Cat.no.:E-PS

Cat.no.:E-GGC

Cat.no.:E-TMBV

Cat.no.:E-FBV

Cat.no.:E-DOV

Cat.no.:E-TOV

Cat.no.:E-PLV

Cat.no.:E-FSV

Cat.no.:E-DAV

Cat.no.:E-CPS

Cat.no.:E-AV

Cat.no.:E-PV

NEWAY

NEWAY VALVE (SUZHOU) CO., LTD.

No.666 TaiShan Road, Suzhou New District,P.R. China
Post Code:215129
Tel: 86-512-666-51365
Fax: 86-512-666-51360
E-Mail: overseas.sales@neway.com.cn
http://www.newayvalve.com

Distributed by:

Cat.no.:E-CBV-2017

NEWAY

Cryogenic Ball Valve

Complete Solutions for Industrial Valves

NEWAY VALVE

Cat.no.:E-CBV-2017

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, Gate, Globe, Check, Butterfly, 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 Gas, Oil, Refining, Chemical, Coal Chemical, Offshore, FPSO, 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 newest assembly plant was expanded in 2013, and it now covers 35,000 square meters.

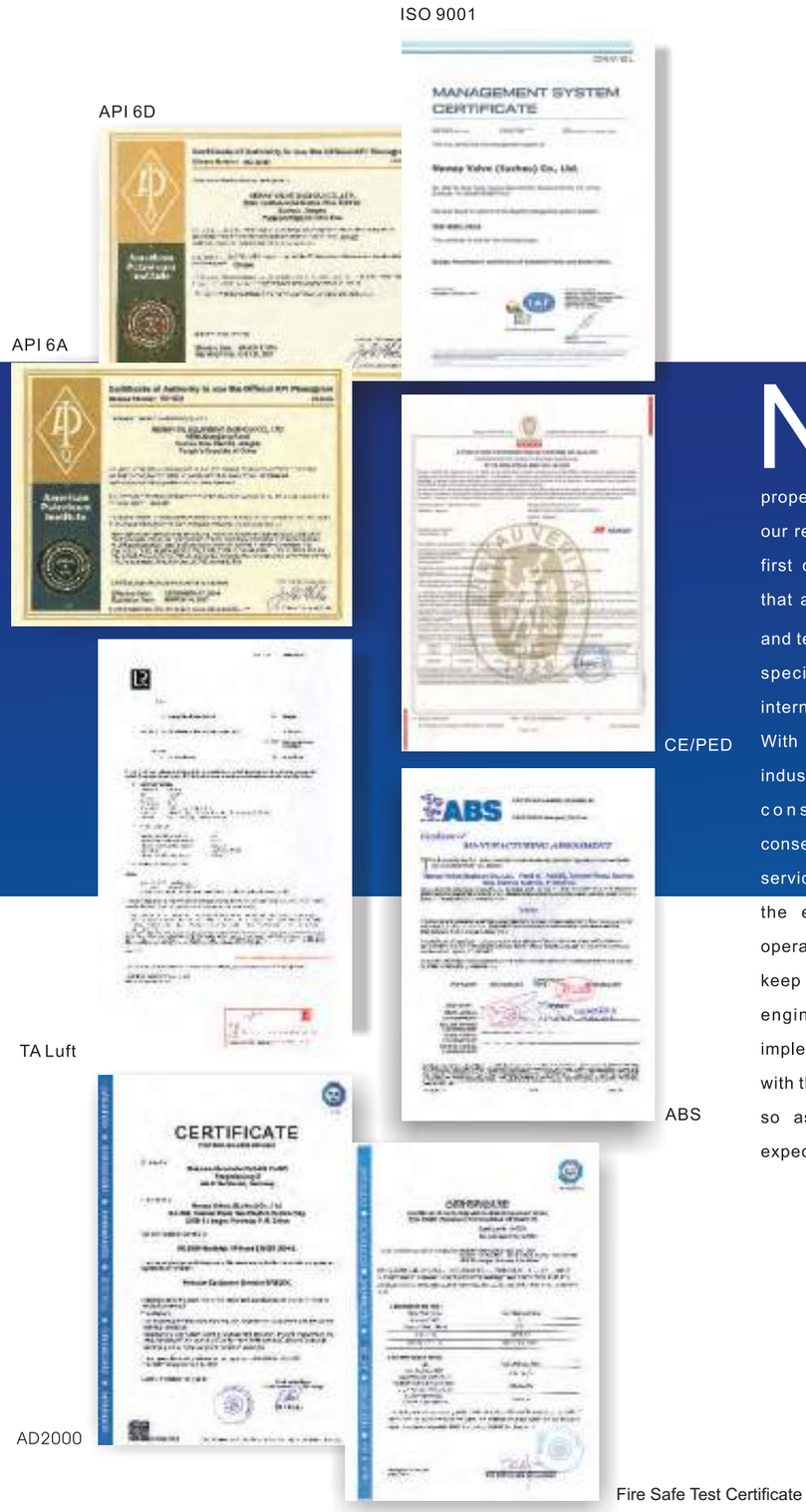
Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) is applied here at Neway for the Research & Development of products. We use SAP to control the traceability and status of all products during the manufacturing process. In order to ensure the safety, eco-friendliness, and reliability of 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 North America, Brazil, Netherlands, Italy, Singapore, and Dubai along with over 80 agents and distributors worldwide.

High Quality, High Value

Neway is dedicated to the pursuit of " Zero Defect ". According to the requirements of ISO9001 and API Q1, we maintain a quality management system that encompasses our entire operation from order entry, to final inspection. Through Neway's continuous efforts, our products have achieved industrial certificates including ISO 9001, API Q1, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals.

Quality Commitment



Neway recognizes the importance of valve quality for the safety and protection of personnel health 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.

How to order

Example:

8	BSG	6	R	-	G	,	S41	/	8LX66
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 Nominal Diameter

Cryogenic Floating Ball Valve Series

Item	Class	Caliber
1	Class 150、300	3/8"-8"
2	Class 600	3/8"-3"
3	Class 900、1500	3/8"-2"

Cryogenic TM Ball Valve Series

Item	Class	Caliber
1	Class 150、300、600	2"-24"
2	Class 900	2"-16"

② Valve Types

Cryogenic Floating Ball Valve Series

Code	Type	Remark
BBG	Cryogenic Forging 2PC Floating Ball Valve	Priority Recommendation: pound ≥Class 600 or caliber <2 "
BG	Cryogenic Casting 2PC Flaoating Ball Valve	
BDG	Cryogenic Top Entry Floating Ball Valve	

Cryogenic TM Ball Valve Series

Code	Type	Remark
BSG	Cryogenic Forging Side Entry TM Ball Valve	
BEG	Cryogenic Top Entry TM Ball Valve	

③ ASME Class

Code	1	3	6	9	15
Class (LB)	150	300	600	900	1500

④ End Connections

Symbol	End	Symbol	End
R	Raised face flanged end	S	Socket weld end
J	RTJ flanged end	N	Screwed end
B	Butt-weld end		

