



Cat.no.:E-PS



Cat.no.:E-FBV



Cat.no.:E-TMBV



Cat.no.:E-PLV



Cat.no.:E-TOV



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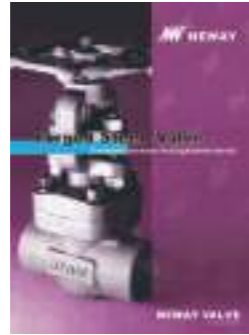
Cat.no.:E-GGC



Cat.no.:E-AV



Cat.no.:E-DAV



Cat.no.:E-FSV



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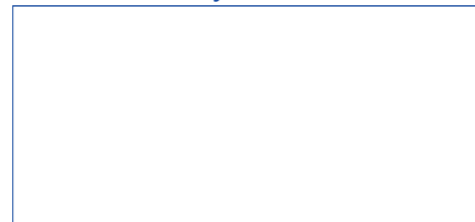


Cat.no.:E-CSC

MW 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>

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Cat.no.:E-GGC-2016

MW NEWAY

API 600 ASME B16.34

Gate, Globe & Check Valves

Complete Solutions for Industrial Valves

NEWAY VALVE

Cat.no.:E-GGC-2016

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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". 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.

NORSOK



API Q1



API 6D



CE/PED

TA Luft



ABS

AD2000



Fire Safe Test

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.

Neway Cast Carbon Steel Gate ,Globe & Check Valves.

Valve Size		2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"	52"	54"	56"	60"	64"		
API 600 & B16.34 Bolted Bonnet Valve	Gate Valve	150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Globe Valve	150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Check Valve	150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
API 600 & B16.34 Pressure Seal Valve	Gate Valve	600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
	Globe Valve	600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
	Check Valve	600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
		2500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

- Note:**
1. Face to face and end to end dimension conform to BS 2080,ANSI B16.10 or ISO 5752.
 2. Flange is in line with ANSI B16.5 in type and dimension.
 3. BW end dimension conform to ANSI B16.25.
 4. Inspection and test in accordance with API 598 or BS EN 12266.
 5. Valves larger than 64"are manufactured per Neway standards.

Technical Innovation

With cutting-edge computer technology utilized, NEWAY Technical Center focuses on providing outstanding quality products and developing new lines. There is a highly educated and well-trained engineering team, supported by a comprehensive internal computer network which links the entire operations of design, manufacturing and administration.

NEWAY design philosophy is to develop a safe and cost-efficient valve. We introduced the latest Ansys, Fe-safe, CF-design and NX software for 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.



High Temperature Test



Low Temperature Test



Low Fugitive Emission Test



Flow Coefficient Test



Fire Safe Test





Valve casting quality is of prime importance for product life, personnel and environmental safety, particularly in high temperature and high pressure service as valve serves as one of pressure-containing equipment in process-controlled pipeline. Thus, castings are always certified firstly by the customers requiring strictly before a valve manufacturer is pre-qualified and approved as a qualified supplier.



Compared with most of other competitors, we own three foundries: two of them work on producing large-sized sand castings by organic ester water glass, and two of them are for production of small-sized investment castings by lost-wax casting. Besides, each is equipped with all kinds of quality inspection facilities, such as spectrum instrument, non-destructive test machinery, and mechanical property test device. Against such backdrop, Neway can monitor the whole process of manufacture to ensure product quality, delivery and competitive price and enable Neway to remain a creditable supplier for every customer.



Automatic Molding Line



Exported Sand Mixer



Automatic Forklift for Heat Treating

Supply Range & capacity :

Plant Name	Dafeng Foundry	Suzhou Foundry
Process Technology	Lost wax investment casting	Organic ester water glass sand casting
Size Range(in)	1/2" ~10"	2" ~64"
Pressure Rating	ANSI Class 150~600	ANSI Class 150~2500
Weight(Kg)	1~150	100~11000
Material	WCB, WCC, LCB, LCC, WC6, WC9, C5, C12, C12A, CF8, CF8M, CF3, CF3M, CN7M, Monel, Inconel, Duplex Steel, 4A,5A	
Monthly Capacity(Ton)	1500	1800
Quality Certificate	ISO9001,CE/PED, AD W0	ISO9001,CE/PED, Norsok



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.



1



2



3



4



- 1 20" Class 300 Gate Valve
- 2 42" Class 600 Gate Valve
- 3 64" Class 150 Gate Valve
- 4 18" Class 600 Cryogenic Gate Valve
- 5 32" Electric Gate Valve
- 6 24" Class 300 Pneumatically Actuated Gate Valve
- 7 24" Class 600 Gate Valve
- 8 16" Class 900 Pressure Seal Gate Valve
- 9 42" Class 150 Check Valve
- 10 A217 Gr. C12A Gate Valve

10



5



6



7

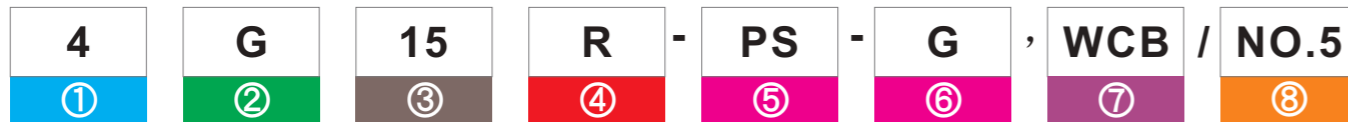


8



9

Example:



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

Following descriptions provide a basic guideline in valve specification:

① Valve Size

② Valve Type

Valve Type	Gate Valve	Globe Valve	Swing Check
Symbol	G	GL	S

③ ANSI Class

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

④ End Connection

Symbol	End	Symbol	End
R	Raised face flanged end	S	Socket welding end
J	RTJ flanged end	N	Screwed end
B	Butt-welding end	F	Flat face flanged end
W	Wafer		

⑤ ⑥ Actuator and Special Code

Symbol	Description	Symbol	Description
	Handwheel Operator	SC	Stop check
G	Gear Operator	AN	Angle type globe
M	Electric Actuator	R	Reduce bore
P	Pneumatic actuator	GL	Seat and Stem Injection
NRS	Non rising stem	ASC	Angle type stop check
PS	Pressure seal	BP	By Pass

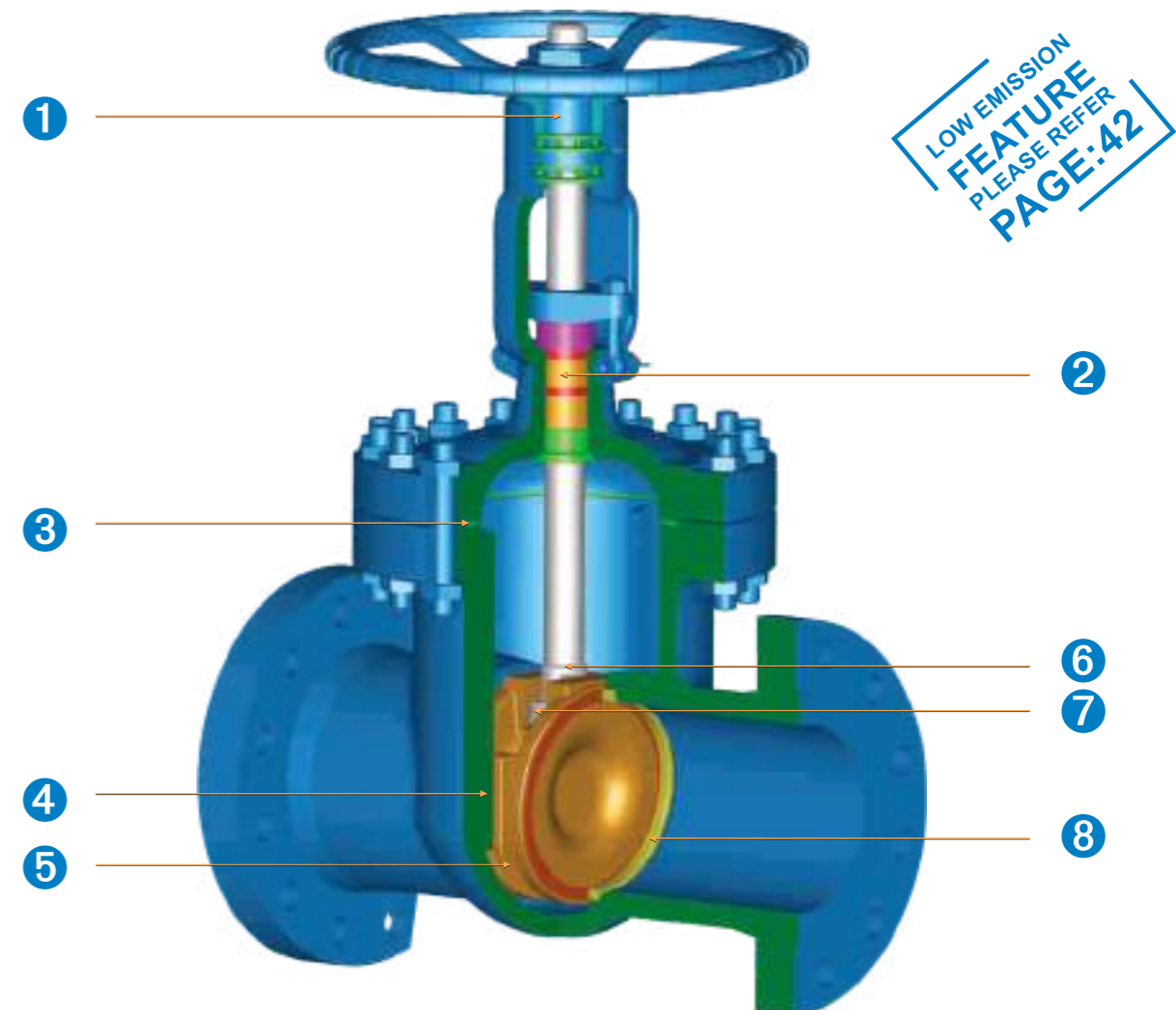
⑦ Shell Material

Material	WCB	LCB	LCC	WC6	WC9	C5	CF8	CF8M	CF3	CF3M	CD4MCuN
ASTM Ref	A216 Gr. WCB	A352 Gr. LCB	A352 Gr. LCC	A217 Gr. WC6	A217 Gr. WC9	A217 Gr. C5	A351 Gr. CF8	A351 Gr. CF8M	A351 Gr. CF3	A351 Gr. CF3M	A995 Gr. CD4MCuN

⑧ Trim Material

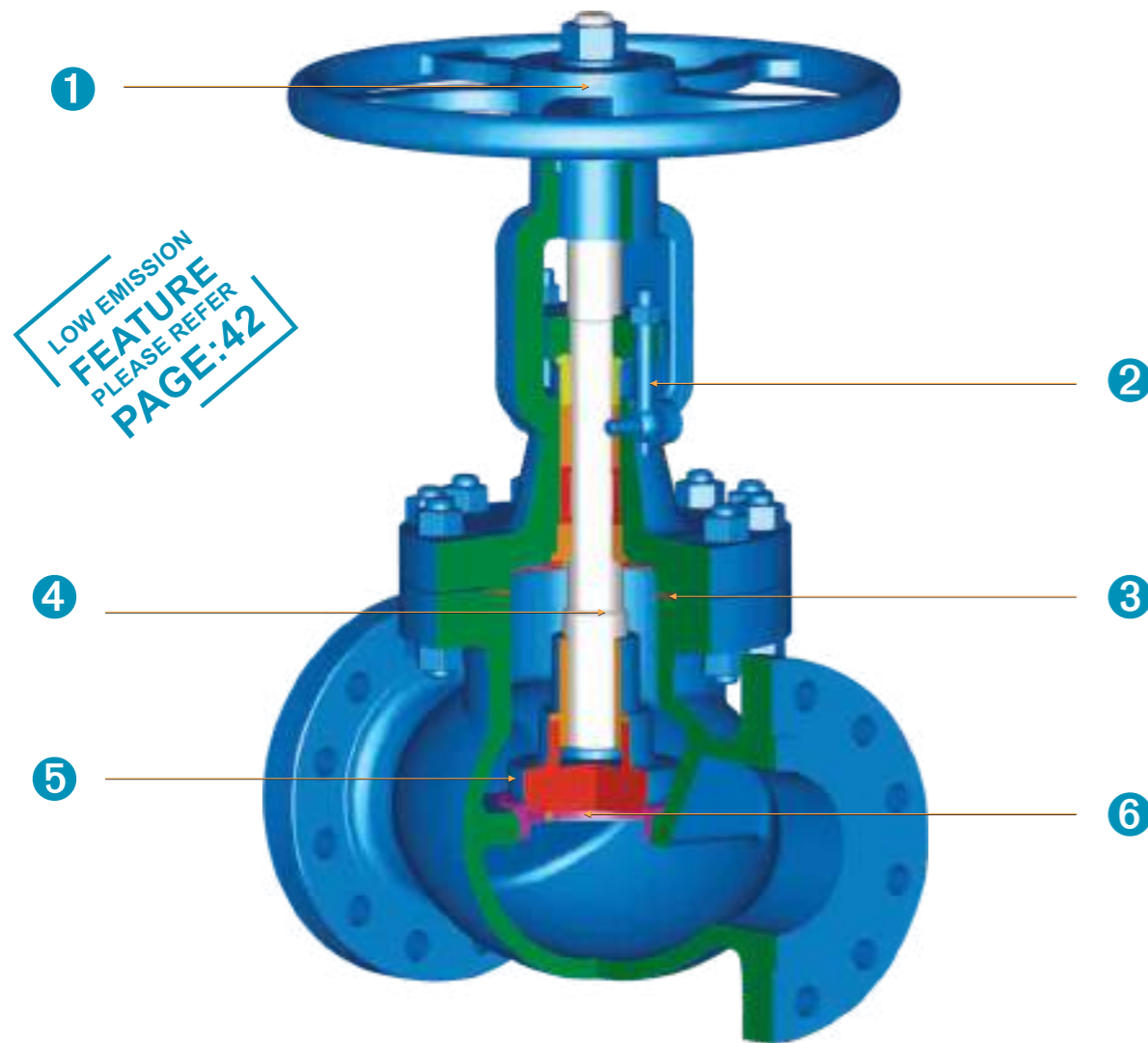
API600 Trim Number	Symbol	Disc Surface	Seat Surface	Stem Material
1	1	13%Cr	13%Cr	ASTM A182 Grade F6a
2	2	18%Cr,8%Ni	18%Cr,8%Ni	ASTM A182 Grade F304
5	5	Stellite	Stellite	ASTM A182 Grade F6a
8	8	13%Cr	Stellite	ASTM A182 Grade F6a
9	9	Monel	Monel	Ni Cu Alloy Monel
10	10	18%Cr,8%Ni	18%Cr,8%Ni	ASTM A182 Grade F316
12	12	18%Cr,8%Ni	Stellite	ASTM A182 Grade F316
13	13	Alloy 20 19%Cr,29%Ni	Alloy 20 19%Cr,29%Ni	ASTM B473
	16	Stellite	Stellite	ASTM A182 Grade F316
	20	Bronze	Bronze	Bronze

Note: 1.The denotation of trim No. 1 to 13 are the same as that of Table 8 in API 600.
2.Trim number 1 may be replaced by trim number 8 without notice.



