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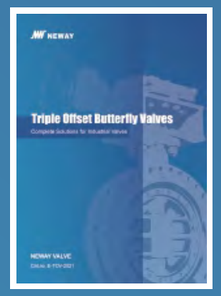
Cat.no.:E-GGC

Cat.no.:E-CSS

Cat.no.:E-FSV



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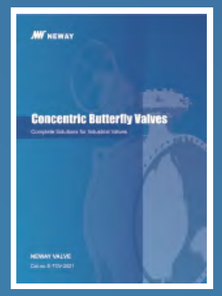

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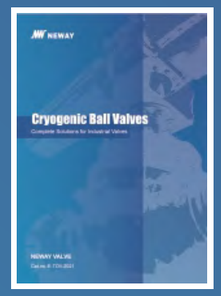
Cat.no.:E-CV



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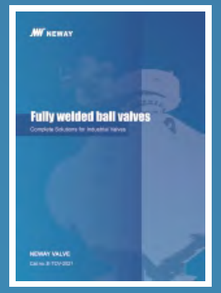

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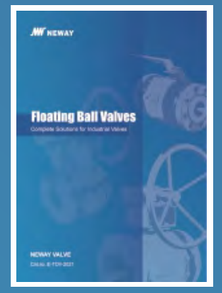

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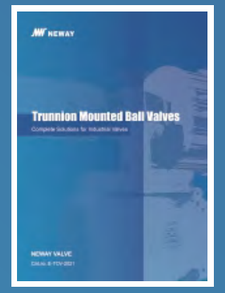

Cat.no.:E-TMBV

Cat.no.:E-MSBV

NEWAY

NEWAY VALVE (SUZHOU) CO., LTD.

No.666 Taishan Road, Suzhou New District, P.R. China
Post Code: 215129
Tel: 86-512-666-15637
E-mail: overseas.sales@neway.com.cn
www.newayvalve.com

LinkedIn

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Cat.no.: E-FBV-2025

NEWAY

Floating Ball Valve

Complete Solutions for Industrial Valves

NEWAY VALVE

Cat.no.: E-FBV-2025

Table of Contents

Complete Solutions for Industrial Valves

As a global leader of valve manufacturing, Neway (SSE:603699) is dedicated to the production, research, and development of industrial valves. Neway is committed to providing complete valve solutions to all industries through advanced engineering and innovation.

Neway's product line includes Ball, Butterfly, Gate, Globe, Check, Nuclear, Control, Subsea, Safety valves. Our high quality standards and innovative ability are recognized by many global end users and EPCs. Neway valves are utilized in a wide variety of industries and working conditions such as Refining, Chemical, Coal Chemical, Offshore(including subsea), Air Separation, LNG, Nuclear Power, Power Generation, and Pipeline Transmission applications.

Facilities & Service

Neway has developed a sophisticated multi-plant management system operating one valve assembly plant, one API6A valve plant, three foundries, and one R&D center. Our largest assembly plant was expanded in 2013, and it now covers 35,000 square meters.

Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) is applied here at Neway for the Research & Development of products. We use SAP to control the traceability and status of all products during the manufacturing process. In order to ensure the safety, eco-friendliness, and reliability of our products, we use the most advanced fire-safe, cryogenic, high pressure, and fugitive emission test equipment.

As part of Neway's global strategy, to provide better service to our customers, we have established our overseas subsidiaries in USA, Netherlands, Italy, Singapore, and Dubai along with over 80 agents and distributors worldwide.

High Quality, High Value

Neway is dedicated to continuous improvement. We maintain a quality management system that encompasses our entire operation from order entry to final inspection. Through continuous efforts, Neway's products have successfully obtained industry certifications, including ASME UV & NB, NBBI, KGS, CE, CCS and BV approvals.

Introduction

In this catalogue, you will find the latest developed NEWAY Ball Valves, which include 4 different designs:

BA series 1PC uni-body floating type
B series 2PC cast steel floating type
BB series 2PC forged steel floating type
BC series 3PC forged steel floating type

Quality Commitment

Neway recognizes the importance of valve quality for the safety and protection of personnel heath and property. It is our quality commitment to focus our resources to provide our customers with first class products at a competitive price,that are designed, manufactured, inspected and tested in accordance with our customer's specifications and that comply with all international standards.

With respect to the facts that the current industrial standards do not always take into consideration the likelihood and consequences of possible deterioration in service, related to specific service fluids or the external environment in which they operate. Our customers are requested to keep an open line of communication with our engineering department to identify and implement standards, that will provide valves with the possibility of deterioration in service, so as to ensure safety over the valves expected lifetime.

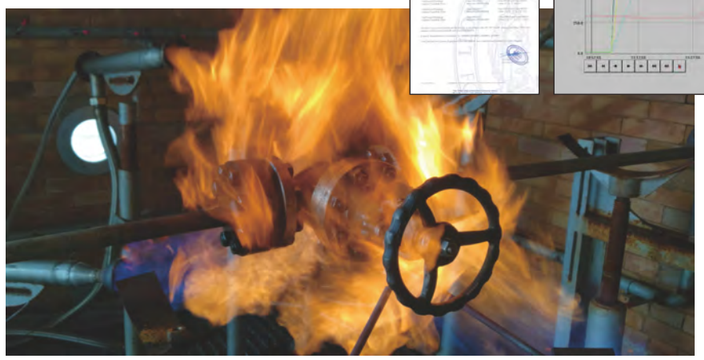
Technical Innovation

NEWAY Technical Center focuses on providing outstanding quality products and developing new lines. We have a internat well-trained engineering team, supported by a comprehensive network to link the entire operations of design, manufacturing and administration.

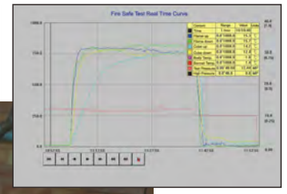
NEWAY design philosophy is to provide safe and cost-efficient valves. We introduce the Ansys, Fe-safe, CF-design and NX software into all our new product design research which include the advanced finite element analysis, fluid and fatigue analysis to virtually verify the new design prior to production, which has resulted in dramatically shortening development duration and assure a safe and cost-efficient final product.

NEWAY technical personnel are always ready to offer on line or on site technical training and support for all of its distributors, agents and end users.



Fire Safe Test

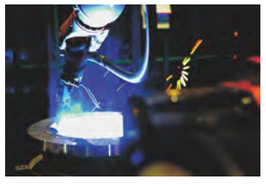

Fire safe is Neway's standard design. All series of Neway floating soft-seated valves has been witnessed and certified by Lloyd's Register. The certifications and test reports are available upon request. Approved by Lloyd's, the computer-controlled facility collects data of fire-safe test, capable of testing and verifying Neway's all floating ball valves per API6FA and API607.

Advanced Manufacturing & Quality Control

The latest computer technology has been extensively applied in NEWAY manufacturing, which includes a large number of numeric control machines (machining center, CNC horizontal and vertical lathe and CNC drilling machine) and ERP management system. Additionally, the data through all factories have been connected and shared. These facilitate resource integration, boost productivity, evidently enhancing machining quality and tightening process control.





NEWAY developed comprehensive and advanced inspection and test facilities to control the quality from rough castings or forgings to final products, which enable us to perform radiographic test, liquid penetrant test, magnetic-particle test, spectrum analysis, Material Positive Identification (MPI), impact test, tensile test, hardness test, fire safe test, cryogenic test, vacuum test, low fugitive emission test, high pressure gas test, ultrasonic testing and hydrostatic test.








NEWAY reserves the right to change design, materials or specifications without notice and is free of obligation to furnish or install such changes on products previously sold.

How to order

Example:

8X6	BA	1	R	-	G	,	WCB	/	2G2626
①	②	③	④		⑤		⑥		⑦

Neway part numbers are designed to cover essential features. When ordering, please show the part numbers and a detailed description to avoid misunderstanding of your requirements.

Following descriptions provide a basic guideline in valve specification:

① Valve Size

Full bore:

NPS	3/8	1 / 2	3 / 4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	8	10	12
DN	10	15	20	25	32	40	50	65	80	90	100	125	150	200	250	300

Reduced bore:

NPS	3/8*1/4	1/2*3/8	3/4*1/2	1*3/4	1-1/2*1	2*1-1/2	2-1/2*2	3*2	4*3	6*4	8*6	10*8	12*10
DN	10*6.4	15*10	20*15	25*20	40*25	50*40	65*60	80*50	100*80	150*100	200*150	250*200	300*250

② Valve Type

Symbol	Valve Type	Symbol	Valve Type
BA	Uni-body Floating ball valve - cast	BC	3-pcs floating ball valve - forged
B	2-pcs Floating ball valve - cast	BB	2-pcs floating ball valve - forged

③ ASME Class

Code	1	3	4	6	8	9	15	25
Class (LB)	150	300	400	600	800	900	1500	2500

④ End Connection

Symbol	End	Symbol	End
R	Raised face flanged end	S	Socket weld end
J	RTJ flanged end	N	Screwed end
B	Butt-weld end	SN	Socket Weld/Screwed End
F	Flat Face Flanged End	NC	55° Taper Screwed End

⑤ Operator

Symbol	Description	Symbol	Description
	Lever	BS	Bare shaft
G	Gear operator	H	Hydraulic actuator
M	Electric actuator	L	Gas over oil actuator
P	Pneumatic actuator	D	Electro-hydraulic actuator

⑥ Body Material

Material	C40	L70	S40	S41	S42	S43	N50	D40
ASTM Ref	A105N	A350 LF2	A182 F304	A182 F316	A182 F304L	A182 F316L	Alloy 20	A182 F51

Material	C00	L20	S00	S01	S02	S03	N04	D01
ASTM Ref	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A351 CN7M	A890 4A

⑦ Trim Code

Seat		Sealing		Stem		Ball	
Code	Material	Code	Material	Code	Material	Code	Material
1	RPTFE	2	PTFE	11	F6A	11	F6A
2	MPTFE	3	FKM	14	17-4PH	14	17-4PH
3	PEEK	5	HNBR	22	F304	22	F304
5	DEVLON	8	FKM LT	26	F316/F316L	26	F316/F316L
7	NYLON 12	G	Graphite	30	F304/F304L	30	F304/F304L
8	PCTFE	H	FKM LT AED	2X	FXM-19	2X	FXM-19
		J	FKM AED	40	F51-NC	40	F51-NC
		K	HNBR AED	41	F53	41	F53
		L	Lipseal+Graphite Packing	42	F55	42	F55

Note: Other materials upon request.

Compliance Standard

Design and Inspection Standard		
Pressure-Temperature Ratings		ASME B16.34, API 602(Class 800)
Shell Wall Thickness		ISO 17292/ASME B16.34
Face-to-face Dimensions	Flange	ASME B16.10
	Socket Weld & NPT	Manufacture Std.
End Connection Dimensions	Flange	ASME B16.5
	Butt-Weld	ASME B16.25
	Socket Weld	ASME B16.11
	NPT	ASME B1.20.1
Pressure Test		API 598 or API 6D (Option)
Fire Test		ISO 10497/API 607/API 6FA
Marking		MSP-SP 25
Surface Quality		MSP-SP 55
Sour Service		NACE Std. (MR 0175 or MR 0103 or ISO 15156)
Low Fugitive Emission		ISO 15848, TA-Luft,SPE 77/312, API641

Product Range

Product Coding	Class	Size										
		1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"	10"
BA	150	●	●	●	●	●	●	●	●	●	●	●
	300	●	●	●	●	●	●	●	●	●	●	●
B	150	●	●	●	●	●	●	●	●	●	●	●
	300	●	●	●	●	●	●	●	●	●	●	●
BB	150	●	●	●	●	●	●	●	●	●	●	●
	300	●	●	●	●	●	●	●	●	●	●	●
	400	●	●	●	●	●						
	600	●	●	●	●	●		●	●			
	900	●	●	●	●	●		●				
	1500	●	●	●	●	●						
	2500	●	●	●								
BC	150	●	●	●	●	●						
	300	●	●	●	●	●						
	600	●	●	●	●	●						
	800	●	●	●	●	●						
	900	●	●	●	●	●						
	1500	●	●	●	●	●						
	2500	●	●	●	●	●						

● Design Standard: ASME B16.34, ISO 17292, API 608
● Design Standard: ASME B16.34
● Design Standard: ASME B16.34, API 6D
● Design Standard: ASME B16.34, ISO17292,API 608,API 6D

Design Features

Blow-out Proof Stem

The lower end of the ste is T-shaped structured, protected by boss of body, which assures stem retention at any pressure and acts as backseat. (Fig.1)

Anti-static Device

A spring-loaded plunger fitted on stem keeps constant contact between ball, stem and body to create an electric path to transfer charges, avoiding acceleration of static electricity as a result of friction during valve on-off. Such build-up is utterly hazardous to some services. (Fig.2)

Position Indicator

Double D stem head design provides mounting of the lever always in parallel to the flow passage. Misalignment of the lever is thus prevented. (Fig.3)

Locking Device

Facility for mounting a locking device for prevention od accidental valve operation is provide.

