



Cat.no.:E-PS



Cat.no.:E-GGC



Cat.no.:E-TMBV



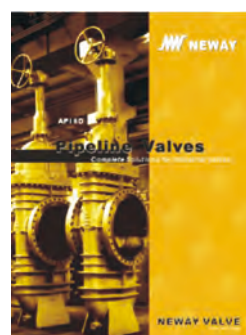
Cat.no.:E-FBV



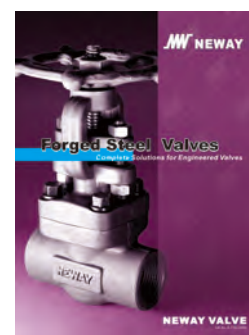
Cat.no.:E-DOV



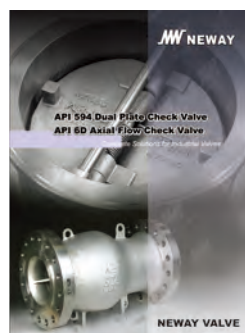
Cat.no.:E-TOV



Cat.no.:E-PLV



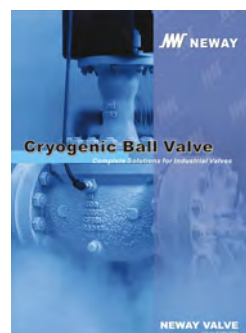
Cat.no.:E-FSV



Cat.no.:E-DAV



Cat.no.:E-CPS



Cat.no.:E-CBV

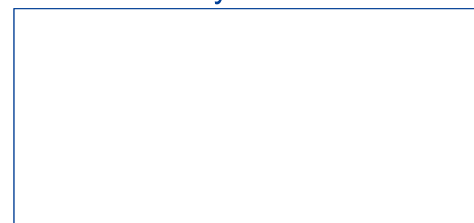


Cat.no.:E-PV

**NW 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: 86-512-666-18930-2102  
E-mail: overseas.sales@neway.com.cn  
<http://www.newayvalve.com>

Distributed by:



Cat.no.:E-FSV-2020

**NW NEWAY**

# Forged Steel Valves

*Complete Solutions for Engineered Valves*



**NEWAY VALVE**

Cat.no.:E-FSV-2020



# Table of Contents

## Introduction

- 1 Quality Commitment
- 2 How to Order
- 3~6 Forged Steel Gate Valve
- 7~11 Forged Steel Globe Valve
- 12 Forged Steel Check Valve
- 13~15 Forged Steel Lifting Check Valve
- 16~17 Forged Steel Swing Check Valve
- 18~19 Forged Steel Bellows Gate Valve
- 20~21 Forged Steel Bellows Globe Valve
- 22~23 Forged Steel Cryogenic Gate Valve
- 24~25 Forged Steel Cryogenic Globe Valve
- 26 Forged Steel Cryogenic Lifting Check Valve
- 27 Optional Design Feature
- 28 Neway Factory & Overseas Subsidiaries



## 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 and 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.

## Global 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 230,000 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 the pursuit of "Zero Defect". 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 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR and Fire-Safe approvals.