LOW EMISSION
FEATURE
PLEASE REFER
PAGE:42

- 1 Long thread stem nut prolongs thread life and permits the removal of hand wheel in the fully open position.
- 2 Spacer ring in conjunction with packing is used in gate valves of 300 class and above while 150-class valve is only fitted with packing; packing with lantern ring is available upon customer request.
- 3 Flexible graphite gasket used for 150 Class gate valve, spiral wound gasket for Class 300 & 600 valves and metal ring gasket for gate valves of 900 or greater Class(600 Class is obtainable if customer requires)
- 4 Integral guide inside body keeps wedge self-centered during valve opening and closing.
- 5 Flexible wedge is able to compensate for seat surface distortion and body deformation caused by piping stress.
- 6 Blowout retention design: the tapered backseat face firmly contacts backseat of bonnet.
- 7 The strength of bonnet-wedge connection exceeds that of bonnet thread root.
- 8 Renewable seal welded seats with stellite 6 are standard design while screwed-in seats are optional.



- 1 Impact handwheel supplied at manufacturer's option or on customer request.
- 2 Gland eyebolts are mounted to swing aside to facilitate packing maintenance.
- 3 Male and female bonnet joints for Class 150 to 600 valves, and ring joint for the Class 900 & above valves or as an option for Class 600 valves on customer request.
- 4 Anti blow-out stem design with conical backseat surface to permit repacking of valve in the fully open position.
- 5 Plug seat surface is standard disc design as well as spherical, parabola or flat seating surface is optional on customer request.
- 6 Seat face with stellite 6 is standard design.

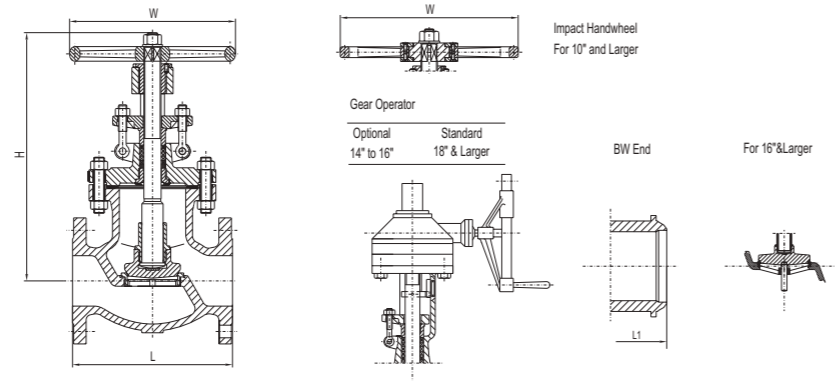
Part	Standard	Low Temperature Service	Stainless Steel	High Temperature Service	Sour Service
BODY	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M	ASTM A217-WC9	ASTM A216-WCB
BONNET	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M	ASTM A217-WC9	ASTM A216-WCB
DISC	ASTM A182-F6a ASTM A105/ER410 (FOR 4"&Larger)	ASTM A182-F316	ASTM A182-F316	ASTM A182-F22/STL.OVERLAY	ASTM A182-F6a-NC
STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
GLAND FLANGE	ASTM A216-WCB	ASTM A352-LCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A216-WCB
HANDWHEEL	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON
IMPACT BLOCK	CARBON STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
RETAINER PLATE	CARBON STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
SEAT RING	ASTM A105/STL.OVERLAY	ASTM A182-F316/STL.OVERLAY	ASTM A182-F316/STL.OVERLAY	ASTM A182-F22/STL.OVERLAY	ASTM A105/STL.OVERLAY
STEM	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F6a-NC
BACK SEAT	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	ASTM A276-420-NC
GLAND	ASTM A276-420	STAINLESS STEEL	ASTM A276-316	ASTM A276-420	ASTM A276-420-NC
SPACE RING	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	ASTM A276-420-NC
DISC NUT	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	ASTM A276-420-NC
STEM WASHER	ASTM A276-430	N/A	N/A	ASTM A276-430	STAINLESS STEEL
HANDWHEEL WASHER	CARBON STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL
BONNET GASKET	SOFT STEEL	ASTM A276-316	ASTM A276-316	SOFT STEEL	SOFT STEEL
PACKING	316+GRAPHITE	316+GRAPHITE	316+GRAPHITE	316+GRAPHITE	316+GRAPHITE
PACKING	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
BONNET STUD	ASTM A193-B7	ASTM A320-L7M	ASTM A193-B8 Class 2	ASTM A193-B16	ASTM A193-B7M
BONNET NUT	ASTM A194-2H	ASTM A194-7M	ASTM A194-8	ASTM A194-7	ASTM A194-2HM
EYE BOLT	ASTM A193-B7	ASTM A320-L7M	ASTM A193-B8	ASTM A193-B16	ASTM A193-B7M
GLAND NUT	ASTM A194-2H	ASTM A194-7M	ASTM A194-8	ASTM A194-7	ASTM A194-2HM
HANDWHEEL NUT	CARBON STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL
EYE BOLT PIN	CARBON STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	CARBON STEEL
RIVET	CARBON STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL
NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL

Notes: Above materials are general, when ordered, Please contact NEWAY Sales or technical team to confirm the details.

Class 150 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:
GL1R,WCB/NO.8
GL1B,WCB/NO.8

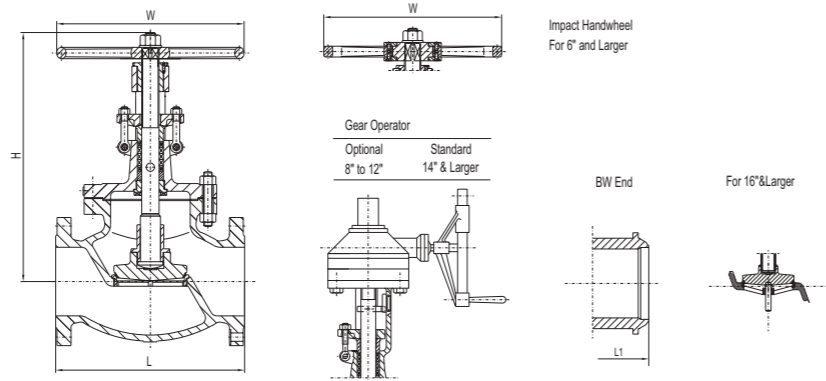


NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L-L1 (RF-BW)	in	8	8.5	9.5	11.5	14	16	19.5	24.5	27.5	31	36	38.5	38.5	51
	mm	203	216	241	292	356	406	495	622	699	787	914	978	978	1295
W	in	8	10	10	12	14	14	16	20	20	22	26	24	24	31.9
	mm	200	250	250	300	350	350	400	500	500	560	650	610	610	810
H	in	13.3	14.7	15.6	18.7	19.6	20.6	23.1	29.1	33.9	37.4	39.2	44.9	49.7	60
	mm	338	373	396	476	497	524	588	738	862	950	994	1140	1262	1524
WT(RF)	Kg	21	29	35	58	78	104	162	289	485	550	724	1400	2600	3700
WT(BW)	Kg	17	20	30	47	71	86	138	219	362	491	650	1250	2300	3250

Class 300 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:
GL3R,WCB/NO.8
GL3B,WCB/NO.8

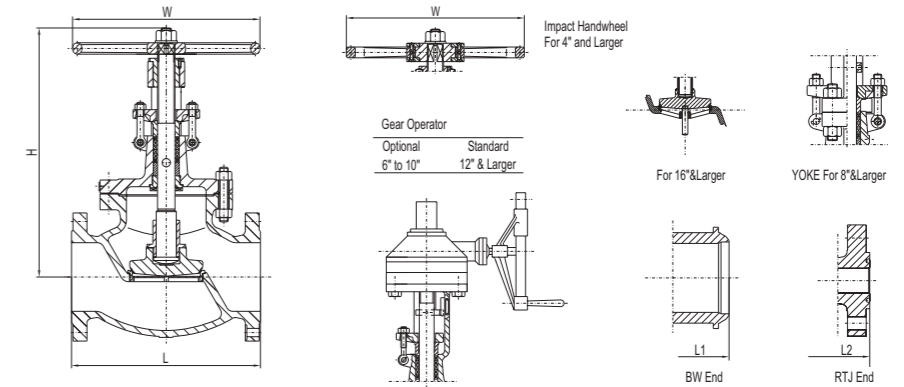


NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500
L-L1 (RF-BW)	in	10.5	11.5	12.5	14	15.75	17.5	22	24.5	28	33	34	38.5	40
	mm	267	292	318	356	400	445	559	622	711	838	864	978	1016
W	in	8	10	10	14	18	20	22	24	26	24	24	38.5	40
	mm	200	250	250	350	450	500	560	600	650	610	610	610	810
H	in	13.9	15.3	16.6	19.5	22.7	26.6	35.9	37.4	40.6	44.5	51.6	57.5	64.3
	mm	353.5	388.5	420.5	495.5	576.5	674.5	911.5	949	1032	1130	1310	1460	1632
WT(RF)	Kg	26	38	51	76	125	173	297	500	724	1125	1650	2700	3650
WT(BW)	Kg	21	29	38	59	104	137	237	432	632	975	1450	2400	3200

Class 600 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:
GL6R,WCB/NO.8
GL6B,WCB/NO.8

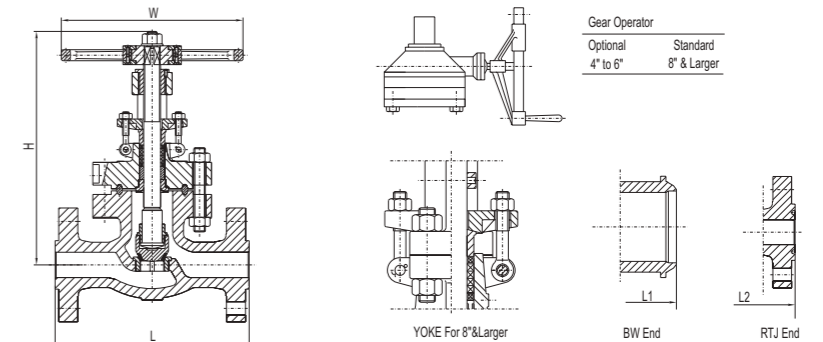


NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39	43
	mm	292	330	356	432	508	559	660	787	838	889	991	1092
L2 (RTJ)	in	11.62	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12	43.1
	mm	295	333	359	435	511	562	663	790	841	892	994	1095
W	in	10	10	14	18	20	22	24	28	24	24	30	32
	mm	250	250	350	450	500	560	600	700	610	610	762	810
H	in	15.6	17.6	19.5	23.6	27.6	31.1	39.9	46.5	55	57.1	63.4	70.9
	mm	396.5	446	495.5	599	700	791	1014	1180	1397	1450	1610	1801
WT(RF)	Kg	37	50	62	150	187	294	543	1006	1350	1620	2160	3300
WT(BW)	Kg	30	40	58	132	142	227	460	729	1060	1330	1750	2800

Class 900 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:
GL9R,WCB/NO.5
GL9J,WCB/NO.5
GL9B,WCB/NO.5



