RANGER

VALVE AMERICA

CAST STEEL GATE, GLOBE, &
CHECK VALVES

ASME CLASS 150 - 2500#

CONTENTS

RANGER
VALVE AMERICA

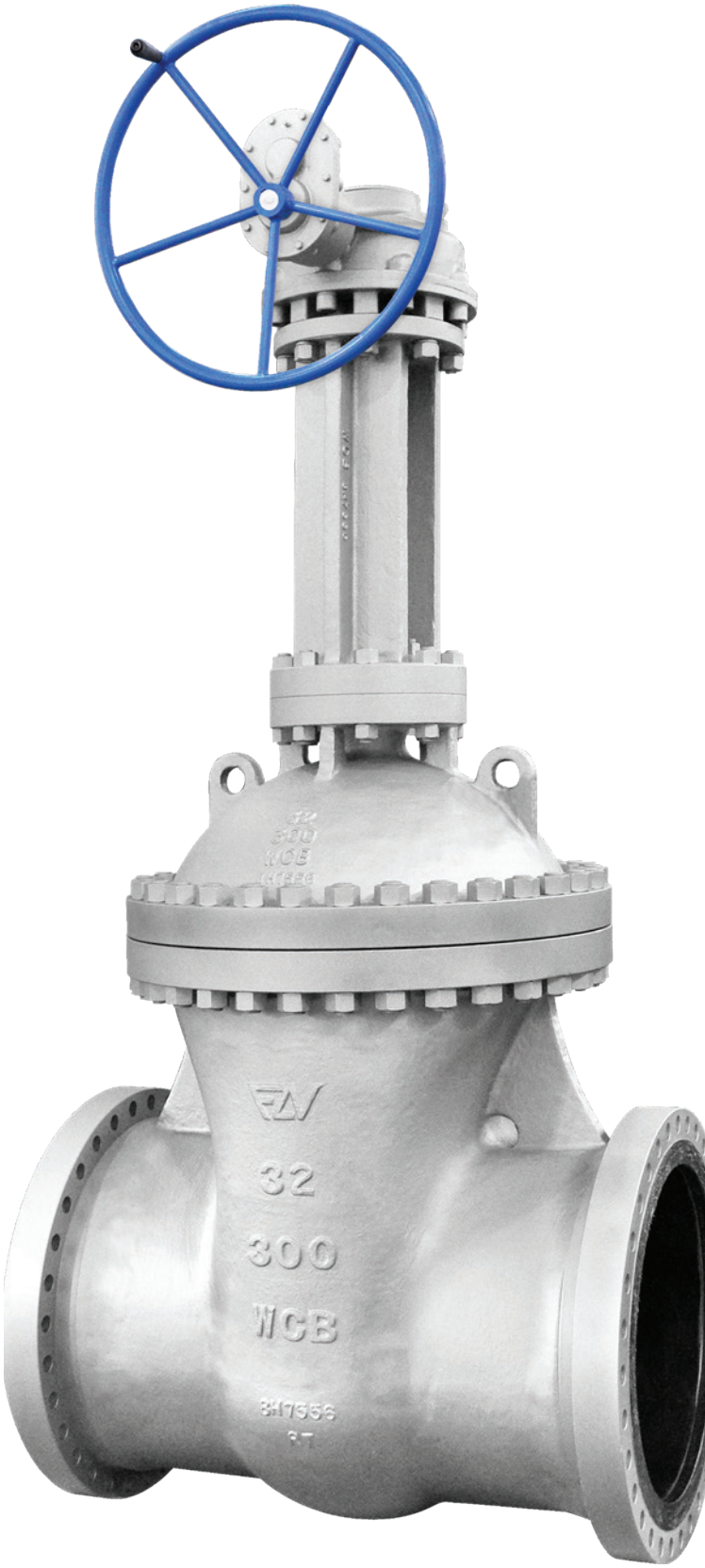
Ranger Valve America Ltd. (Ranger™) is a specialized supplier of API 6D, API 600, API 623, API 594 and API 16C valves and flow control components, including industrial valves and wellhead equipment.

Ranger™ works closely with its partners and strives to exceed expectations.

Ranger™ works to provide a rigorous research and development program aimed at product design, innovation and validation. Ranger™ uses a full spectrum of inspection and test equipment to ensure that all products meet or exceed the quality standards, including:

- Mechanical: tensile, impact and hardness testing;
- NDE: PT, MT, UT
- Chemical: PMI
- Fugitive emission
- Shell type acceptance test(TAT).

As well, Ranger™ simulates various tests in critical and crucial working conditions to verify product performance.



FUGITIVE EMISSIONS

Ranger Valve America Ltd. (Ranger™) is proud to produce Cast Steel Gate and Globe valves that meet the latest API 624 Specification: Type Testing of Rising Stem Valves Equipped with Graphite Packing for Fugitive Emissions.

API 624

To meet the stringent API 624 requirements, Ranger™ has selected A.W. Chesterton Company (Chesterton) from Groveland, Massachusetts as the manufacturer of the graphite packing used in the manufacture of Ranger™ Cast Steel Gate and Globe valves. Chesterton has successfully passed the API 622 testing standards that includes:

- High pressure testing at ambient and high temperatures with methane over 5 thermal cycles and 1500 mechanical cycles with only one packing adjustment allowed. The acceptance criteria is that the packing emissions must not exceed 100 ppmv.
- Corrosion testing at ambient temperature in high humidity and high pressure for 28 days and high temperature steam at high pressure for 35 days to ensure the minimal weight loss.
- The graphite packing is also tested for material composition and properties to ensure the proper density, lubricant content with minimal weight loss and leachable materials.

Once Chesterton attained their certification to API 622 they became authorized to provide API 624 testing and certification in their USA facility for gate and globe valves supplied by valve manufacturers worldwide.

The details of the API 624 parameters and requirements of the FE testing conducted by Chesterton on Ranger™'s valves are as follows:

- Type Testing: Based upon the elements of EPA Method 21 (United States Environmental Protection Agency)
- Valves Qualified: All sizes up to and including 24" / 600mm - All classes up to and including 1500
- Valve Operating Temperature Range: -29°C to 538°C / -20°F to 1000°F
- Test Medium: Dry methane gas at 97% minimum purity.
- Test Pressure: 600 psi / 4.13 MPa
- Test Temperature: Ambient and 260°C / 500°F
- Thermal Cycles: 3
- Mechanical Cycles: 310
- FE Testing: Static and dynamic conditions, taken at stem and packing outside diameters every 50 cycles

Fugitive Emission Testing

Ranger™ conducts fugitive emission testing for the evaluation of external leakage of valve stems or shafts and body joints of isolating valves and control valves intended for application with volatile air pollutants and hazardous fluids

- FE testing of sample standard production valves is conducted where fugitive emission standards are specified with testing conducted at the factory.