⑤ Operator

Symbol	Description	Symbol	Description
	Lever	M	Electric actuator
G	Gear operator	P	Pneumatic actuator

⑥ Body Materials

Code	S00	S01	S02	S03	S40
Material	CF8	CF8M	CF3	CF3M	F304
ASTM Ref	A351 Gr.CF8	A351 Gr.CF8M	A351 Gr.CF3	A351 Gr.CF3M	A182 Gr.F304

Code	S41	S42	S43	L02	L40
Material	F316	F304L	F316L	LC3	LF3
ASTM Ref	A182 Gr.F316	A182 Gr.F304L	A182 Gr.F316L	A352 Gr.LC3	A350 Gr.LF3

⑦ Trim Codes

Cryogenic Floating Ball Valve Series

Seat		O-ring		Stem		Ball		Packing	
Code	Material	Code	Material	Code	Material	Code	Material	Code	Material
8	PCTFE	N	No O-rings	2	F304	2	F304	T	Low emission stuffing (GRAPHITE)
1	PTFE			6	F316	6	F316		
3	PEEK			7	F304L	7	F304L		
				8	F316L	8	F316L		
				X	XM-19	X	XM-19		

Cryogenic TM Ball Valve Series

Seat		Elastic sealing ring		Stem		Ball		Fixator	
Code	Material	Code	Material	Code	Material	Code	Material	Code	Material
8	PCTFE	L	Spring seal structure	2	F304	2	F304	2	F304
3	PEEK			6	F316	6	F316	6	F316
				7	F304L	7	F304L	7	F304L
				8	F316L	8	F316L	8	F316L
				X	XM-19	X	XM-19		

Note: Other materials upon request.

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 has 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 ultrasonic testing, 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 and hydrostatic test.








Design Features

Cryogenic ball valve is one of the important flow control equipment in cryogenic pipeline systems, especially suitable for services requiring valves featuring high sealing performance, swift on-off and low flow-resistance. Neway leverages most advanced design principle and most stringent manufacturing standard to design and manufacture cryogenic ball valve which helps Neway cryogenic ball valve build up an reputation for reliable sealing performance, low operation torque, high stability in cryogenic service and long lifespan. Presently, Neway cryogenic ball valves have been installed in several LNG liquefaction plants and terminals.

Neway Cryogenic Floating Ball Valve Series Mainly Including:

BBG Series: Cryogenic Forging 2PC Floating Ball Valve

BG Series: Cryogenic Casting 2PC Floating Ball Valve

BDG Series: Cryogenic Top Entry Floating Ball Valve

Neway Cryogenic TM Ball Valve Series Mainly Including:

BSG Series: Cryogenic Forging Side Entry TM Ball Valve

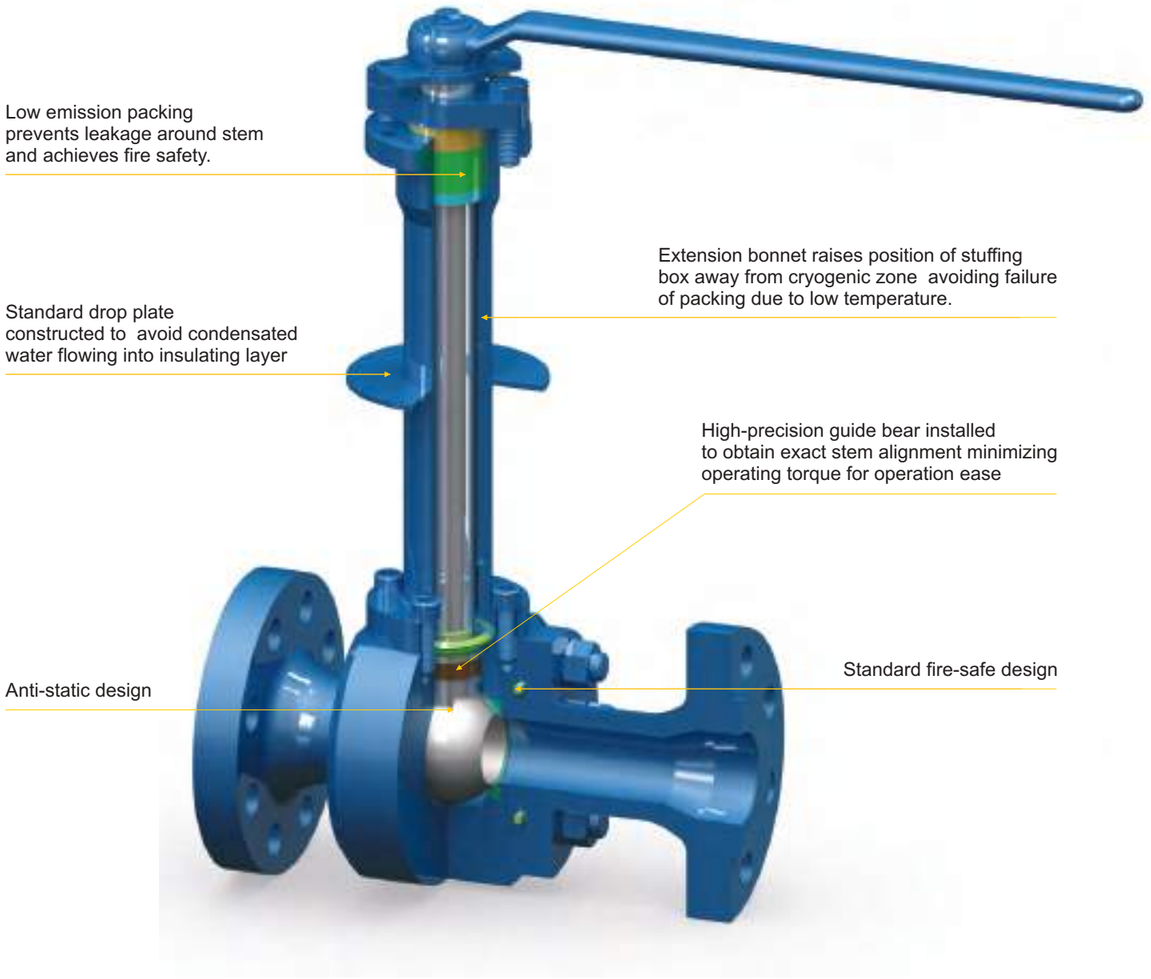
BEG Series: Cryogenic Top Entry TM Ball Valve

Application:

- LNG
- Air Seperation
- Ethene
- LPG

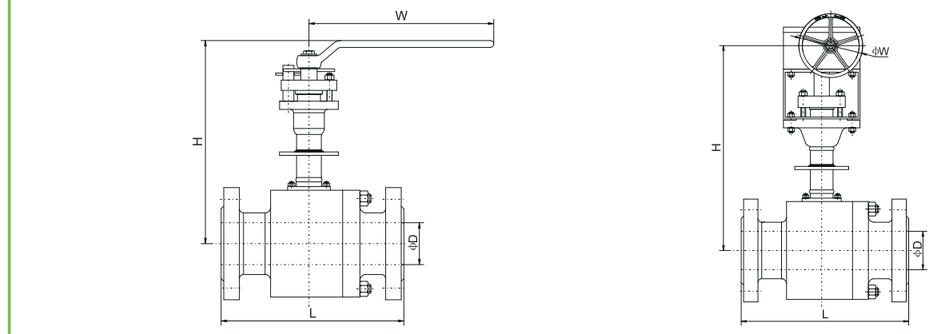

All Neway cryogenic ball valves are designed per ISO 17292, API6D, BS6364 and SHELL SPE 77/200, with ambient temperature test in conformity with API598 and API6D, cryogenic test per BS6364 and ISO15848, and safe test based on API607 and API6FA. The high flexibility of body and trim material selection enables conformance to low temperature and cryogenic service. For details please refer to How to Order on page 2. For special applications, New can accordingly offer customized design and material.

Design Features



Dimensions and Weights

BBG/BG series Cryogenic Ball Valve



Class 150

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/8	10	0.39	10	5.12	130	12.83	326	6.50	165	6.61	3
1/2	15	0.51	13	4.25	108	12.83	326	6.50	165	8.80	4
3/4	20	0.75	19	4.61	117	13.23	336	8.46	215	11.02	5
1	25	1.00	25	5.00	127	13.50	343	8.46	215	15.43	7
1-1/2	40	1.50	38	6.50	165	16.38	416	13.78	350	35.27	16
2	50	2.01	51	7.01	178	17.00	432	16.93	430	48.50	22
3	80	2.99	76	7.99	203	20.00	508	32.09	815 (T)	94.80	43
4	100	4.02	102	9.02	229	23.70	602	32.09	815 (T)	136.69	62
6	150	5.98	152	15.51	394	29.09	739	19.69	500 (G)	396.83	180
8	200	7.99	203	17.99	457	30.83	783	23.62	600 (G)	637.13	289

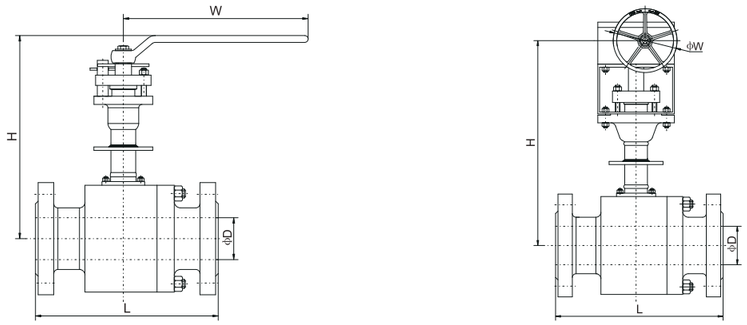
Remark: For W, (T) means valve is T-level operated and (G) means valve is gear-operated, valves without special marks is lever-actuated.

Class 300

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/8	10	0.39	10	5.12	130	12.91	328	6.50	165	7.72	3.5
1/2	15	0.51	13	5.51	140	12.91	328	6.50	165	11.02	5
3/4	20	0.75	19	5.98	152	13.39	340	8.46	215	13.23	6
1	25	1.00	25	6.50	165	13.66	347	8.46	215	17.63	8
1-1/2	40	1.50	38	7.48	191	16.54	420	13.78	350	39.68	18
2	50	2.01	51	8.50	216	17.28	439	16.93	430	52.91	24
3	80	2.99	76	11.14	283	20.31	516	32.09	815 (T)	112.43	51
4	100	4.02	102	12.01	305	24.21	615	32.09	815 (T)	174.16	79
6	150	5.98	152	15.87	403	31.06	789	23.62	600 (G)	467.38	212
8	200	7.99	203	19.76	502	33.19	843	27.56	700 (G)	850.98	386

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 previouly sold.