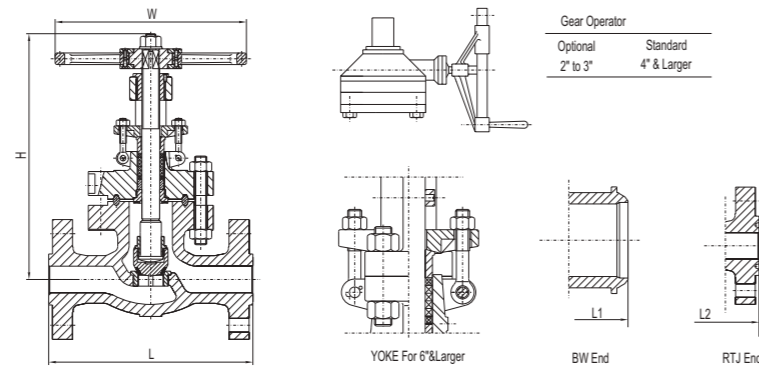
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"
DN	mm	50	65	80	100	150	200	250	300	350	400
L-L1 (RF-BW)	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5
	mm	368	419	381	457	610	737	838	965	1029	1130
L2 (RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.1	38.1	40.9	44.9
	mm	371	422	384	460	613	740	841	968	1038	1140
W	in	14	14	18	20	24	24	24	31.9	31.9	31.9
	mm	350	350	450	500	610	610	610	810	810	810
H	in	23.2	26	27.5	31.3	43.6	46.6	58.2	69.1	76.1	87
	mm	590	660	699	795	1108	1184	1479	1755	1934	2210
WT(RF)	Kg	95	138	110	197	435	720	1070	1920	2670	3520
WT(BW)	Kg	75	85	112	158	360	597	890	1690	2390	3170

Class 1500 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:

GL15R,WCB/NO.5
GL15J,WCB/NO.5
GL15B,WCB/NO.5



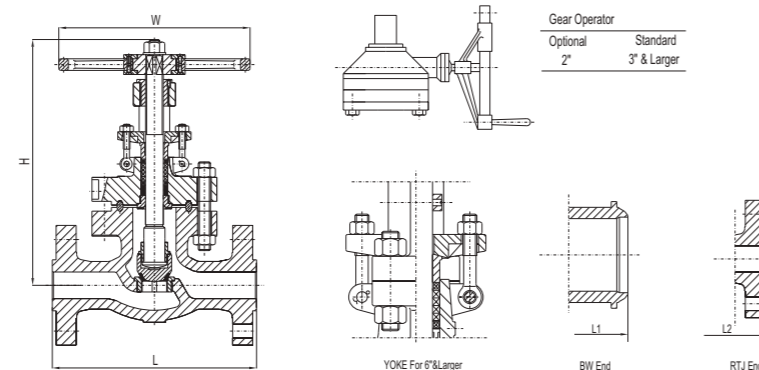
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"
DN	mm	50	65	80	100	150	200	250	300
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5
	mm	368	419	470	546	705	832	991	1130
L2 (RTJ)	in	14.62	16.62	18.62	21.62	28.00	33.13	39.4	45.1
	mm	371	422	473	549	711	842	1000	1146
W	in	14	14	20	22	24	24	31.9	31.9
	mm	350	350	500	560	610	610	810	810
H	in	21.7	22.5	22.9	31.3	50.3	77.2	96.5	114.3
	mm	550	572	582	795	1278	1960	2450	2904
WT(RF)	Kg	85	138	215	350	560	990	1530	2570
WT(BW)	Kg	75	112	129	299	462	830	1330	2270

Class 2500 Cast Carbon Steel Globe Valve

BS 1873 Design,
Bolted Bonnet, OS&Y,
Screwed-in Back Seat,
Rising Stem and Handwheel,
Swivel Disc

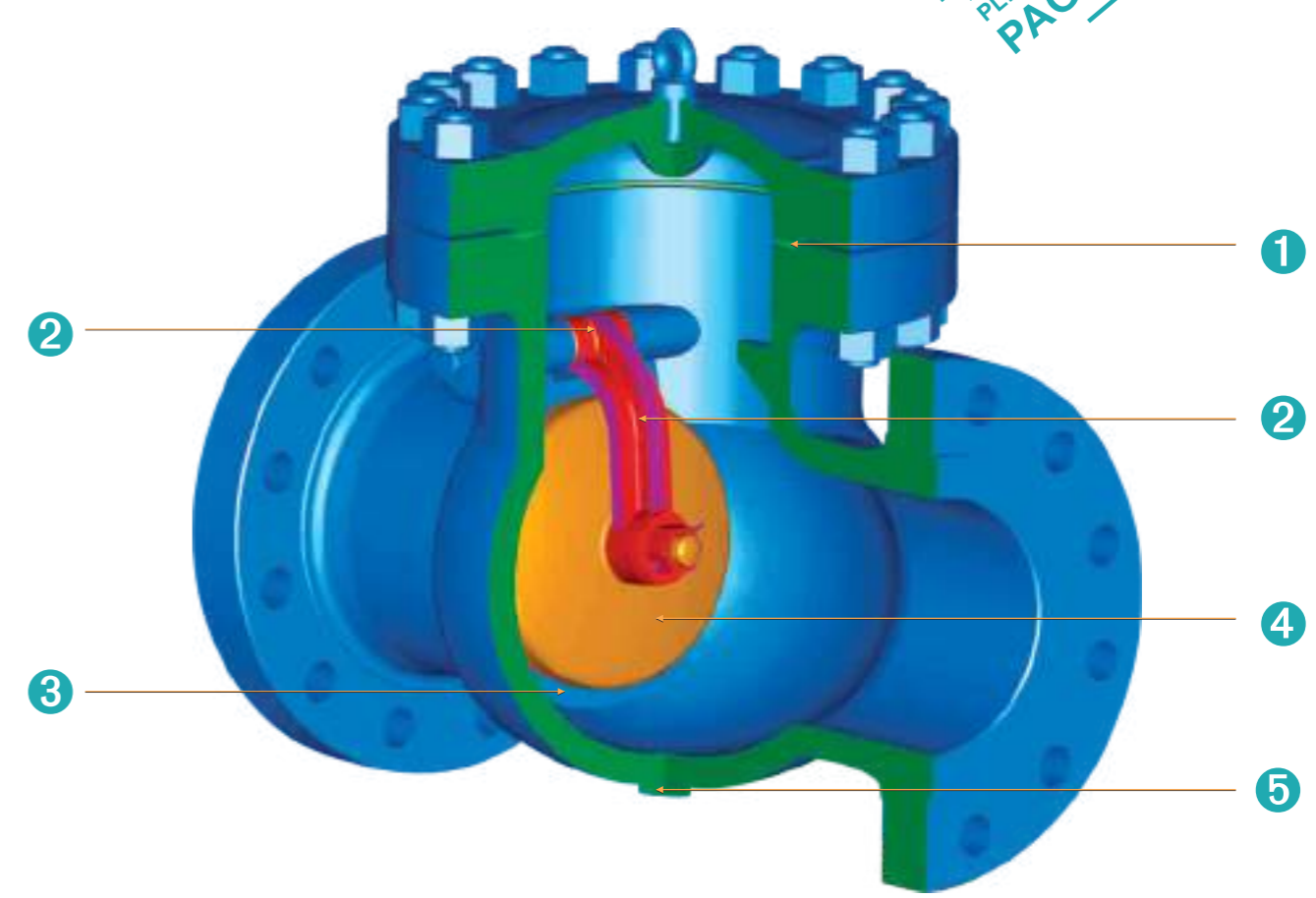
Figure NO.:

GL25R,WCB/NO.5
GL25J,WCB/NO.5
GL25B,WCB/NO.5



NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"
DN	mm	50	65	80	100	150	200	250
L-L1 (RF-BW)	in	17.75	20	22.75	26.5	36	40.25	50
	mm	451	508	578	673	914	1022	1270
L2(RTJ)	in	17.88	20.25	23.00	26.88	36.50	40.88	50.9
	mm	454	514	584	683	927	1038	1292
W	in	16	20	22	24	24	24	31.9
	mm	400	500	560	610	610	610	810
H	in	28.3	31.5	34.8	49.6	75	97	122.4
	mm	720	800	885	1260	1905	2465	3108
WT(RF)	Kg	176	264	308	759	1990	4390	5290
WT(BW)	Kg	141	214	238	644	1700	3950	4390

LOW EMISSION
FEATURE
PLEASE REFER
PAGE:42



- 1 Flexible graphite gasket for Class 150 valves, spiral wound gasket for Class 300 & 600 valves, and ring joint for Class 900 & above valves or as an option for the Class 600 valves on customer request.
- 2 A hinge and hinge pin provided and mounted so as to permit full movement of the disc.
- 3 Standard renewable seal welded seat with stellite 6 while optional screwed-in seat.
- 4 Standard swing disc type, used in horizontal position for liquid service application or used in vertical position where liquid flow from bottom to top.
- 5 Provision of standard bosses for a drain tapping at location G at the lower part of body centerline. Additional bosses conform to customer requirements.

Part	Standard	Low Temperature Service	Stainless Steel	High Temperature Service	Sour Service
BODY	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M	ASTM A217-WC9	ASTM A216-WCB
COVER	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M	ASTM A217-WC9	ASTM A216-WCB
DISC	ASTM A217-CA15(4"&Smaller) &ASTM A216-WCB/ER410	ASTM A352-LCC/316 OVERLAY	ASTM A351-CF8M	ASTM A217-WC9/STL. OVERLAY	ASTM A217-CA15-NC(4"&Smaller) &ASTM A216-WCB/ER410-NC
HINGE	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M	ASTM A217-WC9	ASTM A216-WCB
SEAT RING	ASTM A105/STL. OVERLAY	ASTM A182-F316/STL. OVERLAY	ASTM A182-F316/STL. OVERLAY	ASTM A182-F22/STL. OVERLAY	ASTM A105/STL. OVERLAY
HINGE PIN	ASTM A276-410	ASTM A276-316	ASTM A276-316	ASTM A276-410	ASTM A276-410-NC
PLUG FOR HINGE PIN	CARBON STEEL	ASTM A276-316	ASTM A276-316	STAINLESS STEEL	CARBON STEEL
WASHER	STAINLESS STEEL	ASTM A276-316	ASTM A276-316	STAINLESS STEEL	STAINLESS STEEL
DISC NUT	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	STAINLESS STEEL
DISC WASHER	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	STAINLESS STEEL
DISC SPLIT PIN	ASTM A276-420	ASTM A276-316	ASTM A276-316	ASTM A276-420	STAINLESS STEEL
BONNET RING JOINT	SOFT STEEL	ASTM A276-316	ASTM A276-316	ASTM A276-304	SOFT STEEL
BONNET STUD	ASTM A193-B7	ASTM A320-L7M	ASTM A193 B8 Class 2	ASTM A193-B16	ASTM A193-B7M
BONNET NUT	ASTM A194-2H	ASTM A194-7M	ASTM A194 8	ASTM A194-7	ASTM A194-2HM
RIVET	CARBON STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL
NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
HOOK SCREW	CARBON STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL

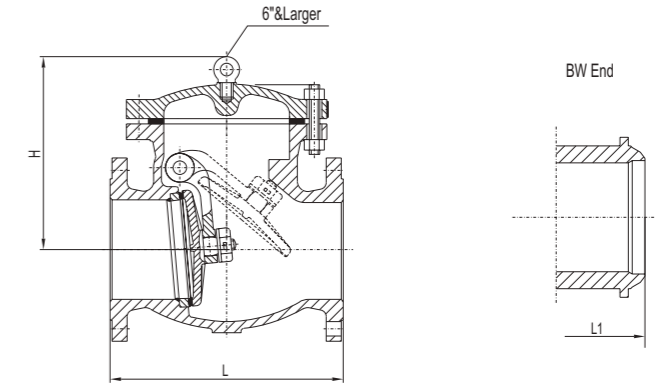
Notes: Above materials are general, when ordered, Please contact NEWAY Sales or technical team to confirm the details.

Class 150 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S1R,WCB/NO.8
S1B,WCB/NO.8



NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	8	8.5	9.5	11.5	13	14	19.5	24.5	27.5	31	34	38.5	38.5	51	51	57	60	68	77	85	89	101
	mm	203	216	241	292	330	356	495	622	699	787	864	978	978	1295	1295	1448	1524	1727	1956	2159	2261	2566
H	in	5.9	6.6	6.7	8	9.1	11.7	13.8	15.3	17.2	18.8	20.7	22.9	24.7	34.6	35.8	36.8	38.2	49.2	54.2	55.5	57.8	64.6
	mm	150.5	168	171	204	230	296.5	351.5	389.5	437.5	476.5	525	582	627	880	910	935	970	1250	1377	1410	1468	1642
WT(RF)	Kg	15	22	28	42	57	79	131	177	282	380	542	632	855	970	1276	1600	2020	2430	3130	4230	5030	6680
WT(BW)	Kg	10	12	17	29	45	57	96	143	227	294	468	552	755	831	1120	1420	1760	2130	2930	3730	4430	5680

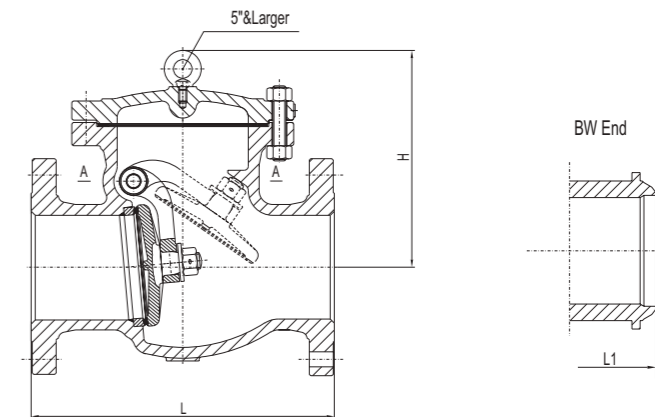
* (1) For size of larger than 48" valve, Please contact Neway sales or engineering team for details.