## Quality Commitment

API 6D



API 6A



TA Luft



API 591



ISO 9001



ABS

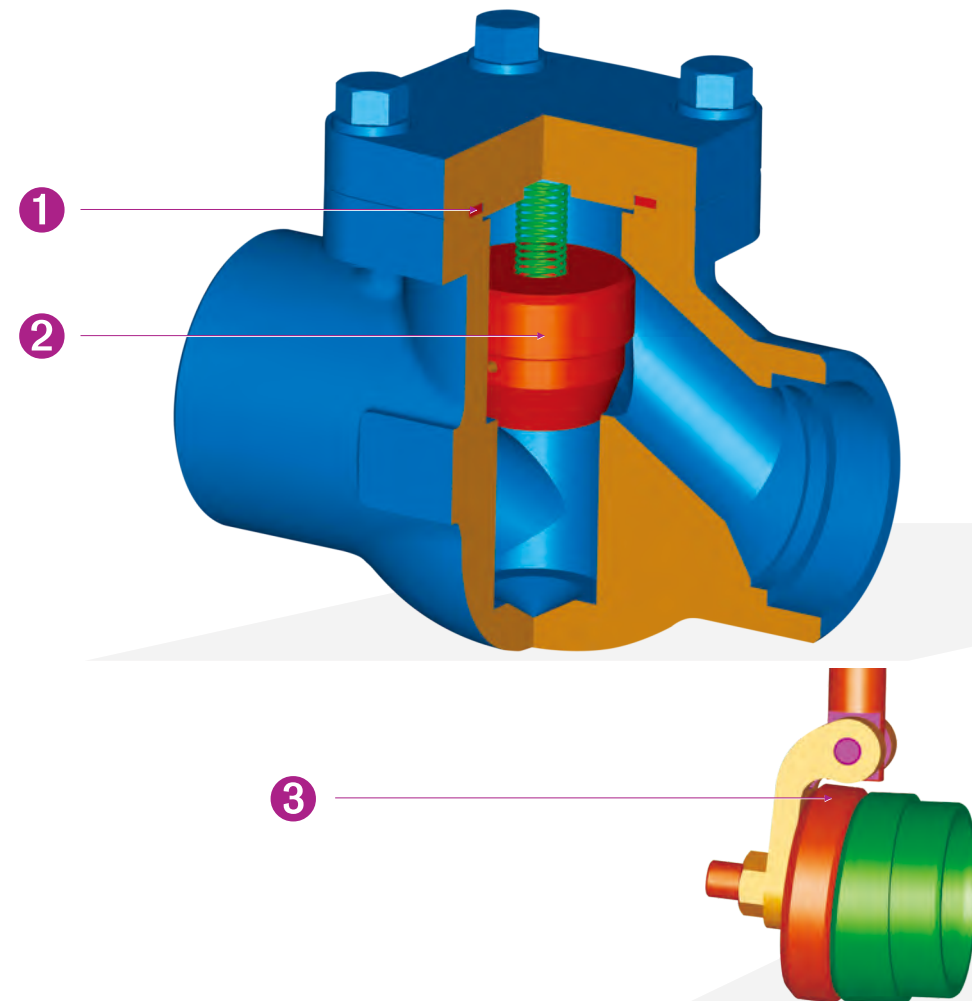


Fire Safe Test Certificate

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, designed, manufactured, inspected and tested in accordance with our customers CE/PED specifications and complying with all international standards. 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 environments in which they operate. Therefore we request that our customers communicate with our engineering department. Our valve optimization program continuously strives to provide valves that withstand deterioration in service, and ensure safety over the valves expected lifetime.

# Forged Steel Check Valve

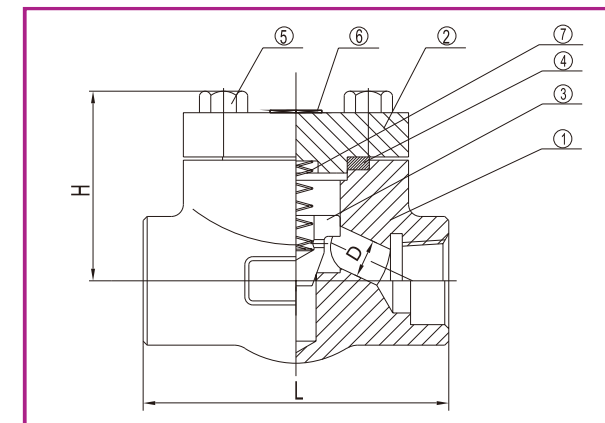
## Design Features



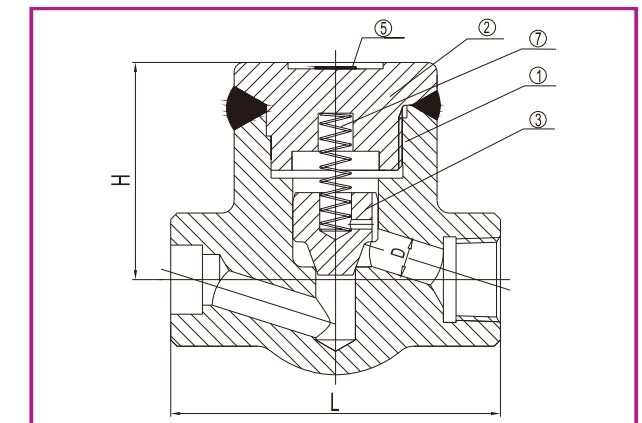
- ① Recessed Body-Bonnet Joint design captures the stainless steel spiral wound gasket ensuring body/bonnet sealing integrity.
- ② Body guided disc to ensure perfect alignment of disc and seat even under large flow conditions and high velocity.
- ③ Piston type are standard, swing disc style available are available upon request.