Dimensions and Weights

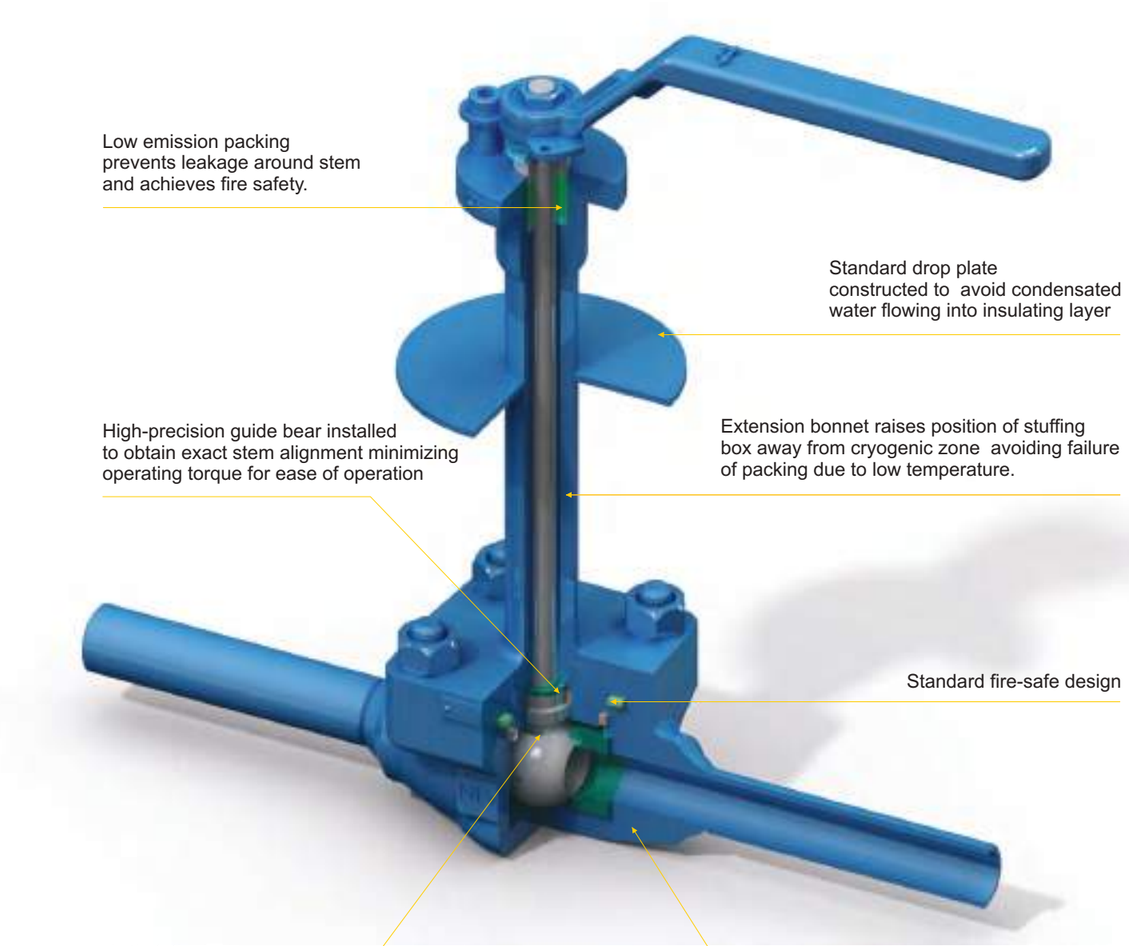


Class 600

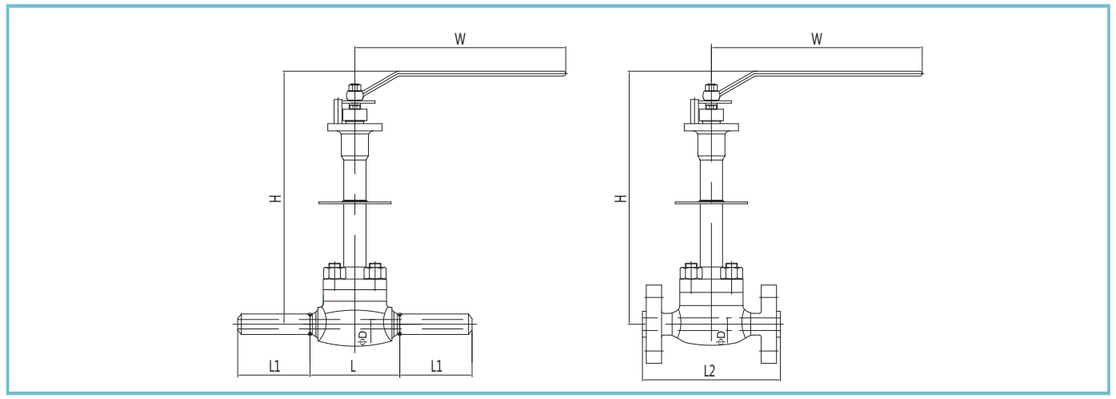
Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/8	10	0.39	10	5.12	130	13.27	337	8.46	215	15.43	7
1/2	15	0.51	13	6.50	165	13.27	337	8.46	215	17.64	8
3/4	20	0.75	19	7.52	191	13.66	347	8.46	215	19.84	9
1	25	1.00	25	8.50	216	14.21	361	13.78	350	33.07	15
1-1/2	40	1.50	38	9.49	241	16.65	423	32.09	815 (T)	59.52	27
2	50	2.01	51	11.50	292	20.00	510	11.81	300 (G)	114.64	52
3	80	2.99	76	14.02	356	25.67	652	15.75	400 (G)	180.78	82

Class 900/1500

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/8	10	0.39	10	5.12	130	13.94	354	8.46	215	22.05	10
1/2	15	0.51	13	8.50	216	13.94	354	8.46	215	33.07	15
3/4	20	0.75	19	9.02	229	14.53	369	5.91	150 (G)	48.50	22
1	25	1.00	25	10.00	254	15.75	400	7.99	203 (G)	72.75	33
1-1/2	40	1.50	38	12.01	305	18.98	482	11.81	300 (G)	138.89	63
2	50	2.01	51	14.49	368	22.80	579	15.75	400 (G)	211.64	96



Dimensions and Weights



Class 150/300/600

Size		D		L		L1		L2		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2	15	0.51	13	5.51	140	3.94	100	4.25/5.51/6.50	108/140/165	12.99	330	473.99	215	18.74	8.5
3/4	20	0.79	20	5.51	140	3.94	100	4.61/5.98/7.52	117/152/191	12.99	330	473.99	215	18.74	8.5
1	25	0.98	25	5.98	152	3.94	100	5.00/6.50/8.50	127/165/216	13.78	350	771.62	350	26.46	12.0
1-1/2	40	1.50	38	6.34	161	3.94	100	6.50/7.52/9.49	165/191/241	15.75	430	771.62	350	61.73	28.0

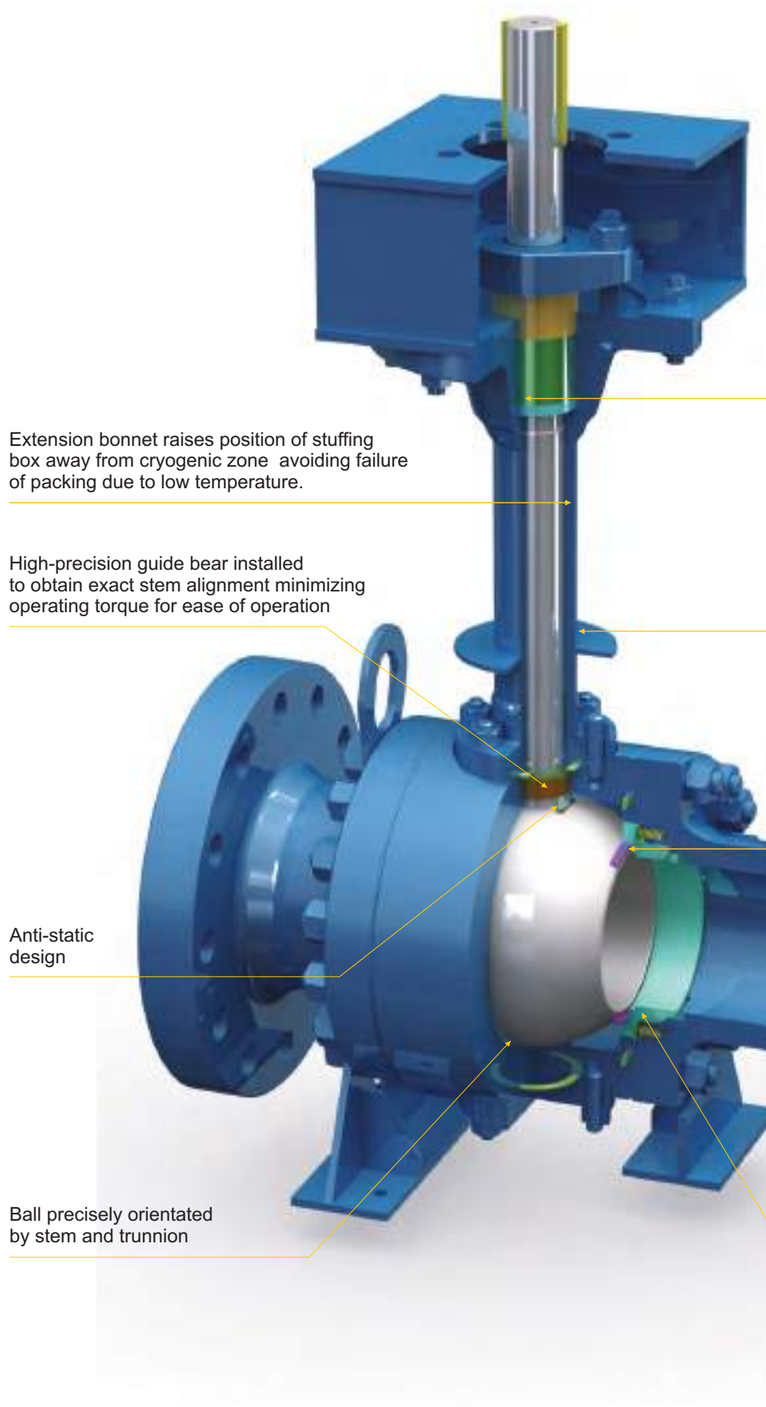
Note: L2 separately the structure listed fo Class150、Class300、Class600.