Class 300 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S3R,WCB/NO.8
S3B,WCB/NO.8



NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	10.5	11.5	12.5	14	15.75	17.5	21	24.5	28	33	34	38.5	40	53	53	59	62.75	68	82	96	103	124
	mm	267	292	318	356	400	445	533	622	711	838	864	978	1016	1346	1346	1499	1594	1727	2083	2438	2617	3151
H	in	6.9	7.3	8.5	10.2	12	12.5	15	17.1	20.1	22.1	23.5	26.6	28.7	33.9	36.6	45.8	50	50.0	59.4	68.9	73.6	87.8
	mm	176	185	216	259	304	317	380	434	511	561	596	675	730	860	930	1163	1270	1270	1510	1750	1870	2230
WT(RF)	Kg	20	30	40	65	84	118	193	310	450	595	840	933	1320	1848	2375	2660	3680	3880	5030	6290	7050	9310
WT(BW)	Kg	16	22	30	53	73	101	157	232	414	455	766	774	960	1792	1995	2260	2780	3380	4430	5640	6150	8310

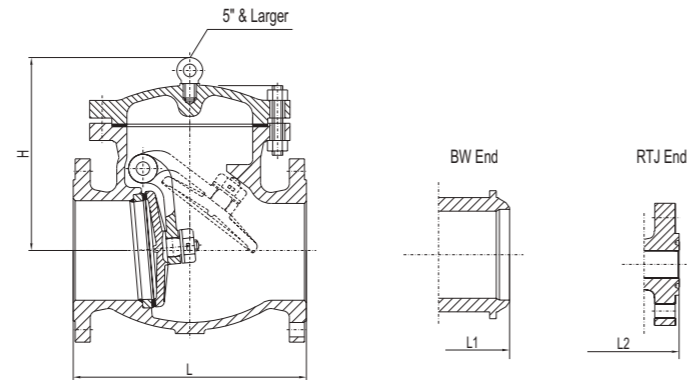
* (1) For size of larger than 48" valve, Please contact Neway sales or engineering team for details.

Class 600 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S6R,WCB/NO.8
S6B,WCB/NO.8



NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39	43	47	55	57	63	65	70	82	90	96	100
	mm	292	330	356	432	508	559	660	787	838	889	991	1092	1194	1397	1448	1600	1651	1778	2083	2286	2438	2540
L2 (RTJ)	in	11.62	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	57.5	63.5	65.5	70.6	82.6	-	-	-
	mm	295	333	359	435	511	562	663	790	841	892	994	1095	1200	1407	1461	1613	1664	1794	2099	-	-	-
H	in	7.2	8.3	9.1	10.4	11.6	14.7	16.8	20.4	22.4	24.5	26.8	29.6	38.4	43.7	43.7	46.9	52.1	53.8	60.7	67.0	70.9	85.5
	mm	184	210	232	263	295	374	426	517	569	622	680	752	975	1111	1110	1192	1324	1367	1542	1702	1800	2171
WT(RF)	kg	30	43	55	93	160	208	339	547	715	885	1310	1620	2120	3100	3800	4600	5500	6800	8100	8900	9800	11100
WT(BW)	kg	21	35	43	64	115	145	256	375	589	694	932	1279	1702	2497	3100	3900	4700	6000	7200	8100	9900	10200

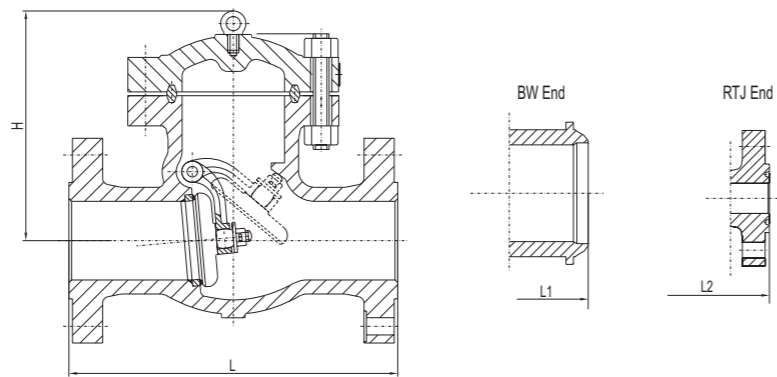
*(1) For size of larger than 48" valve, Please contact Neway sales or engineering team for details.

Class 900 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S9R,WCB/NO.8
S9B,WCB/NO.8
S9J,WCB/NO.8



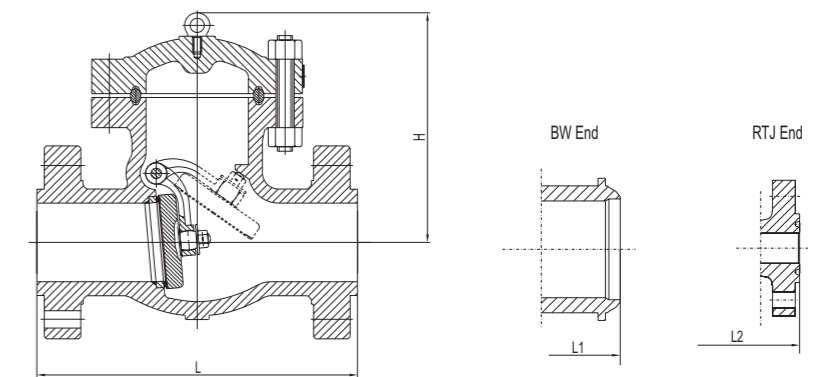
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	900
L-L1 (RF-BW)	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48.0	52.0	61.0	65.0	69.0	73.0	77.0	84.9
	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1651	1753	1854	1956	2156
L2 (RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.5	52.5	61.7	65.9	69.9	73.9	-	-
	mm	371	422	384	460	613	740	841	968	1038	1140	1232	1333	1568	1673	1775	1876	-	-
H	in	11.7	11.8	11.8	12.9	17.4	19.8	26.1	30.5	30.8	33	33.0	36.7	36.4	44.1	54.0	59.9	65.8	71.7
	mm	296	300	300	327	441	502	664	775	782	838	839	932	924	1121	1372	1521	1671	1821
WT(RF)	kg	70	100	110	150	305	510	810	1120	1380	1900	3000	4000	5200	6600	7550	8850	10150	12750
WT(BW)	kg	50	68	77	113	230	387	632	901	1139	1613	2650	3550	4650	5630	6420	7510	8600	10780

Class 1500 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S15R,WCB/NO.8
S15B,WCB/NO.8
S15J,WCB/NO.8



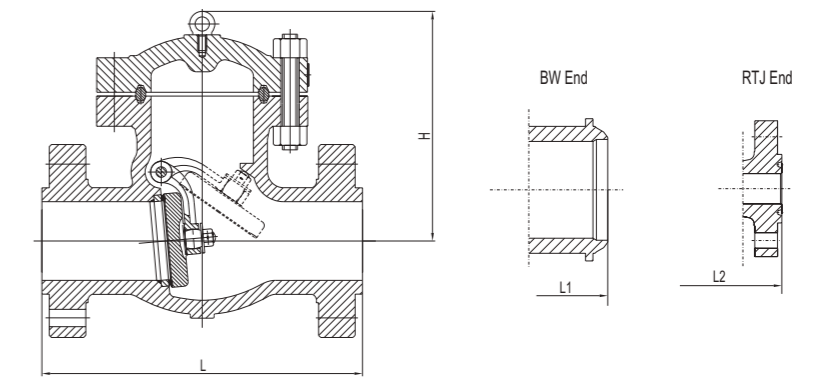
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5	60.5	65.5	76.5	82.0	87.5	93.0
	mm	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943	2083	2222.5	2362
L2 (RTJ)	in	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12	50.25	55.38	61.4	66.4	77.6	-	-	-
	mm	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972	-	-	-
H	in	11.7	11.8	13.4	16.2	20.1	26.8	29.8	33.7	37.4	40.1	45.2	50.6	60.6	70.6	80.7	90.7
	mm	296	300	341	412	511	680	756	857	950	1020	1147	1284	1539	1794	2049	2304
WT(RF)	kg	70	100	150	245	550	1010	1476	2280	3060	4500	6100	8000	9800	11600	13400	15200
WT(BW)	kg	50	77	115	190	452	750	1012	1780	2290	3500	5200	7500	8400	9300	10200	11100

Class 2500 Cast Carbon Steel Check Valve

BS 1868 Design, Bolted Cover, Swing Type Disc

Figure NO.:

S25R,WCB/NO.8
S25B,WCB/NO.8
S25J,WCB/NO.8



NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
L-L1 (RF-BW)	in	17.75	20	22.75	26.5	36	40.25	50	56	62.0	68.0	73.9	79.9	91.9
	mm	451	508	578	673	914	1022	1270	1422	1575	1727	1877	2029	2334
L2 (RTJ)	in	17.87	20.25	23.00	26.88	36.50	40.87	50.88	56.88	-	-	-	-	-
	mm	454	514	584	683	927	1038	1292	1445	-	-	-	-	-
H	in	16.4	16.5	17.4	18.9	20.1	28	33.5	39.4	47.2	51.2	55.1	59.1	63.0
	mm	416	419	441	479	511	711	851	1000	1200	1300	1400	1500	1600
WT(RF)	kg	145	240	330	650	806	2420	3750	5500	7400	9010	11200	12700	14000
WT(BW)	kg	110	190	260	535	665	1980	2980	4350	6200	8250	9400	11890	13000



Pressure Seal Valve

Prolonged function and more compact valves characterized by light weight, small volume and less maintenance, specifically designed for the high temperature and the high pressure services encountered in nuclear and fossil fuel power plants.

Cast Alloy Steel A217 of Grade C12A Neway has developed Gate, Globe & Check valves for high pressure and high temperature application in power plant

To cater for the tendency of increasing power plant temperature and pressure to improve efficiencies and meet other high temperature industries, Neway has successfully developed cast alloy steel A217 Gr. C12A, this alloy exhibits excellent high-temperature properties based on the formation of a particular microstructure containing submicroscopic carbides; the alloy is also much more resistant to thermal fatigue than the austenitic stainless steel because of its lower thermal expansion rating and higher thermal conductivity. Table 1 below shows the allowable stresses (MPa) for several ASTM materials widely used in high temperature industries, and the chemical composition of C12A is shown in table 2 below :

Table 2

Grade	Basic element											
	C	Si	Mn	S	P	Cr	V	N	Nb	Mo	Ni	AL
ASTM A217 C12A	0.08-0.12	0.20-0.50	0.30-0.60	≤0.01	≤0.03	8.00-9.50	0.18-0.25	0.03-0.07	0.06-0.10	0.85-1.05	≤0.4	≤0.04

In order to create the special microstructure required to meet the high temperature properties as well as normal ambient temperature conditions, a number of metallurgical processes must be properly



Figure 1: Acceptable microstructure of castings (100X)⁽¹⁾



Figure 2: Acceptable microstructure after welding. (100X)⁽¹⁾



Figure 3: Acceptable microstructure in heat affected zone. (100X)⁽¹⁾

In response to special requirements of steel types, long-term preparation and R&D have been made. The materials have been verified in all properties and qualified to fulfill the application requirements.

1. Deoxidization

To remove free oxygen prior to pouring castings, a small quantity of deoxidizers materials, with a high affinity for oxygen, are added into the melted metal; they combine with the oxygen to form solid oxygen inclusion particles. The most common deoxidizers are manganese, silicon and aluminum. This is a critical process to ensure that an acceptable microstructure is obtained (see Fig 1) and we can achieve high temperature creep strength.

2. Heat treatment

This processing is also one of the key procedures to ensure the proper microstructure. In order to meet the high temperature properties, we perform strict heat treatment procedures; metal temperature, heating and cooling periods are critical in this process.

3. Welding & Post-weld heat treatment (PWHT)

To achieve the proper creep resistance and toughness for the high chrome alloy, we use special weld & PWHT procedures, which include pre-heating temperature control and welding filler materials, particular attention is given to PWHT. All processes are controlled precisely to allow the formation of martensite in the weld and heat affected zone (HAZ). Figure 2 & 3 show the acceptable microstructure in weld area and HAZ.

