



BOLTED BONNET

GATE GLOBE CHECK





TY CAST FIGURE NUMBER

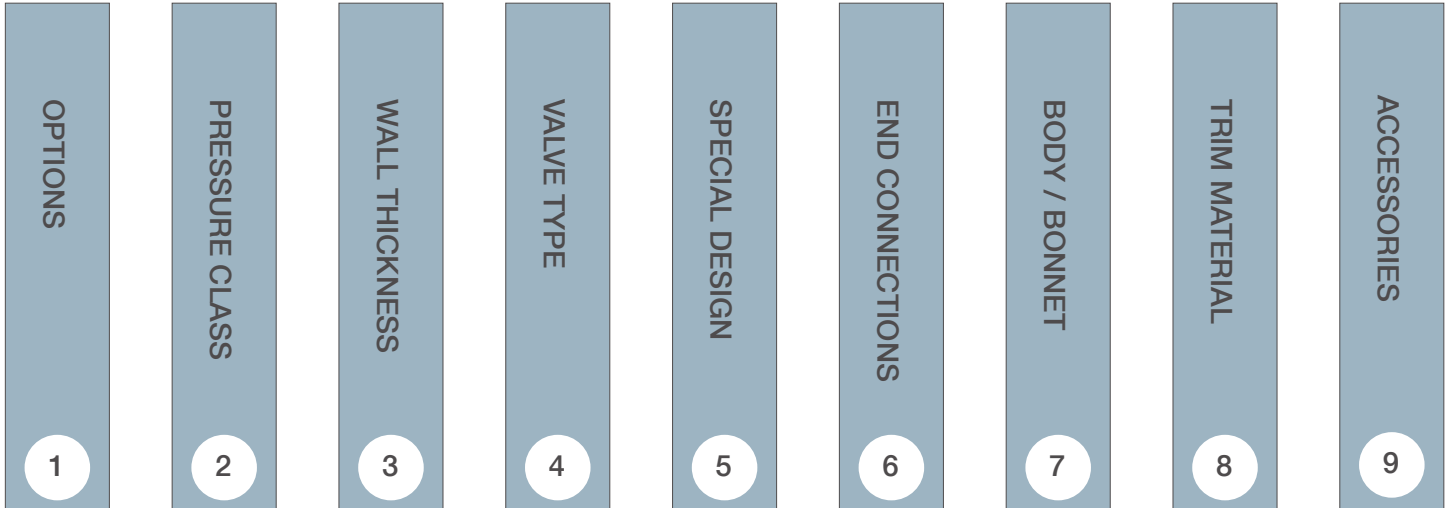
Ordering System

2

5

1

RF WCB 8



STEPS FOR ORDERING :

1. OPTIONS

C | Cryogenic

2. PRESSURE CLASS

- 1 | 150 #
- 2 | 300 #
- 3 | 600 #
- 4 | 900 #
- 5 | 1500 #
- 6 | 2500 #

3. WALL THICKNESS

- 5 | API 600
- 0 | API 603 / ASME B16.34

4. VALVE TYPE

- 1 | Gate
- 2 | Globe
- 3 | Check

5. SPECIAL DESIGN

PS | Pressure Seal

6. END CONNECTION

- RF | Raised Face
- FF | Flat Face
- RTJ | Ring Type Joint
- BW | Butt Weld*
* add pipe schedule

7. BODY / BONNET

- WCB
- LCB
- LCC
- C5
- C12
- C12A
- WC6
- WC9
- CF3M
- CF8M
- CG3M
- CG8M
- CF3
- CF8
- CF8C
- CN7M
- N-12MV
- CW12MW
- M35

* Other specialty materials available

8. TRIM MATERIAL

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

* Other trim material available

9. ACCESSORIES

- BG | Bevel Gear
- MOV | Motor Operated Valve
- W/VENT | With Vent
(Uni-Directional)

Table 3 - Nominal Seating Surface, Stem and Backseat Bushing or Weld-Deposit Materials and Hardness

TRIM NUMBER	NOMINAL TRIM	SEAT SURFACE HARDNESS (HB) MINIMUM (A)	SEAT SURFACE MATERIAL TYPE (B)	SEAT SURFACE TYPICAL SPECIFICATION (GRADE)			STEM / BUSHING		STEM HARDNESS (HB)	BACKSEAT BUSHING HARDNESS (HB)
				CAST	FORGED	WELDED (M)	MATERIAL TYPE (B)	SPECIFICATIONS TYPE		
1	F6	(C)	13Cr	ASTM A217 (CA15)	ASTM A182 (F6a)	AWS A5.9 ER410	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
2	304	(D)	18Cr-8Ni	ASTM AJ51 (CF8)	ASTM A182 (F304)	AWS A5.9 ER308	18Cr-8Ni	ASTM A276-T304	(D)	(D)
3	F310	(D)	25Cr-20Ni	•	ASTM A182 (F310)	AWS A5.9 ER310	25Cr-20Ni	ASTM A276-T310	(D)	(D)
4	Hard F6	750 (E)	Hard 13Cr	•	(F)	•	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
5	Hardfaced	350 (E)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
5A	Hardfaced	350 (E)	Ni-Cr	•	•	(H)	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
6	F6 and	250 (I)	13Cr	ASTM A217 (CA15)	ASTM A182 (F6a)	AWS A5.9 ER410	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
	Cu-Ni	175 (I)	Cu-Ni	•	(K)	•	•	•	•	•
7	F6 and	250 (I)	13Cr	ASTM A217 (CA15)	ASTM A182 (F6a)	AWS A5.9 ER410	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
	Hard F6	750 (I)	Hard 13Cr	•	•	•	•	•	•	•
8	F6 and	250 (I)	13Cr	ASTM A217 (CA15)	ASTM A182 (F6a)	AWS A5.9 ER410	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
	Hardfaced	350 (I)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	•	•	•	•
8A	F6 and	250 (I)	13Cr	ASTM A217 (CA15)	ASTM A182 (F6a)	AWS A5.9 ER410	13Cr	ASTM A276-T410 or T420	200 MIN. 275 MAX.	250 MIN.
	Hardfaced	350 (I)	Ni-Cr	•	•	(H)	•	•	•	•
9	Monel	(D)	Ni-Cu alloy	•	MFG. STANDARD	•	Ni-Cu alloy	MFG. STANDARD	(D)	(D)
10	316	(D)	18Cr-8Ni	ASTM A351 (CF8M)	ASTM A182 (F316)	AWS A5.9 ER316	18Cr-8Ni	ASTM A276-T316	(D)	(D)
11	Monel and	(D)	Ni-Cu alloy	•	MFG. STANDARD	•	Ni-Cu alloy	MFG. STANDARD	(D)	(D)
	Hardfaced	350 (I)	Trim 5 or 5A	•	•	SEE TRIM 5 or 5A	•	•	•	•
12	316 and	(D)	18Cr-8Ni	ASTM A351 (CF8M)	ASTM A182 (F316)	AWS A5.9 ER316	18Cr-8Ni	ASTM A276-T316	(D)	(D)
	Hardfaced	350 (I)	Trim 5 or 5A	•	•	SEE TRIM 5 OR 5A	•	•	•	•
13	Alloy 20	(D)	19Cr-29Ni	ASTM A351 (CN7M)	ASTM B473	AWS A5.9 ER320	19Cr-29Ni	ASTM B473	(D)	(D)
14	Alloy 20 and	(D)	19Cr-29Ni	ASTM A351 (CN7M)	ASTM B473	AWS A5.9 ER320	19Cr-29Ni	ASTM B473	(D)	(D)
	Hardfaced	350 (I)	Trim 5 or 5A	•	•	SEE TRIM 5 or 5A	•	•	•	•
15	Hardware	350 (E)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	18Cr-8Ni	ASTM A276-T304	(D)	(N)
16	Hardfaced	350 (E)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	18Cr-8Ni	ASTM A276-T316	(D)	(N)
17	Hardware	350 (E)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	18Cr-10Ni	ASTM A276-T347	(D)	(N)
18	Hardfaced	350 (E)	Co-Cr A (G)	•	•	AWS A5.13 E or R CoCrA	19Cr-29Ni	ASTM B473	(D)	(N)