At Ranger™ can also provide additional Fugitive Emission Testing as requested by our customers including:

- ISO 15848-2: Industrial Valves – Measurement, test and qualification procedures for fugitive emissions – Production acceptance test of valves.

- Shell MESC 77/312: Fugitive emission production testing (amendments/supplements to ISO 15848-2) and the accompanying procedure and technical specification for type acceptance testing (TAMAP) of industrial valves.

Additionally, Ranger™ is capable of High Temperature, Low Temperature, Cryogenic, addtional Fugitive Emission testing and more.




QUALITY CONTROL

PNEUMATIC SHELL TEST

For Cast Steel Gate, Globe and Check Valves, the body casting integrity is tested for small leaks which are difficult to detect during the required hydrotest by performing a ***High Pressure Pneumatic Shell test on all valves!***

The test is performed by submerging the valves in water and pressure testing the valves with compressed air or nitrogen. Any pinholes in the casting are easily spotted as gas bubbles in the water.

PNEUMATIC SHELL TEST DETAILS

NPS	DURATION (MIN.)
1/2-4	4
6-10	10
12-18	20
⩾20	30

CLASS	TEST PRESSURE (Psi)
150	300
300	575
600	725
900	725
1500	2175
2500	3625

RANGER

CAST STEEL VALVE MANUFACTURING PROGRAM

CAST GATE, GLOBE & CHECK VALVES

VALVE TYPE	API 600 GATE VALVE																					
SIZE (in) / CLASS	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48	54	60
150	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
300	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
600	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
900	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		
1500	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O					
2500	O	O	O	O	O	O	O	O	O	O	O	O										

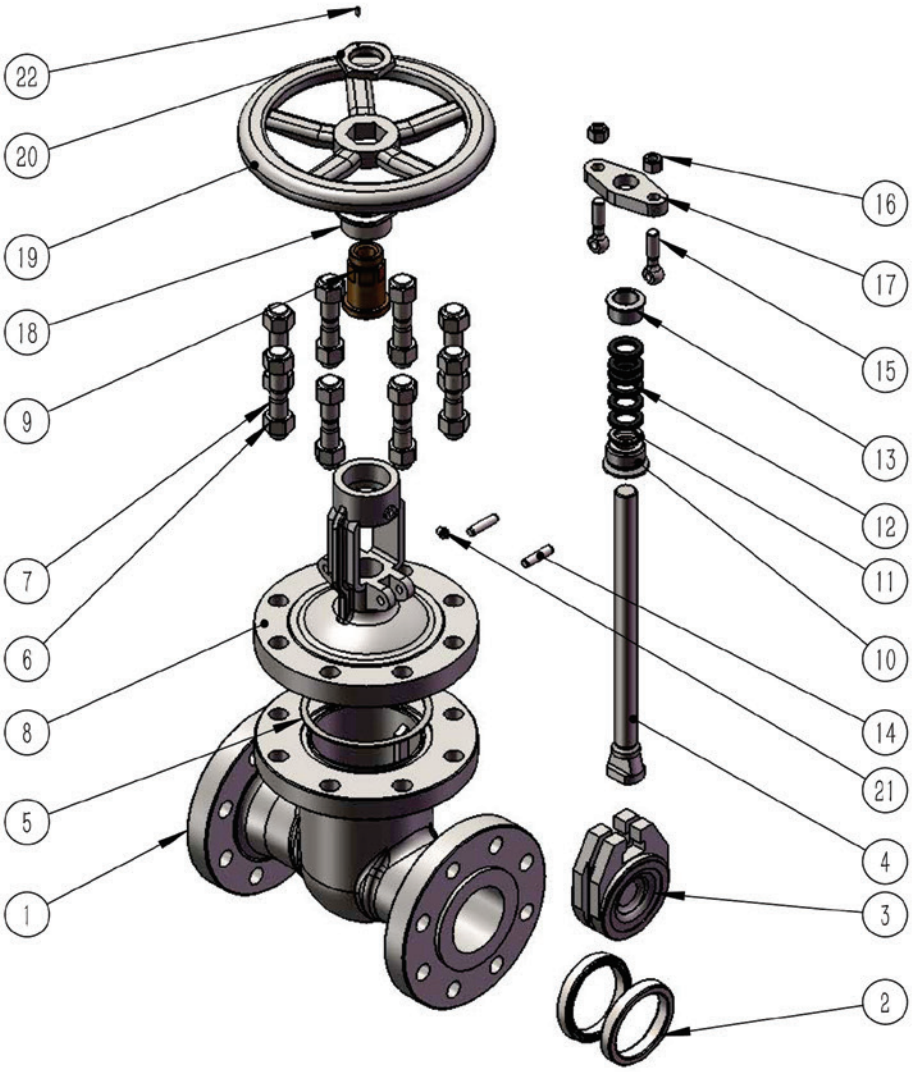
VALVE TYPE	API 623 GLOBE VALVE																					
SIZE (in) / CLASS	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48	54	60
150	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O					
300	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O					
600	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O					
900	O	O	O	O	O	O	O	O	O	O	O	O	O									
1500	O	O	O	O	O	O	O	O	O	O	O	O	O									
2500	O	O	O	O	O	O	O	O														

VALVE TYPE	API 594 CHECK VALVE																					
SIZE (in) / CLASS	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48	54	60
150	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
300	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
600	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
900	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		
1500	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O					
2500	O	O	O	O	O	O	O	O	O	O	O	O										

DESIGN AND MANUFACTURING STANDARDS

Design and manufacturing standards	API 600, ASME B16.34, ISO 10434, API 624
Face-to-face standard	ASME B16.10
Connection dimension standards	ASME B16.5, ASME B16.47, ASME B16.25
Inspection and test standards	ISO 5208, API 598