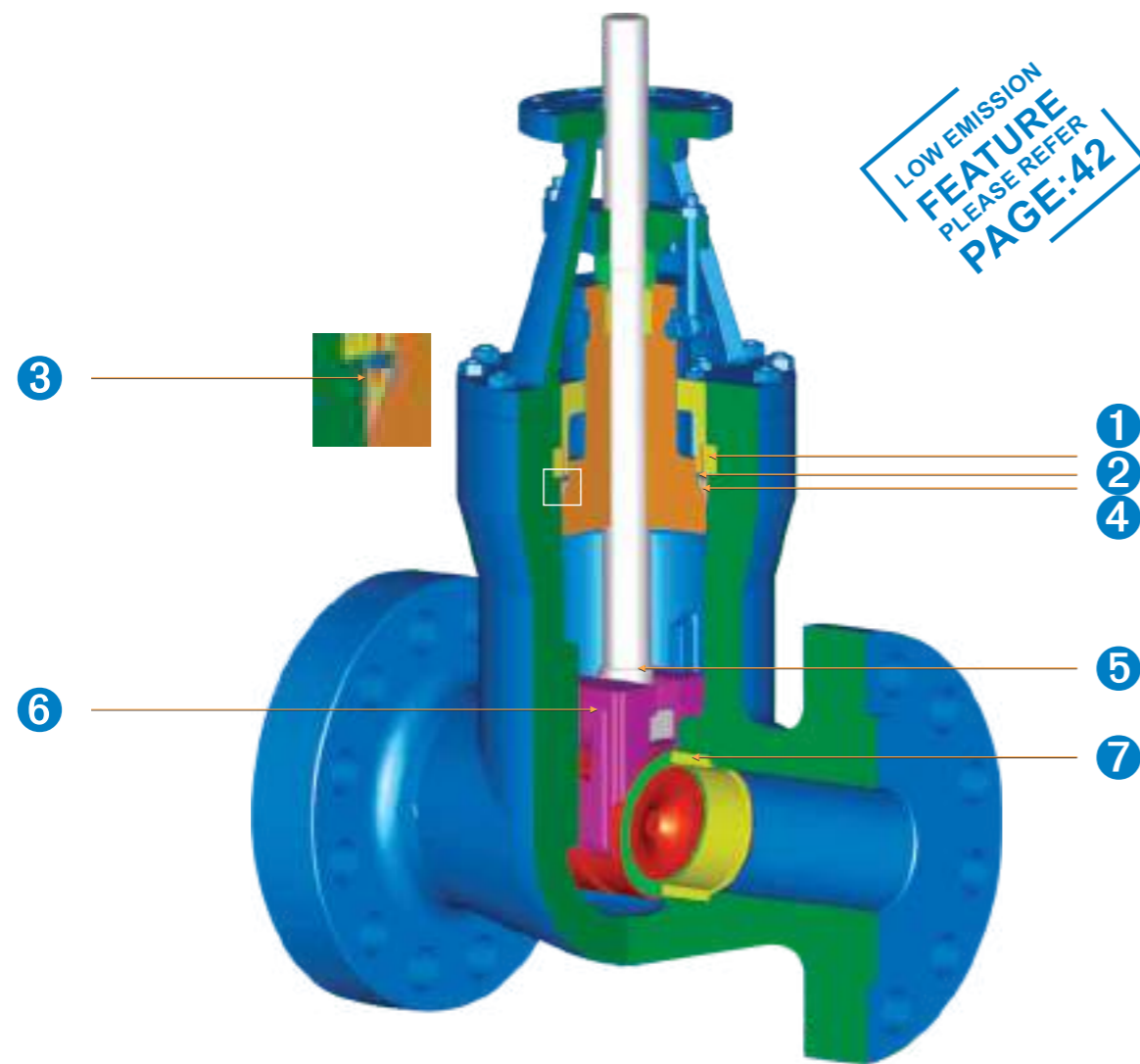
Table 1

Unit: Mpa

Temperature		Castings			Forgings		
°C	°F	WC9	C12	C12A	F22	F9	F91
38	100	138	177.2	146.9	147.6	167.5	167.5
260	500	133	169.6	133	141.3	160.7	166.2
343	650	131.7	164.8	126.9	139.3	155.8	161.3
482	900	109	113	111	108.9	113	131.7
538	1050	35.2	34.5	78.6	35.2	34.5	96.5
593	1100	22	22.8	60.7	22	22.8	71

Table 1: ASME boiler and pressure standard code section II allowable stresses.

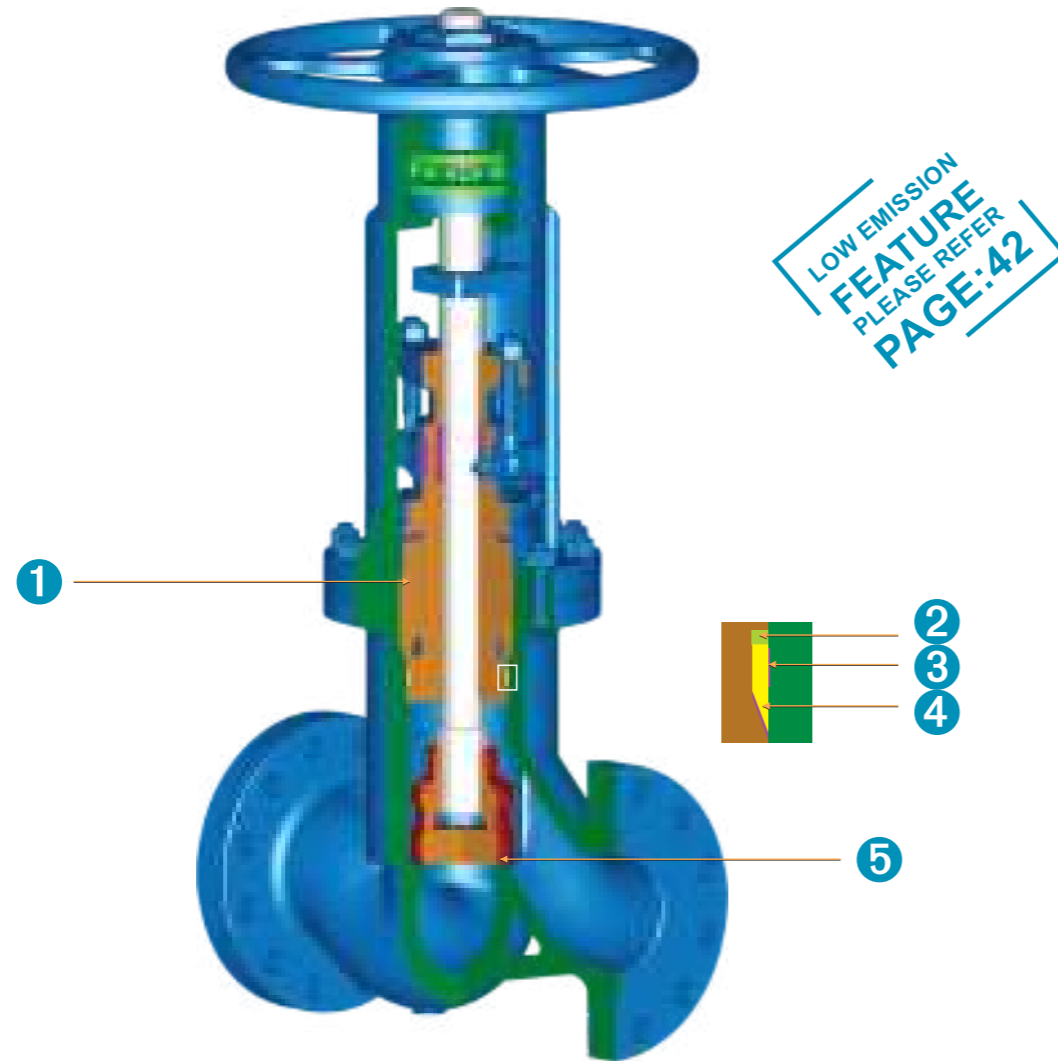
Note: Alloy C12A or F91 provides much higher allowable stresses in temperature ranging from 482-593°C (900-1100°F)



- 1 Separated rings absorb the thrust along the stem applied by the internal pressure.
- 2 Sealing rings are used to withstand pressure and prevent deformation of the gaskets.
- 3 Stainless steel inlay to ensure soundness and corrosion-resistance in the critical body sealing zone for carbon and alloy steel valves.
- 4 Mild steel gasket seal to provide large contact area for perfect sealing.
- 5 Blowout proof stem design features tapered sealing surface which contacts against bonnet backseat when the valve is fully open.
- 6 Flexible wedge can compensate for seat face distortion and body deformation due to pipe stress.
- 7 Seat ring with stellite 6 overlay is standard design and installed with seal weld.

Part	Standard	Stainless Steel	High temperature Service		
			ASTM A217-WC6	ASTM A217-WC9	ASTM A217-C12A
BODY	ASTM A216-WCB	ASTM A351-CF8M	ASTM A217-WC6	ASTM A217-WC9	ASTM A217-C12A
BONNET	ASTM A105	ASTM A182-F316	ASTM A182-F11	ASTM A182-F22	ASTM A217-C12A
WEDGE	ASTM A216-WCB/ER410 & ASTM A217-CA15	ASTM A351-CF8M/STL.OVERLAY	ASTM A217-WC6/ER410 & ASTM A217-CA15	ASTM A217-WC9/ER410 & ASTM A217-CA15	ASTM A217-C12A/ER410
STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
GLAND FLANGE	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A216-WCB	ASTM A216-WCB
HANDWHEEL	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON
SEAT RING	ASTM A105/STL.OVERLAY	ASTM A182-F316/STL.OVERLAY	ASTM A182-F11/STL.OVERLAY	ASTM A182-F22/STL.OVERLAY	ASTM A182-F6a/STL.OVERLAY
STEM	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F6a
BONNET SEAL RING	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F316L(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)
GLAND	ASTM A276-420	ASTM A276-316	ASTM A276-420	ASTM A276-420	ASTM A276-420
RETAINING NUT FOR STEM NUT	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
YOKE	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB& ASTM A217-WC6	ASTM A216-WCB& ASTM A217-WC6	ASTM A216-WCB
PACKING	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
BONNET SEPARATE RING	CARBON STEEL	ASTM A276-420	ANSI 4140	ANSI 4140	ANSI 4140
CLIPPING RING	ASTM A216-WCB	ASTM A351-CF8	ASTM A217-WC6	ASTM A217-WC6	ASTM A276-420
HANDWHEEL NUT	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
BONNET STUD	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
BONNET NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
YOKE STUD	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
YOKE NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
GLAND EYE BOLT	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
GLAND NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
BONNET THRUST RING	CARBON STEEL	ASTM A276-420	AISI 4140	AISI 4140	ANSI 4140
SUPPORTING COVER	ASTM A105	ASTM A276-420	AISI 4140	AISI 4140	ANSI 4140
CLIPPING RING BOLT	CARBON STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
RIVET	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	STAINLESS STEEL
NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL

Notes: Above materials are general, when ordered, Please contact NEWAY Sales or technical team to confirm the details.



- 1 Separated rings absorb the thrust along the stem applied by the internal pressure.
- 2 Sealing rings are used to withstand pressure and prevent deformation of the gaskets.
- 3 Stainless steel inlay to ensure soundness and corrosion-resistance in the critical body sealing zone for carbon and alloy steel valves.
- 4 Mild steel gasket seal to provide large contact area for perfect sealing.
- 5 Seat ring with stellite 6 overlay is standard design and installed with seal weld.

Part	Standard	Stainless Steel	High temperature Service		
			ASTM A217-WC6/STL.OVERLAY	ASTM A217-WC9/STL.OVERLAY	ASTM A217-C12A/STL.OVERLAY
BODY	ASTM A216-WCB/STL.OVERLAY	ASTM A351-CF8M/STL.OVERLAY	ASTM A217-WC6/STL.OVERLAY	ASTM A217-WC9/STL.OVERLAY	ASTM A217-C12A/STL.OVERLAY
BONNET	ASTM A105	ASTM A182-F316	ASTM A182-F11	ASTM A182-F22	ASTM A217-C12A
DISC	ASTM A182-F6a & ASTM A105/ER410	ASTM A182-F316	ASTM A182-F6a & ASTM A182-F11/ER410	ASTM A182-F6a & ASTM A182-F22/ER410	ASTM A182-F6a
STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
GLAND FLANGE	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB	ASTM A216-WCB	ASTM A216-WCB
HANDWHEEL	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON
BONNET SEAL RING	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F316L(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)
STEM	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F6a
RETAINING NUT FOR STEM NUT	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
GLAND	ASTM A276-420	ASTM A182-F316	ASTM A276-420	ASTM A276-420	ASTM A276-420
HANDWHEEL NUT	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
DISC NUT	ASTM A276-420	ASTM A182-F316	ASTM A276-420	ASTM A276-420	ASTM A276-420
STEM WASHER	ASTM A276-430	N/A	ASTM A276-430	ASTM A276-430	ASTM A276-430
THRUST RING	CARBON STEEL	AITM A276-420	AISI 4140	AISI 4140	AISI 4140
PACKING	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
CLIPPING RING	ASTM A216-WCB	ASTM A351-CF8	ASTM A217-WC6	ASTM A217-WC6	ASTM A276-420
YOKE STUD	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
YOKE NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
GLAND EYE BOLT	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
GLAND NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
BONNET NUT 1	CARBON STEEL	ASTM A276-420	AISI 4140	AISI 4140	AISI 4140
CLIPPING RINGBOLT	CARBON STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
BONNET NUT 2	CARBON STEEL	ASTM A276-420	AISI 4140	AISI 4140	AISI 4140
ORIENTED BLOCK	CARBON STEEL	ASTM A276-420	CARBON STEEL	CARBON STEEL	CARBON STEEL
YOKE	ASTM A216-WCB	ASTM A351-CF8	ASTM A216-WCB& ASTM A217-WC6	ASTM A216-WCB& ASTM A217-WC6	ASTM A217-C12A
RIVET	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	STAINLESS STEEL
NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL

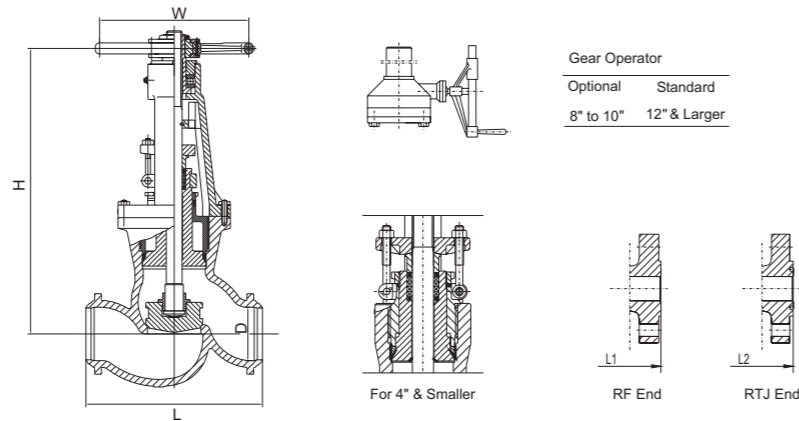
Notes: Above materials are general, when ordered, Please contact NEWAY Sales or technical team to confirm the details.