# Forged Steel Lifting Check Valve

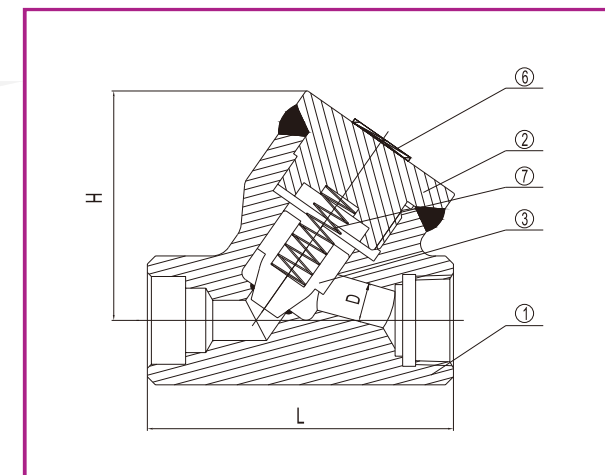
## G.A. Drawing of Piston Valve



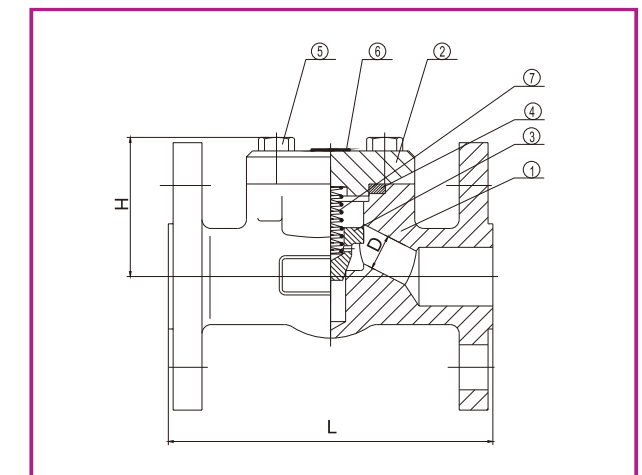
Bolted Cover



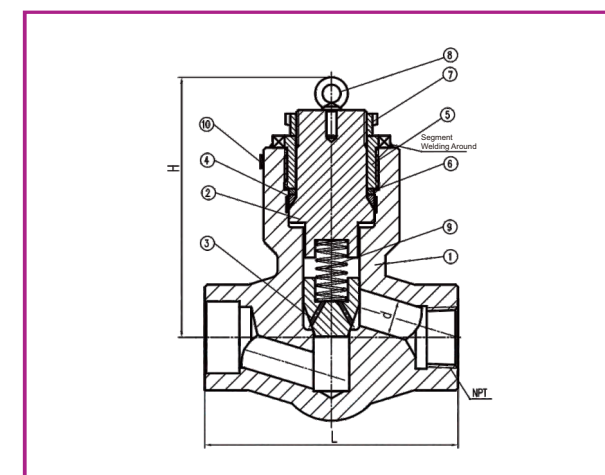
Welded Cover



Y Pattern Welded Cover



Integral Flanged Ends



Pressure Seal Bonnet Connection



Material List

NO.	Description of Parts	Material		
		Standard	High Temperature	Stainless Steel
1	BODY	ASTM A105/STL.OVERLAY	ASTM A182-F11/F22/STL OVERLAY	ASTM A182-F304/F316/STL OVERLAY
2	BONNET	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
3	DISC	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F304/F316
4	GASKET	304 SPIRAL WOUND GRAPHITE	304 SPIRAL WOUND GRAPHITE	304/316 SPIRAL WOUND GRAPHITE
5	STUD	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8
6	NAME PLATE	ASTM A276 304	ASTM A276 304	ASTM A276 304
7	SPRING	ASTM A276 316	ASTM A276-316	ASTM A276-316