ISO 5211 Actuator Mounting Pad

Ball valves always furnished with integral actuator mounting pad designed according to ISO 5211. (Fig.4)

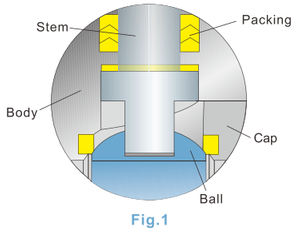


Fig.1

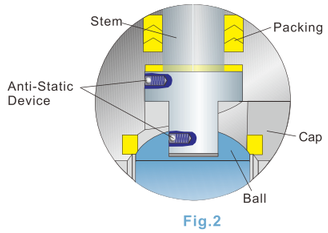
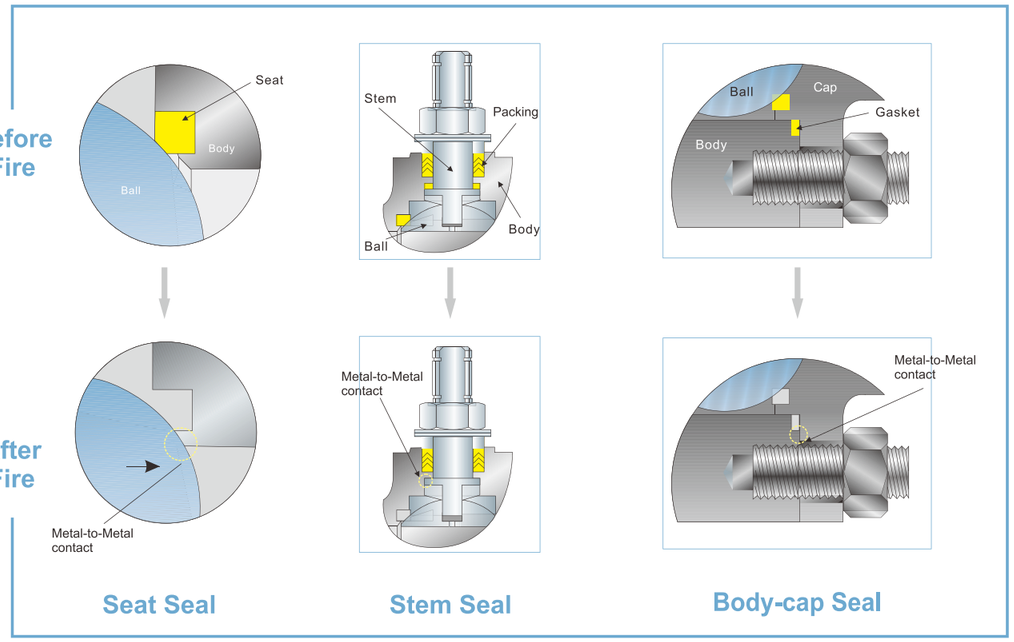


Fig.2

Fire Safe - Metal to Metal Sealing

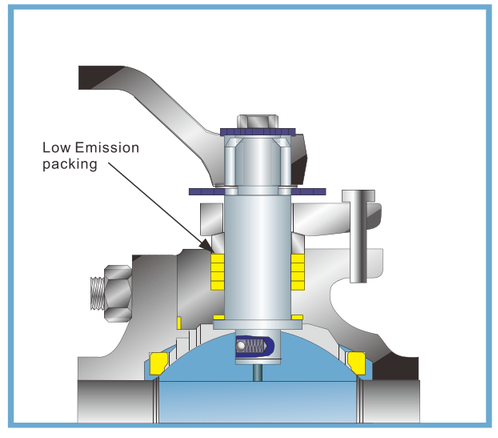
When soft seats are decomposed or ruined by fire, the ball, driven by pressure, comes into contact with the metal lipseal seat of original soft seat, creating a metal-to-metal seal to shut off service fluids and minimize internal leakage.

Additionally, the fire safe metal seat prevents damage the medium imposed on soft seat and minimizes creep of nonmetal materials. All the NEWAY floating valves are designed to be fire safe per API 607 and are tested and certified by the third party.



Low Emission Control

Modern industry sectors are challenged by valve fugitive emission to control service fluids released from the valve and curb environmental degradation. Therefore, emission control features NEWAY floating ball valves of B, BA, BB and BC Series. Low emission packing is assembled, whose max. leaking rate of design and test stands at 100 PPM (Test is performed according to ISO15848)



Roughness control over stem and packing

Stem surface roughness is strictly restricted between Ra0.4 and Ra0.8, which ensures entry of graphite packing powder into tiny stem scratches to function as a lubricator, minimizing leakages around stem. Max. roughness of stuffing box is RA3.2, which is a proper value to hold packing ring in place and result in better sealing performance.

Low Emission Packing

The packing is combination of parallel and vertical layer which is made of die-formed graphite ring processed by flexible graphite, characterizing heat resistance, less stress relaxation and low creep. The special structure means low friction on rotary stem, providing stabilized seal capability for the valve for a long time under frequent functioning.

For low-temperature and cryogenic service, the standard V shape PTFE packing rings are installed for low emission control.


Low Emission Test

Product Overview

Neway offers four series of floating ball valves:

BA Series, one piece, side-entry, cast steel
B Series, two-piece,side-entry, cast steel
BB Series, two-piece, side-entry, forged steel
BC Series, three-piece, side-entry, forged steel

NEWAY floating ball valves function in service ranging from -50°C to 200°C (from -58°F to 392°F), with size which varies from 1/2 inch to 12 inch (15mm~300mm) and pressure range of ASME Class150~Class 2500 (2.0Mpa~25.0Mpa). Our floating ball valves are capable of fulfilling sour service requirements stated in NACE MR0175.

3 PC Floating Ball Valve

2PC Forged Steel Design

Pneumatic Actuated Ball Valve

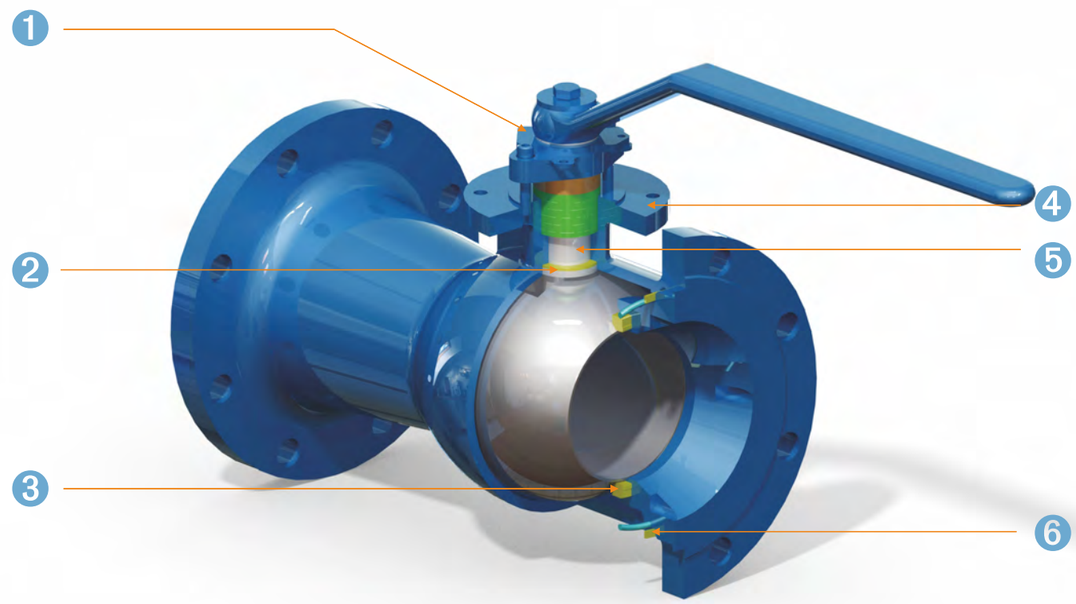
Hastelloy Ball Valve

Pneumatic Actuator Ball valve

1PC Cast Steel Design

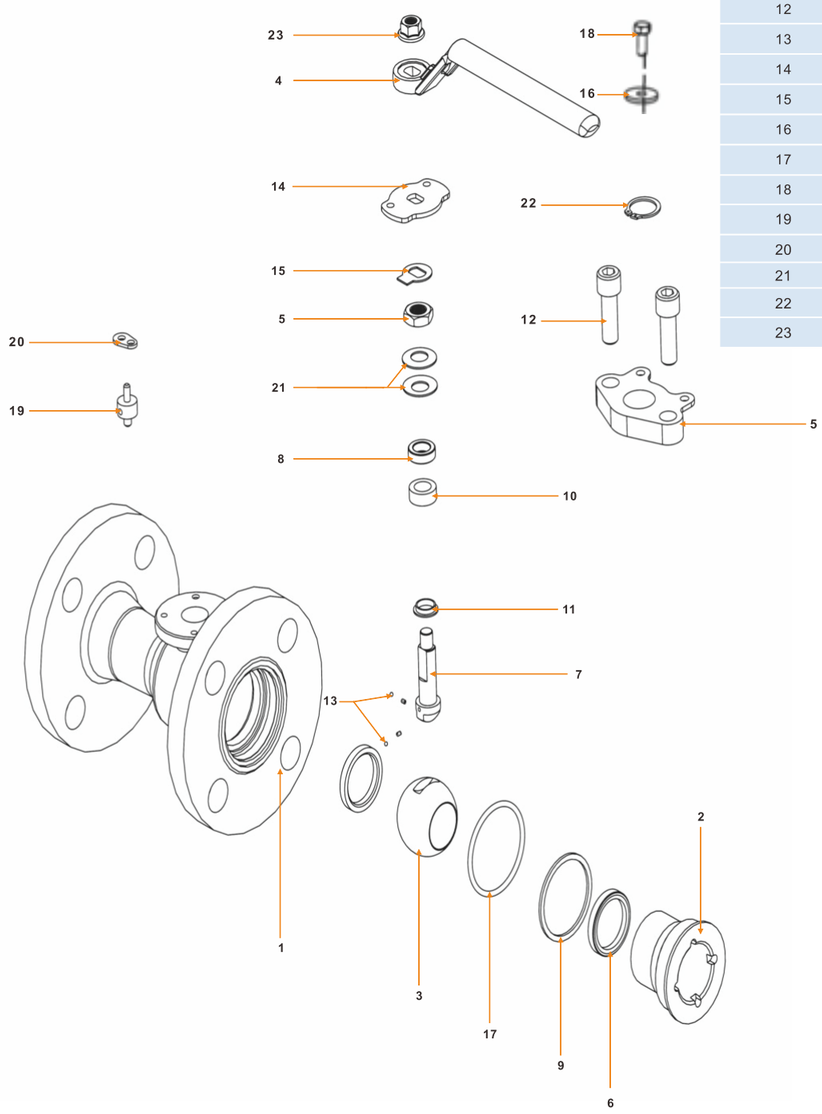
2PC Cast Steel Design

Stainless Steel



1. Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
2. Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
3. Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.
4. ISO5211 connection dimension: actuator installation is simplified by using connection dimension recog nized in international standards.
5. Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
6. Emission-free Gasket: Low-emission graphite is employed in gasket to eliminate leakage.