Class 900/1500

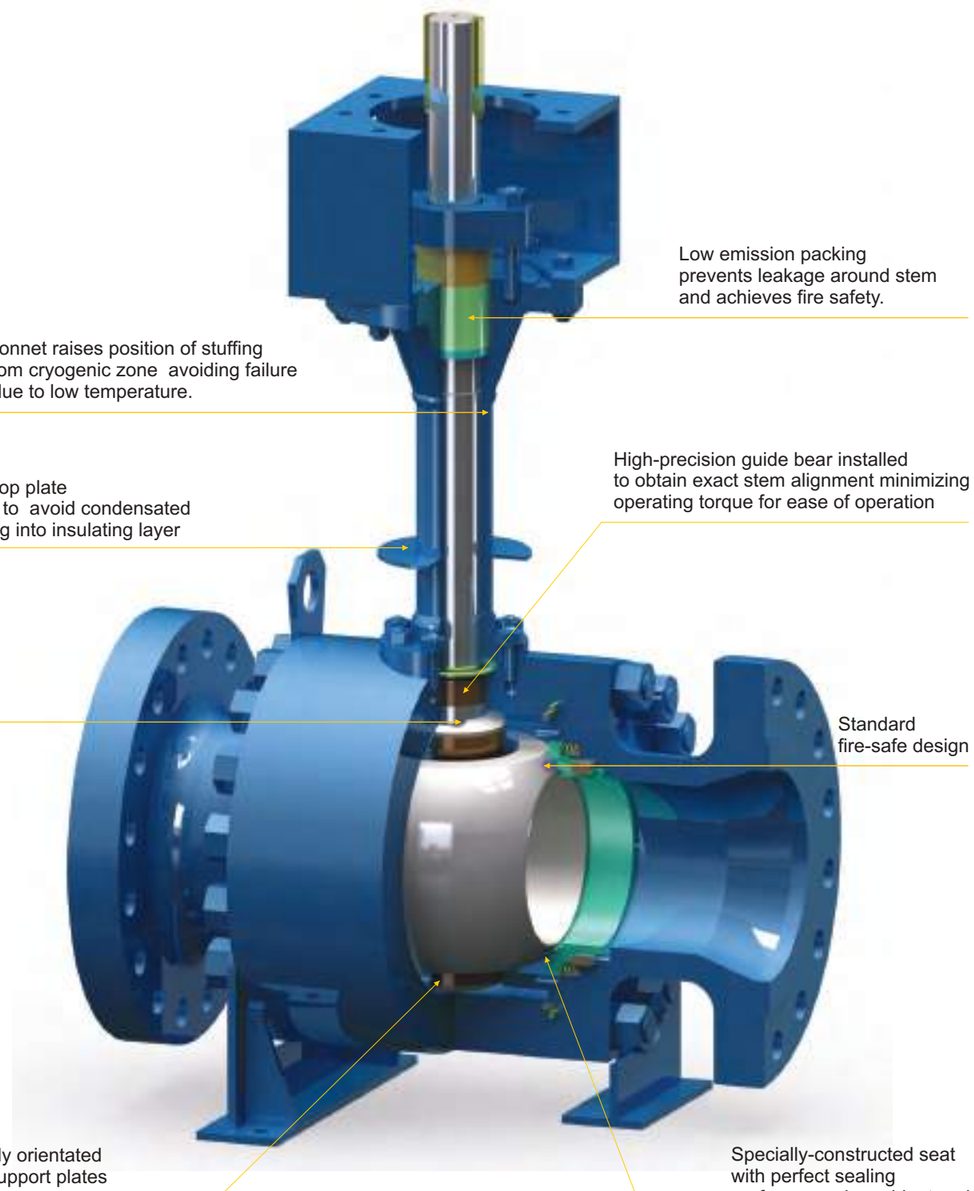
Size		D		L		L1		L2		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2	15	0.51	13	5.87	149	3.94	100	8.50	216	17.13	435	13.78	350	37.48	17
3/4	20	0.79	20	5.87	149	3.94	100	9.02	229	17.13	435	13.78	350	37.48	17
1	25	0.98	25	7.87	200	3.94	100	10.00	254	19.90	480	31.50	800	61.73	28
1-1/2	40	1.50	38	9.06	230	3.94	100	12.01	305	20.08	510	15.75	400*	101.41	46

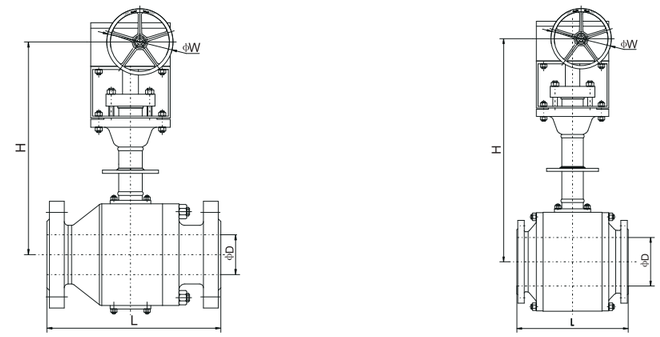
Note: * represents this valve is driven by gearcase the listed value is the handwheel diameter of gearcase.