Class 800 Bolted Cover or Welded Cover

Regular and Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size		3/8		1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size		1/4		3/8		1/2		3/4		1		1-1/4		1-1/2	
End to End	L		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
			76	2.99	76	2.99	86	3.39	102	4.02	140	5.51	140	5.51	170	6.69
Bore Diameter	D		6.5	0.26	9.5	0.37	12.7	0.50	17.5	0.69	23	0.91	28.6	1.13	36.5	1.44
Center to Top (Open)	H	Bolted Bonnet	48	1.89	48	1.89	53	2.09	64	2.52	80	3.15	80	3.15	100	3.94
		Welded Bonnet	49	1.93	49	1.93	58	2.28	70	2.76	96	3.78	90	3.54	125	4.92
Approx. Weight	Kg/Lb		1	2.20	1	2.20	1.5	3.31	2	4.41	4.5	9.92	6	13.23	7.5	16.53

Class 900-1500 Bolted Cover or Welded Cover

Regular and Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2		
Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2		
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
		90	3.54	104	4.09	120	4.72	150	5.91	150	5.91	180	7.09	
Bore Diameter	D	9	0.35	12	0.47	15	0.59	21	0.83	27	1.06	32	1.26	
Center to Top (Open)	H	Bolted Bonnet	56	2.20	62	2.44	72	2.83	92.5	3.64	92.5	3.64	111	4.37
		Welded Bonnet	61.5	2.42	68.5	2.70	72.5	2.85	83.5	3.29	83.5	3.29	100.5	3.96
Approx. Weight	Kg/Lb	1.5	3.31	2.5	5.51	4	8.82	6	13.23	8.5	18.74	14.5	31.97	

Class 900-1500 Pressure Seal Bonnet

Regular and Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		120	4.72	120	4.72	140	5.51	165	6.50	186	7.32	232	9.13
Bore Diameter	D	9	0.35	12	0.47	15	0.59	21	0.83	27	1.06	30	1.18
Center to Top (Open)	H	188	7.40	188	7.40	196	7.72	220	8.66	220	8.66	238	9.37
Approx. Weight	Kg/Lb	5	11.02	6.5	14.33	8	17.64	13.5	29.76	15	33.07	25	55.12

Class 2500 Welded Cover

Regular and Full Port - ASME B16.34. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		120	4.72	140	5.51	186	7.32	-	-	232	9.13	279	10.98
Bore Diameter	D	9	0.35	12	0.47	15	0.59	-	-	27	1.06	27	1.06
Center to Top (Open)	H	90	3.54	100	3.94	115	4.53	-	-	140	5.51	160	6.30
Approx. Weight	Kg/Lb	3.5	7.72	5.5	12.13	10.5	23.15	-	-	18.5	40.79	25	55.12

Class 2500 Pressure Seal Bonnet

Regular and Full Port - ASME B16.34. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		120	4.72	140	5.51	186	7.32	-	-	232	9.13	279	10.98
Bore Diameter	D	9	0.35	12	0.47	15	0.59	-	-	27	1.06	27	1.06
Center to Top (Open)	H	172	6.77	195	7.68	214	8.43	-	-	241	9.49	260	10.24
Approx. Weight	Kg/Lb	3.5	7.72	5.5	12.13	10.5	23.15	-	-	18.5	40.79	25	55.12

Class 800 Y Pattern Welded Bonnet

Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2		2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		80	3.15	80	3.15	90	3.54	110	4.33	125	4.92	155	6.10	180	7.09
Bore Diameter	D	9.5	0.37	12	0.47	17	0.67	23	0.91	28	1.10	36	1.42	44	1.73
Center to Top (Open)	H	68.5	2.70	68.5	2.70	78.5	3.09	89.5	3.52	105.5	4.15	123.5	4.86	147.5	5.81
Approx. Weight	Kg/Lb	1	2.20	1.5	3.31	2	4.41	4.5	9.92	8	17.64	8	17.64	11	24.25