VALVE COMPONENTS			
1 BODY	7 BONNET STUD	13 PACKING GLAND	19 HANDWEHEL
2 SEAT	8 BONNET	14 STRIGHT PIN	20 LOCKING NUT
3 GATE	9 STEM NUT	15 EYELET BOLT	21 GREASE NIPPLE
4 STEM	10 BACK SEAT	16 NUT	22 SCREW
5 BONNET GASKET	11 SPACER RING	17 GLAND FLANGE	
6 BONNET NUT	12 PACKING	18 BEARING COVER	



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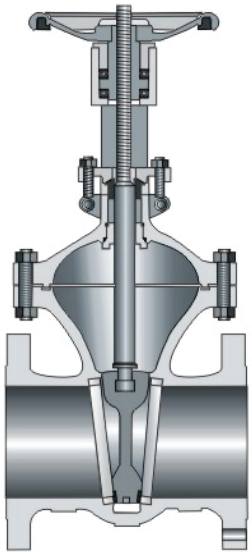
API pressure test（PSI）

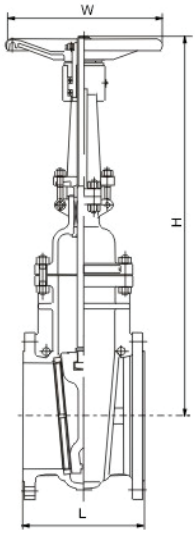
CLASS	BACK SEAT TEST	SHELL TEST	HIGH PRESSURE SEAL TEST	LOW PRESSURE SEAL TEST
150	314	428	314	87
300	814	1110	814	
600	1628	2220	1628	
900	2442	3330	2442	
1500	4076	5558	4076	
2500	6787	9255	6787	

Common Materials

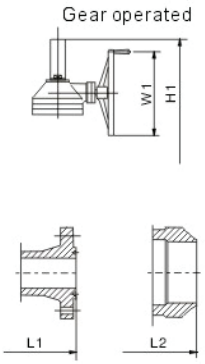
PART NAME	CARBON STEEL		ALLOY STEEL		STAINLESS STEEL			
Body	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Bonnet	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Disc	A216 WCB+13Cr	A352 LCC+316	A217 WC6+STL	A217 WC9+STL	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Seat	A105N+STL	A350 LF2+STL	A182 F11+STL	A182 F22+STL	A182 F304+STL	A182 F316+STL	A182 F304L+STL	A182 F316L+STL
Stem	A182 F6a	A182 F316	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
Stud	A193 B7	A320 L7M	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M
Nut	A194 2H	A194 7M	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M
Back seat	A182 F6a	A182 F316	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
Gland ring	A276 410	A276 316	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L

Notes:
1. All materal in accordance with ASTM standards
2. Additonal material awailable upon request





Class 150 structure chart



CLASS 150								
Bore	**L**	**L1**	**L2**	**H**	**W**	**H1**	**W1**	**WT(RF)**
inch	**in**	**in**	**in**	**in**	**in**	**in**	**in**	**lb**
2	7	7.5	8.5	13.4	9.8			46
2-1/2	7.5	8	9.5	15.8	9.8			55
3	8	8.5	11.1	15.9	11			66
4	9	9.5	12	17.6	11.8			92
5	10	10.5	15	21.4	11.8			132
6	10.5	11	15.9	23.6	13.9			165
8	11.5	12	16.5	29.3	15.8			264
10	13	13.5	18	35.4	15.8	50.4	12.2	451
12	14	14.5	19.8	41.7	19.7	60	12.2	595
14	15	15.5	22.5	48.2	23.6	63	12.2	925
16	16	16.5	24	53	23.6	70.7	18.1	1212
18	17	17.5	26	58.5	23.6	80.5	18.1	1433
20	18	18.5	28	64.2	26.8	89.6	18.1	1739
24	20	20.5	32	76	31.5	105.3	20.9	2645
26	22		34			117.3	23.6	3417
28	24		36			125	23.6	3968
30	24		36			134.1	23.6	5643
32	26		38			138.4	23.6	6746
36	28		40			154.3	23.6	7716

* Additional sizes available upon request.

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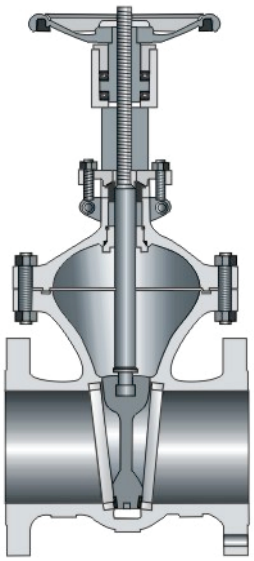
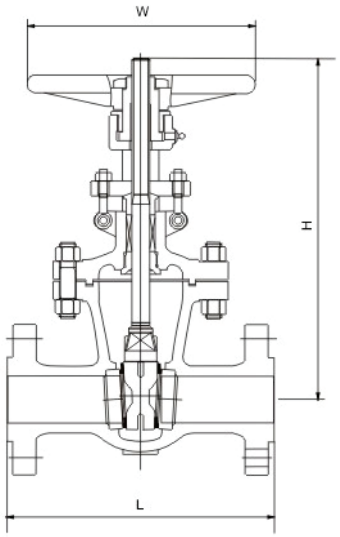
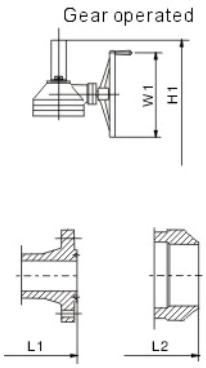