Design Features



Design Features





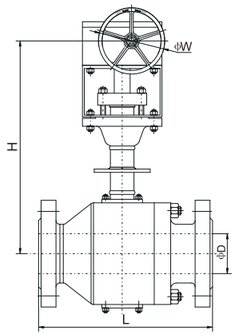
Class 150

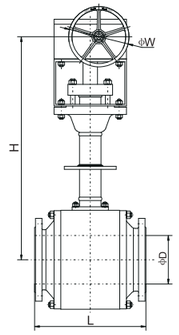
Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	**50**	1.93	49	7.01	178	18.58	472	11.81	300	99.21	45
3	**80**	2.91	74	7.99	203	23.27	591	11.81	300	231.49	105
4	**100**	3.94	100	9.02	229	26.34	669	19.69	500	286.60	130
6	**150**	5.91	150	15.51	394	33.35	847	23.62	600	573.20	260
8	**200**	7.91	201	17.99	457	37.32	948	23.62	600	877.44	398
10	**250**	9.92	252	20.98	533	40.71	1034	23.62	600	1256.63	570
12	**300**	11.93	303	24.02	610	42.05	1068	23.62	600	2034.86	923
14	**350**	13.15	334	27.01	686	45.43	1154	27.56	700	3042.38	1380
16	**400**	15.16	385	30.00	762	46.69	1186	29.92	760	4265.94	1935
18	**450**	17.17	436	34.02	864	71.26	1810	31.50	800	5059.60	2295
20	**500**	19.17	487	35.98	914	79.53	2020	35.43	900	7870.49	3570
22	**550**	21.18	538	39.02	991	85.43	2170	35.43	900	11111.28	5040
24	**600**	23.19	589	42.01	1067	97.24	2470	35.43	900	13756.83	6240

Class 300

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	**50**	1.93	49	8.50	216	18.58	472	11.81	300	110.23	50
3	**80**	2.91	74	11.14	283	23.27	591	11.81	300	244.71	111
4	**100**	3.94	100	12.01	305	26.34	669	19.69	500	317.47	144
6	**150**	5.91	150	15.87	403	33.35	847	23.62	600	630.52	286
8	**200**	7.91	201	19.76	502	37.32	948	23.62	600	1585.12	719
10	**250**	9.92	252	22.36	568	40.71	1034	23.62	600	1351.43	613
12	**300**	11.93	303	25.51	648	42.05	1068	27.56	700	2416.26	1096
14	**350**	13.15	334	30.00	762	45.53	1154	29.92	760	3053.40	1385
16	**400**	15.16	385	32.99	838	46.69	1186	29.92	760	4276.96	1940
18	**450**	17.17	436	35.98	914	71.26	1810	31.50	800	5070.63	2300
20	**500**	19.17	487	39.02	991	79.53	2020	35.43	900	7881.52	3575
22	**550**	21.18	538	42.99	1092	85.43	2170	35.43	900	11122.31	5045
24	**600**	23.19	589	45.00	1143	97.24	2470	35.43	900	13767.85	6245

Dimensions and Weights



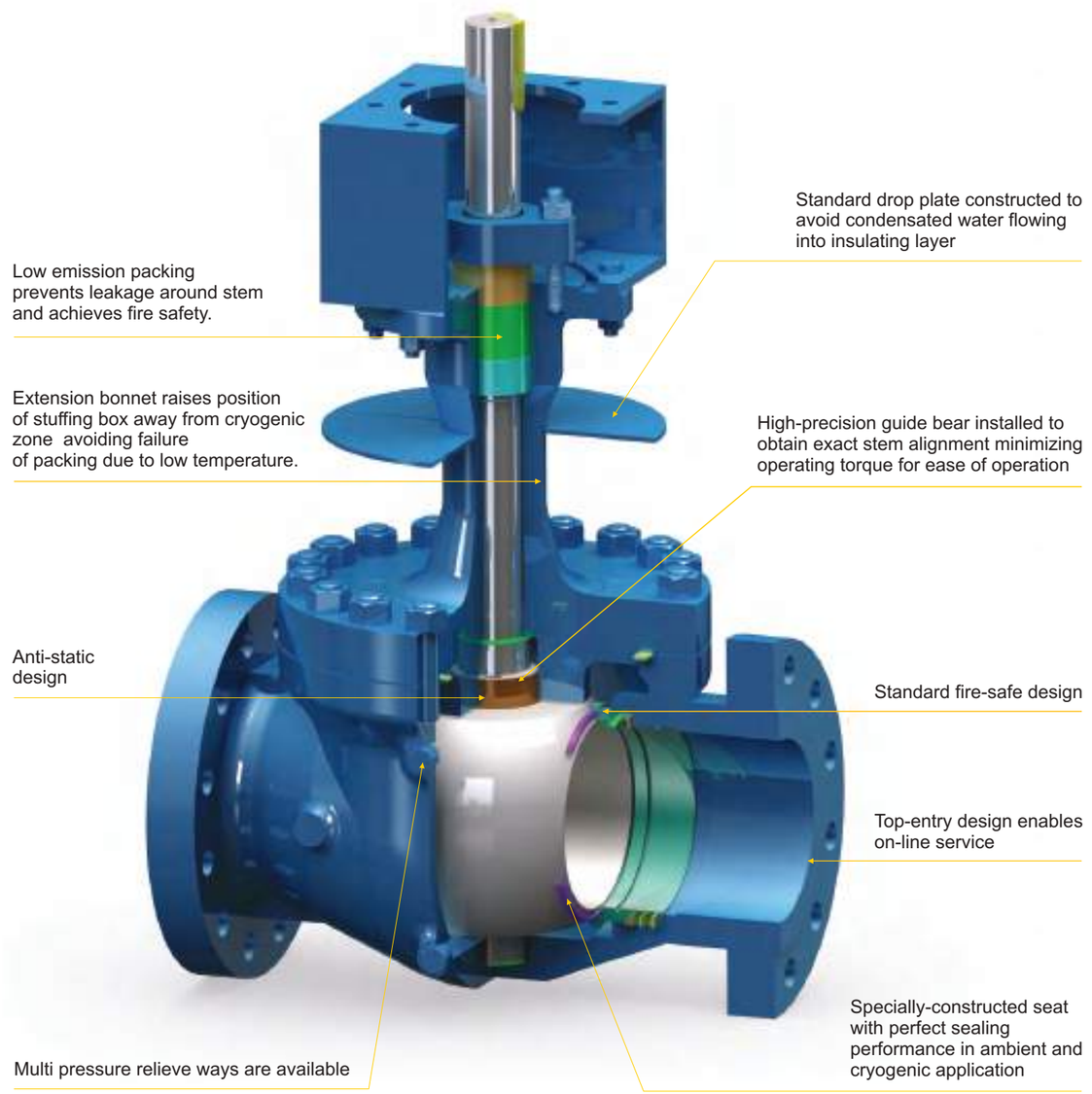


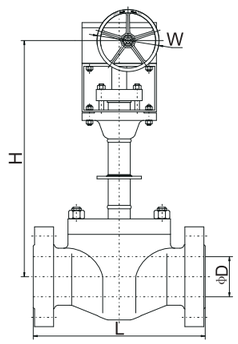
Class 600

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	**50**	1.93	49	11.50	292	18.58	472	11.81	300	132.28	60
3	**80**	2.91	74	14.02	356	23.27	591	19.69	500	255.74	116
4	**100**	3.94	100	17.01	432	26.34	669	19.69	500	432.11	196
6	**150**	5.91	150	22.01	559	33.58	853	23.62	600	791.46	359
8	**200**	7.91	201	25.98	660	38.46	977	23.62	600	1585.12	719
10	**250**	9.92	252	30.98	787	41.18	1046	29.92	760	2175.96	987
12	**300**	11.93	303	32.99	838	43.62	1108	29.92	760	3020.33	1370
14	**350**	13.15	334	35.00	889	46.61	1184	29.92	760	3690.53	1674
16	**400**	15.16	385	39.02	991	48.27	1226	29.92	760	4299.01	1950
18	**450**	17.17	436	42.99	1092	72.44	1840	31.50	800	5092.67	2310
20	**500**	19.17	487	47.01	1194	80.71	2050	35.43	900	7903.56	3585
22	**550**	21.18	538	50.98	1295	86.61	2200	35.43	900	11144.35	5055
24	**600**	23.19	589	55.00	1397	98.43	2500	35.43	900	13789.90	6255