Materials and Structures

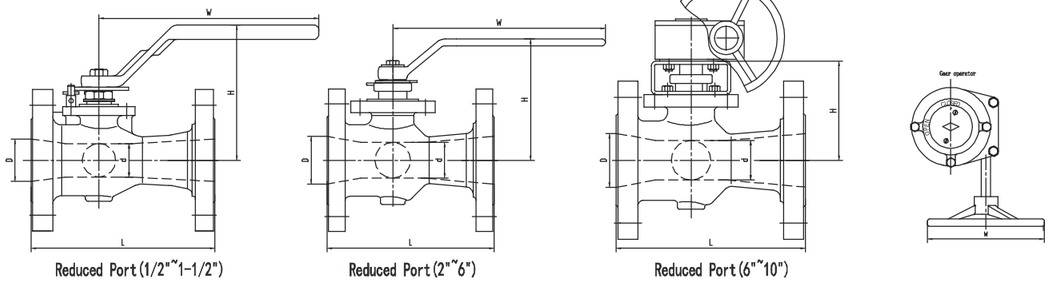


Index No	Part
1	Body
2	Body Insert
3	Ball
4	Handle
5	Gland Flange
6	Seat
7	Stem
8	Gland
9	Gasket
10	Packing
11	Thrust Washer
12	Screw
13	Anti-Static Device
14	Stop Plate
15	Retainer
16	Washer
17	O-ring(optional)
18	Bolt
19	Stop Pin
20	Locking Plate
21	Disc Spring
22	Retainer
23	Nut

No	Part	Carbon Steel (Non-Sour)	Stainless Steel	Carbon Steel (Sour Service)	Low Temperature Carbon Steel
1	Body	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
2	Body Insert	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
3	Ball	ASTM A182 F6a	ASTM A182-F316	ASTM A182 F6a	ASTM A182-F316
4	Handle	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
5	Gland Flange	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A352-LCB
6	Seat	PTFE	PTFE	PTFE	PTFE
7	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F316
8	Gland	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L
9	Gasket	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
10	Packing	Graphite	Graphite	Graphite	Graphite
11	Thrust Washer	PTFE	PTFE	PTFE	PTFE
12	Screw	ASTM A193-B7	ASTM A193-B8 Cl2	ASTM A193-B7M	ASTM A320-L7M
13	Anti-Static Device	S.S.	S.S.	S.S.	S.S.
14	Stop Plate	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
15	Retainer	S.S.	S.S.	S.S.	S.S.
16	Washer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
17	O-ring(optional)	Viton A	Viton A	Viton A	HNBR
18	Bolt	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
19	Stop Pin	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
20	Locking Plate	Carbon Steel	S.S.	Carbon Steel	S.S.
21	Disc Spring	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
22	Retainer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
23	Nut	Carbon Steel	S.S.	Carbon Steel	Carbon Steel

ISO5211 connection dimension: actuator installation is simplified by using connection dimension recog nized in international standards.

Reduced Port, Uni-body, Cast Steel, Side Entry Design



Reduced Port(1/2"~1-1/2") Reduced Port(2"~6") Reduced Port(6"~10")

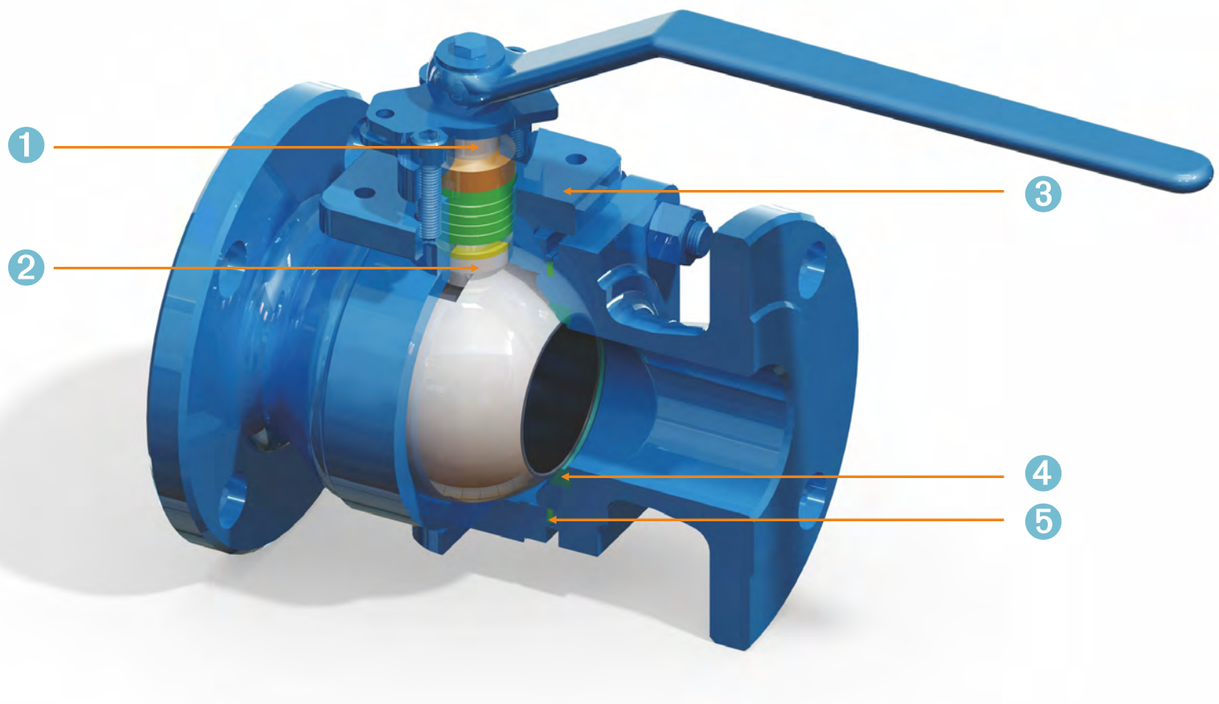
Class 150 Dimension and Weight

Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	KG
1/2*3/8	15*10	0.37	10	0.50	13	4.25	108	1.75	44.50	4.72	145	3.3	1.5
3/4*1/2	20*15	0.50	13	0.75	19	4.61	117	2.11	53.50	5.51	165	5.5	2.5
1*3/4	25*20	0.75	19	1.00	25	5.00	127	2.42	61.50	5.51	165	6.6	3.0
1-1/2*1	40*25	1.18	30	1.50	38	6.50	165	3.15	80	6.30	215	11.0	5.0
2*1-1/2	50*40	1.50	38	2.00	51	7.01	178	4.17	106	10.43	265	19.2	8.7
2-1/2*2	65*50	2.00	51	2.50	64	7.52	191	4.72	120	10.43	265	27.3	12.4
3*2-1/2	80*65	2.50	64	3.00	76	7.99	203	5.67	144	10.43	285	36.8	16.7
4*3	100*80	3.00	76	4.00	102	9.02	229	6.54	166	11.81	300	53.8	24.4
6*4	150*100	4.50	114	6.00	152	10.51	267	8.39	213	15.75	*300	110.2	50.0
8*6	200*150	6.00	152	8.00	203	11.50	292	20.71	526	11.81	*400	222.7	101.0
10*8	250*200	7.36	187	10.00	254	12.99	330	21.65	550	16	*400	330.7	150.0

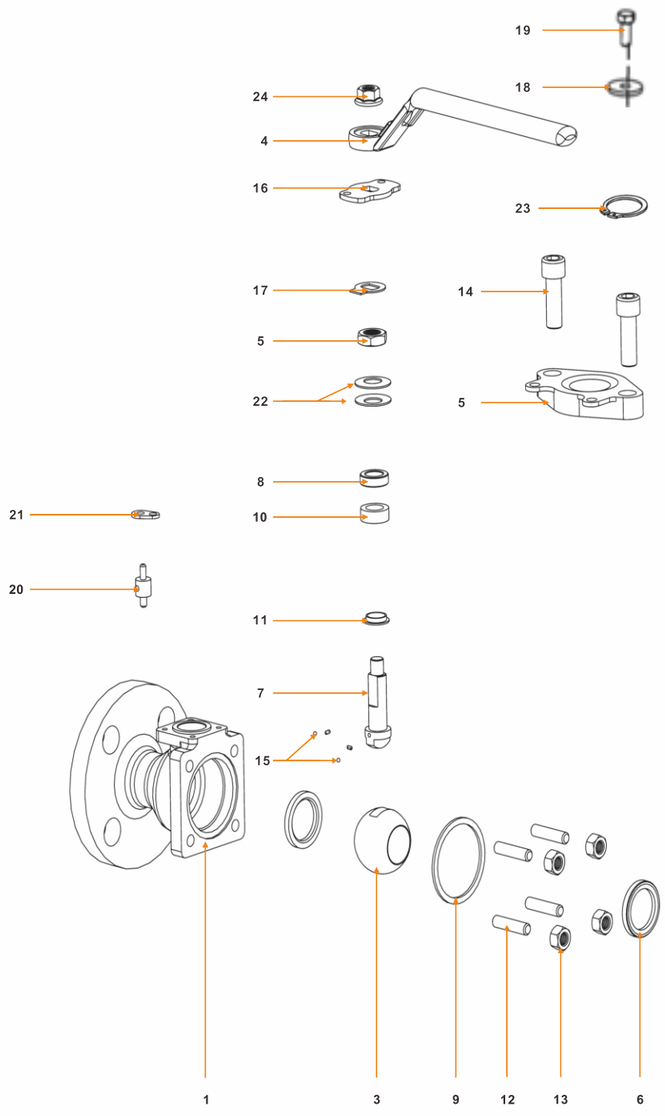
Class 300 Dimension and Weight

Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	KG
1/2*3/8	15*10	0.37	10	0.50	13	5.51	140	1.75	44.50	4.72	145	6.2	2.8
3/4*1/2	20*15	0.50	13	0.75	19	5.98	152	2.11	53.50	5.51	165	7.9	3.6
1*3/4	25*20	0.75	19	1.00	25	6.50	165	2.42	61.50	5.51	165	10.6	4.8
1-1/2*1	40*25	1.18	30	1.50	38	7.48	190	3.15	80	6.30	215	21.2	9.6
2*1-1/2	50*40	1.50	38	2.00	51	8.50	216	4.17	106	10.43	265	24.3	11.0
2-1/2*2	65*50	2.00	51	2.50	64	9.49	241	4.72	120	10.43	265	33.3	15.1
3*2-1/2	80*65	2.50	64	3.00	76	11.14	283	5.67	144	10.43	285	49.6	22.5
4*3	100*80	3.00	76	4.00	102	12.01	305	6.54	166	11.81	300	81.6	37.0
6*4	150*100	4.50	114	6.00	152	15.87	403	8.39	213	11.81	*300	159.8	72.5
8*6	200*150	5.67	144	8.00	203	16.50	419	20.71	526	15.75	*400	275.6	125.0
10*8	250*200	7.36	187	10.00	254	17.99	457	21.65	550	15.75	*400	451.9	205.0

*Gearbox operated



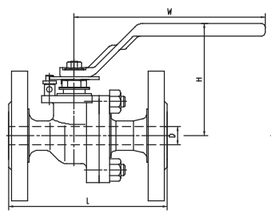
1. Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
2. Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
3. ISO5211 connection dimension: actuator installation is simplified by using connection dimension recog nized in international standards.
4. Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.
5. Emission-free Gasket: Low-emission graphite is employed in gasket to eliminate leakage.