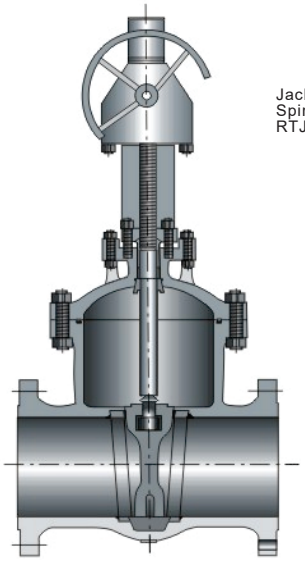




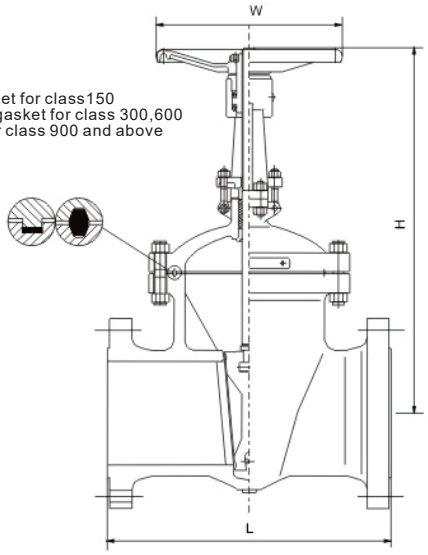
Class 300 structure chart

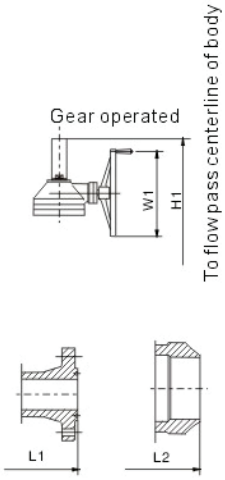
CLASS 300								
Bore	**L**	**L1**	**L2**	**H**	**W**	**H1**	**W1**	**WT(RF)**
inch	**in**	**in**	**in**	**in**	**in**	**in**	**in**	**lb**
2	8.5	9.1	8.5	13.4	9.8			66
2-1/2	9.5	10.1	9.5	15.4	9.8			79
3	11.1	11.7	11.1	16.2	11.0			103
4	12	12.6	12	17.7	11.8			152
5	15	15.6	15	22.4	13.8			196
6	15.9	16.5	15.9	24.3	15.8			271
8	16.5	17.1	16.5	29.9	17.7			432
10	18	18.6	18	36.9	19.7	54.1	12.2	734
12	19.8	20.4	19.8	42.9	23.6	58.8	18.1	970
14	30	30.6	30	49.8	27.6	68.4	18.1	1565
16	33	33.6	33	53.9	27.6	74.0	18.1	2094
18	36	36.6	36	59.5	31.5	83.1	18.1	3097
20	39	39.6	39	67.3	31.5	90.9	18.1	3791
24	45	45.9	45			110.6	23.6	6106
26	49	50	49			117.5	23.6	7605
28	53	54	53			125.1	23.6	7301
30	55	56	55			133.7	23.6	9038
32	60	61	60			145.7	23.6	11463
36	68	69.1	68			162.0	23.6	14770

* Additional sizes available upon request.



Jacketed gasket for class150
Spiral wound gasket for class 300,600
RTJ gasket for class 900 and above





CLASS 600								
Bore	**L**	**L1**	**L2**	**H**	**W**	**H1**	**W1**	**WT(RF)**
inch	**in**	**in**	**in**	**in**	**in**	**in**	**in**	**lb**
2	11.5	11.6	11.5	14.7	9.8			86
2-1/2	13	13.1	13	16.1	9.8			114
3	14	14.1	14	18.2	11.8			194
4	17	17.1	17	22.6	13.8			251
6	22	22.1	22	28.1	19.7	37.7	12.2	628
8	26	26.1	26	34.4	23.6	46.4	18.1	910
10	31	31.1	31	39.2	23.6	53.6	18.1	1433
12	33	33.1	33	44.9	27.6	61.1	20.5	1763
14	35	35.1	35	50.2	27.6	64.2	20.5	2513
16	39	39.1	39			80.1	23.6	3747
18	43	43.1	43			84.3	23.6	5000
20	47	47.6	47			92.9	23.6	6283
24	55	55.4	55			111.8	23.6	7716

* Additional sizes available upon request.

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CLASS 900

Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	14.5	14.6	14.5	18.5	11.8			158
2-1/2	16.5	16.6	16.5	20.2	13.8			222
3	15	15.1	15	20.2	13.8			286
4	18	18.1	18	24.1	15.8			434
6	24	24.1	24	32.8	23.6	40.4	12.2	890
8	29	29.1	29	32.9	23.6	45.7	18.1	1433
10	33	33.1	33	40.9	25.6	59.8	18.1	1873
12	38	38.1	38	45.3	27.6	67.7	18.1	2594
14	40.5	40.9	40.5			70.8	23.6	3306
16	44.5	44.9	44.5			75.1	23.6	4232

CLASS 1500

Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	14.5	14.6	14.5	18.5	11.8			187
2-1/2	16.5	16.6	16.5	21.5	13.8			286
3	18.5	18.6	18.5	21.7	15.8			374
4	21.5	21.6	21.5	29.6	21.7	36.9	18.1	670
6	27.8	28	27.8			45.9	18.1	1424
8	32.8	33.1	32.8			53.9	18.1	2425
10	39	39.4	39			61.1	23.6	3527
12	44.5	45.1	44.5			70.9	23.6	4642
14	49.5	50.3	49.5			86.6	23.6	5952
16	54.5	55.4	54.5			100.4	23.6	7716