Class 900

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	**50**	1.93	49	14.49	368	19.69	500	19.69	500	165.35	75
3	**80**	2.91	74	15.00	381	24.80	630	19.69	500	277.78	126
4	**100**	3.94	100	17.99	457	27.05	687	23.62	600	618.40	280.5
6	**150**	5.91	150	24.02	610	35.04	890	23.62	600	1455.05	660
8	**200**	7.91	201	29.02	737	42.68	1084	29.92	760	1719.60	780
10	**250**	9.92	252	32.99	838	45.04	1144	29.92	760	2711.68	1230
12	**300**	11.93	303	37.99	965	51.18	1300	31.50	800	3721.40	1688
14	**350**	12.68	322	40.51	1029	61.02	1550	31.50	800	5324.16	2415
16	**400**	14.69	373	44.49	1130	70.87	1800	31.50	800	6646.93	3015





Class 150

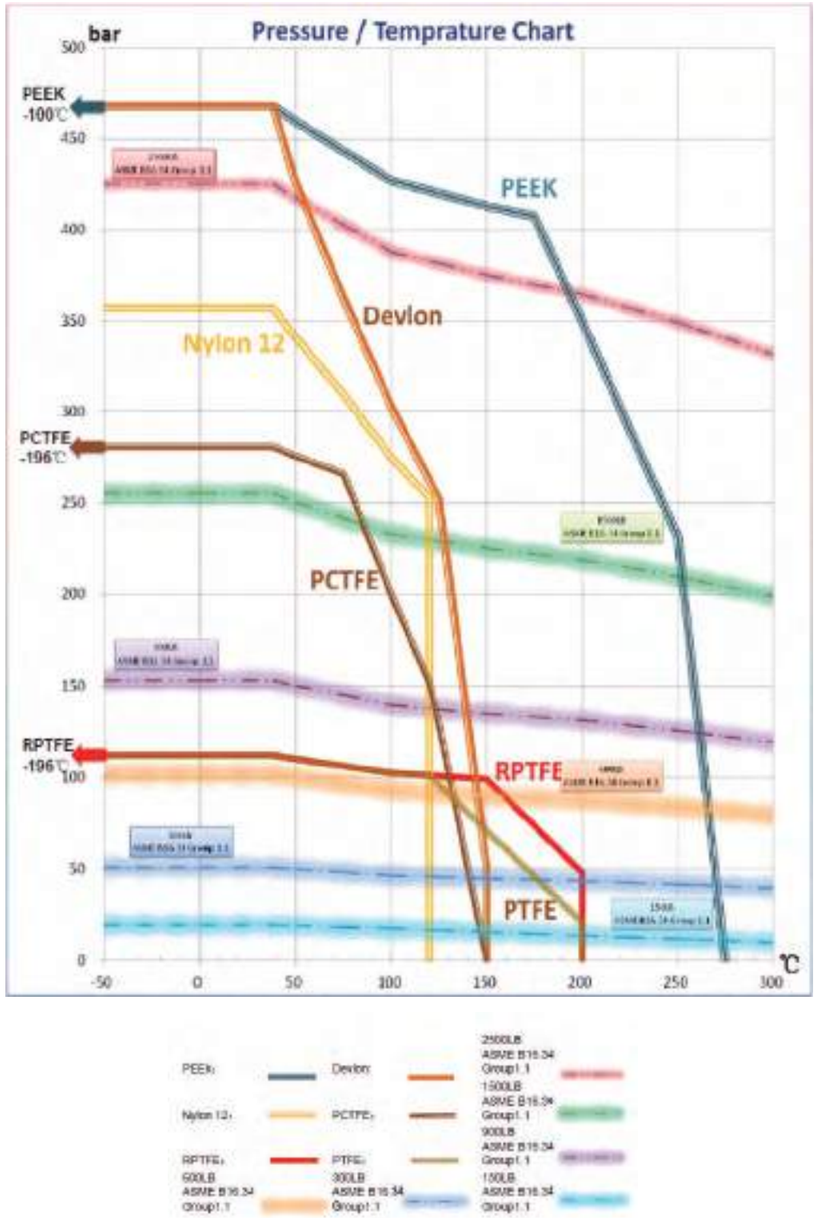
Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.93	49	11.50	292	17.87	454	11.81	300	108.03	49
3	80	2.91	74	14.02	356	22.83	580	11.81	300	209.44	95
4	100	3.94	100	17.01	432	25.59	650	19.69	500	352.74	160
6	150	5.91	150	22.01	559	31.38	797	23.62	600	643.75	292
8	200	7.91	201	25.98	660	39.53	1004	23.62	600	1287.50	584
10	250	9.92	252	30.98	787	49.80	1265	23.62	600	1765.90	801
12	300	11.93	303	32.99	838	43.31	1100	23.62	600	2270.76	1030
14	350	13.15	334	35.00	889	46.85	1190	27.56	700	3384.09	1535
16	400	15.16	385	39.02	991	48.43	1230	29.92	760	4739.93	2150
18	450	17.17	436	42.99	1092	73.62	1870	31.50	800	5621.78	2550
20	500	19.17	487	47.01	1194	82.68	2100	35.43	900	8752.34	3970
22	550	21.18	538	50.98	1295	88.19	2240	35.43	900	12345.87	5600
24	600	23.19	589	55.00	1397	100.39	2550	35.43	900	15300.06	6940

Class 300

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.93	49	11.50	292	17.87	454	11.81	300	114.64	52
3	80	2.91	74	14.02	356	22.83	580	11.81	300	216.05	98
4	100	3.94	100	17.01	432	25.59	650	19.69	500	371.48	168.5
6	150	5.91	150	22.01	559	31.38	797	23.62	600	679.02	308
8	200	7.91	201	25.98	660	39.53	1004	23.62	600	1358.05	616
10	250	9.92	252	30.98	787	49.80	1265	23.62	600	1862.90	845
12	300	11.93	303	32.99	838	43.31	1100	27.56	700	2689.64	1220
14	350	13.15	334	35.00	889	46.85	1190	29.92	760	3395.11	1540
16	400	15.16	385	39.02	991	48.43	1230	29.92	800	4761.98	2160
18	450	17.17	436	42.99	1092	73.62	1870	31.50	900	5643.83	2560
20	500	19.17	487	47.01	1194	82.68	2100	35.43	900	8774.39	3980
22	550	21.18	538	50.98	1295	88.19	2240	35.43	900	12367.92	5610
24	600	23.19	589	55.00	1397	100.39	2550	35.43	900	15300.06	6940