Class 600 Cast Carbon Steel Globe Valve

ASME B16.34,
Pressure Seal, OS&Y,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:

GL6R-PS,WCB/NO.5
GL6B-PS,WCB/NO.5
GL6J-PS,WCB/NO.5



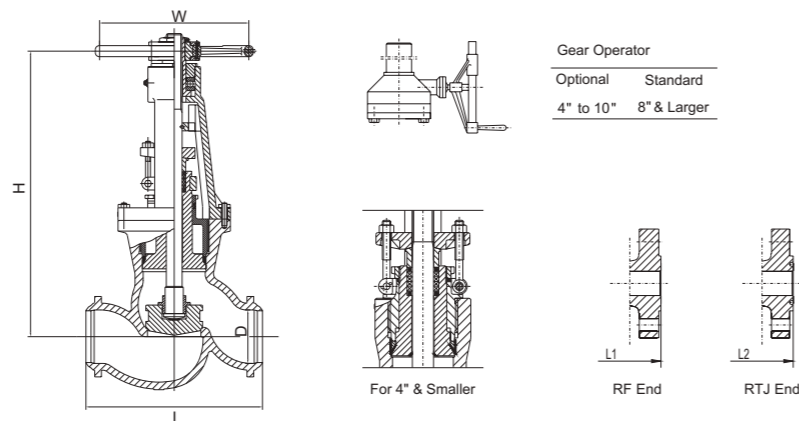
NPS	in	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"
DN	mm	50	65	80	100	125	150	200	250	300	350	400
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39
	mm	292	330	356	432	508	559	660	787	838	889	991
L2 (RTJ)	in	11.62	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12
	mm	295	333	359	435	511	562	663	790	841	892	994
W	in	9.8	11.8	13.8	17.7	19.7	22	23.6	27.6	24	24	29.9
	mm	250	300	350	450	500	560	600	700	610	610	760
H	in	21.7	24.8	26.8	29.5	39.4	45.3	49.2	55.1	61	70.9	85
	mm	550	630	680	750	1000	1150	1250	1400	1550	1800	2160
WT(RF)	kg	45	55	85	135	190	305	620	1310	1900	2720	3150
WT(BW)	kg	35	45	60	95	150	230	540	1150	1720	2530	2900

Class 900 Cast Carbon Steel Globe Valve

ASME B16.34,
Pressure Seal, OS&Y,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:

GL9R-PS,WCB/NO.5
GL9B-PS,WCB/NO.5
GL9J-PS,WCB/NO.5



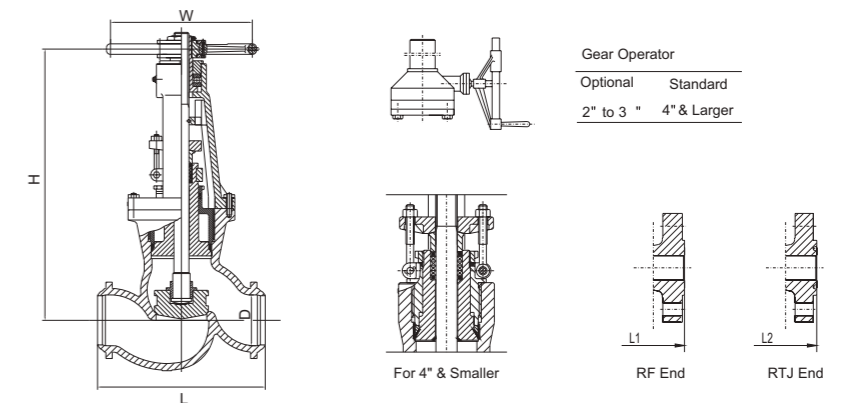
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"
DN	mm	50	65	80	100	150	200	250	300	350	400
L-L1 (RF-BW)	in	14.5	16.5	15	18	24	29	33	38	40.50	44.50
	mm	368	419	381	457	610	737	838	965	1029	1130
L2 (RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.13	38.13	40.88	44.88
	mm	371	422	384	460	613	740	841	968	1038	1140
W	in	14	14	18	20	24	24	24	39.38	39.38	47.25
	mm	350	350	450	500	610	610	610	1000	1000	1200
H	in	24.4	25.2	28.4	33.5	48.2	53.1	61	68.88	78.75	91
	mm	619	641	721	850	1225	1350	1550	1750	2000	2310
WT(RF)	kg	84	110	116	179	441	1050	1720	2300	3350	4000
WT(BW)	kg	58	74	84	137	378	945	1520	2050	3050	3600

Class 1500 Cast Carbon Steel Globe Valve

ASME B16.34,
Pressure Seal, OS&Y,
Rising Stem and Handwheel,
Swivel Disc

Figure NO.:

GL15R-PS,WCB/NO.5
GL15B-PS,WCB/NO.5
GL15J-PS,WCB/NO.5



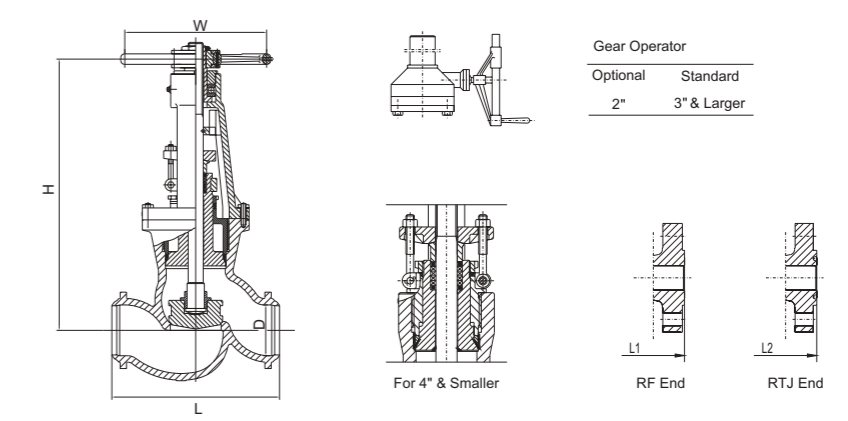
NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"
DN	mm	50	65	80	100	150	200	250	300	350
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5
	mm	368	419	470	546	705	832	991	1130	1257
L2 (RTJ)	in	14.62	16.62	18.62	21.62	28	33.13	39.38	45.13	50.25
	mm	371	422	473	549	711	842	1000	1146	1276
W	in	14	14	20	22	24	24	39.38	39.38	47.25
	mm	350	350	500	560	610	610	1000	1000	1200
H	in	24.4	25.2	32.9	33.7	48.4	70.9	78.78	91	106
	mm	619	641	835	857	1230	1800	2000	2311	2692
WT(RF)	kg	84	116	143	236	918	1764	2680	3400	4300
WT(BW)	kg	58	62	128	168	781	1502	2280	2830	3600

Class 2500 Cast Carbon Steel Globe Valve

ASME B16.34,
Pressure Seal, OS&Y,
Rising Stem and Handwheel,
Swivel Disc

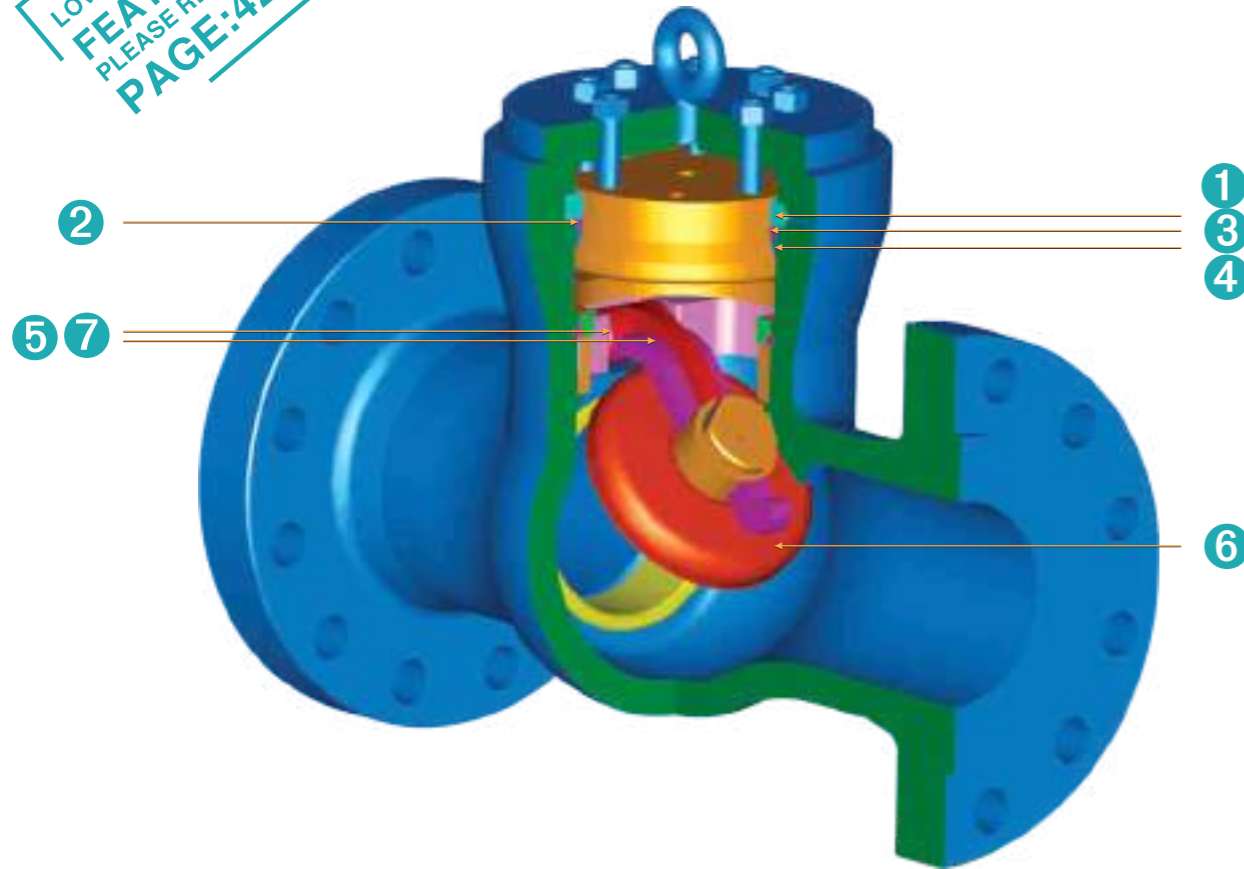
Figure NO.:

GL25R-PS,WCB/NO.5
GL25B-PS,WCB/NO.5
GL25J-PS,WCB/NO.5



NPS	in	2"	2-1/2"	3"	4"	6"	8"	10"	12"
DN	mm	50	65	80	100	150	200	250	300
L-L1 (RF-BW)	in	17.75	20	22.75	26.5	36	40.25	50	56
	mm	451	508	578	673	914	1022	1270	1422
L2 (RTJ)	in	17.88	20.25	23	26.88	36.5	40.88	50.88	56.88
	mm	454	541	584	683	927	1038	1292	1445
W	in	16	20	22	24	24	24	39.38	39.38
	mm	400	500	560	610	610	610	1000	1000
H	in	24.3	30.7	31.5	51.2	53.9	85	100	106
	mm	616	781	800	1300	1370	2160	2540	2692
WT(RF)	kg	105	163	221	525	1313	2520	3300	4200
WT(BW)	kg	74	116	147	368	973	2100	2500	3300

LOW EMISSION
FEATURE
PLEASE REFER
PAGE:42

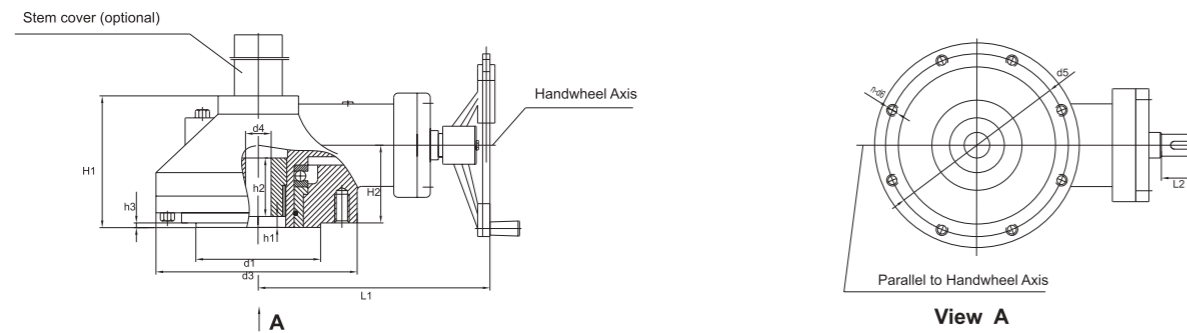


- 1 Separated rings absorb the thrust along the stem applied by the internal pressure.
- 2 Sealing rings are used to withstand pressure and prevent deformation of the gaskets.
- 3 Mild steel gasket seal to provide a large seal contact area for perfect sealing.
- 4 Stainless steel inlay to ensure soundness and corrosion-resistance in the critical body sealing zone for carbon and alloy steel valves.
- 5 Hinge pin design ensuring no pressure boundary intrusion.
- 6 Standard swing disc type to be used in horizontal position for liquid service applications or used in vertical position where liquid flow from bottom to top.
- 7 Hinge and hinge pin design to permit full movement of the disc.