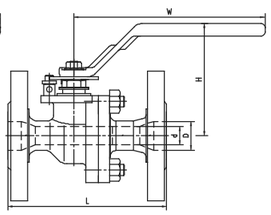


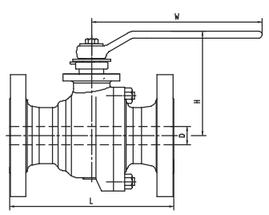
Index No	Part
1	Body
2	Bonnet
3	Ball
4	Handle
5	Gland Flange
6	Seat
7	Stem
8	Gland
9	Gasket
10	Packing
11	Thrust Washer
12	Stud
13	Nut
14	Screw
15	Anti-Static Device
16	Stop Plate
17	Retainer
18	Washer
19	Bolt
20	Stop Pin
21	Locking Plate
22	Disc Spring
23	Retainer
24	Nut

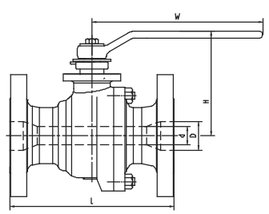
No	Part	Carbon Steel (Non-Sour)	Stainless Steel	Carbon Steel (Sour Service)	Low Temperature Carbon Steel
1	Body	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
2	Bonnet	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
3	Ball	ASTM A182 F6a	ASTM A182-F316	ASTM A182 F6a	ASTM A182-F316
4	Handle	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
5	Gland Flange	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A352-LCB
6	Seat	PTFE	PTFE	PTFE	PTFE
7	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F316
8	Gland	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L
9	Gasket	Flexible Graphite≤1″ 316 L+Graphite＞1″	Flexible Graphite≤1″ 316 L+Graphite＞1″	Flexible Graphite≤1″ 316 L+Graphite＞1″	Flexible Graphite≤1″ 316 L+Graphite＞1″
10	Packing	Graphite	Graphite	Graphite	Graphite
11	Thrust Washer	PTFE	PTFE	PTFE	PTFE
12	Stud	ASTM A193-B7	ASTM A193-B8 Cl2	ASTM A193-B7M	ASTM A320-L7M
13	Nut	ASTM A194-2H	ASTM A194-8	ASTM A194-2HM	ASTM A194-7M
14	Screw	ASTM A193-B7	ASTM A193-B8 Cl2	ASTM A193-B7M	ASTM A320-L7M
15	Anti-Static Device	S.S.	S.S.	S.S.	S.S.
16	Stop Plate	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
17	Retainer	S.S.	S.S.	S.S.	S.S.
18	Washer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
19	Bolt	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
20	Stop Pin	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
21	Locking Plate	S.S.	S.S.	S.S.	S.S.
22	Disc Spring	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
23	Retainer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
24	Nut	Carbon Steel	S.S.	Carbon Steel	Carbon Steel

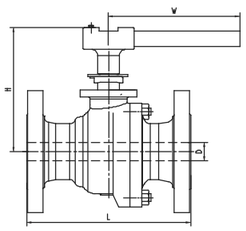
Two-piece, Split Body, Cast Steel, Side Entry Design
B Series Ball Valve

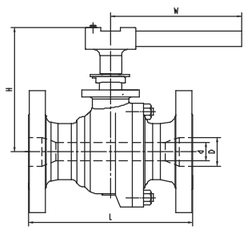

Full Port(1/2"~1")

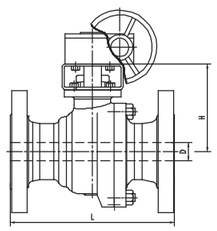

Reduced Port(1/2"~1-1/2")

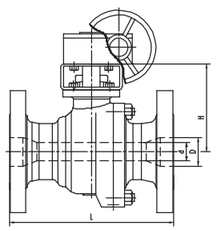

Full Port(1-1/2"~4")

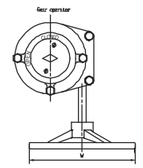

Reduced Port(2"~6")


Full Port(6")


Reduced Port(8")


Full Port(6"~10")


Reduced Port(8"~12")



Class 150 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2	15	0.50	13	4.25	108	3.35	85	6.50	165	4.0	1.8
3/4	20	0.75	19	4.62	117	3.54	90	6.50	165	4.4	2.0
1	25	1.00	25	5.00	127	4.27	108.5	8.46	215	7.9	3.6
1-1/2	40	1.50	38	6.50	165	5.24	133	10.43	265	15.9	7.2
2	50	2.00	51	7.00	178	5.87	149	10.43	265	24.5	11.1
2-1/2	65	2.50	64	7.50	190	6.48	164.5	11.22	285	30.9	14.0
3	80	3.00	76	8.00	203	7.22	183.5	11.81	300	48.5	22.0
4	100	4.00	102	9.00	229	8.46	215	17.72	450	88.2	40.0
6	150	6.00	152	15.50	394	13.52	343.5	55.12	**1400	202.8	92.0
6	150	6.00	152	15.50	394	11.30	287	15.75	*400	238.1	108.0
8	200	8.00	203	18.00	457	12.83	326	19.69	*500	429.9	195.0
10	250	10.00	254	21.00	533	14.49	368	19.69	*500	687.8	312.0

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4*1/2	20*15	0.50	13	0.75	19	4.62	117	3.35	85	6.50	165	6.6	3.0
1*3/4	25*20	0.75	19	1.00	25	5.00	127	3.54	90	6.50	165	8.8	4.0
1-1/2*1	40*25	1.00	25	1.50	38	6.50	165	4.27	108.5	8.46	215	15.4	7.0
2*1-1/2	50*40	1.50	38	2.00	51	7.00	178	5.24	133	10.43	265	29.8	13.5
3*2	80*50	2.00	51	2.50	64	8.00	203	5.87	149	10.43	265	44.1	20.0
4*3	100*80	3.00	76	4.00	102	9.00	229	7.22	183.5	11.81	300	83.8	38.0
6*4	150*100	4.00	102	6.00	152	15.50	394	8.46	215	17.72	450	158.7	72.0
8*6	200*150	6.00	152	8.00	203	18.00	457	13.52	343.5	55.12	**1400	231.5	105.0
8*6	200*150	6.00	152	8.00	203	18.00	457	11.30	287	15.75	*400	271.2	123.0
10*8	250*200	8.00	203	10.00	254	21.00	533	12.83	326	19.69	*500	480.6	218.0
12*10	300*250	10.00	254	12.00	305	24.00	610	14.49	368	19.69	*500	507.1	230.0

** T-Bar Operator

* Gear Operator

Class 300 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2	15	0.50	13	5.50	140	3.35	85	6.50	165	6.6	3.0
3/4	20	0.75	19	6.00	152	3.54	90	6.50	165	8.8	4.0
1	25	1.00	25	6.50	165	4.27	108.5	8.46	215	15.4	7.0
1-1/2	40	1.50	38	7.50	190	5.24	133	10.43	265	30.9	14.0
2	50	2.00	51	8.50	216	5.87	149	10.43	265	39.7	18.0
2-1/2	65	2.50	64	9.50	241	6.48	164.5	11.22	285	63.9	29.0
3	80	3.00	76	11.12	283	7.22	183.5	11.81	300	88.2	40.0
4	100	4.00	102	12.00	305	10.75	273	32.09	**815	163.1	74.0
6	150	6.00	152	15.88	403	11.30	287	15.75	*400	238.1	108.0
8	200	8.00	203	19.75	502	13.23	336	19.69	*500	429.9	195.0
10	250	10.00	254	22.38	568	17.01	432	19.69	*500	687.8	312.0

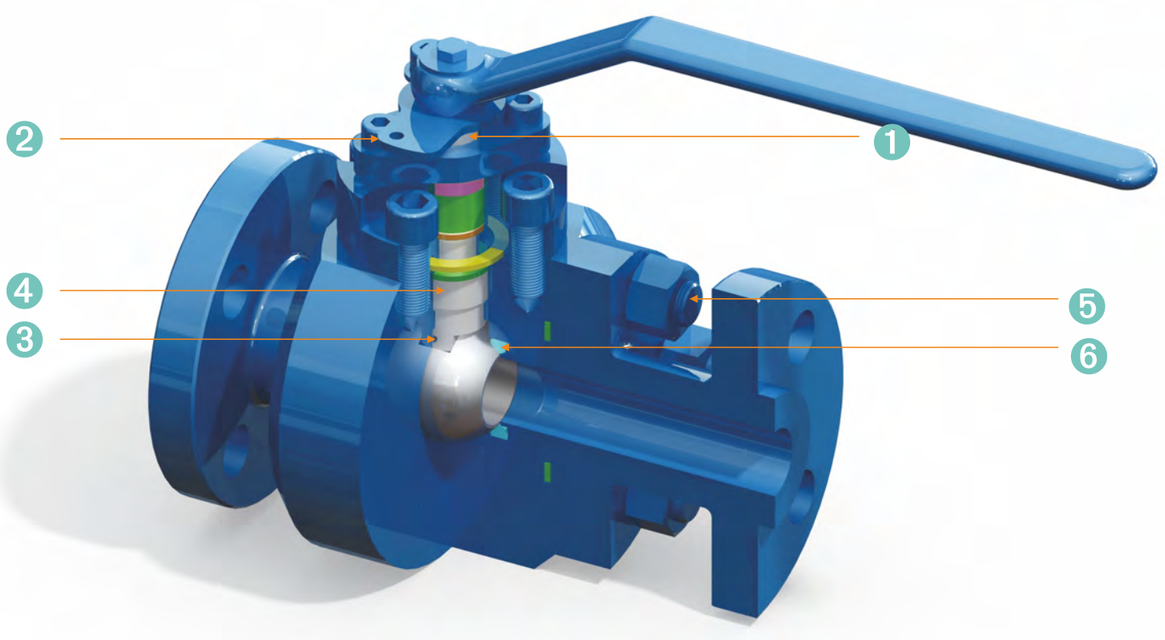
Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4*1/2	20*15	0.50	13	0.75	19	6.00	152	3.35	85	6.50	165	8.8	4.0
1*3/4	25*20	0.75	19	1.00	25	6.50	165	3.54	90	6.50	165	11.0	5.0
1-1/2*1	40*25	1.00	25	1.50	38	7.50	190	4.27	108.5	8.46	215	19.8	9.0
2*1-1/2	50*40	1.50	38	2.00	51	8.50	216	5.24	133	10.43	265	32.0	14.5
3*2	80*50	2.00	51	2.50	64	11.12	283	5.87	149	10.43	265	55.1	25.0
4*3	100*80	3.00	76	4.00	102	12.00	305	7.22	183.5	11.81	300	110.2	50.0
6*4	150*100	4.00	102	6.00	152	15.88	403	10.75	273	32.09	*815	211.6	96.0
8*6	200*150	6.00	152	8.00	203	19.75	502	11.30	287	15.75	*400	271.2	123.0
10*8	250*200	8.00	203	10.00	254	22.38	568	13.23	336	19.69	*500	480.6	218.0

** T-Bar Operator

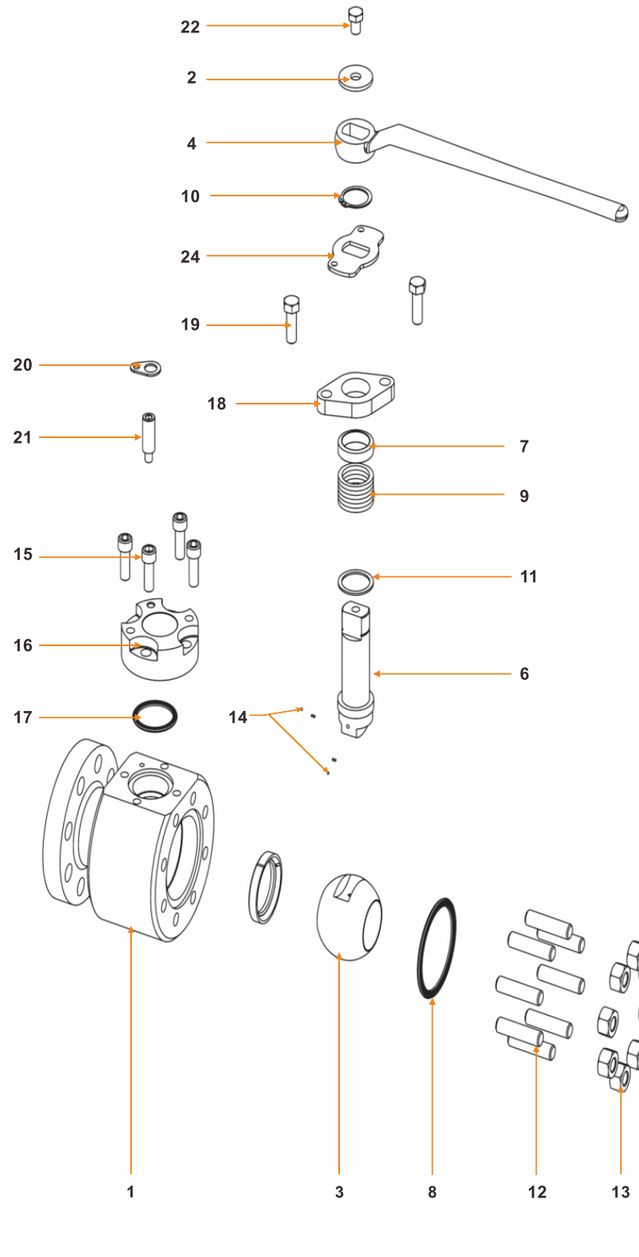
* Gear Operator

NEWAY reserves the right to change design, materials or specifications without notice and is free of obligation to furnish or install such changes on products previously sold.