Note: Cr = Chromium; Ni = Nickel; Co = Cobalt; • = Not Applicable; (A) = HB (formerly BHN) is the symbol for the Brinell hardness per ASTM E 10; (B) = Free machining grades of 13Cr are prohibited; (C) = Body and gate seat surfaces should be 250 HB minimum with a 50 HB minimum differential between the body and gate seat surfaces; (D) = Manufacturer's standard hardness; (E) = Differential hardness between the body and gate seat surfaces is not required; (F) = Case hardened by nitriding to a thickness of 0.13 millimeters (0.005 inch) minimum; (G) = This classification includes such trademarked materials as Stellite 6(TM), Stody 6(TM), and Wallex 6(TM); (H) = Manufacturer's standard hardfacing with a maximum iron content of 25 percent; (I) = Hardness differential between the body and gate seat surfaces shall be the manufacturer's standard; (J) = Not used; (K) = Manufacturer's standard with 30 Ni minimum; (L) = Not used; (M) = Typical backseat weld deposit material; (N) = Per manufacturer's standard if not hardfaced, 250 HB minimum if hardfaced.

Table 4 - Trim Numbers and Alternative Trim Numbers

SPECIFIED TRIM NUMBER	ALTERNATIVE TRIM NUMBER
1	8 or 8A
2	10
5A	5
6	8
8A	8



GATE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 150

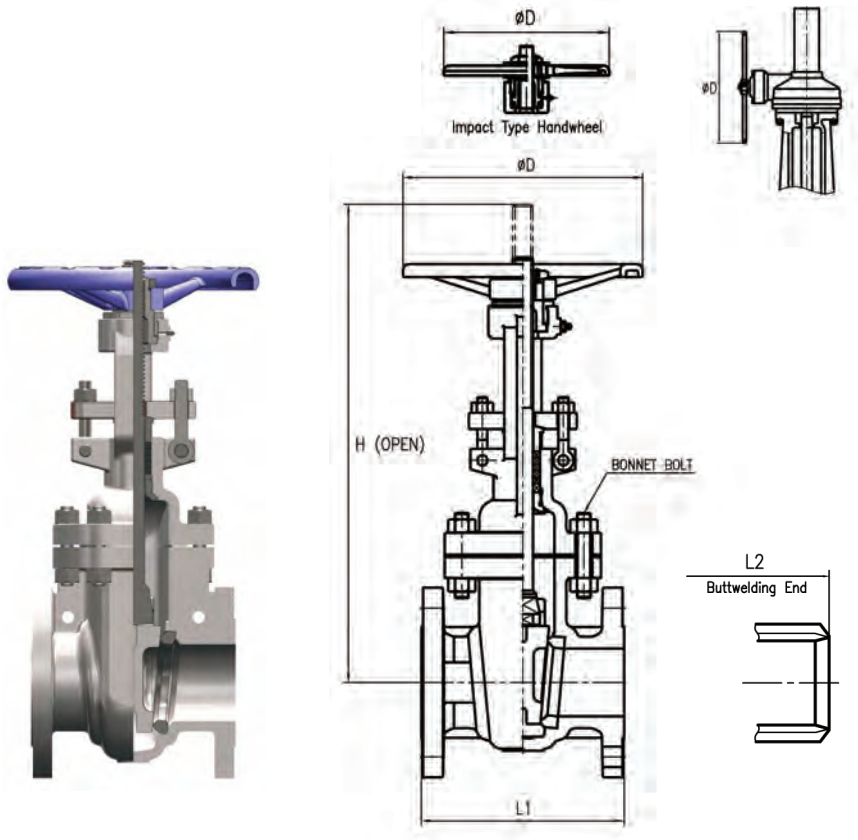


FIGURE #	END CONNECTIONS
151-RF	RF-Raised Face
151-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stern	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Graphite	

- 14" to 36" sizes : impact handwheel type
- 42" and larger sizes - gear operated only

NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
	DN	40	50	65	80	100	150	200	250	300	350	400	450	500	550	600	
L1	in	6.50	7.00	7.50	8.00	9.00	10.50	11.50	13.00	14.00	15.00	16.00	17.00	18.00	20.00	20.00	
	mm	165.1	177.8	190.5	203.2	228.6	266.7	292.1	330.2	355.6	381.0	406.4	431.8	457.2	508.0	508.0	
L2	in	6.50	8.50	9.50	11.12	12.00	15.88	16.50	18.00	19.75	22.50	24.00	26.00	28.00	30.00	32.00	
	mm	165.1	215.9	241.3	282.448	304.8	403.352	419.1	457.2	501.65	571.5	609.6	660.4	711.2	762	812.8	
H	HANDLE	in	14.38	15.55	18.79	20.10	23.83	30.20	38.20	45.91	54.06	63.60	71.31	77.13	86.26	92.32	101.14
		mm	365.3	395.0	477.3	510.5	605.3	767.1	970.3	1166.1	1373.1	1615.4	1811.3	1959.1	2191.0	2345.0	2569.0
	GEAR	in	-	-	-	-	-	-	-	-	56.03	63.60	71.31	77.13	86.26	92.32	101.14
		mm	-	-	-	-	-	-	-	-	1423.1	1615.4	1811.3	1959.1	2191.0	2345.0	2569.0
D	HANDLE	in	7.87	7.87	7.87	9.84	11.81	13.78	15.75	17.72	19.69	21.65	21.65	21.65	23.62	25.59	25.59
		mm	200	200	200	250	300	350	400	450	500	550	550	550	600	650	650
	GEAR	in	-	-	-	-	-	-	-	-	15.75	15.75	25.59	25.59	31.50	31.50	31.50
		mm	-	-	-	-	-	-	-	-	400	400	650	650	800	800	800
WEIGHTS	kg	18	24	28	38	56	85	151	218	306	486	611	729	890	1033	1284	
	lbs	40	53	62	84	123	187	333	481	675	1072	1347	1607	1962	2278	2831	