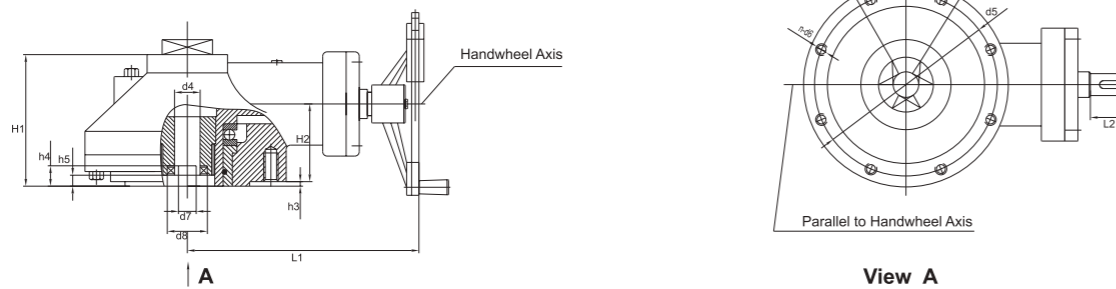
Part	Standard	Stainless Steel	High temperature Service		
			ASTM A217-WC6	ASTM A217-WC9	ASTM A217-C12A
BODY	ASTM A216-WCB	ASTM A351-CF8M	ASTM A217-WC6	ASTM A217-WC9	ASTM A217-C12A
COVER	ASTM A216-WCB(4"&Smaller ASTM A105)	ASTM A351-CF8M(4"&Smaller ASTM A182-F316)	ASTM A217-WC6(4"&Smaller ASTM A182-F11)	ASTM A217-WC9(4"&Smaller ASTM A182-F22)	ASTM A217-C12A(4"&Smaller ASTM A182-F91)
DISC	ASTM A217-CA15 &ASTM A216-WCB/ER410	ASTM A351-CF8M/STL.OVERLAY	ASTM A217-CA15 &ASTM A217-WC6/ER410	ASTM A217-CA15 &ASTM A217-WC9/ER410	ASTM A217-CA15
HINGE	ASTM A105	ASTM A351-CF8M	ASTM A217-WC6	ASTM A217-WC9	ASTM A217-C12A
HINGE PIN	ASTM A182-F6a	ASTM A276-316	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F6a
DISC NUT	ASTM A276-420	ASTM A276-316	ASTM A276-420	ASTM A276-420	ASTM A276-420
BONNET SEAL RING	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F316L(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)	ASTM A182-F304(4"&Smaller GRAPHITE)
HOOK SCREW	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	CARBON STEEL
COVER STUD	ASTM A193-B7	ASTM A193-B8	ASTM A193-B16	ASTM A193-B16	ASTM A193-B16
COVER NUT	ASTM A194-2H	ASTM A194-8	ASTM A194-4	ASTM A194-4	ASTM A194-4
SEAT RING	ASTM A105/STL.OVERLAY	ASTM A182-F316/STL.OVERLAY	ASTM A182-F11/STL.OVERLAY	ASTM A182-F22/STL.OVERLAY	ASTM A182-F6a/STL.OVERLAY
SEPARATE RING COVER	CARBON STEEL	ASTM A276-420	AISI 4140	AISI 4140	AISI 4140
THRUST RING COVER	CARBON STEEL	ASTM A276-420	AISI 4140	AISI 4140	AISI 4140
SUPPORTING COVER	ASTM A105	ASTM A276-420	AISI 4140	AISI 4140	AISI 4140
STOP RING	ASTM A276-420	ASTM A276-316	ASTM A276-420	ASTM A276-420	ASTM A276-420
YOKE	ASTM A216-WCB	ASTM A276-316	ASTM A216-WCB& ASTM A217-WC6	ASTM A216-WCB& ASTM A217-WC6	ASTM A217-C12A
SEPARATE RING FOR STOP RING	ASTM A276-420	ASTM A276-316	ASTM A276-420	ASTM A276-420	ASTM A276-420
SPLIT PIN	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
STOP RING SCREW	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
RIVET	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	CARBON STEEL	STAINLESS STEEL
NAME PLATE	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL

Notes: Above materials are general, when ordered, Please contact NEWAY Sales or technical team to confirm the details.

SZ Series for Gate & Globe Valves



SZ-Y Series for Globe Valves



With the enhancement of people ecological awareness since 1960's, especially under the background of nowadays quick economic globalization, protecting environment is becoming common understanding in present global development, whether developed or developing countries, and had led to born associated law and regulation in different fields, including modern process industries.

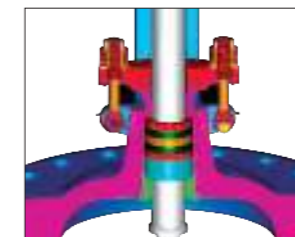
Industrial valves are one of main pollution sources in modern process industries because of fugitive emission. To minimize the risk of process media leaked through valves to human health, safety and environment, Neway developed low emission technology for all series valves, which featured the essential function of controlling effectively the fugitive emission leakage of various media from valves in virtue of emission defense material using and special structure design, and these valves are measured and tested in accordance with ISO 15848 or Shell SPE 77/312.



Design Features

Low Emission Packing

Neway actively works with reputable and industry leading sealing solution companies to create low emission solutions that can cover valves from cryogenic to extreme high temperature in variety of endurance range down to 10ppm without usage of bellow seal.



Stuffing box and stem finish

All surface finish for Neway valve's stem and stuffing boxes are tightly controlled to achieve optimized surface finish for the designated sealing solution.

Fugitive Emission Valve Test

Neway full series low emission gate, globe and check valves in addition to type testing, Neway offers production testing capabilities to ISO 15848-2, Shell MESC 77/312 or other customized testing standards. The table below presents typical test parameters.

Optional live-loaded eye bolt

Live-loaded eye bolt is optional on customer request. The special structure can maintain a permanent packing stress in virtue of a set of Belleville spring, and extend the low emission service life. Neway standard Belleville springs are protected by a weatherproof cap to keep them from environmental contamination so as to ensure a long and continual stable work life.

Test Standard	ISO 15848	Neway Acceptable Level	
Test Medium	97% Helium	Stem Seal Leakage Rate	ISO 15848 class B 1.78x10 ⁻⁷ Pa.m ³ /s (Per mm Stem diameter)
Test Pressure	Valve body pressure equals to the one specified in ASME B16.34 at selected temperature	Mechanical Cycles	100
Test Equipment	Helium Spectrometer	Temperature	-196 ~ 450 °C

1.Main Material:

Name of parts	Housing	Bevel gear	Output shaft	Stem nut
Material	ASTM A216-WCB	AISI 1045 & 5140	AISI 1045	ASTM A439-D2
Material	ASTM A352-LCB	AISI 1045 & 5140	AISI 1045	ASTM A439-D2

2.Technical Parameters:

Item	Type								
	SZ000	SZ00	SZ0	SZ1	SZ2	SZX3	SZX4	SZX5	SZXX6
Allowable torque(N.m)	200	400	750	1500	3000	6000(9000)	10000(15000)	22100	32000
Allowable thrust(KN)	40	100	150	200	350	840	1400	2400	2745
Reduction ratio	4:1	3:1	3:1	4.1:1	6:1	58:1(86:1)	86:1(104:1)	104:1(128:1)	125:1
Allowable stem diameter(mm)	25	42	55	62	75	115	125	125	150
Handwheel diameter(mm)	305	305	305	460	610	810	1000	1200	1200

Note: "X" in SZX3,SZX4,SZX5 and SZX6 indicates that a planetary gear reduction drive is used .
The allowable torque and the ratio parameter in the brackets will be selected by the manufacturer.

3.Flange Type and Dimensions (mm)

Code Type	L1	L2	H1	H2	d1	d2	d3	d4(max)	d5	n-d6	d7	d8	h1	h2	h3	h4	h5	Flange type
SZ000	200	45	100	59	70(f8)		146	25	102	4-M10	40	51	1	42	3	8	4	F10
SZ00	210	60	122	76	100(f8)		178	42	140	4-M16	50	64.5	1	60	4	10	5	F14
SZ0	232	60	135	84	130(f8)		210	55	165	4-M20	63	79	1	70	5	15	5	F16
SZ1	283	60	160	95	200(f8)		289	62	254	8-M16	70	89	1	75	5	15	5	F25
SZ2	370	60	220	140	230(f8)		346	75	298	8-M20	95	119	15	110	5	18	5	F30
SZX3	610	60	330	328	260(f8)	428	510	115	356	8-M30	128	166	30	168	5	18	5	F35
SZX4	668	110	360	410	300(f8)	475	620	125	406	8-M36	138	188	35	180	8	25	5	F40
SZX5	668	110	360	410	370	544	690	125	483	12-M36	150	210	35	180	8	32	5	F48
SZXX6	1020	60	500	282	470	686	810	150	603	20-M36	178	240	40	230	8	40	5	F60

NACE Introduction Special Design Feature

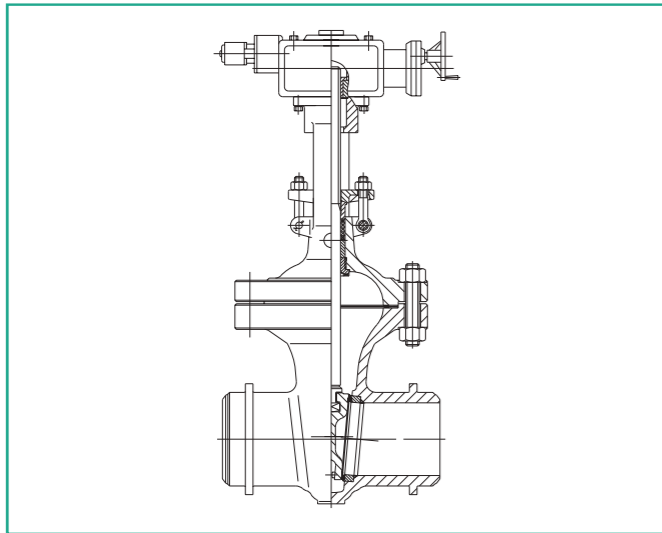
For servicing H₂S-containing environments in oil and gas production, Neway offers NACE valve made of the component metal materials specially heat-treated and hardness-controlled in compliance with NACE standard MR0175, so as to resist all

mechanisms of cracking that can be caused by H₂S, including sulfide stress cracking (SSC), stress corrosion cracking (SCC), and other hydrogen-induced cracking. Below table show typical Nace material configuration for Neway cast steel gate valves:

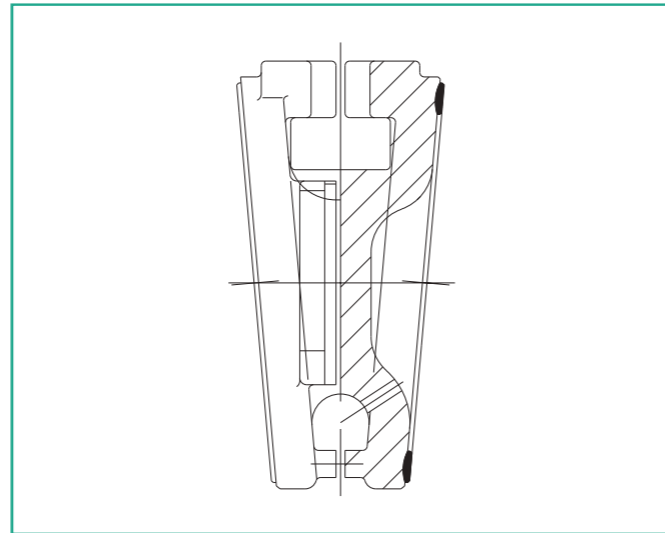
NACE Valves Compared to API 600 Valves

Valve Parts	ASTM Specification	API 600 Valves	NACE Valves
Body/Bonnet	A216 Gr. WCB	≤ 22HRC	≤ 22HRC
Wedge	A216 Gr. WCB or A217 CA15	Quenching + High Temperature Tempering 25~30HRC	Quenching + Double Tempering ≤ 22HRC
Seat Ring	A105 + Stellite 6 Overlayed	Stress Relieving Tempering Overlay hardness ≥ 38HRC	Stress Relieving Tempering Overlay hardness ≥ 38HRC
Stem	A182 F6a	Quenching + High Temperature Tempering 17~22HRC	Quenching + Double Tempering ≤ 22HRC
Gland	ANSI 420	Quenching + High Temperature Tempering 31~35HRC	Quenching + Double Tempering ≤ 22HRC
Backseat Bushing	ANSI 420	Quenching + High Temperature Tempering 31~35HRC	Quenching + Double Tempering ≤ 22HRC
Body/Bonnet Studs		ASTM A193 Grade B7	ASTM A193 Grade B7M
Body/Bonnet Nuts		ASTM A194 Grade 2H	ASTM A194 Grade 2HM

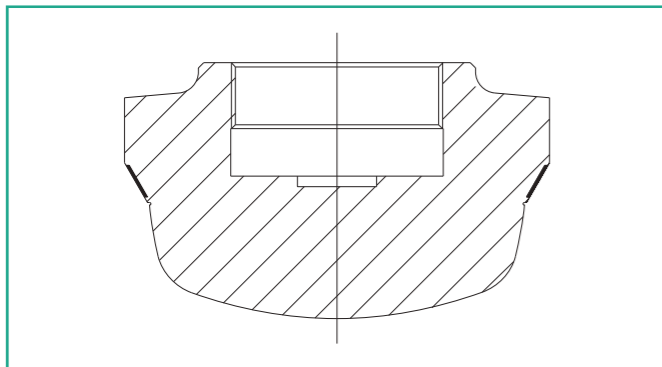
Special Design Feature



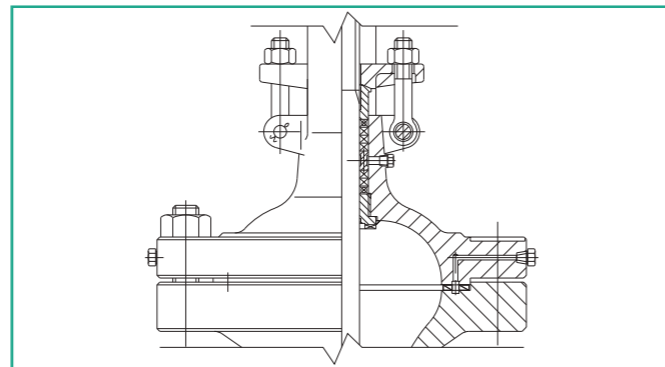
All gate and globe valves can be equipped with electric , Pneumatic or hydraulic actuator, per customer's specification.