CLASS 2500

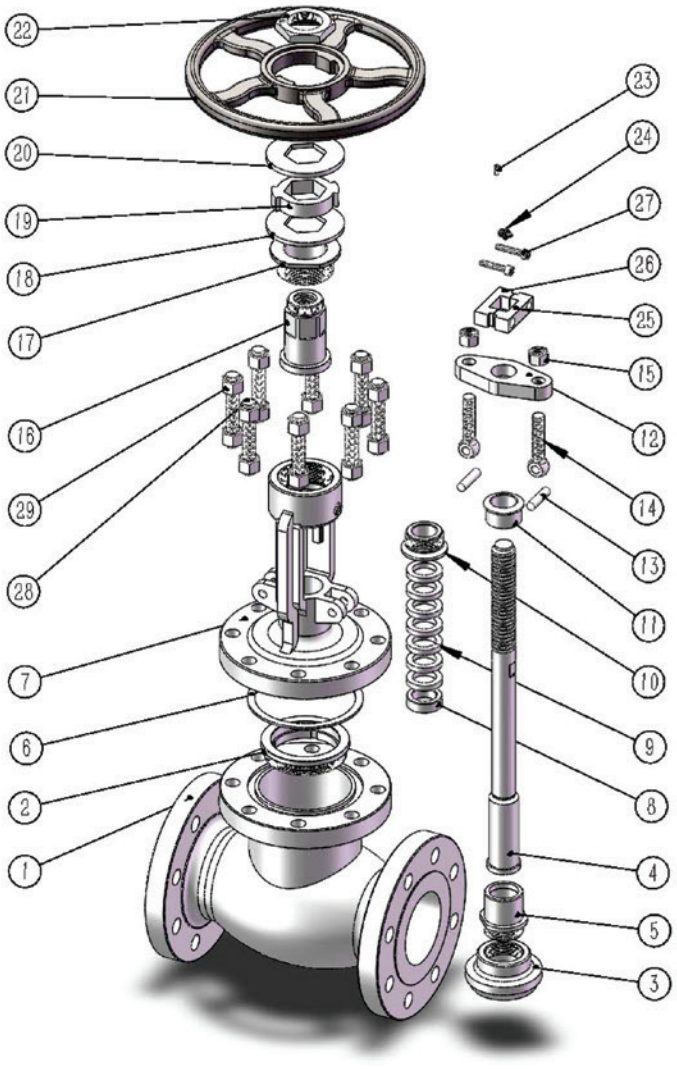
Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	17.8	17.9	17.8	22.2	13.8			273
3	22.8	23	22.8	27.4	15.8			555
4	26.5	26.9	26.5			38.5	18.1	1080
6	36	36.5	36			43.3	20.9	2645
8	40.3	40.8	40.3			50.8	23.6	5291
10	50	50.9	50			57.9	23.6	10030
12	56	56.9	56			66.9	27.6	13227

* Additional sizes available upon request.

DESIGN AND MANUFACTURING STANDARDS

Design and manufacturing standards	API 623, ASME B16.34, API 624
Face-to-face standard	ASME B16.10
Connection dimension standards	ASME B16.5, ASME B16.25
Inspection and test standards	ISO 5208, API 598

VALVE COMPONENTS			
1 BODY	9 PACKING	17 BEARING COVER	25 GUIDE BLOCK I
2 SEAT	10 BACK SEAT	18 SUPPORTING PLATE	26 GUIDE BLOCK II
3 DISC	11 NUT	19 IMPACT BLOCK	27 SCREW
4 STEM	12 GLAND FLANGE	20 RETAINING PLATE	28 BONNET STUD
5 DISC COVER	13 PIN	21 HANDWHEEL	29 BONNET NUT
6 BONNET GASKET	14 EYELET BOLT	22 HANDWHEEL NUT	
7 BONNET	15 NUT	23 SCREW	
8 SPACER RING	16 STEM NUT	24 GREASE NIPPLE	



RANGER

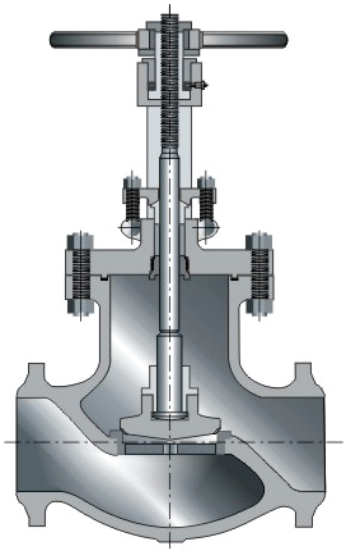
API pressure test（PSI）

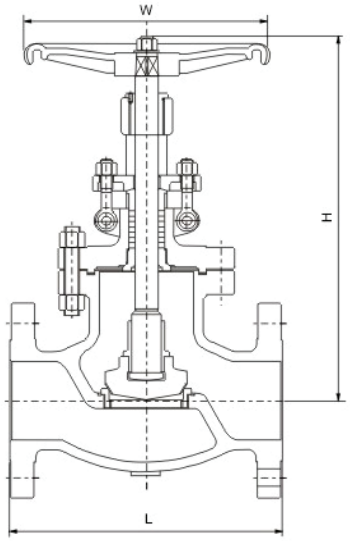
Class	Back seat test	Shell test	High pressure seal test	Low pressure seal test
150	314	428	314	
300	814	1110	814	
600	1628	2220	1628	
900	2442	3330	2442	87
1500	4076	5558	4076	
2500	6787	9255	6787	

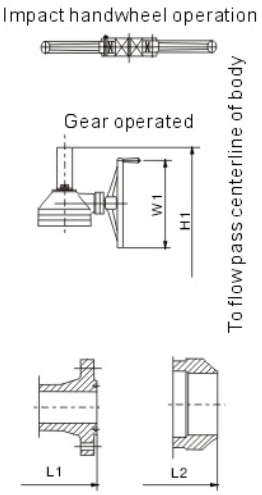
Common Materials

PART NAME	CARBON STEEL		ALLOY STEEL		STAINLESS STEEL			
Body	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Bonnet	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Disc	A105N+STL	A350 LF2+STL	A182 F11+STL	A182 F22+STL	A182 F304+STL	A182 F316+STL	A182 F304L+STL	A182 F316L+STL
Seat	A105N+13Cr	A350 LF2+316	A182 F11+STL	A182 F22+STL	A182 F304	A182 F316	A182 F304L	A182 F316L
Stem	A182 F6a	A182 F316	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
Stud	A193 B7	A320 L7M	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M
Nut	A194 2H	A194 7M	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M
Back seat	A182 F6a	A182 F316	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
Gland ring	A276 410	A276 316	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L

Not: 1. All materal in accordance with ASTM standards
2. Additonal material awailable upon request







CLASS 150								
Bore	**L**	**L1**	**L2**	**H**	**W**	**H1**	**W1**	**WT(RF)**
inch	**mm/in**	**in**	**in**	**in**	**in**	**in**	**in**	**lb**
2	8	8.5	8	13.8	8.7			46
2-1/2	8.5	9	8.5	14.3	9.8			63
3	9.5	10	9.5	15.1	11			75
4	11.5	12	11.5	17.7	12.6			119
5	14	14.5	14	18.7	12.6			158
6	16	16.5	16	21.1	15.8			205
8	19.5	20	19.5	27.8	17.7	29.9	12.2	407
10	24.5	25	24.5	31	22.1	38.9	18.1	590
12	27.5	28	27.5	34.5	22.1	41.2	18.1	881
14	31	31.5	31			55.1	23.6	1433
16	36	36.5	36			66.9	23.6	2453