FIGURE #	END CONNECTIONS
151-RF	RF-Raised Face
151-BW	BW-Butt Weld

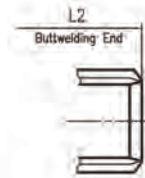
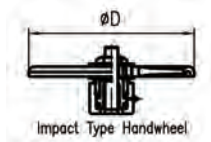
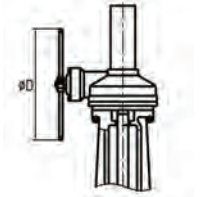
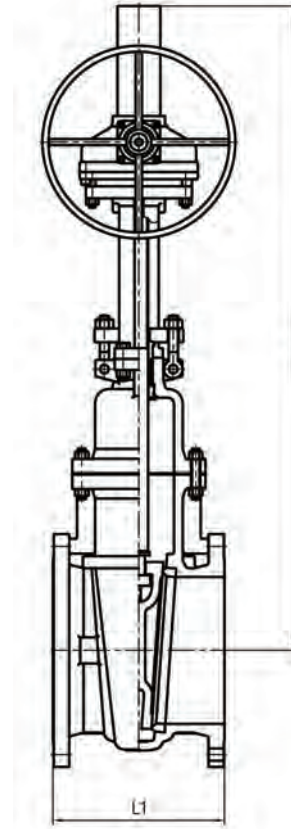
STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Graphite	

- 26" and larger sizes - flange dimensions are ASME B16.47 series A or B
- 14" to 36" sizes : impact handwheel type
- 42" and larger sizes - gear operated only

GATE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 150



NOMINAL SIZE	in	26"	28"	30"	32"	34"	36"	40"	42"	44"	46"	48"	52"	
	DN	650	700	750	800	850	900	1000	1050	1100	1150	1200	1300	
L1	in	22.00	24.00	24.00	26.00	28.00	28.00	30.00	32.00	34.02	35.04	36.00	38.00	
	mm	558.8	609.6	609.6	660.4	711.2	711.2	762.0	812.8	864.0	890.0	914.4	965.2	
L2	in	-	-	-	-	-	-	-	-	-	-	-	-	
	mm	-	-	-	-	-	-	-	-	-	-	-	-	
H	HANDLE	in	107.13	115.08	122.91	128.69	137.44	141.25	-	-	-	-	-	
		mm	2721.1	2923.0	3121.9	3268.8	3491.0	3587.8	-	-	-	-	-	
	GEAR	in	107.13	115.08	122.91	128.69	137.44	141.25	163.98	172.94	177.76	186.43	190.63	203.15
		mm	2721.1	2923.0	3121.9	3268.8	3491.0	3587.8	4165.0	4392.7	4515.0	4735.4	4842.0	5160.0
D	HANDLE	in	31.50	31.50	31.50	31.50	31.50	31.50	-	-	-	-	-	
		mm	800.0	800.0	800.0	800.0	800.0	800.0	-	-	-	-	-	
	GEAR	in	31.50	31.50	25.59	25.59	25.59	31.50	39.37	39.37	39.37	39.37	39.37	39.37
		mm	800	800	650	650	650	800	1000	1000	1000	1000	1000	1000
WEIGHTS	kg	1500	2240	2040	2586	2820	3100	4010	5375	5410	6297	6980	8720	
	lbs	3308	4939	4498	5702	6218	6836	8842	11852	11929	13885	15391	19228	



GATE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 300

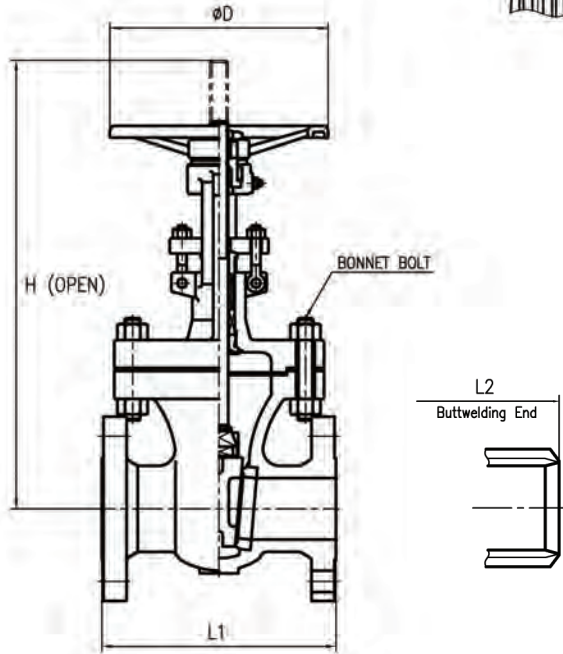
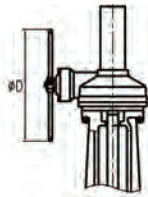
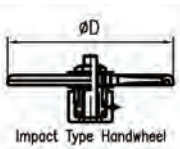


FIGURE #	END CONNECTIONS
251-RF	RF-Raised Face
251-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Graphite	

- 26" and larger sizes - flange dimensions are ASME B16.47 series A or B
- 14" to 24" sizes : impact handwheel type

NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	32"	36"	
	DN	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	1000	
L1	in	7.50	8.50	9.50	11.12	12.00	15.88	16.50	18.00	19.75	30.00	33.00	36.00	39.00	45.00	55.00	60.00	68.00	
	mm	190.5	215.9	241.3	282.4	304.8	403.4	419.1	457.2	501.7	762.0	838.2	914.4	990.6	1143.0	1397.0	1524.0	1727.2	
L2	in	7.50	8.50	9.50	11.12	12.00	15.88	16.50	18.00	19.75	30.00	33.00	36.00	39.00	45.00	-	-	-	
	mm	190.5	215.9	241.3	282.4	304.8	403.4	419.1	457.2	501.7	762.0	838.2	914.4	990.6	1143.0	-	-	-	
H	HANDLE	in	14.38	16.83	18.79	20.82	24.37	32.79	40.21	47.72	57.96	65.81	70.17	77.62	86.64	101.52	-	-	-
		mm	365.3	427.5	477.3	528.8	619.0	832.9	1021.4	1212.1	1472.2	1671.6	1782.3	1971.6	2200.7	2578.6	-	-	-
	GEAR	in	-	-	-	-	-	-	-	-	59.93	65.81	70.17	77.62	86.64	101.52	131.22	135.04	153.78
		mm	-	-	-	-	-	-	-	-	1522.2	1671.6	1782.3	1971.6	2200.7	2578.6	3333.0	3430.0	3906.0
D	HANDLE	in	7.87	7.87	7.87	9.84	11.81	15.75	17.72	19.69	21.65	21.65	21.65	23.62	25.59	31.50	-	-	-
		mm	200	200	200	250	300	400	450	500	550	550	550	600	650	800	-	-	-
	GEAR	in	-	-	-	-	-	-	-	-	25.59	25.59	25.59	31.50	31.50	25.59	39.37	39.37	39.37
		mm	-	-	-	-	-	-	-	-	650	650	650	800	800	650	1000	1000	1000
WEIGHTS	kg	22	29	42	57	78	159	252	365	500	772	950	1194	1590	2374	4550	5500	7180	
	lbs	49	64	93	126	172	351	556	805	1103	1702	2095	2633	3506	5235	10033	12128	15832	