Design Features



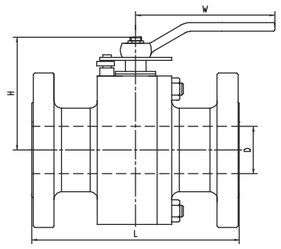
1. Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
2. Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
3. Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
4. Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
5. Bolted body-cap configuration: Properly torqued nut is used to maintain seal performance.
6. Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.



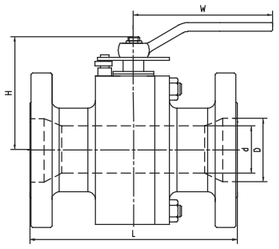
Index No	Part
1	Body
2	Bonnet
3	Ball
4	Handle
5	Seat
6	Stem
7	Gland
8	Gasket Gland
9	Packing
10	Retainer
11	Thrust Washer
12	Stud
13	Nut
14	Anti-Static Device
15	Screw
16	Gland Cap
17	Gasket
18	Gland Flange
19	Bolt
20	Locking Plate
21	Stop Pin
22	Bolt
23	Washer
24	Stop Plate

Materials and Structures

No	Part	Carbon Steel (Non-Sour)	Stainless Steel	Carbon Steel (Sour Service)	Low Temperature Carbon Steel
1	Body	ASTM A105N	ASTM A182-F316	ASTM A105N	ASTM A350-LF2
2	Bonnet	ASTM A105N	ASTM A182-F316	ASTM A105N	ASTM A350-LF2
3	Ball	ASTM A182 F6a	ASTM A182-F316	ASTM A182 F6a	ASTM A182-F316
4	Handle	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
5	Seat	PTFE	PTFE	PTFE	PTFE
6	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F316
7	Gland	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L
8	Gasket Gland	316 L+Graphite	316 L+Graphite	316 L+Graphite	316 L+Graphite
9	Packing	Graphite	Graphite	Graphite	Graphite
10	Retainer	Carbon Steel	S.S.	Carbon Steel	S.S.
11	Thrust Washer	PTFE	PTFE	PTFE	PTFE
12	Stud	ASTM A193-B7	ASTM A193-B8 Cl2	ASTM A193-B7M	ASTM A320-L7M
13	Nut	ASTM A194-2H	ASTM A194-8	ASTM A194-2HM	ASTM A194-7M
14	Anti-Static Device	S.S.	S.S.	S.S.	S.S.
15	Screw	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
16	Gland Cap	ASTM A105N	ASTM A182-F316	ASTM A105N	ASTM A350-LF2
17	Gasket	316 L+Graphite	316 L+Graphite	316 L+Graphite	316 L+Graphite
18	Gland Flange	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A352-LCB
19	Bolt	ASTM A193-B7	ASTM A193-B8 Cl2	ASTM A193-B7M	ASTM A320-L7M
20	Locking Plate	S.S.	S.S.	S.S.	S.S.
21	Stop Pin	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
22	Bolt	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
23	Washer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
24	Stop Plate	Carbon Steel	S.S.	Carbon Steel	Carbon Steel



Full Port(1/2"~1")



Reduced Port(3/4"~1-1/2")

Class 150 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2	15	0.50	13	4.25	108	3.35	85	6.50	165	5.50	2.50
3/4	20	0.75	19	4.62	117	3.54	90	6.50	165	7.70	3.50
1	25	1.00	25	5.00	127	4.27	108.5	8.46	215	11.00	5.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.50	13	0.75	19	4.62	117	3.35	85	6.50	165	6.60	3.00
1*3/4	25*20	0.75	19	1.00	25	5.00	127	3.54	90	6.50	165	8.80	4.00
1-1/2*1	40*25	1.00	25	1.50	38	6.50	165	4.27	108.5	8.46	215	15.40	7.00

Class 300 Dimension and Weight

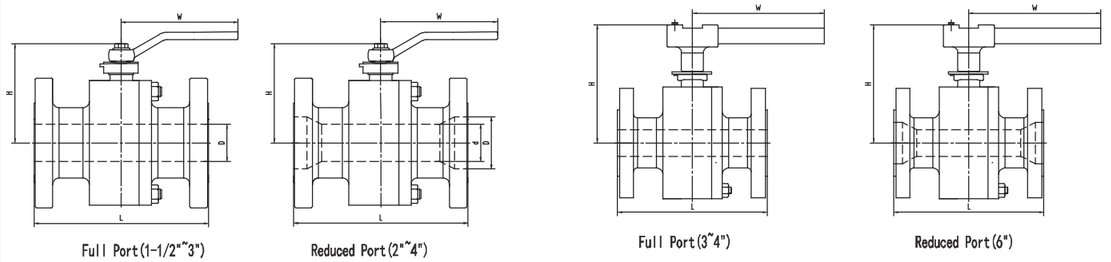
Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2	15	0.50	13	5.50	140	3.35	85	6.50	165	6.60	3.00
3/4	20	0.75	19	6.00	152	3.54	90	6.50	165	8.80	4.00
1	25	1.00	25	6.50	165	4.27	108.5	8.46	215	15.40	7.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.50	13	0.75	19	6.00	152	3.35	85	6.50	165	8.80	4.00
1*3/4	25*20	0.75	19	1.00	25	6.50	165	3.54	90	6.50	165	11.00	5.00
1-1/2*1	40*25	1.00	25	1.50	38	7.50	190	4.27	108.5	8.46	215	19.80	9.00

Class 600 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
3	80	3.00	76	14.00	356	7.09	180	15.75	400	136.70	62.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
4*3	100*80	3.00	76	4.00	102	17.00	432	7.09	180	15.75	400	180.80	82.00



Full Port(1-1/2"~3") Reduced Port(2"~4") Full Port(3"~4") Reduced Port(6")

Class 150 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1-1/2	40	1.50	38	6.50	165	5.24	133	10.43	265	24.30	11.00
2	50	2.00	51	7.00	178	5.87	149	10.43	265	35.30	16.00
2-1/2	65	2.50	64	7.50	190	6.48	164.5	11.22	285	57.30	26.00
3	80	3.00	76	8.00	203	7.22	183.5	11.81	300	70.50	32.00
4	100	4.00	102	9.00	229	8.46	215	17.72	450	116.80	53.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
2*1-1/2	50*40	1.50	38	2.00	51	7.00	178	5.24	133	10.43	265	29.80	13.50
3*2	80*50	2.00	51	2.50	64	8.00	203	5.87	149	10.43	265	44.10	20.00
4*3	100*80	3.00	76	4.00	102	9.00	229	7.22	183.5	11.81	300	83.80	38.00
6*4	150*100	4.00	102	6.00	152	15.50	394	8.46	215	17.72	450	158.70	72.00

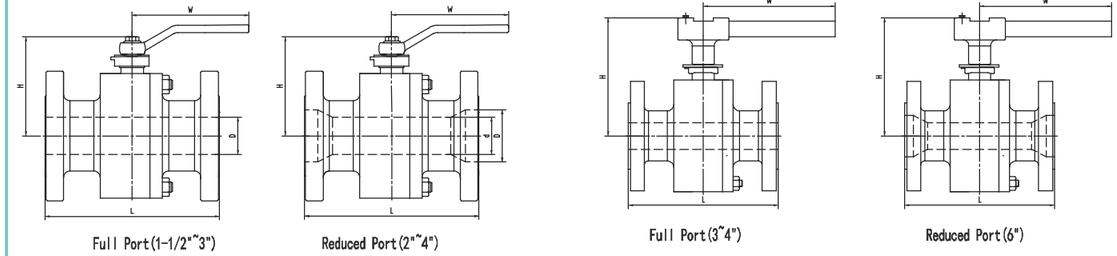
Class 300 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1-1/2	40	1.50	38	7.50	190	5.24	133	10.43	265	30.90	14.00
2	50	2.00	51	8.50	216	5.87	149	10.43	265	39.70	18.00
2-1/2	65	2.50	64	9.50	241	6.48	164.5	11.22	285	63.90	29.00
3	80	3.00	76	11.12	283	7.22	183.5	11.81	300	88.20	40.00
4	100	4.00	102	12.00	305	10.75	273	32.09	**815	163.10	74.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
2*1-1/2	50*40	1.50	38	2.00	51	8.50	216	5.24	133	10.43	265	32.00	14.50
3*2	80*50	2.00	51	2.50	64	11.12	283	5.87	149	10.43	265	55.10	25.00
4*3	100*80	3.00	76	4.00	102	12.00	305	7.22	183.5	11.81	300	110.20	50.00
6*4	150*100	4.00	102	6.00	152	15.88	403	10.75	273	32.09	**815	211.60	96.00

** T-Bar Operator

Two-piece, Split Body, Forged Steel, Side Entry Design
BB Series Ball Valve



Full Port(1-1/2"~3") Reduced Port(2"~4") Full Port(3"~4") Reduced Port(6")

Class 600 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
4	100	4.00	102	17.00	432	11.93	303	41.73	**1060	297.60	135.00

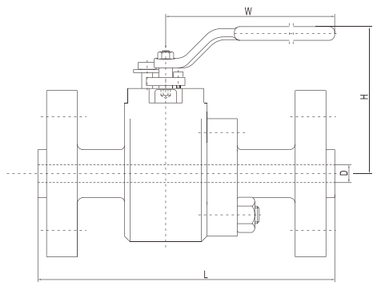
** T-Bar Operator

Class 900 Dimension and Weight

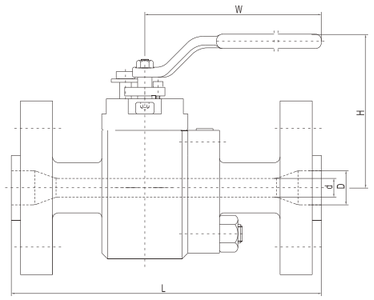
Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
3	80	3.00	76	15.00	381	9.80	249	32.09	**815	198.40	90.00

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
4*3	100*80	3.00	76	4.00	102	18.00	457	9.80	249	32.09	**815	249.10	113.00

** T-Bar Operator



Full Port (1/2"~2")



Reduced Port (1/2"~2")

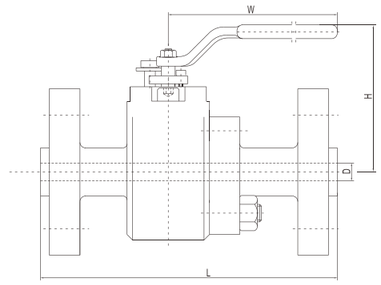
Class 400/600 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.50	12.7	6.50	165	4.59	116.50	5.91	150	7.70	3.50
3/4"	20	0.75	19	7.52	191	5.14	130.50	7.09	180	12.80	5.80
1"	25	1.00	25.4	8.50	216	5.83	148	10.43	265	28.66	13.00
1-1/2"	40	1.50	38	9.49	241	6.32	160.50	11.81	300	50.71	23.00
2"	50	2.00	51	11.50	292	7.56	192	15.75	400	63.90	29.00