RANGER

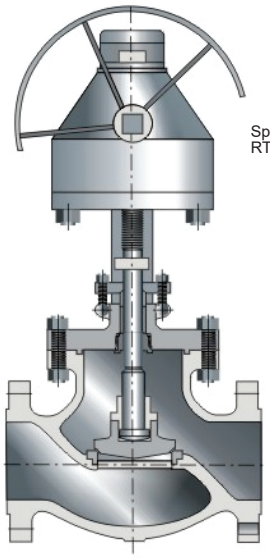
CLASS 300

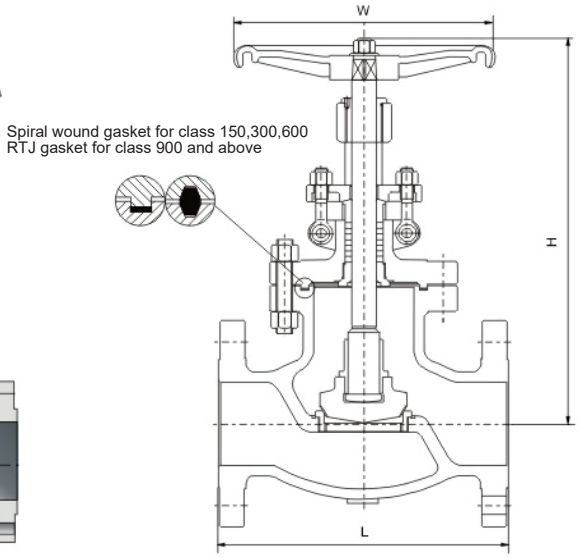
Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	10.5	11.1	10.5	13.8	8.7			61
2-1/2	11.5	12.1	11.5	14.8	9.8			79
3	12.5	13.1	12.5	16.1	11			110
4	14	14.6	14	18.5	12.6			165
5	15.8	16.4	15.8	24.4	15.8			308
6	17.5	18.1	17.5	27.9	17.7	31.1	18.1	440
8	22	22.6	22	30.6	19.7	33.9	18.1	632
10	24.5	25.1	24.5	36.8	22.1	39.3	18.1	1124
12	28	28.6	28	41.7	23.6	52	23.6	1587

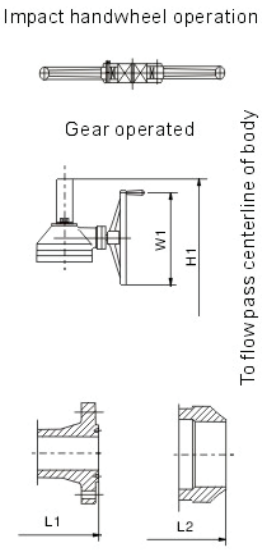
CLASS 600

Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	11.5	11.6	11.5	16.1	11	40.4	20.5	70
2-1/2	13	13.1	13	19.6	12.6	42.8	18.1	99
3	14	14.1	14	22.4	13.8	54.3	23.6	136
4	17	17.1	17	26.8	17.7	65.5	23.6	306
6	22	22.1	22	35.5	22.1			754
8	26	26.1	26	35.9	23.6			1064
10	31	31.1	31	45.7	27.6			1918
12	33	33.1	33	48.3	29.9			2352

* Additional sizes available upon request.







CLASS 900

Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	14.5	14.6	14.5	21.1	13.8			127
2-1/2	16.5	16.6	16.5	24.8	15.8			202
3	15	15.1	15	26.6	13.8			317
4	18	18.1	18	30.7	19.7			496
6	24	24.1	24	36.9	23.6	39.5	18.1	1106
8	29	29.1	29	41.4	27.6	49.5	23.6	1587

CLASS1500

Bore	L	L1	L2	H	W	H1	W1	WT(RF)
inch	in	in	in	in	in	in	in	lb
2	14.5	14.6	14.5	21.1	13.8			145
2-1/2	16.5	16.6	16.5	24.8	15.8			253
3	18.5	18.6	18.5	28	17.7			414
4	21.5	21.6	21.5	31.9	22.1			643
6	27.8	28	27.8			47.6	23.6	1366
8	32.8	33.1	32.8			65.2	23.6	1781

CLASS 2500

Bore	L	L1	L2			H1	W1	WT(RF)
inch	in	in	in			in	in	lb
2	17.8	17.9	17.8			31.5	18.1	418
3	22.8	23	22.8			36.4	20.9	859
4	26.5	26.9	26.5			43.7	20.9	1609
6	36	36.5	36					
8	40.3	40.9	40.3					

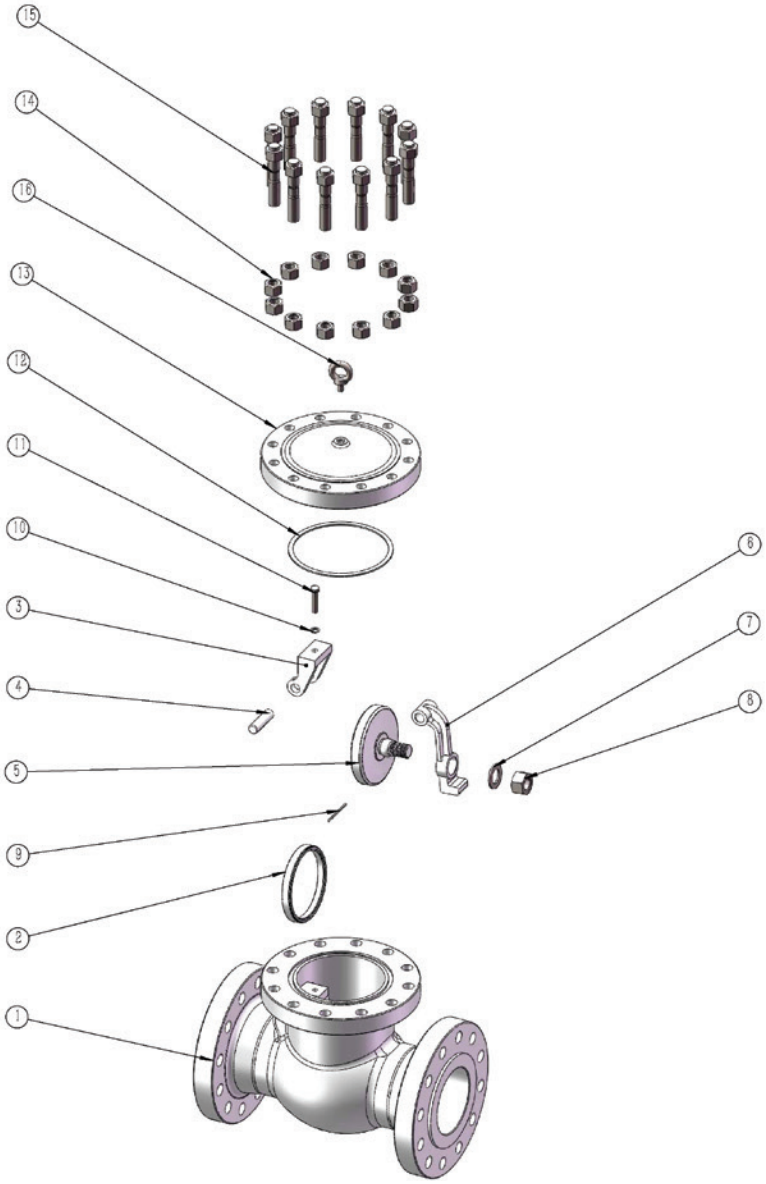
* Additional sizes available upon request.