FIGURE #	END CONNECTIONS
351-RF	RF-Raised Face
351-BW	BW-Butt Weld

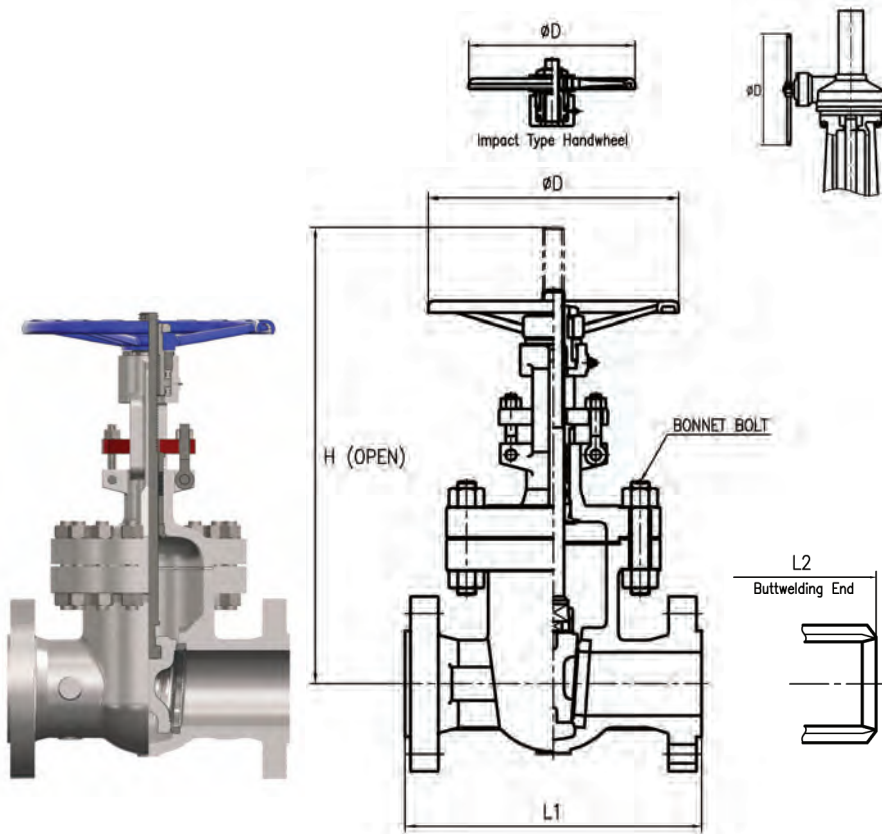
STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Graphite	

- 12" and 20" sizes : impact handwheel type
- 16" and larger sizes - octagonal ring joint gasket

GATE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 600



NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	
	DN	40	50	65	80	100	150	200	250	300	350	400	450	500	600	
L1	in	9.50	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00	
	mm	241.3	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	889.0	990.6	1092.2	1193.8	1397.0	
L2	in	9.50	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00	
	mm	241.3	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	889.0	990.6	1092.2	1193.8	1397.0	
H	HANDLE	in	16.15	17.88	19.29	21.85	26.97	36.03	41.93	51.38	58.66	65.31	73.07	79.55	87.36	-
		mm	410.2	454.2	490.0	555.0	685.0	915.2	1065.0	1305.1	1490.0	1658.9	1856.0	2020.6	2218.9	-
	GEAR	in	-	-	-	-	-	-	43.90	53.35	58.66	65.31	73.07	79.55	87.36	104.27
		mm	-	-	-	-	-	-	1115.0	1355.1	1490.0	1658.9	1856.0	2020.6	2218.9	2648.5
D	HANDLE	in	7.87	7.87	9.84	11.81	13.78	19.69	21.65	23.62	23.62	25.59	31.50	31.50	31.50	-
		mm	200	200	250	300	350	500	550	600	600	600	800	800	800	-
	GEAR	in	-	-	-	-	-	-	25.59	25.59	31.50	31.50	25.59	25.59	31.50	39.37
		mm	-	-	-	-	-	-	650	650	800	800	650	650	800	1000
WEIGHTS	kg	24	43	67	88	142	280	458	680	932	1268	1716	2230	2980	4300	
	lbs	53	95	148	194	313	617	1010	1499	2055	2796	3784	4917	6571	9482	



GATE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 900

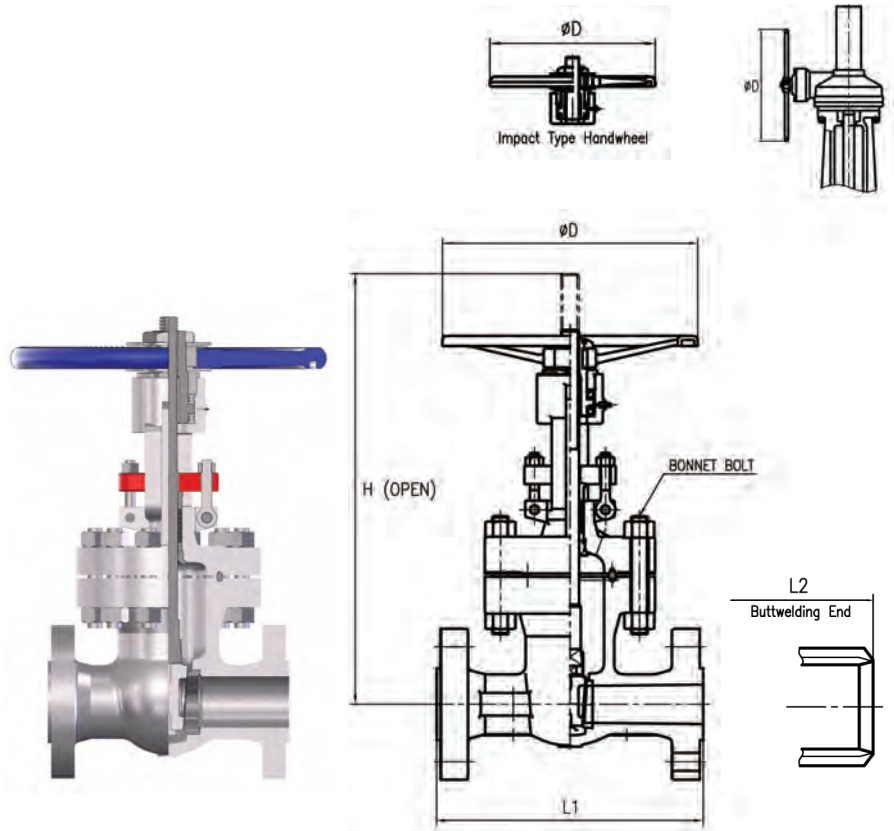


FIGURE #	END CONNECTIONS
451-RF	RF-Raised Face
451-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Low Carbon Steel	

* 4" to 12" sizes : impact handwheel type

NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	14"	16"	
	DN	50	80	100	150	200	250	300	350	400	
L1	in	14.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	1028.7	1130.3	
L2	in	14.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.5	
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	1028.7	1130.3	
H	HANDLE	in	24.82	25.19	33.15	40.50	51.12	52.85	65.62	-	-
		mm	630.4	639.8	842.0	1028.7	1298.5	1342.4	1666.8	-	-
	GEAR	in	-	-	-	-	51.12	52.85	65.62	66.85	75.51
		mm	-	-	-	-	1298.5	1342.4	1666.8	1698.0	1918.0
D	HANDLE	in	13.78	17.72	21.65	23.62	31.50	31.50	31.50	-	-
		mm	350	450	550	600	800	800	800	-	-
	GEAR	in	-	-	-	-	31.50	31.50	25.59	25.59	25.59
		mm	-	-	-	-	800	800	650	650	650
WEIGHTS	kg	108	135	217	444	836	1050	1440	1710	2338	
	lbs	238	298	478	979	1843	2315	3175	3771	5155	

FIGURE #	END CONNECTIONS
551-RF	RF-Raised Face
551-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	* Basic Design	API 600
	Testing	API 598