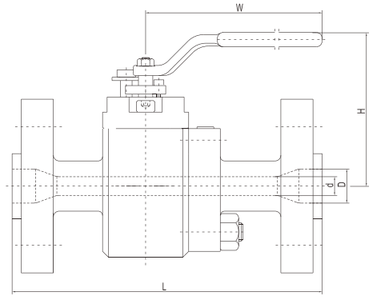
Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2*3/8	15*10	0.37	9.5	0.50	12.7	6.50	165	4.59	116.50	5.91	150	11.02	5.00
3/4"*1/2	20*15	0.50	12.7	0.75	19	7.52	191	4.59	116.50	5.91	150	17.64	8.00
1*3/4	25*20	0.75	19	1.00	25.4	8.50	216	5.14	130.50	7.09	180	26.46	12.00
1-1/2*1	40*25	1.00	25.4	1.50	38	9.49	241	5.83	148	10.43	265	37.48	17.00
2*1-1/2	50*40	1.50	38	2.00	51	11.50	292	6.32	160.50	11.81	300	59.52	27.00

Class 900 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.50	12.7	8.50	216	4.59	116.50	5.91	150	22.04	10
3/4"	20	0.75	19	9.02	229	5.35	136	7.09	180	28.66	13
1"	25	1.00	25.4	10.00	254	6.20	157.50	10.43	265	44.09	20
1-1/2"	40	1.50	38	12.01	305	6.99	177.50	11.81	300	90.39	41
2"	50	2.00	51	14.49	368	8.35	212	15.75	400	132.28	60



Full Port (1/2"~2")



Reduced Port (1/2"~2")

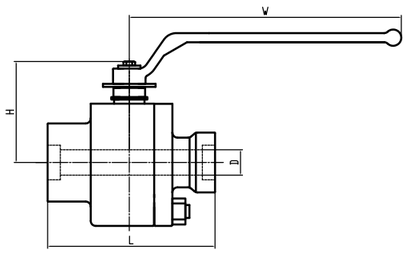
Class 900 Dimension and Weight

Reduced port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2*3/8	15*10	0.37	9.5	0.50	12.7	8.50	216	4.59	116.50	5.91	150	19.84	9
3/4*1/2	20*15	0.50	12.7	0.75	19	9.02	229	4.59	116.50	5.91	150	24.25	11
1*3/4	25*20	0.75	19	1.00	25.4	10.00	254	5.35	136	7.09	180	35.27	16
1-1/2*1	40*25	1.00	25.4	1.50	38	12.01	305	6.20	157.50	10.43	265	55.12	25
2*1-1/2	50*40	1.50	38	2.00	51	14.49	368	6.99	177.50	11.81	300	123.46	56

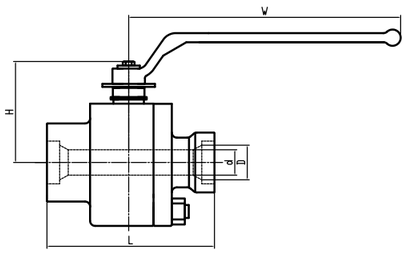
Class 1500 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.50	12.7	8.50	216	4.59	116.50	5.91	150	22.04	10
3/4"	20	0.75	19	9.02	229	5.35	136	7.09	180	28.66	13
1"	25	1.00	25.4	10.00	254	6.20	157.50	10.43	265	44.09	20
1-1/2"	40	1.50	38	12.01	305	6.99	177.50	11.81	300	90.39	41
2"	50	2.00	51	14.49	368	8.35	212	15.75	400	132.28	60

Reduced port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2*3/8	15*10	0.37	9.5	0.50	12.7	8.50	216	4.59	116.50	5.91	150	19.84	9
3/4*1/2	20*15	0.50	12.7	0.75	19	9.02	229	4.59	116.50	5.91	150	24.25	11
1*3/4	25*20	0.75	19	1.00	25.4	10.00	254	5.35	136	7.09	180	35.27	16
1-1/2*1	40*25	1.00	25.4	1.50	38	12.01	305	6.20	157.50	10.43	265	55.12	25
2*1-1/2	50*40	1.50	38	2.00	51	14.49	368	6.99	177.50	11.81	300	123.46	56



Full Port (1/2"~2")



Reduced Port (1/2"~2")

Class 150 Dimension and Weight

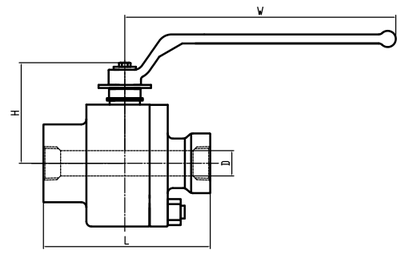
Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	3.74	95	2.28	58	7.01	178	4.0	1.8
3/4"	20	0.75	19	4.33	110	2.42	62	7.01	178	5.5	2.5
1"	25	0.98	25	4.92	125	2.93	75	7.01	178	8.4	3.8
1-1/2"	32	1.50	38	5.71	145	3.76	96	9.88	251	18.0	8.2
2"	50	2.01	51	6.89	175	5.08	129	10.55	268	27.9	12.7

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	4.33	110	2.28	58	7.01	178	4.4	2.0
1*3/4	25*20	0.75	19	0.98	25	4.92	125	2.42	62	7.01	178	6.4	2.9
1-1/2*1	32*25	0.98	25	1.50	38	5.71	145	2.93	75	7.01	178	9.7	4.4
2*1-1/2	50*32	1.50	38	2.01	51	6.89	175	3.76	96	9.88	251	20.7	9.4

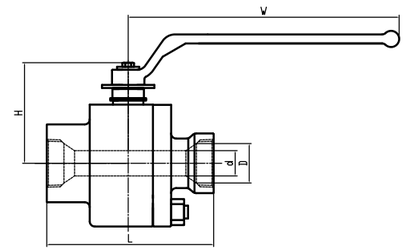
Class 300 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	3.74	95	2.28	58	7.01	178	4.0	1.8
3/4"	20	0.75	19	4.33	110	2.42	62	7.01	178	5.5	2.5
1"	25	0.98	25	4.92	125	2.93	75	7.01	178	8.4	3.8
1-1/2"	32	1.50	38	5.71	145	3.76	96	9.88	251	18.0	8.2
2"	50	2.01	51	6.89	175	5.08	129	10.55	268	27.9	12.7

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	4.33	110	2.28	58	7.01	178	4.4	2.0
1*3/4	25*20	0.75	19	0.98	25	4.92	125	2.42	62	7.01	178	6.4	2.9
1-1/2*1	32*25	0.98	25	1.50	38	5.71	145	2.93	75	7.01	178	9.7	4.4
2*1-1/2	50*32	1.50	38	2.01	51	6.89	175	3.76	96	9.88	251	20.7	9.4



Full Port (1/2"~2")



Reduced Port (1/2"~2")

Class 600 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	5.12	130	2.34	60	7.01	178	9.7	4.4
3/4"	20	0.75	19	5.71	145	2.87	73	9.88	251	12.3	5.6
1"	25	0.98	25	6.50	165	3.92	100	10.55	268	21.6	9.8
1-1/2"	32	1.50	38	7.87	200	4.64	118	17.09	434	39.8	18.1
2"	50	2.01	51	9.06	230	5.01	127	17.09	434	51.7	23.5

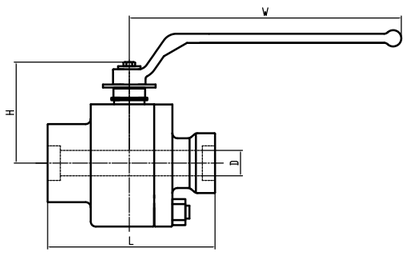
Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	5.71	145	2.34	60	7.01	178	9.9	4.5
1*3/4	25*20	0.75	19	0.98	25	6.50	165	2.87	73	9.88	251	13.4	6.1
1-1/2*1	32*25	0.98	25	1.50	38	7.87	200	3.92	100	10.55	268	23.3	10.6
2*1-1/2	50*32	1.50	38	2.01	51	9.06	230	4.64	118	17.09	434	41.8	19.0

Class 800 Dimension and Weight

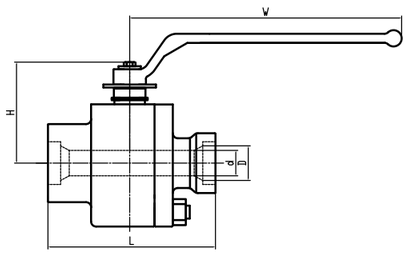
Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	5.12	130	2.34	60	7.01	178	9.7	4.4
3/4"	20	0.75	19	5.71	145	2.87	73	9.88	251	12.3	5.6
1"	25	0.98	25	6.50	165	3.92	100	10.55	268	21.6	9.8
1-1/2"	32	1.50	38	7.87	200	4.64	118	17.09	434	39.8	18.1
2"	50	2.01	51	9.06	230	5.01	127	39.61	1006	51.7	23.5

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	5.71	145	2.34	60	7.01	178	9.9	4.5
1*3/4	25*20	0.75	19	0.98	25	6.50	165	2.87	73	9.88	251	13.4	6.1
1-1/2*1	32*25	0.98	25	1.50	38	7.87	200	3.92	100	10.55	268	23.3	10.6
2*1-1/2	50*32	1.50	38	2.01	51	9.06	230	4.64	118	17.09	434	41.8	19

Two-piece, Split Body, Forged Steel, Side Entry Design



Full Port (1/2"~2")

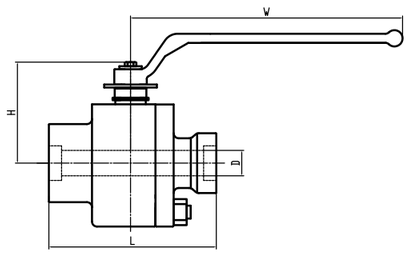


Reduced Port (1/2"~2")

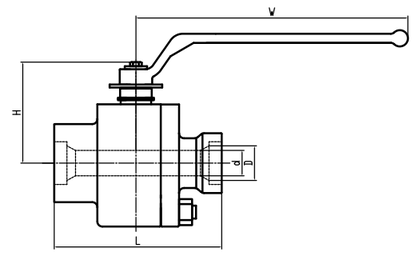
Class 900 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	5.91	150	2.34	60	7.01	178	10.1	4.6
3/4"	20	0.75	19	5.91	150	2.81	72	9.88	251	12.8	5.8
1"	25	0.98	25	6.50	165	4.06	103	10.55	268	22.2	10.1
1-1/2"	32	1.50	38	8.66	220	4.83	123	17.09	434	41.6	18.9
2"	50	2.01	51	9.84	250	7.56	192	39.61	1006	54.1	24.6

Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	5.91	150	2.34	60	7.01	178	10.1	4.6
1*3/4	25*20	0.75	19	0.98	25	6.50	165	2.81	72	9.88	251	13.4	6.1
1-1/2*1	32*25	0.98	25	1.50	38	8.66	220	4.06	103	10.55	268	24.2	11
2*1-1/2	50*32	1.50	38	2.01	51	9.84	250	4.83	123	17.09	434	42.9	19.5



Full Port (1/2"~2")