RANGER

DESIGN AND MANUFACTURING STANDARDS

Design and manufacturing standards	API 594, ASME B16.34
Face-to-face standard	ASME B16.10
Connection dimension standards	ASME B16.5, ASME B16.25, ASME B16.47
Inspection and test standards	ISO 5208, API 598

VALVE COMPONENTS			
1 BODY	5 DISC	10 WASHER	14 COVER NUT
2 SEAT	6 HINGE	11 BOLT	15 COVER STUD
3 DISC HANGER YOKE	7 WASHER	12 COVER GASKET	16 LIFTING LUG
4 SHAFT	8 COTTER PIN	13 COVER	



API pressure test（PSI）

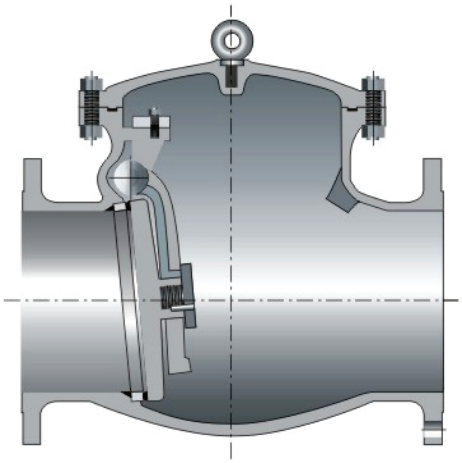
Class	Shell test	High pressure seal test	Low pressure seal test
150	428	314	
300	1110	814	
600	2220	1628	
900	3330	2442	87
1500	5558	4076	
2500	9255	6787	

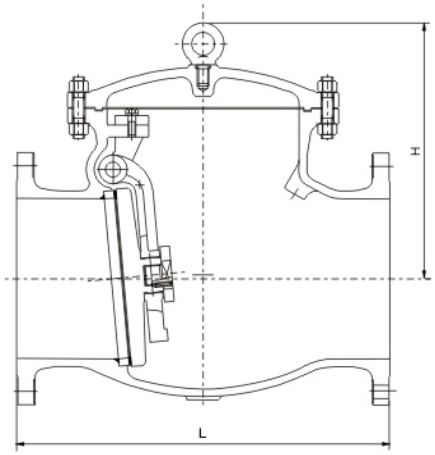
Common Materials

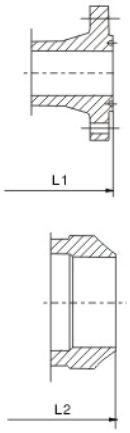
PART NAME	CARBON STEEL		ALLOY STEEL			STAINLESS STEEL		
Body	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Cove	A216 WCB	A352 LCC	A217 WC6	A217 WC9	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
Disc	A105N+13Cr	A350 LF2+316	A182 F11+STL	A182 F22+STL	A182 F304	A182 F316	A182 F304L	A182 F316L
Seat	A105N+STL	A350 LF2+STL	A182 F11+STL	A182 F22+STL	A182 F304+STL	A182 F316+STL	A182 F304L+STL	A182 F316L+STL
Hinge pin	A182 F6a	A182 F316	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
Stud	A193 B7	A320 L7M	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M
Nut	A194 2H	A194 7M	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M

Not: 1. All materal in accordance with ASTM standards
2. Additonal material available upon request

RANGER







CLASS 150					
Bore	**L**	**L1**	**L2**	**H**	**WT(RF)**
inch	**in**	**in**	**in**	**in**	**lb**
2	8	8.5	8	7.2	37
2-1/2	8.5	9	8.5	7.3	44
3	9.5	10	9.5	8.9	55
4	11.5	12	11.5	10.2	88
5	13	13.5	13	10.9	147
6	14	14.5	14	12	205
8	19.5	20	19.5	14.7	295
10	24.5	25	24.5	16.4	438
12	27.5	28	27.5	18.8	672
14	31	31.5	31	21.3	815
16	34	34.5	34	24.4	1194
18	38.5	39	38.5	27.2	1653
20	38.5	39	38.5	28.4	1984
24	51	51.5	51	34.3	2645
30	60		60	39.6	4828

* Additional sizes available upon request.

CLASS 300

Bore	L	L1	L2	H	WT(RF)
inch	in	in	in	in	lb
2	10.5	11.1	10.5	7.9	50
2-1/2	11.5	12.1	11.5	8.9	81
3	12.5	13.1	12.5	9.8	101
4	14	14.6	14	11.1	156
5	15.8	16.4	15.8	12	220
6	17.5	18.1	17.5	12.7	260
8	21	21.6	21	14.7	295
10	24.5	25.1	24.5	17.3	652
12	28	28.6	28	18.2	1009
14	33	33.6	33	22.5	1285
16	34	34.6	34	25.9	1662
18	38.5	39.1	38.5	26.6	2061
20	40	40.8	40	29.2	2546
24	53	53.9	53	35.8	3104