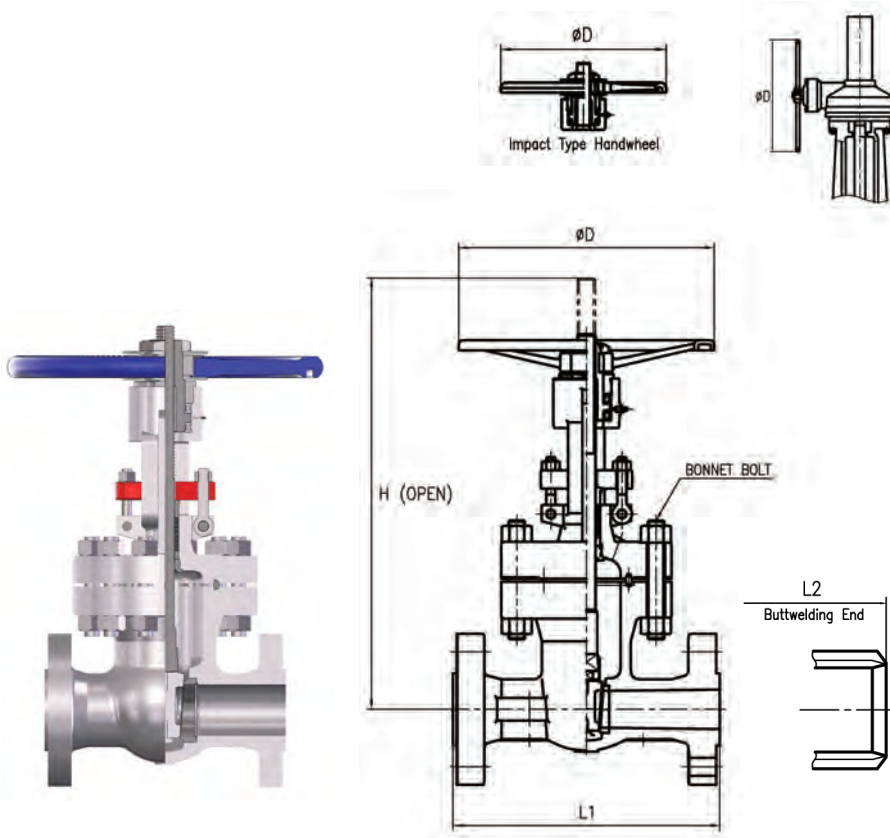
DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Yoke	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
Packing	Graphite	
Gasket	Low Carbon Steel	

• 4" to 8" sizes : impact handwheel type

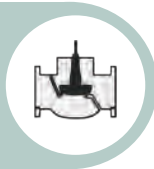
GATE VALVE

Bolted Bonnet, Outside Screw & Yoke

Class 1500



NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	14"	
	DN	50	80	100	150	200	250	300	350	
L1	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	1257.3	
L2	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	1257.3	
H	HANDLE	in	24.82	29.70	32.73	40.97	52.66	-	-	-
		mm	630.4	754.4	831.3	1040.6	1337.6	-	-	-
	GEAR	in	-	-	-	-	52.66	61.58	68.62	76.61
		mm	-	-	-	-	1337.6	1564.1	1742.9	1946.0
D	HANDLE	in	13.78	17.72	21.65	23.62	31.50	-	-	-
		mm	350.0	450.0	550.0	600.0	800.0	-	-	-
	GEAR	in	-	-	-	-	31.50	25.59	31.50	31.50
		mm	-	-	-	-	800.0	650.0	800.0	800.0
WEIGHTS	kg	108	176	304	772	1140	1932	2916	5300	
	lbs	238	388	670	1702	2514	4260	6430	11687	



GLOBE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 150

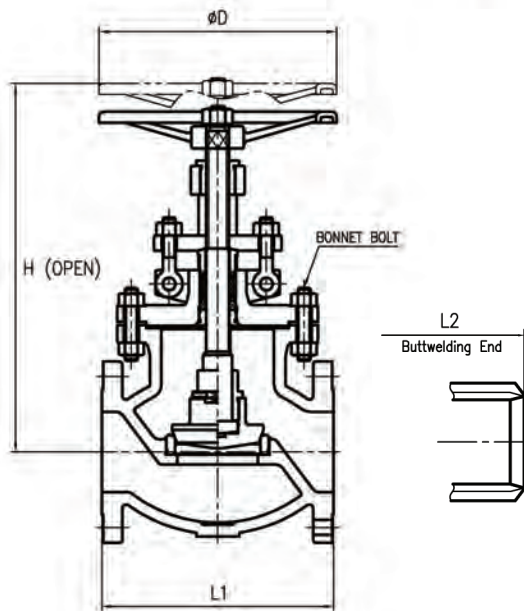
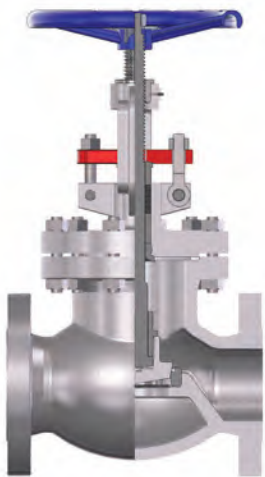
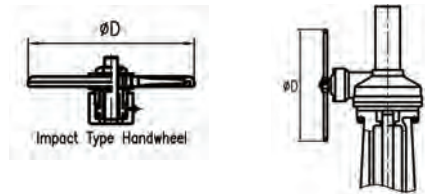


FIGURE #	END CONNECTIONS
152-RF	RF-Raised Face
152-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	BS 1873 / API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Disc Gland	Stainless Steel	A217 Gr. CA15
Yoke Brush	Ductile Iron	A493 Gr. D2C
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Wheel Nut	Stainless Steel	A194 Gr. 8 w/ PTFE
Nameplate	Stainless Steel	
**Packing	Graphite	
Gasket	Graphite	

- ** Packing System: API 600
- 8" & larger sizes - stem & disc guide
 - 8" impact handwheel type
 - 10" & larger sizes - gear operated only

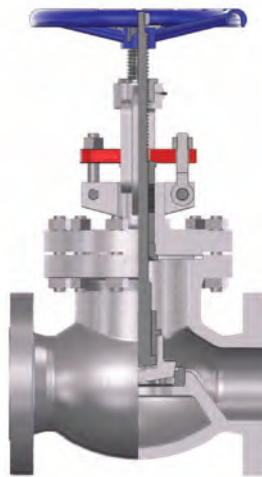
NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	
	DN	40	50	65	80	100	150	200	250	300	350	400	
L1	in	6.50	8.00	8.50	9.50	11.50	16.00	19.50	24.50	27.50	31.00	36.00	
	mm	165.1	203.2	215.9	241.3	292.1	406.4	495.3	622.3	698.5	787.4	914.4	
L2	in	6.50	8.00	8.50	9.50	11.50	16.00	19.50	24.50	27.50	31.00	36.00	
	mm	165.1	203.2	215.9	241.3	292.1	406.4	495.3	622.3	698.5	787.4	914.4	
H	HANDLE	in	14.14	13.70	15.16	17.05	19.48	22.02	25.02	-	-	-	-
		mm	359.2	348.0	385.0	433.1	494.8	559.3	635.4	-	-	-	-
	GEAR	in	-	-	-	-	-	-	26.98	31.81	35.43	41.34	48.39
		mm	-	-	-	-	-	-	685.4	807.9	900.0	1050.0	1229.0
D	HANDLE	in	7.87	7.87	8.86	9.84	11.81	15.75	17.72	-	-	-	-
		mm	200	200	225	250	300	400	450	-	-	-	-
	GEAR	in	-	-	-	-	-	-	15.75	31.50	31.50	31.50	31.50
		mm	-	-	-	-	-	-	400	800	800	800	800
WEIGHTS	kg	18	26	35	57	70	116	208	358	473	752	1190	
	lbs	40	57	77	126	154	256	459	789	1043	1658	2624	