Class 600

Size		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.93	49	11.50	292	17.87	454	11.81	300	119.05	54
3	80	2.91	74	14.02	356	22.83	580	19.69	500	231.49	105
4	100	3.94	100	17.01	432	25.59	650	19.69	500	390.22	177
6	150	5.91	150	22.01	559	31.54	801	23.62	600	714.30	324
8	200	7.91	201	25.98	660	40.71	1034	23.62	600	1428.59	648
10	250	9.92	252	30.98	787	52.56	1335	29.92	760	1959.91	889
12	300	11.93	303	32.99	838	45.28	1150	29.92	760	3362.05	1525
14	350	13.15	334	35.00	889	48.03	1220	29.92	760	4100.59	1860
16	400	15.16	385	39.02	991	49.80	1265	29.92	760	4784.03	2170
18	450	17.17	436	42.99	1092	74.80	1900	31.50	800	5665.87	2570
20	500	19.17	487	47.01	1194	83.46	2120	35.43	900	8787.41	3985
22	550	21.18	538	50.98	1295	89.37	2270	35.43	900	12389.96	5620
24	600	23.19	589	55.00	1397	101.57	2580	35.43	900	15322.11	6950



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.

Seat

Properties		PCTFE	PTFE	PEEK
Temperature Range °F		-328~302	-328~392	-148~500
Temperature Range °C		-200~150	-200~200	-100~260
Pressure rating--LB		150~1500	150~600	150~2500
Mechanical Property	Hardness (D)	75~85	55~60	≥82
	Tensile Strength(MPa)	31.4~37.2	28~40	≥95
	Tensile Elongation(Break,%)	50~200	>350	≥55
Physical Property	Specific Gravity (g/cm3)	2.11~2.16	2.16~2.18	1.3~1.4
	Water Absorption 24hrs(%)	0.00	0.00	0.2
	Water Absorption saturation	<0.01	<0.01	0.5
Service Application		cryogenic &low temperature	Chemical &low temperature	High pressure& temperature

Seal ring

Type	Spring seal structure
Temperature Range °F	-425~600
Temperature Range °C	-254~316
Pressure rating--LB	150~1500
Size--inch	1/2"~78"

Ball Valve Flow Coefficient (Cv value) Specification

Size (inch)	Class 150	Class 300	Class 600	Class 900	Class 1500
1/2	25	25	20	16	16
3/4	56	56	48	34	34
1	95	95	64	55	55
1-1/2	308	308	308	165	165
2	500	430	370	320	320
3	1360	1100	1020	920	820
4	2500	2000	1850	1760	1600
6	5300	5250	4400	4300	4150
8	10750	10100	8450	8475	8010
10	17500	16820	14250	14160	13220
12	26750	25950	22550	21200	18800
14	31850	30900	28500	26700	24180
16	44000	42600	38150	36600	33150
18	58000	55870	51150	49000	45703
20	75500	72500	68500	64600	60750
22	91770	86850	80150		
24	113400	109340	98860		

Notes:
1.All the sizes are of full port. 2.Pressure Ratings are according to B 16.34.
Method of Calculating Flow
The Flow Coefficient Cv of a value is the flow rate of water (gallons/minute) through a fully opened valve,
with a pressure drop of 1 psi across the valve. To find the flow of liquid through the valve from the Cv, use the following formulas:

Liquid Flow:

$QL = Cv\ (P/G)^{1/2}$

QL = Flow rate of liquid (gal. /min.)
P = differential pressure across the valve
G = specific gravity of liquid (for water, G=1)

Gas Flow:

$Qg = 61Cv\ (P_2P/g)^{1/2}$

(For non-critical flow, P/P<1.0)
Qg = Flow rate of gas (CFH at STP)
P_2 = outlet pressure (psia)
g = specific gravity of gas (for air, g=1.0)

Floating Ball Operating Torque

inch	Class 150		Class 300		Class 600		Class 900		Class 1500	
	N.m	lbf.ft	N.m	lbf.ft	N.m	lbf.ft	N.m	lbf.ft	N.m	lbf.ft
3/8	20	14.76	30	22.14	40	29.52	50	36.90	65	47.97
1/2	20	14.76	30	22.14	40	29.52	50	36.90	65	47.97
3/4	35	25.82	45	33.21	60	44.26	119	87.83	192	141.71
1	45	33.21	65	47.97	120	88.57	173	127.68	277	204.44
1-1/2	80	59.04	130	95.95	280	206.52	347	256.11	556	410.36
2	120	88.57	225	166.06	490	361.41	581	428.81	928	684.92
3	245	180.83	320	236.02	830	612.18				
4	450	331.91	705	519.99						
6	1350	995.71	2100	1548.88						
8	2240	1652.14	5100	3761.57						

Note:
The seat material is PCTFE
This torque is the max. operating torque in the cryogenic condition.

Trunnion-mounted Ball Valve

inch	Class 150		Class 300		Class 600		Class 900	
	N.m	lbf.ft	N.m	lbf.ft	N.m	lbf.ft	N.m	lbf.ft
2	162	119.57	219	161.64	308	227.32	420	309.99
3	604	445.79	732	540.26	1061	783.08	1355	999.79
4	686	506.31	904	667.21	1379	1017.79	1884	1390.22
6	1466	1082.00	1989	1468.01	3082	2274.71	4269	3150.76
8	2738	2020.81	4257	3141.93	7129	5261.64	10518	7763.28
10	3836	2831.21	6007	4433.54	10438	7703.89	15624	11531.61
12	5800	4280.76	9287	6854.38	15672	11566.91	23612	17426.86
14	6579	4855.71	11120	8207.25	21777	16072.77	32053	23657.44
16	9788	7224.15	15907	11740.35	28411	20969.08	42408	31299.98
18	13185	9731.48	19285	14233.52	33750	24909.59		
20	14481	10688.23	26600	19632.45	40000	29522.47		
22	17037	12574.39	32900	24282.23	43750	32290.21		
24	21000	15499.30	43050	31773.56	48750	35980.52		

Note:
The seat material is PCTFE
This torque is the max. operating torque in the cryogenic condition.

Neway Factory

NEWAY Head Office

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

Founded in 2014

Neway Manufacturing Base

Main products: Ball Valve, Gate Valve,
Globe Valve, Check Valve,
Forged Steel Valve, Butterfly Valve

Building area: 230,000 sqm
Work shop: 140,061 sqm

Established in 2006 and expanded in 2013

NEWAY Foundry (Suzhou)

Main products: Sand Casting
Building area: 112,500 sqm
Work shop: 98000 sqm

Founded in 2008 and expanded in 2015

NEWAY Foundry (Dafeng)

Main products: Lost wax investment casting
Building area: 46,000 sqm
Work shop: 12,000 sqm

Founded in 2004

NEWAY Foundry (Dafeng)

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

Founded in 2008

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.