Pressure relief hole

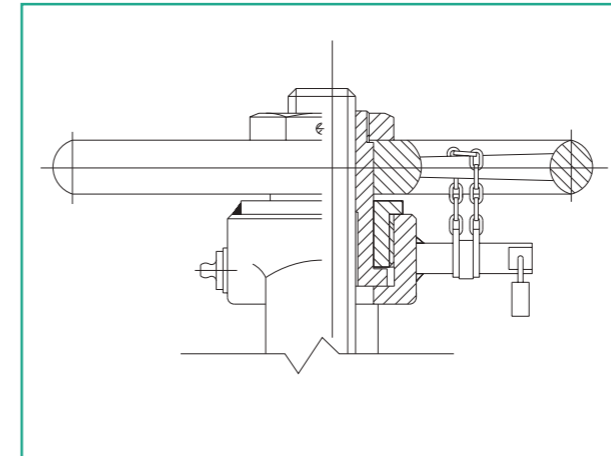


Parabola disc

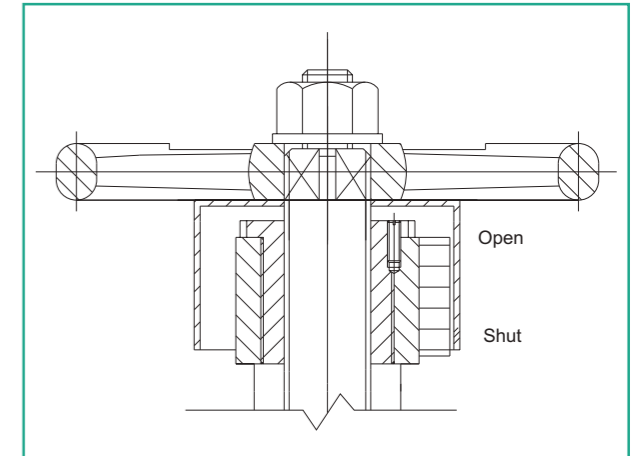


Packing and gasket design for emergent sealing

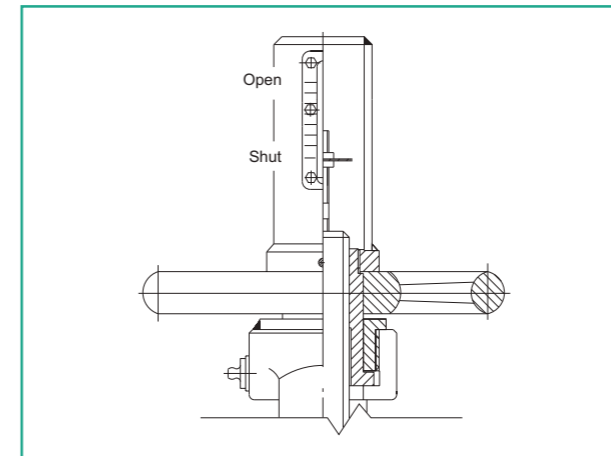
Special Design Feature



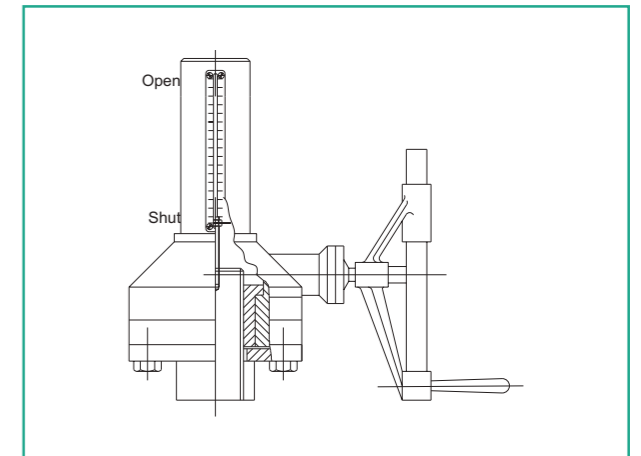
Locking device on the handwheel



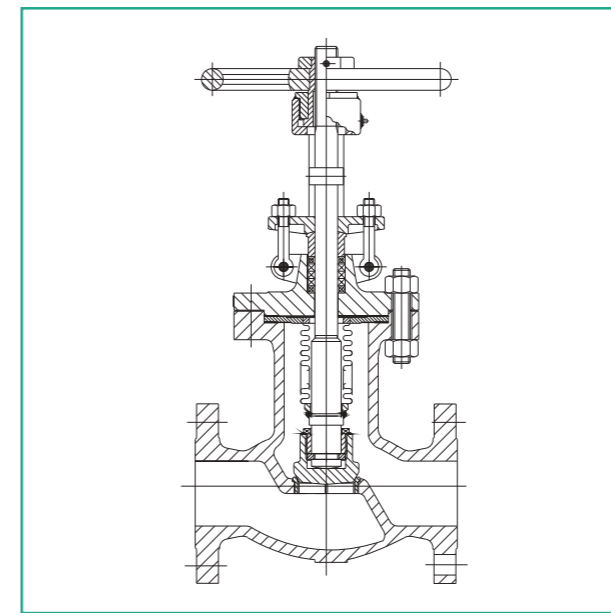
Position indicator on globe valves



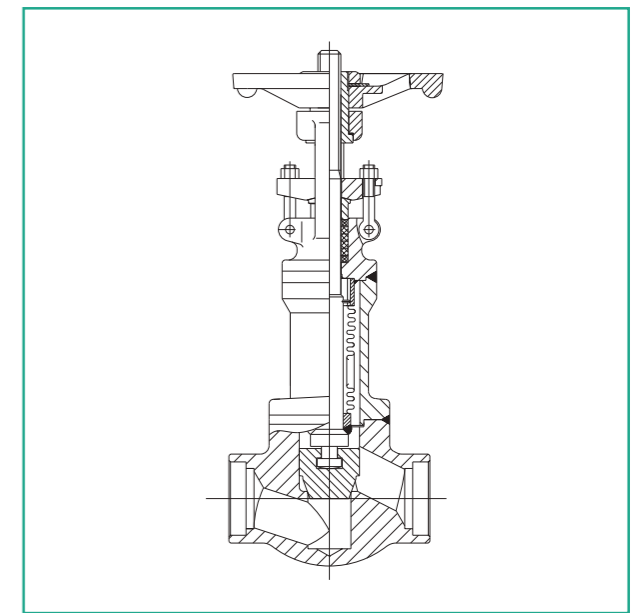
Position indicator on gate valves



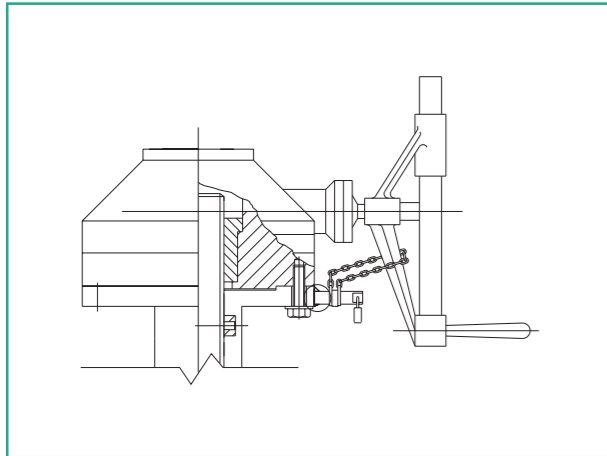
Position indicator on gear box



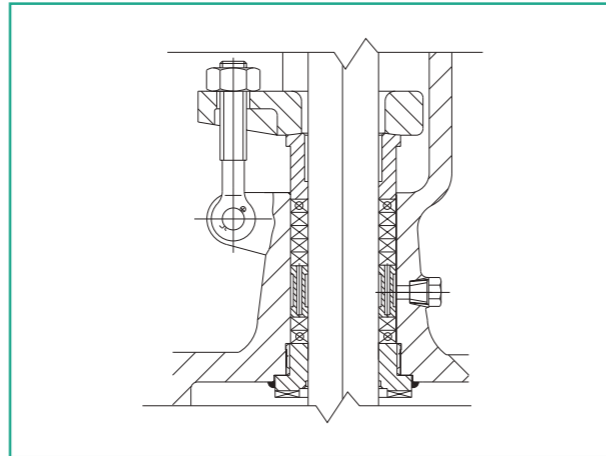
Casting steel bellows sealed valves



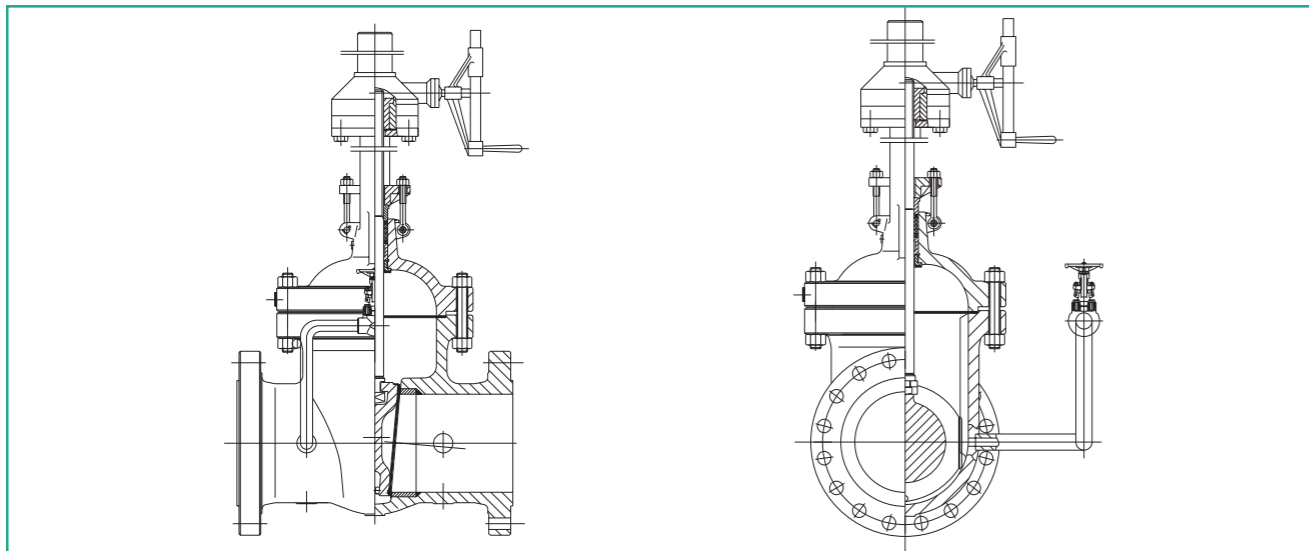
Forging steel bellows sealed valves



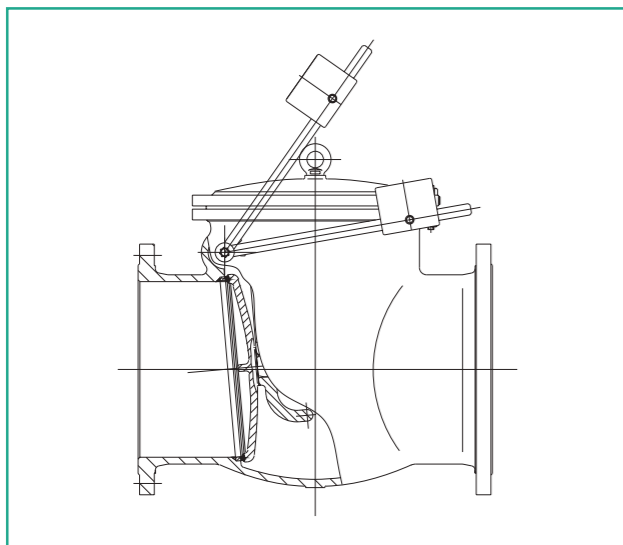
Locking device on the gear box



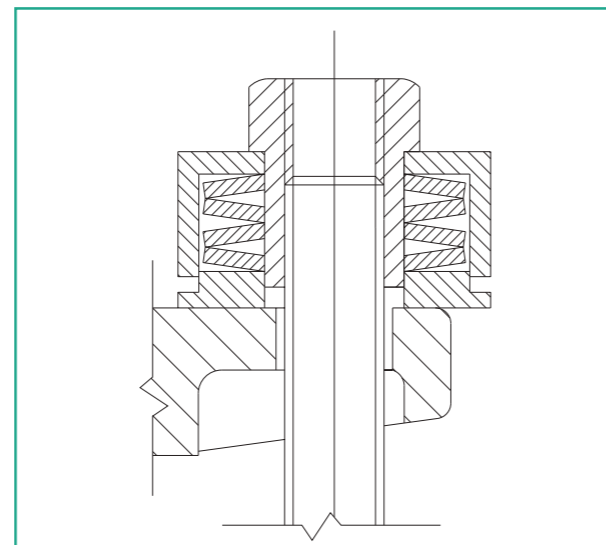
The lantern on the gate and globe valves



Special by-pass application



Check valves with damping box and equilibrium hammers



Live-loaded eye bolt

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 or 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.