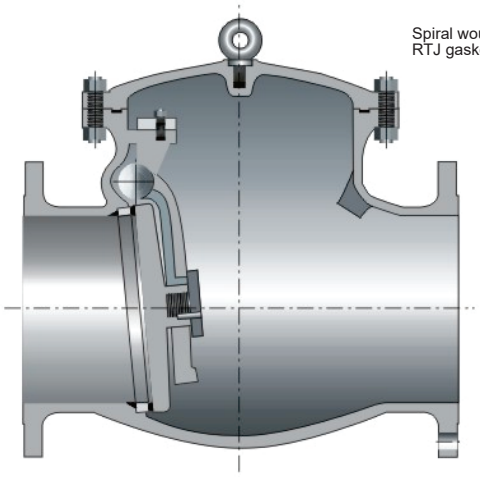
CLASS 600

Bore	L	L1	L2	H	WT(RF)
inch	in	in	in	in	lb
2	11.5	11.6	11.5	7.9	57
2-1/2	13	13.1	13	8.9	70
3	14	14.1	14	9.9	108
4	17	17.1	17	11.8	189
5	20	20.1	20	13.4	363
6	22	22.1	22	14.3	407
8	26	26.1	26	17.6	804
10	31	31.1	31	16.7	1228
12	33	33.1	33	21.3	1477
14	35	35.1	35	26.4	2081
16	39	39.1	39	28.2	2866
18	43	43.1	43	30.9	3880
20	47	47.3	47	33.3	4850
24	55	55.4	55	40.3	7385

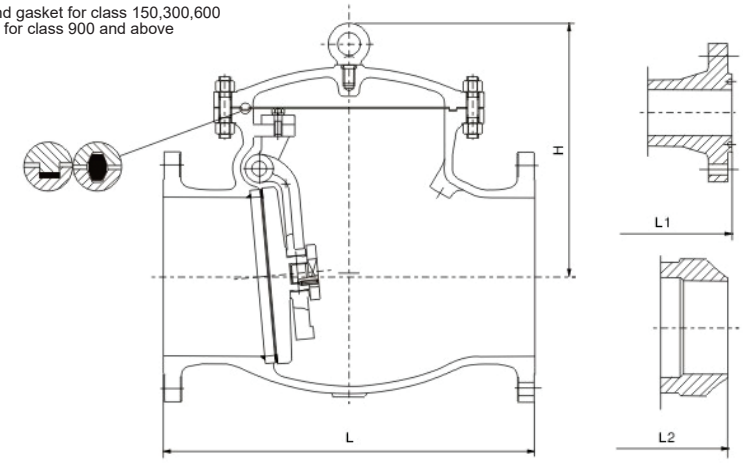
CLASS 900

Bore	L	L1	L2	H	WT(RF)
inch	in	in	in	in	lb
2	14.5	14.6	14.5	8	127
2-1/2	16.5	16.6	16.5	10.2	167
3	15	15.1	15	11.2	220
4	18	18.1	18	13.4	308
6	24	24.1	24	17.5	648
8	29	29.1	29	21.5	1543
10	33	33.1	33	23.2	1640
12	38	38.1	38	26.6	1918
14	40.5	40.9	40.5	29.1	276
16	44.5	44.9	44.5	31.5	3968

* Additional sizes available upon request.



Spiral wound gasket for class 150,300,600
RTJ gasket for class 900 and above



CLASS 1500

Bore	L	L1	L2	H	WT(RF)
inch	in	in	in	in	lb
2	14.5	14.6	14.5	8	145
2-1/2	16.5	16.6	16.5	10.1	185
3	18.5	18.6	18.5	11.2	271
4	21.5	21.6	21.5	12.8	423
6	27.8	28	27.8	18.5	1060
8	32.8	33.1	32.8	22.1	1816
10	39	39.4	39	26.6	2760
12	44.5	45.1	44.5	33.1	3174
14	49.5	50.6	49.5	37.4	3847
16	54.5	55.4	54.5	43.6	5511

CLASS 2500

Bore	L	L1	L2	H	WT(RF)
inch	in	in	in	in	lb
2	17.8	17.9	17.8	11.8	216
3	22.8	23	22.8	15	418
4	26.5	26.9	26.5	17.3	864
6	36	36.5	36	21.3	1940
8	40.3	40.9	40.3	30.5	5401
10	50	50.9	50		
12	56	56.9	56		

* Additional sizes available upon request.

HOW TO ORDER

Type	Size	Ends	ASME Class	Body	API Trim	Operator	Designator	Service
GA	12	R	1	W	8	G	-	N
1	2	3	4	5	6	7	8	9

1 - VALVE TYPE

GA = GATE
GL = GLOBE
SC = SWING CHECK
PC = PISTON CHECK
TD = Tilting Disk Check
DPW = Dual Plate Wafer
DPL = Dual Plate Lug
DPD= Dual Plate Double Flange
ST = Stop check
GY= Y-Pattern Globe

2 - SIZE

20 = 2"
25 = 2 1/2"
30 = 3"
40 = 4"
50 = 5"
60 = 6"
80 = 8"
100 = 10"
120 = 12"
140 = 14"
160 = 16"
180 = 18"
200 = 20"
220 = 22"
240 = 24"
280 = 28"
300 = 30"
360 = 36"
400 = 40"
420 = 42"
480 = 48"
540 = 54"
600 = 60"

3 - ENDS

R = RF
J = RTJ
C = RF X BW
A = RF Smooth Finish
B = BW (followed by Schedule)
E = Wafer Ends

4 - ASME CLASS

1 = 150
3 = 300
6 = 600
9 = 900
15 = 1500
25 = 2500

5 - BODY MATERIAL

W = WCB
L = LCC
S = CF8M (316)
A = WCC
B = LCB
C = WC6
D = WC9
E = C5
F = CF3 (304L)
G = CF3M (316L)
H = CN7M
I = CF8C (347SS)
J = Duplex
K = Super Duplex
M = Monel

6 - API TRIM

AS PER API
99 = As per service requirements
x = Special

7 - OPERATOR

H = Handwheel
G = Gear
B = Barestem
E = Extended*

*Add “E” to designate extended top works
i.e. GE equals extended gear

Leave blank for check valves.

8 - DESIGNATOR

If applicable, please put a dash as the designator for a service condition identification.

9 - SERVICE

N = NACE
C = Cryogenic
B = Buried
X = Special

Example valve figure number: GA120R1W8G-N
Gate valve, 12", raised face end connection, 150ASME, WCB Body, Trim: #8, Gear operator, NACE

RANGER

VALVE AMERICA