Class 900-1500 Y Pattern Welded Bonnet

Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Full Port	Size	3/8		1/2		3/4		1		1-1/4		1-1/2		2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		80	3.15	90	3.54	110	4.33	125	4.92	155	6.10	180	7.09	200	7.87
Bore Diameter	D	9.5	0.37	12	0.47	15	0.59	21	0.83	27	1.06	32	1.26	38	1.50
Center to Top (Open)	H	71.8	2.83	82.5	3.25	84.2	3.31	104.7	4.12	121.7	4.79	143.3	5.64	155.2	6.11
Approx. Weight	Kg/Lb	2	4.41	3	6.61	4.2	9.26	5.2	11.46	9.5	20.94	11	24.25	15	33.07

Class 150-300-600 Overall-end Flange, Bolted Bonnet, Structure Length-ASME B16.10

Regular Port - API 602. Overall-end Flange - ASME B16.5

Regular Port		Size	1/2		3/4		1		1-1/4		1-1/2		2	
End to End		L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
			108	4.25	117	4.61	127	5	140	5.51	165	6.50	203	7.99
			152	5.98	178	7.01	203	7.99	-	-	229	9.02	267	10.51
			165	6.50	190	7.48	216	8.50	-	-	241	9.49	292	11.50
Bore Diameter		D	9.50	0.37	12.7	0.50	17.5	0.69	23	0.91	28.6	1.13	36.5	1.44
Center to Top (Open)		H	50	1.97	54	2.13	68	2.68	78	3.07	78	3.07	96	3.78
Approx. Weight	Class 150	Kg/Lb	2.5	5.51	3.3	7.28	4.3	9.48	6.5	14.33	9	19.84	13	28.66
	Class 300		3.0	6.61	3.8	8.38	5.2	11.46	-	-	10.5	23.15	15	33.07
	Class 600		3.5	7.72	4.5	9.92	6.0	13.23	-	-	12	26.46	17	37.48

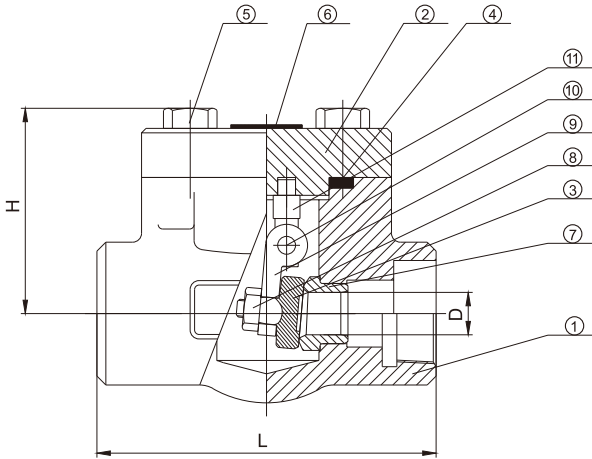
Class 900-1500 Overall-end Flange, Bolted Bonnet, Structure Length-ASME B16.10

Regular Port - API 602. Overall-end Flange - ASME B16.5

Regular Port	Size	1/2		3/4		1		1-1/2		2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in
		216	8.50	229	9.02	254	10	305	12.01	368	14.49
Bore Diameter	D	9	0.35	12	0.47	15	0.59	27	1.06	32	1.26
Center to Top (Open)	H	53	2.09	60	2.36	70	2.76	86	3.39	105	4.13
Approx. Weight	Kg/Lb	6	13.23	7.5	16.53	12	26.46	21	46.30	32.5	71.65

Forged Steel Swing Check Valve

G.A. Drawing & Dimensions of Swing Check Valve



Bolted Cover

Material List

NO.	Description of Parts	Material		
		Standard	High Temperature	Stainless Steel
1	BODY	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
2	BONNET	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
3	DISC	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F304/F316
4	GASKET	304SS/SPIRAL WOUND GRAPHITE	304SS/SPIRAL WOUND GRAPHITE	304/316SS/SPIRAL WOUND GRAPHITE
5	STUD	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8
6	NAME PLATE	ASTM A240 304	ASTM A240-304	ASTM A240-304
7	SEAT RING	ASTM A276-410/STL OVERLAY	ASTM A276-410/STL OVERLAY	ASTM A182-F304/F316/STL OVERLAY
8	DISC NUT	ASTM A276-304	ASTM A276-304	ASTM A276-304/316
9	HINGE	ASTM A216-WCB	ASTM A217-WC6/WC9	ASTM A351-CF8/CF8M
10	HINGE PIN	ASTM A276-410	ASTM A276-410	ASTM A276-F304/316
11	SUPPORT	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316