FIGURE #	END CONNECTIONS
252-RF	RF-Raised Face
252-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	BS 1873 / API 600
	Testing	API 598

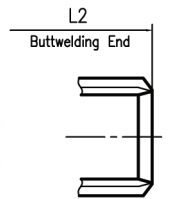
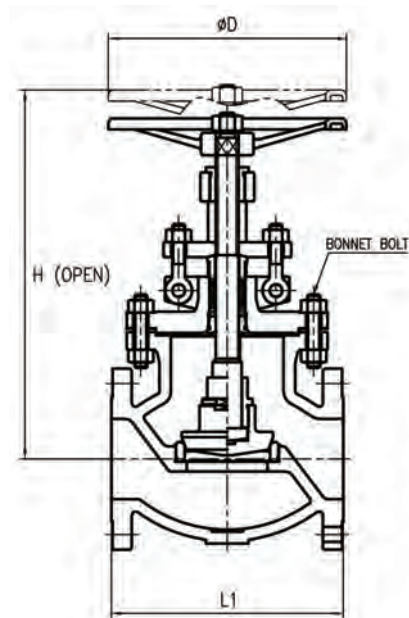
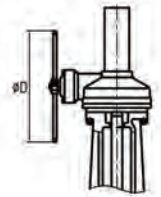
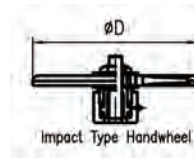
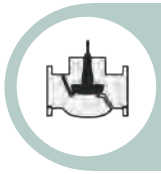
DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Disc Gland	Stainless Steel	A217 Gr. CA15
Yoke Brush	Ductile Iron	A493 Gr. D2C
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Wheel Nut	Stainless Steel	A194 Gr. 8 w/ PTFE
Nameplate	Stainless Steel	
**Packing	Graphite	
Gasket	Graphite	

- ** Packing System: API 600
- 8" & larger sizes - stem & disc guide
 - 6" to 8" impact handwheel type
 - 10" & larger sizes - gear operated only

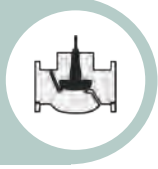


GLOBE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 300



NOMINAL SIZE	in	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	
	DN	25	40	50	65	80	100	150	200	250	300	350	400	
L1	in	8.00	9.00	10.50	11.50	12.50	14.00	17.50	22.00	24.50	28.00	33.00	34.00	
	mm	203.2	228.6	266.7	292.1	317.5	355.6	444.5	558.8	622.3	711.2	838.2	863.6	
L2	in	8.00	9.00	10.50	11.50	12.50	14.00	17.50	22.00	24.50	28.00	33.00	34.00	
	mm	203.2	228.6	266.7	292.1	317.5	355.6	444.5	558.8	622.3	711.2	838.2	863.6	
H	HANDLE	in	12.20	14.33	14.25	16.19	17.81	21.33	32.18	30.51	-	-	-	-
		mm	310.0	364.0	362.0	411.2	452.4	541.8	817.4	775.0	-	-	-	-
	GEAR	in	-	-	-	-	-	-	-	30.51	35.67	37.64	47.81	55.04
		mm	-	-	-	-	-	-	-	775.0	906.0	956.0	1214.5	1397.9
D	HANDLE	in	7.09	7.87	7.87	8.86	9.84	11.81	15.75	21.65	-	-	-	-
		mm	180	200	200	225	250	300	400	550	-	-	-	-
	GEAR	in	-	-	-	-	-	-	-	31.50	31.50	25.59	31.50	35.43
		mm	-	-	-	-	-	-	-	800	800	650	800	900
WEIGHTS	kg	16	22	54	46	61	110	198	306	405	657	984	1390	
	lbs	35	49	119	101	135	243	437	675	893	1449	2170	3065	



GLOBE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 600

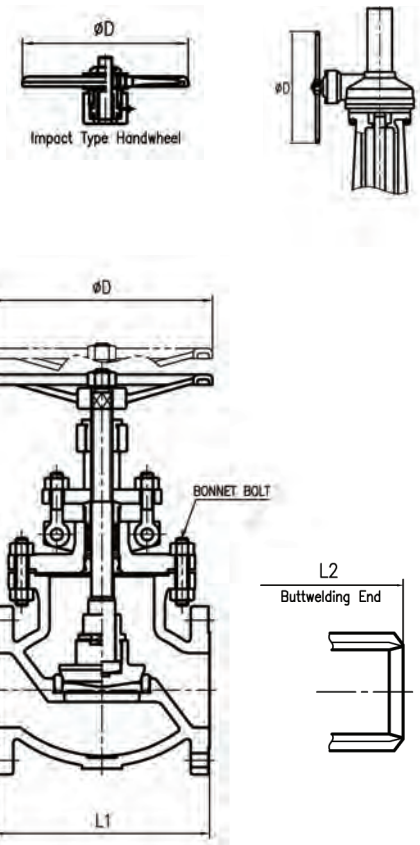


FIGURE #	END CONNECTIONS
352-RF	RF-Raised Face
352-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	BS 1873 / API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Disc Gland	Stainless Steel	A217 Gr. CA15
Yoke Brush	Ductile Iron	A493 Gr. D2C
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Wheel Nut	Stainless Steel	A194 Gr. 8 w/ PTFE
Nameplate	Stainless Steel	
**Packing	Graphite	
Gasket	Graphite	

- ** Packing System: API 600
- 6" & larger sizes - stem & guide
 - 4" to 6" sizes : impact handwheel type
 - 8" and larger sizes - gear operated only

NOMINAL SIZE	in	2"	2 1/2"	3"	4"	6"	8"	10"	12"	
	DN	50	65	80	100	150	200	250	300	
L1	in	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	
	mm	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	
L2	in	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	
	mm	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	
H	HANDLE	in	15.95	16.54	20.59	25.41	34.59	-	-	-
		mm	405.1	420.1	523.0	645.4	878.7	-	-	-
	GEAR	in	-	-	-	-	33.62	37.80	40.98	43.23
		mm	-	-	-	-	854	960	1041.0	1098.0
D	HANDLE	in	9.84	11.81	13.78	15.75	23.62	-	-	-
		mm	250	300	350	400	600	-	-	-
	GEAR	in	-	-	-	-	31.50	25.59	25.59	31.50
		mm	-	-	-	-	800	650	650	800
WEIGHTS	kg	56	57	116	166	400	568	765	1058	
	lbs	123	126	256	366	882	1252	1687	2333	