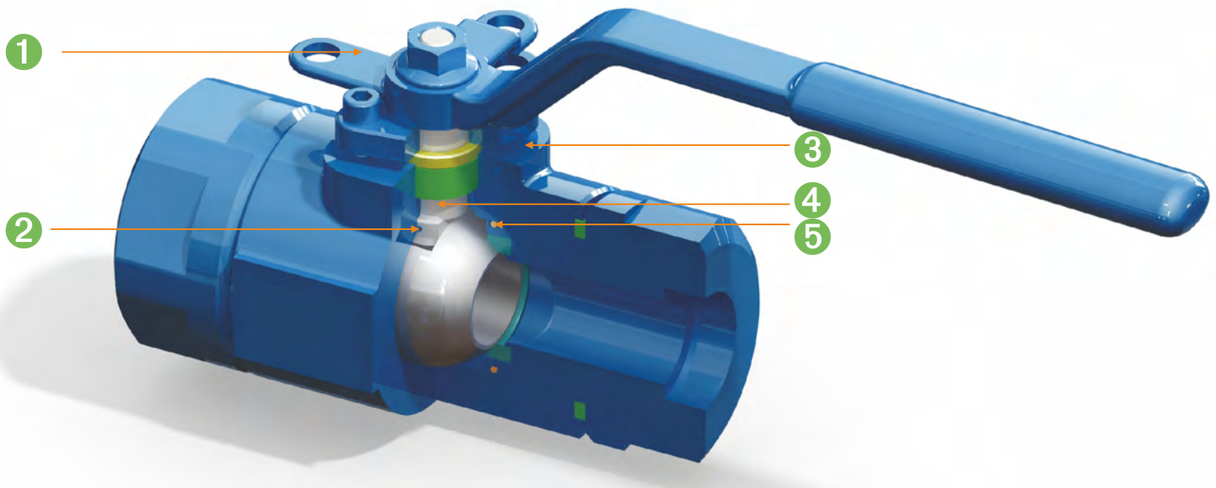
Reduced Port (1/2"~2")

Class 1500 Dimension and Weight

Full Port											
Size		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lb	Kg
1/2"	15	0.51	13	5.91	150	2.34	60	7.01	178	10.1	4.6
3/4"	20	0.75	19	5.91	150	2.81	72	9.88	251	12.8	5.8
1"	25	0.98	25	6.50	165	4.25	108	15.75	400	22.2	10.1
1-1/2"	32	1.50	38	8.66	220	6.77	172	21.50	546	41.6	18.9
2"	50	2.01	51	9.84	250	7.56	192	39.61	1006	54.1	24.6

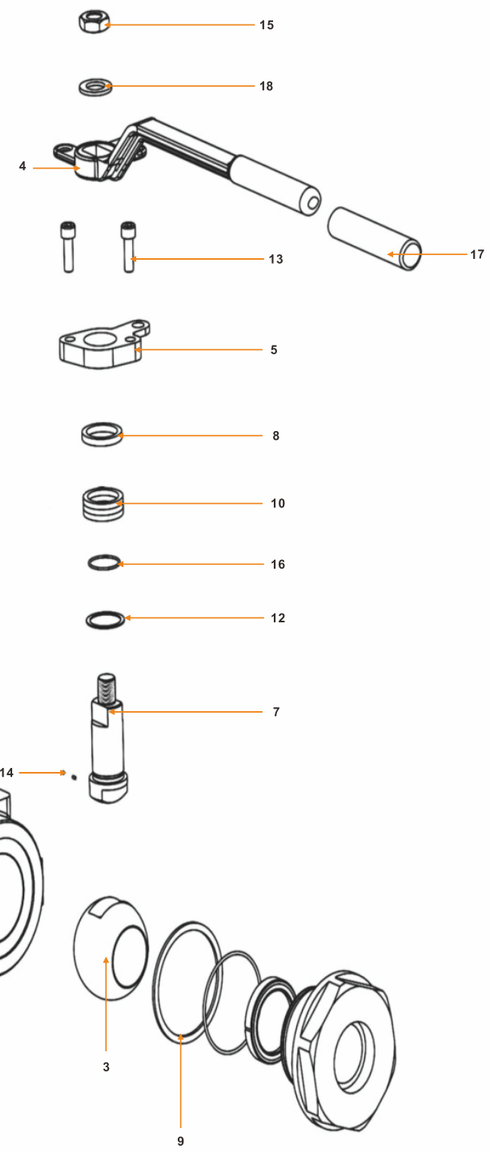
Reduced Port													
Size		d		D		L		H		W		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lb	Kg
3/4*1/2	20*15	0.51	13	0.75	19	5.91	150	2.34	60	7.01	178	10.1	4.6
1*3/4	25*20	0.75	19	0.98	25	6.50	165	2.81	72	9.88	251	13.4	6.1
1-1/2*1	32*25	0.98	25	1.50	38	8.66	220	4.25	108	15.75	400	24.2	11
2*1-1/2	50*32	1.50	38	2.01	51	9.84	250	6.77	172	21.50	546	42.9	19.5

Design Features



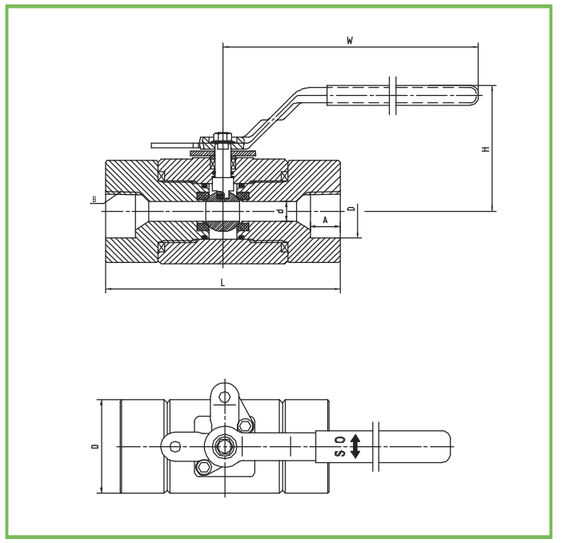
1. Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
2. Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
3. ISO5211 connection dimension: actuator installation is simplified by using connection dimension recog nized in international standards.
4. Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
5. O-ring Seal Design: Protects threads from crevice corrosion.

Index No	Part
1	Body
2	Bonnet
3	Ball
4	Handle
5	Gland Flange
6	Seat
7	Stem
8	Gland
9	Gasket
10	Packing
11	O-ring
12	Thrust Washer
13	Screw
14	Anti-Static Device
15	Nut
16	O-ring
17	Handle Cover
18	Washer

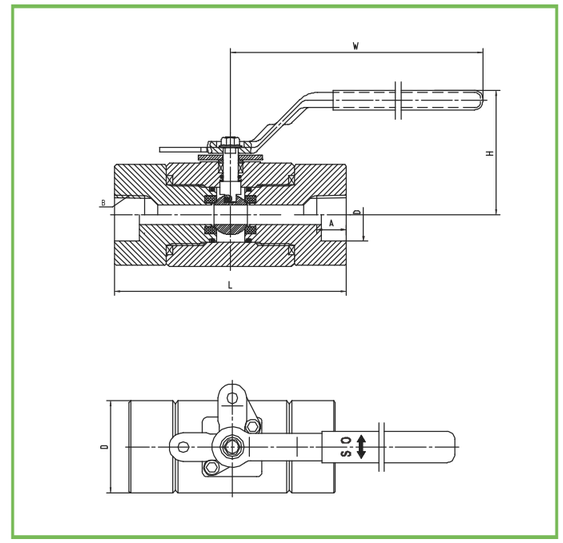


Material and Structures

No	Part	Carbon Steel (Non-Sour)	Stainless Steel	Carbon Steel (Sour Service)	Low Temperature Carbon Steel
1	Body	ASTM A105N	ASTM A182-F316	ASTM A105N	ASTM A350-LF2
2	Bonnet	ASTM A105N	ASTM A182-F316	ASTM A105N	ASTM A350-LF2
3	Ball	ASTM A182 F6a	ASTM A182-F316	ASTM A182 F6a	ASTM A182-F316
4	Handle	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
5	Gland Flange	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A352-LCB
6	Seat	PTFE	PTFE	PTFE	PTFE
7	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F316
8	Gland	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L	ASTM A276-304L
9	Gasket	316 L+Graphite	316 L+Graphite	316 L+Graphite	316 L+Graphite
10	Packing	Graphite	Graphite	Graphite	Graphite
11	O-ring	Viton AED	Viton AED	Viton AED	HNBR
12	Thrust Washer	PTFE	PTFE	PTFE	PTFE
13	Screw	ASTM A193-B7	ASTM A182-B8 CI2	ASTM A193-B7M	ASTM A320-L7M
14	Anti-Static Device	S.S.	S.S.	S.S.	S.S.
15	Nut	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
16	O-ring	Viton AED	Viton AED	Viton AED	HNBR
17	Handle Cover	Plastic	Plastic	Plastic	Plastic
18	Washer	Carbon Steel	S.S.	Carbon Steel	Carbon Steel



Full Bore (1/2"~2")



Reduced Bore (1/2"~2")

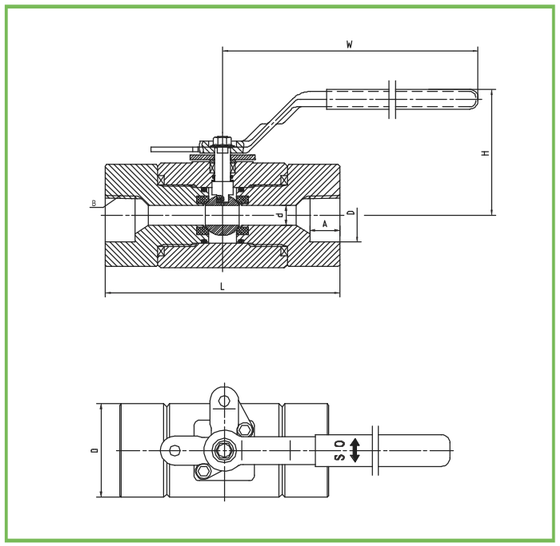
Class 150/300/600/800/900 Dimension and weight

Full Bore

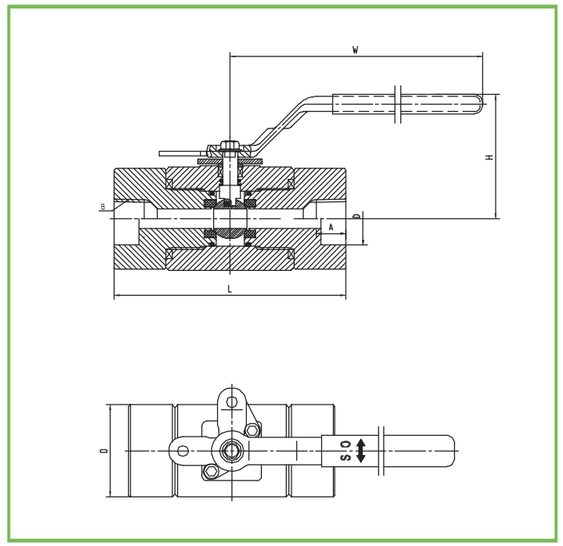
Size		d		L(NPT)		L(SW)		H		L1		A		D		D1		B	Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg
3/8	10	0.375	9.50	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.69	17.60	1.65	42	3/8-18NPT	3.30	1.50
1/2	15	0.50	13	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.86	21.80	1.65	42	1/2-14NPT	3.30	1.50
3/4	20	0.75	19	5.00	127	8.43	214	3.23	82	6.5	165	0.49	12.50	1.07	27.20	2.28	58	3/4-14NPT	6.40	2.90
1	25	1.00	25	4.53	115	9.53	242	3.94	100	8.46	215	0.49	12.50	1.33	33.90	2.68	68	1-11.5NPT	7.70	3.50
1-1/2	40	1.50	38	5.63	143	10.24	260	5.31	135	10.43	265	0.49	12.50	1.92	48.80	3.66	93	1-1/2-11.5NPT	16.50	7.50
2	50	2.00	51	6.30	160	8.82	224	6.50	165	10.43	265	0.63	16.00	2.41	61.20	4.49	114	2-11.5NPT	28.70	13.00