Class 800 Bolted Bonnet

Regular and Full Port - API602. Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		1-1/4		1-1/2		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		76	2.99	86	3.39	102	4.02	118	4.65	118	4.65	132	5.20
Bore Diameter	D	9.5	0.37	12.7	0.50	17.5	0.69	23.8	0.94	28.6	1.13	36.5	1.44
Center to Top (Open)	H	48.5	1.91	52	2.05	67	2.64	88	3.46	88	3.46	101	3.98
Approx. Weight	Kg/Lb	1.5	3.31	2.3	5.07	2.8	6.17	4.0	8.82	5.7	12.57	7.7	16.98

Forged Steel Swing Check Valve

G.A. Drawing & Dimensions of Swing Check Valve

Class 900-1500 Bolted Bonnet

Regular and Full Port - API602. Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		3/4		1-1/4		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		90	3.54	104	4.09	120	4.72	130	5.12	130	5.12	150	5.91
Bore Diameter	D	9.5	0.37	12.7	0.50	16	0.63	27	1.06	27	1.06	35	1.38
Center to Top (Open)	H	57.5	2.26	66	2.60	78.5	3.09	106	4.17	106	4.17	129	5.08
Approx. Weight	Kg/Lb	1.8	3.97	2.5	5.51	3.8	8.38	6.5	14.33	6.5	14.33	10	22.05

Class 150-300-600 Overall-end Flange, Bolted Bonnet, Structure Length-ASME B16.10

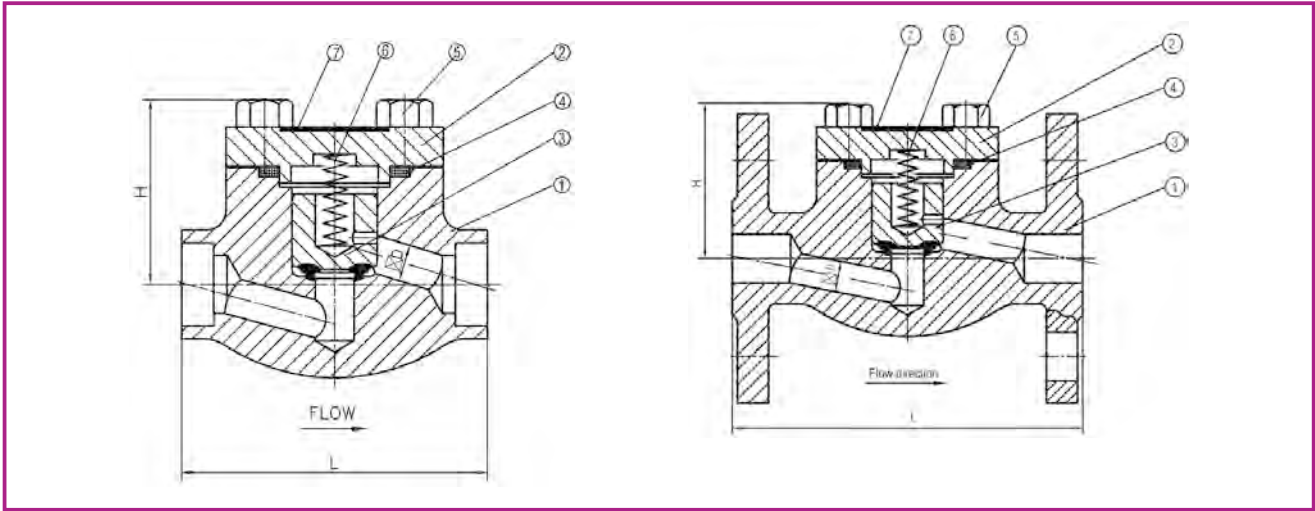
Regular Port - API 602. Overall-end Flange - ASME B16.5

