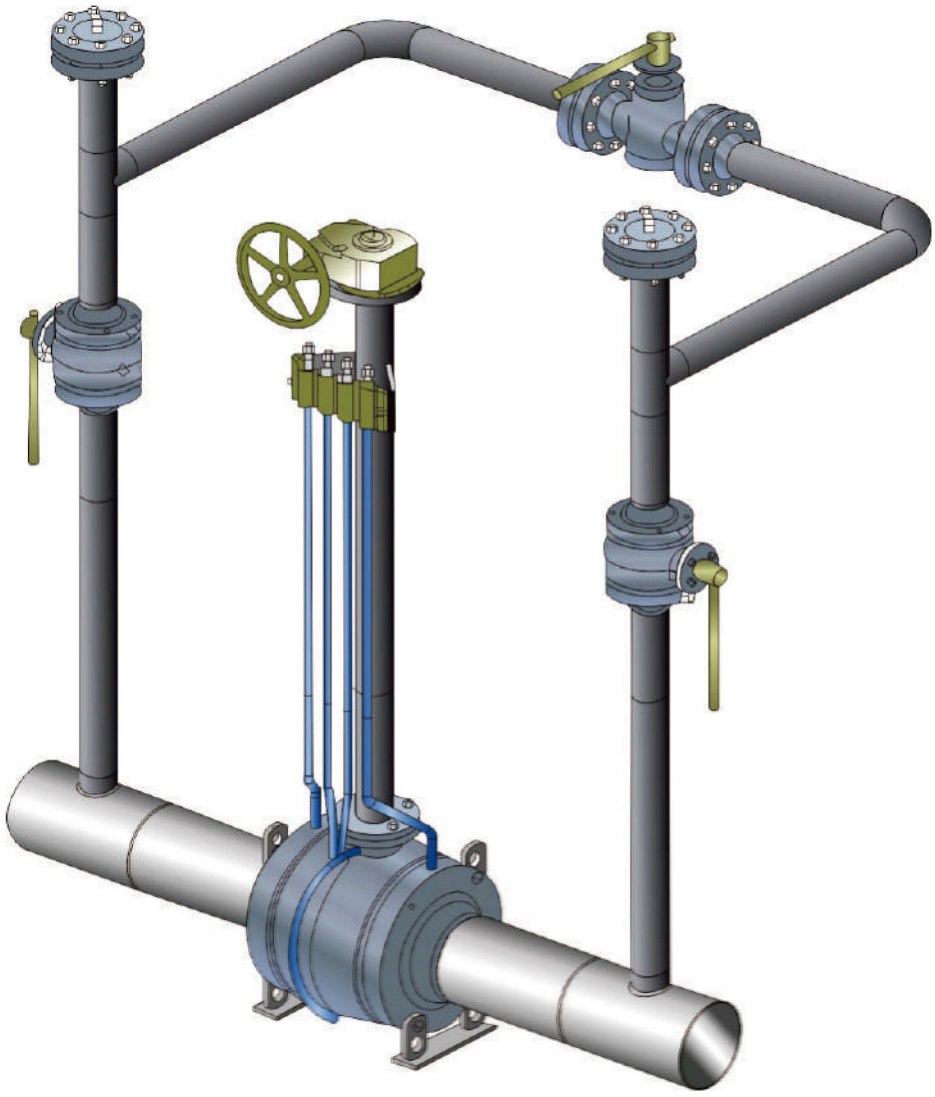
Elite Flow Control products are delivered with a standard guarantee of good performance for the period of 18 months after the delivery date or 12 months of operation after commissioning.

WARNING: The scope of Warranty is covered for manufacturing defects only. In case the valve failure is due to the wrong operations by the customer the warranty is not applicable.

In order to claim the warranty due to the manufacturing defects, the customer needs to prepare the detailed rejection report including the inspection procedure, operational report, pictures of valves, if this report proves that the fault is due to the manufacturing defect, Elite will provide the appropriate solution.

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Elite Flow Control USA LLC

15730 W Hardy Rd Ste Unit # 340
Houston, TX 77060 USA

832-987-1774/ 832-539-6968

contact@elitegocl.com

www.eliteflowusa.com