Reduced Bore

Size		d		L(NPT)		L(SW)		H		L1		A		D		D1		B	Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg
1/2*3/8	15*10	0.375	9.50	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.69	17.60	1.65	42	1/2-14NPT	3.30	1.50
3/4*1/2	20*15	0.50	13	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.86	21.80	1.65	42	3/4-14NPT	3.30	1.50
1*3/4	25*20	0.75	19	5.00	127	8.43	214	3.23	82	6.5	165	0.49	12.50	1.07	27.20	2.28	58	1-11.5NPT	6.40	2.90
1-1/2*1	40*25	1.00	25	4.53	115	9.53	242	3.94	100	8.46	215	0.49	12.50	1.33	33.90	2.68	68	1-1/2-11.5NPT	7.70	3.50
2*1-1/2	50*40	1.50	38	5.63	143	10.24	260	5.31	135	10.43	265	0.49	12.50	1.92	48.80	3.66	93	2-11.5NPT	16.50	7.50



Full Bore (1/2"~2")



Reduced Bore (1/2"~2")

Class 1500/2500 Dimension and weight

Full Bore																			
Size		d		L(NPT)		L(SW)		H		L1		A		D		D1		B	Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg
3/8	10	0.375	9.50	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.69	17.60	1.65	42	3/8-18NPT	3.30	1.50
1/2	15	0.50	13	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.86	21.80	1.65	42	1/2-14NPT	3.30	1.50
3/4	20	0.75	19	5.00	127	8.43	214	3.23	82	6.5	165	0.49	12.50	1.07	27.20	2.28	58	3/4-14NPT	6.40	2.90
1	25	1.00	25	6.18	157	9.53	242	3.94	100	8.46	215	0.49	12.50	1.33	33.90	2.68	68	1-11.5NPT	11.9	5.4
1-1/2	40	1.50	38	7.76	197	10.24	260	5.31	135	10.43	265	0.49	12.50	1.92	48.80	3.66	93	1-1/2-11.5NPT	28.7	13.0
2	50	2.00	51	8.27	210	8.82	224	6.50	165	10.43	265	0.63	16.00	2.41	61.20	4.49	114	2-11.5NPT	48.5	22.0

Reduced Bore																			
Size		d		L(NPT)		L(SW)		H		L1		A		D		D1		B	Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg
1/2*3/8	15*10	0.375	9.50	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.69	17.60	1.65	42	1/2-14NPT	3.30	1.50
3/4*1/2	20*15	0.50	13	4.09	104	7.72	196	2.44	62	6.5	165	0.37	9.50	0.86	21.80	1.65	42	3/4-14NPT	3.30	1.50
1*3/4	25*20	0.75	19	5.00	127	8.43	214	3.23	82	6.5	165	0.49	12.50	1.07	27.20	2.28	58	1-11.5NPT	6.40	2.90
1-1/2*1	40*25	1.00	25	6.18	157	9.53	242	3.94	100	8.46	215	0.49	12.50	1.33	33.90	2.68	68	1-1/2-11.5NPT	11.9	5.40
2*1-1/2	50*40	1.50	38	7.76	197	10.24	260	5.31	135	10.43	265	0.49	12.50	1.92	48.80	3.66	93	2-11.5NPT	28.7	13.0

Cv - Full Bore Ball Valves

BORE Size (inches)	ANSI Class					
	150	300	600	900	1500	2500
0.5	17	15	14	12	12	11
0.75	43	38	34	31	31	28
1	86	76	66	64	61	56
1.25	156	139	122	111	111	99
1.5	227	211	187	167	167	148
2	423	384	330	294	294	
3	1139	965	860	832		
4	2416	2093	1759			
6	5241	5183				
8	10471	9991				
10	17709	17154				
12	26241	25460				

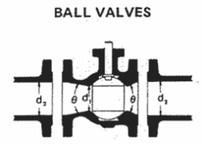
Cv - Reduced Bore Ball Valves

BORE Size (inches) API 6D(E24-2014)	ANSI Class					
	150	300	600	900	1500	2500
3/4*1/2	14	14	14	14	14	14
1*3/4	35	35	35	35	35	35
1-1/2*1	50	50	50	50	50	50
2*1-1/2	133	133	133	133	133	238
3*2	150	155	155	155	194	
4*3	403	526	458	458		
6*4	708	661	708			
8*6	1715	1913				
10*8	3657	3657				
12*10	6645	7145				

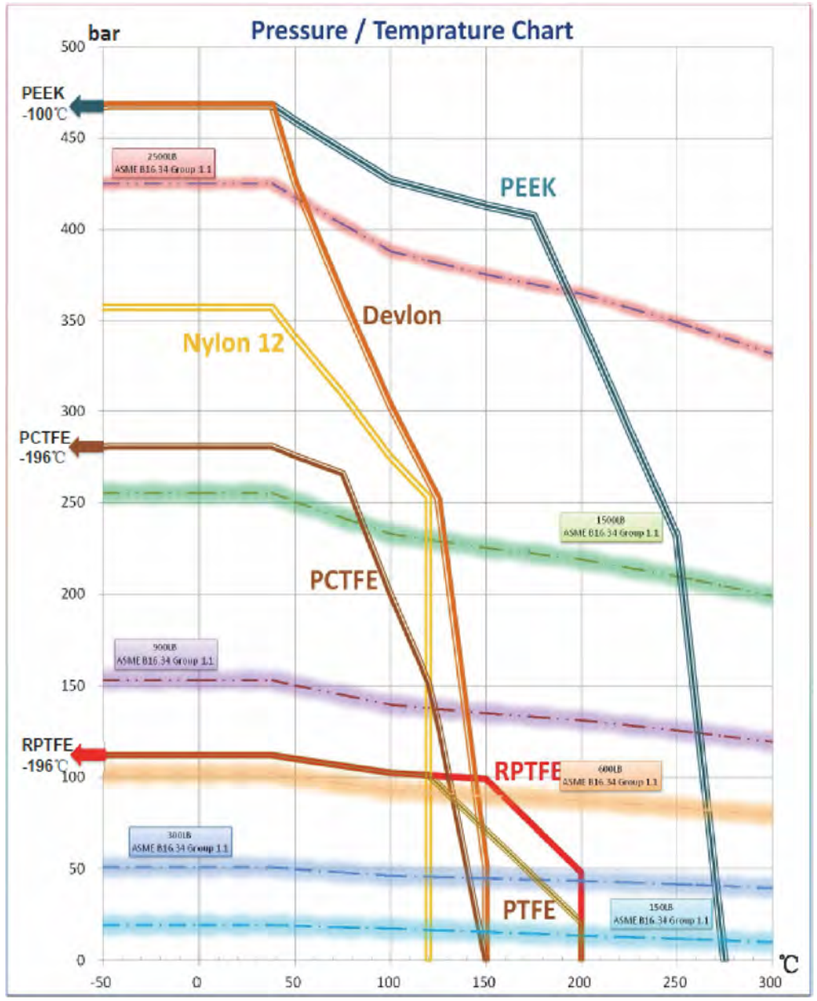
Cv =1.156Kv

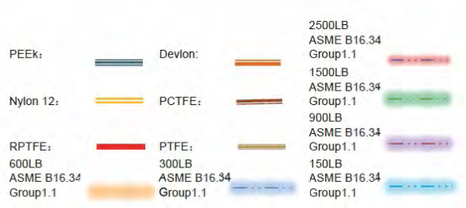
$$Kv = \frac{0.04d^2}{\sqrt{K}}$$

d: dimension of bore -mm
K: resistance coefficient



Pressure Temperature Chart





Note: Other materials are available upon request.
If the operating condition is beyond the range above, please contact NEWAY's technical team.
NEWAY reserves the right to update without notice.

Operating Torque

Size	Class 150		Class 300		Class 400		Class 600	
	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs
1/2	5	3.69	6	4.43	11	8.12	16	11.81
3/4	8	5.90	10	7.38	14	10.33	20	14.76
1	15	11.07	17	12.55	29	21.40	42	31.00
1-1/4	30	22.14	45	33.21	50	36.90	72	53.14
1-1/2	35	25.83	45	33.21	62	45.76	90	66.42
2	40	29.52	55	40.59	90	66.42	130	95.94
2-1/2	70	51.67	90	66.42	104	76.75	150	110.70
3	90	66.42	120	88.56	138	101.84	200	147.60
4	180	132.84	230	169.74	265	188.19	370	273.06
6	480	354.27	930	686.34				
8	900	664.26	1930	1424.34				
10	1800	1328.51	4000	2952.25				

Size	Class 800		Class 900		Class 1500		Class 2500	
	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs
1/2	19	14.02	25	18.45	32	23.62	56	41.33
3/4	33	24.35	40	29.52	60	44.28	95	70.12
1	65	47.97	80	59.05	140	103.33	175	129.16
1-1/4	100	73.81	115	84.88	155	114.40		
1-1/2	130	95.94	140	103.32	171	126.21		
2	187	138.01	336	247.99	420	309.96		
3			431	318.08				

Note:

1. Torque is calculated based on ambient temperature,with RPTFE seat for Class 150~Class 800, NYLON for Class 900~1500, PEEK for Class 2500, NYLON (4" in size) for Class600.
2. Torque shown in this table is the reference for actuator selection. A safety factor of 1.3~1.5 is recommended for identifying actuator sizeing.
3. For cryogenic service, torque shall be increased about 2~2.5 times.
4. Torque may vary with fluids and trim materials. Contact NEWAY Ball Valve Engineering Department for specific requirements.

NEWAY Factory

NEWAY Head Office **Founded in 2014**

Total area: 2,295sqm
Office area: 6,885sqm

NEWAY Manufacturing Base **Founded in 2006**
Expanded in 2013

Main products: Ball Valve, Butterfly Valve, Gate Valve, Globe Valve, Check Valve, Control Valve
Building area: 230,000 sqm
Work shop: 140,061 sqm

NEWAY Foundry (Suzhou) **Founded in 2008**
Expanded in 2015

Main products: Sand Casting
Building area: 112,500 sqm
Work shop: 98,000 sqm

NEWAY Foundry (Dafeng) **Founded in 2008**

Main products: Lost wax investment casting
Building area: 40,000 sqm
Work shop: 20,000 sqm

Neway Precision Forging(Liyang).,LTD **Founded in 2017**

Main products: Hammer forging, annular forging
Office area: 3,000 sqm
Work shop: 30,000 sqm

Neway Butterfly Valve Plant **Founded in 2020**

Main products: Butterfly Valve
Building area: 30,000 sqm
Work shop: 19,000 sqm (first floor)
7,000 sqm (second floor)

Neway Overseas Subsidiaries

NEWAY America
Tel: +1-281-969-5500
E-mail: Sales: Neway.NA@newayvalve.com
Aftersales: Aftersales.NVI@newayvalve.com
Address : 9757 Stafford Centre Dr., Stafford, TX 77477, USA

NEWAY Netherlands
Tel: +31 (0) 181 457070
E-mail: Sales: Neway.NL@newayvalve.com
Aftersales: Aftersales.NL@newayvalve.com
Address: Curieweg 19(2nd Floor),3208 KJ Spijkenisse, The Netherlands

NEWAY Italy
Tel: +39(02)87264010
E-mail: Sales: Neway.IT@newayvalve.com
Aftersales: Aftersales.IT@newayvalve.com
Address: VIA VINCENZO FORCELLA, 3 20144 MILANO, Italy

NEWAY Singapore
Tel: +65-6684-7968
E-mail: Sales: Neway.SG@newayvalve.com
Aftersales: Aftersales.SG@newayvalve.com
Address: 100G Pasir Panjang Road,#08/21 Interlocal Centre, Singapore 118523

NEWAY Dubai
Tel: +971 4 4562947
E-mail:Sales: Neway.AE@newayvalve.com
Aftersales: Aftersales.AE@newayvalve.com
Address: RA08LC07, Jebel Ali Freezone, P.O. Box 214954 Dubai – U.A.E.

NEWAY Nigeria
Tel: +234 7061725358 / +86 18962121322
E-mail: Neway.NG@newayvalve.com
Address: Lekki Coastal Road, Tiye Town, Akodo, Ibeju-Lekki L.G.A; Lagos, Nigeria

Product Warranty

Seller will replace without charge or refund the purchase price of products provided by Seller which prove to be defective in material or workmanship, provided in each case that the product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair of replacement. The warranty stated in this paragraph is in lieu of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer's exclusive remedy and seller's exclusive liability.