Regular Port		Size	1/2		3/4		1		1-1/2		2	
End to End			mm	in	mm	in	mm	in	mm	in	mm	in
	Class 150	L	108	4.25	117	4.61	127	5.00	165	6.50	203	7.99
	Class 300	L	152	5.98	178	7.01	216	8.50	241	9.49	267	10.51
	Class 600	L	165	6.50	190	7.48	216	8.50	241	9.49	292	11.50
Bore Diameter		D	9.50	0.37	12.7	0.50	17.5	0.69	28.6	1.13	36.5	1.44
Center to Top (Open)		H	48.5	1.91	52	2.05	67	2.64	88	3.46	101	3.98
Approx. Weight	Class 150	Kg/Lb	2.5	5.51	3.3	7.28	4.3	9.48	9.0	19.84	13	28.66
	Class 300		3.0	6.61	3.8	8.38	5.2	11.46	10.5	23.15	15	33.07
	Class 600		3.5	7.72	4.5	9.92	6	13.23	12	26.46	17	37.48

Class 2500 Welded Bonnet

Regular and Full Port - ASME B16.34. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/2		2	
Full Port	Size	3/8		1/2		3/4		1		1-1/4	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in
		178	7.01	178	7.01	186	7.32	232	9.13	279	10.98
Bore Diameter	D	9.0	0.35	12.0	0.47	15	0.59	27	1.06	34.5	1.36
Center to Top (Open)	H	81	3.19	81	3.19	94	3.70	158	6.22	180	7.09
Approx. Weight	Kg/Lb	4.5	9.92	7.5	16.53	8.0	17.64	15	33.07	19.5	42.99



Material List

NO.	Description of Parts	Material
		Stainless Steel
1	BODY	ASTM A182 F304 / F316 / STL.OVERLAY
2	BONNET	ASTM A182 F304 / F316
3	DISC	ASTM A182 F304 / F316 / STL.OVERLAY
4	GASKET	304 / 316SS / SPIRAL WOUND GRAPHITE
5	BOLT	ASTM A320 B8 CL2
6	SPRING	INCONEL X750
7	NAME PLATE	ASTM A276 304

Class 800 Bolted Bonnet

Regular and Full Port - API602. Outside Screw & Yoke - Threaded and Socket Weld Ends

Regular Port	Size	1/2		3/4		1		1-1/4		1-1/2		2	
		3/8		1/2		3/4		1		1-1/4		1-1/2	
End to End	L	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
		76	2.99	86	3.39	102	4.02	140	5.51	140	5.51	170	6.69
Bore Diameter	D	9.5	0.37	12.7	0.50	17.5	0.69	23	0.91	28.6	1.13	36.5	1.44
Center to Top (Open)	H	48	1.89	53	2.09	64	2.52	80	3.15	80	3.15	100	3.94
Approx. Weight	Kg/Lb	1	2.20	1.5	3.31	2	4.41	4.5	9.92	6	13.23	7.5	16.53

Class 150-300-600 Overall-end Flange, Bolted Bonnet, Structure Length-ASME B16.10

Regular Port - API 602. Overall-end Flange - ASME B16.5

Regular Port		Size	1/2		3/4		1		1-1/2		2	
			mm	in	mm	in	mm	in	mm	in	mm	in
End to End	Class 150	L	108	4.25	117	4.61	127	5	165	6.50	203	7.99
	Class 300	L	152	5.98	178	7.01	203	7.99	229	9.02	267	10.51
	Class 600	L	165	6.50	190	7.48	216	8.50	241	9.49	292	11.50
Bore Diameter		D	9.50	0.37	12.7	0.50	17.5	0.69	28.6	1.13	36.5	1.44
Center to Top (Open)		H	50	1.97	54	2.13	68	2.68	78	3.07	96	3.78
Approx. Weight	Class 150	Kg/Lb	2.5	5.51	3.3	7.28	4.3	9.48	9	19.84	13	28.66
	Class 300		3	6.61	3.8	8.38	5.2	11.46	10.5	23.15	15	33.07
	Class 600		3.5	7.72	4.5	9.92	6	13.23	12	26.46	17	37.48

Welded Bonnet

Threaded-in and seal-welded bonnet (see Fig 1) is the standard design for Neway welded bonnet valves. Full penetration welding is optional (see Fig 2).

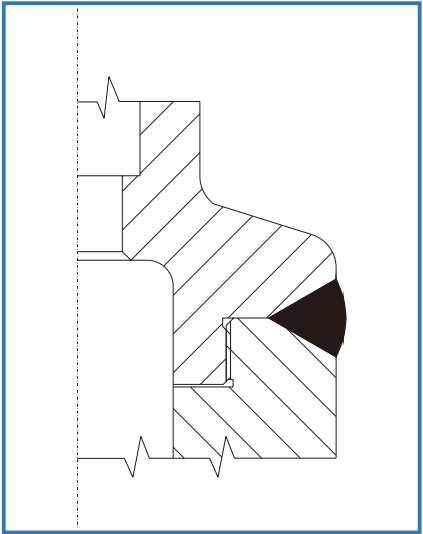


Fig.1

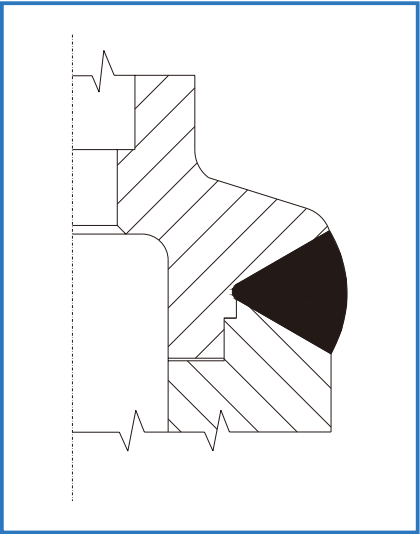


Fig.2

Gland Bolt

Neway forged steel gate and globe valves are provided with stud and nuts gland assembly (see Fig 3); eyebolts style are optional (see Fig 4).

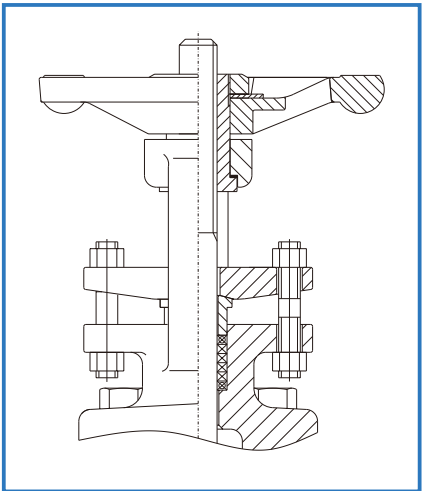


Fig.3

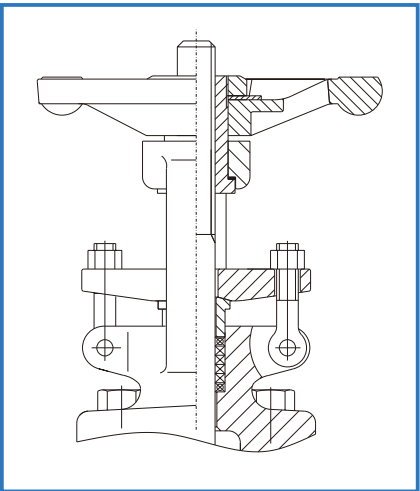


Fig.4

Bolted Bonnet

RTJ bonnet joint is the standard design for ANSI Class 1500 & 2500 valves (see Fig 5). Male to female bonnet joint is optional for ANSI Class 1500 (see Fig 6).

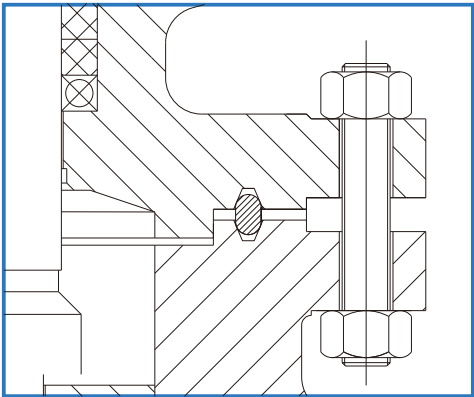


Fig.5

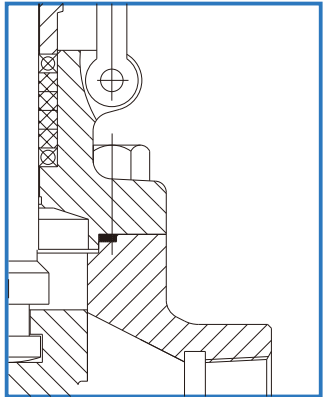


Fig.6