FIGURE #	END CONNECTIONS
452-RF	RF-Raised Face
452-BW	BW-Butt Weld

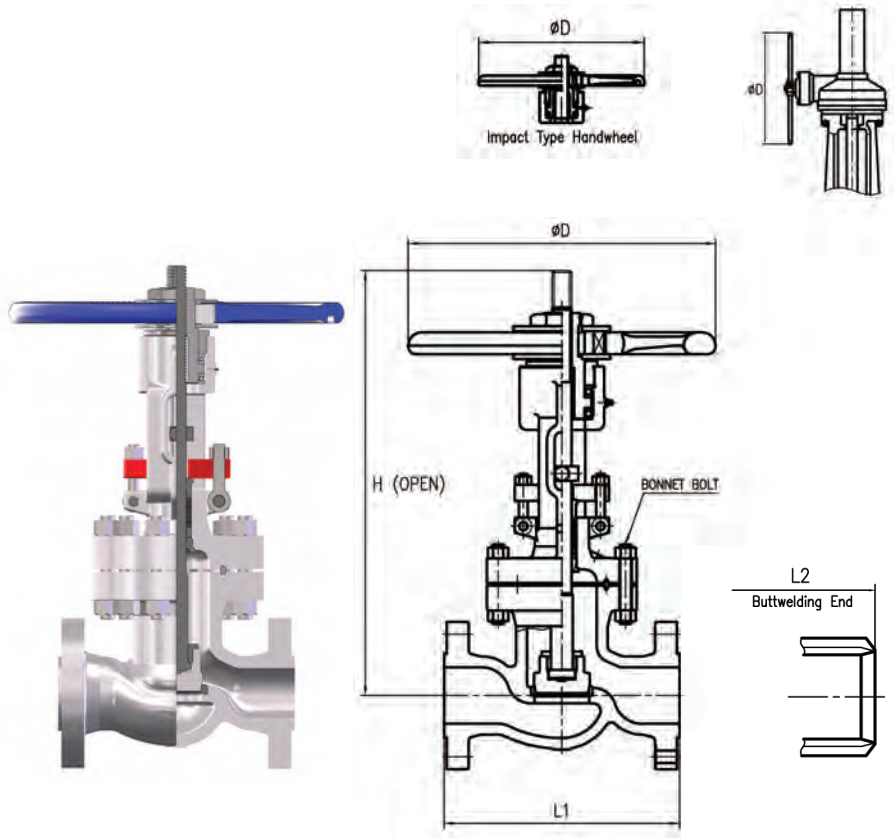
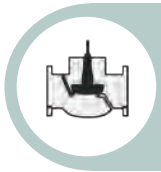
STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	BS 1873 / API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
**Packing	Graphite	
Gasket	Low Carbon Steel	

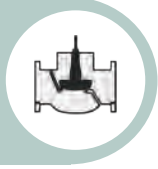
- ** Packing System: API 600
• 2" to 4" sizes : impact handwheel type
• 6" and larger sizes - gear operated only

GLOBE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 900



NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	
	DN	50	80	100	150	200	250	300	
L1	in	14.5	15.00	18.00	24.00	29.00	33.00	38.00	
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	
L2	in	14.5	15.00	18.00	24.00	29.00	33.00	38.00	
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	
H	HANDLE	in	25.55	30.75	34.00	-	-	-	-
		mm	649.0	781.1	863.6	-	-	-	-
	GEAR	in	25.55	30.75	34.00	41.68	47.97	54.13	65.00
		mm	649	781.1	863.6	1058.7	1218.4	1375	1651
D	HANDLE	in	15.75	21.65	23.62	-	-	-	-
		mm	400	550	600.0	-	-	-	-
	GEAR	in	15.75	19.69	19.69	25.59	31.50	31.50	39.37
		mm	400	500.0	500	650	800	800	1000
WEIGHTS	kg	152	168	264	466	810	1200	1791	
	lbs	335	370	582	1028	1786	2646	3949	



GLOBE VALVE

Bolted Bonnet, Outside Screw & Yoke
Class 1500

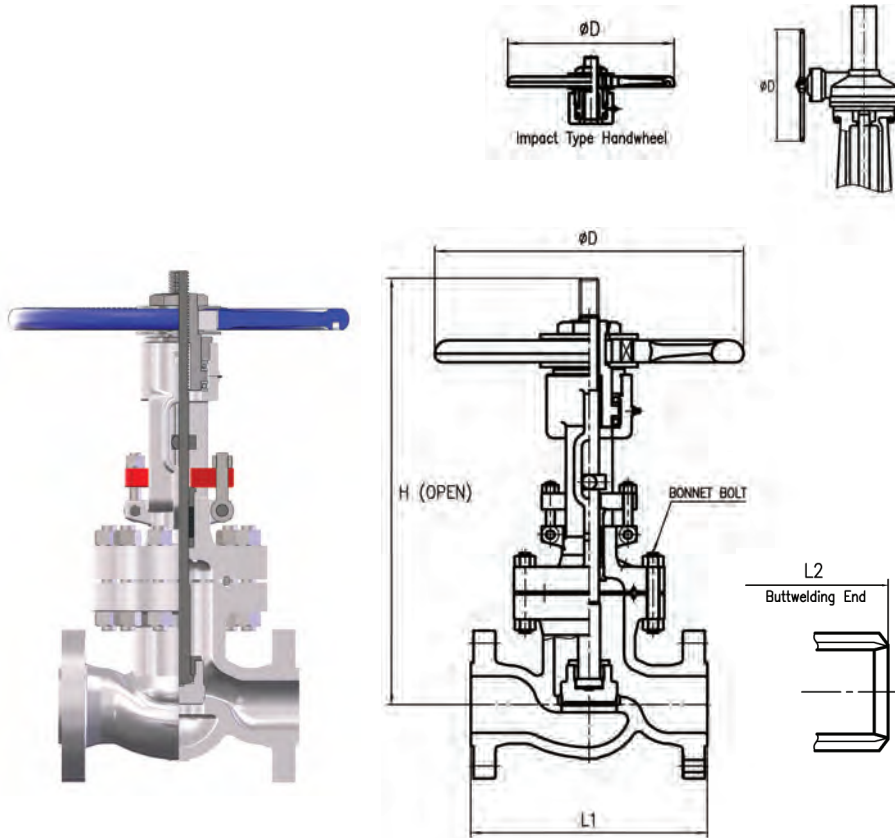


FIGURE #	END CONNECTIONS
552-RF	RF-Raised Face
552-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	BS 1873 / API 600
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Stem	Stainless Steel	A182 Gr. F6a
Handwheel	Ductile Iron or Carbon Steel	
Seat Ring	Carbon Steel	A105 HF
Backseat Ring	Stainless Steel	A182 Gr. F6a
Yoke Sleeve	Ductile Iron	A493 Gr. D2C
Gland Flange	Carbon Steel	A216 Gr. WCB or A105
Gland Ring	Stainless Steel	A276 Type 410
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Bonnet Bolt	Carbon Steel	A193 Gr. B7
Bonnet Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt	Stainless Steel	A193 Gr. B8
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A576 Gr. 1020
Bearing	Steel	Thrust Ball
Sleeve Gland	Carbon Steel	
Grease Nipple	Carbon Steel / Cr. Plating	
Set Screw	Stainless Steel	
Nameplate	Stainless Steel	
**Packing	Graphite	
Gasket	Low Carbon Steel	

- ** Packing System: API 600
- 2" to 4" sizes : impact handwheel type
- 6" and larger sizes - gear operated only

NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	
	DN	50	80	100	150	200	250	300	
L1	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	
L2	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	
H	HANDLE	in	25.55	31.54	34.79	-	-	-	-
		mm	649.0	801.1	883.7	-	-	-	-
	GEAR	in	25.55	31.54	34.79	43.45	50.41	60.00	72.76
		mm	649.0	801.1	883.7	1103.6	1280.3	1524.0	1848.1
D	HANDLE	in	15.75	21.65	23.62	-	-	-	-
		mm	400	550	600.0	-	-	-	-
	GEAR	in	15.75	19.69	19.69	25.59	31.50	31.50	39.37
		mm	400	500	500	650	800	800	1000
WEIGHTS	kg	152	204	301	639	1200	1905	3844	
	lbs	335	450	664	1409	2646	4201	8476	

FIGURE #	END CONNECTIONS
153-RF	RF-Raised Face
153-BW	BW-Butt Weld

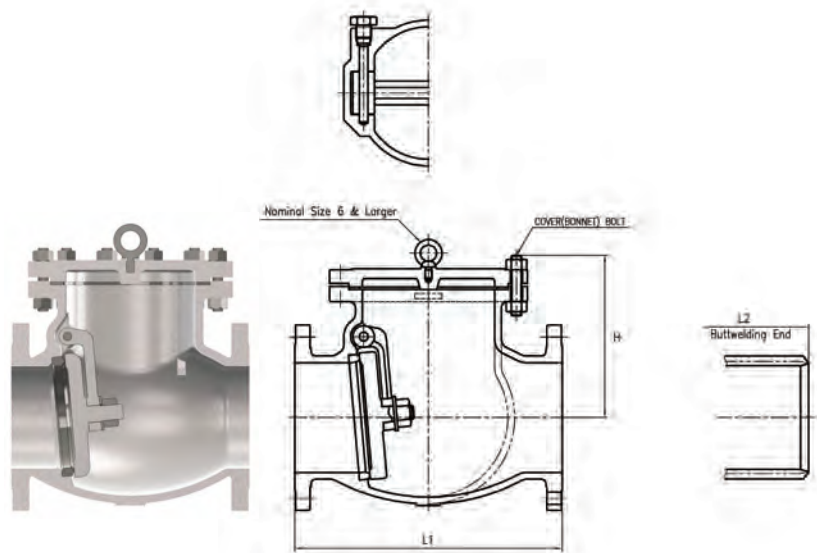
SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 150



STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Graphite	



NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"
	DN	40	50	65	80	100	150	200	250	300	350	400	450	500	550	600	650	700	750
L1	in	6.50	8.00	8.50	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	42.00	51.00	51.00	57.00	60.00
	mm	165.1	203.2	215.9	241.3	292.1	355.6	495.3	622.3	698.5	787.4	863.6	977.9	977.9	1066.8	1295.4	1295.4	1447.8	1524.0
L2	in	6.50	8.00	8.50	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	-	51.00	-	-	-
	mm	165.1	203.2	215.9	241.3	292.1	355.6	495.3	622.3	698.5	787.4	863.6	977.9	977.9	-	1295.4	-	-	-
H	in	5.99	5.95	6.58	6.88	8.43	10.14	12.07	13.72	16.28	17.26	19.10	20.63	22.24	32.07	26.67	32.70	33.86	32.70
	mm	152.2	151.1	167.2	174.8	214.2	257.5	306.5	348.5	413.5	438.5	485.1	524.0	565.0	814.5	677.5	830.5	860.0	830.5
WEIGHTS	kg	12	17	26	32	50	73	147	209	315	438	567	702	883	1082	1560	1854	2140	2471
	lbs	26	37	57	71	110	161	324	461	695	966	1250	1548	1947	2386	3440	4088	4719	5449



SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 300

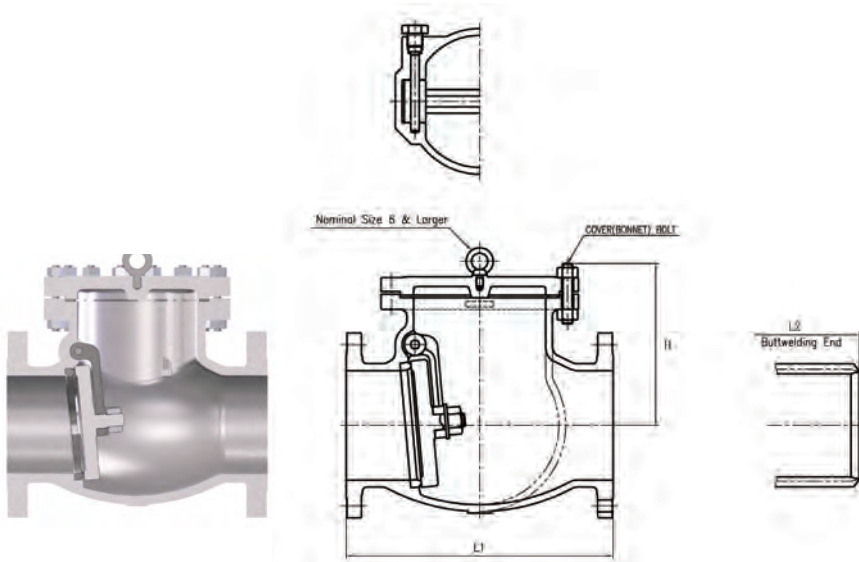


FIGURE #	END CONNECTIONS
253-RF	RF-Raised Face
253-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Graphite	

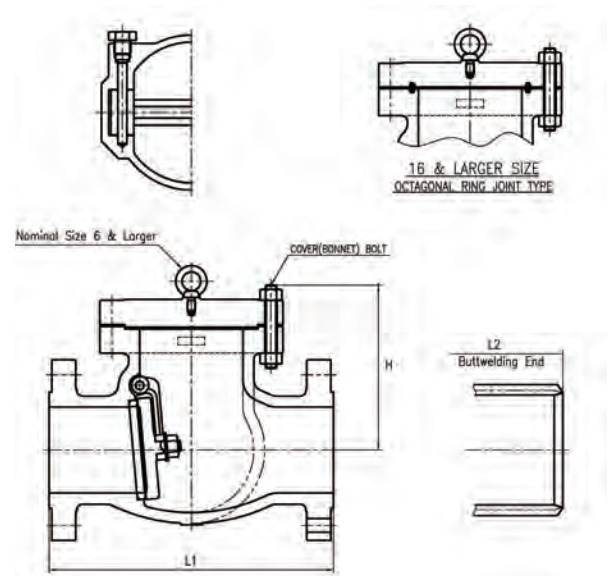
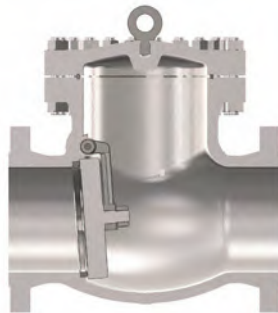
NOMINAL SIZE	in	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	DN	40	50	65	80	100	150	200	250	300	350	400	450	500	600
L1	in	9.50	10.50	11.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00
	mm	241.3	266.7	292.1	317.5	355.6	444.5	533.4	622.3	711.2	838.2	863.6	977.9	1016.0	1346.2
L2	in	9.50	10.50	11.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00
	mm	241.3	266.7	292.1	317.5	355.6	444.5	533.4	622.3	711.2	838.2	863.6	977.9	1016.0	1346.2
H	in	5.99	6.66	7.37	8.08	9.10	11.20	13.17	15.26	17.07	19.07	21.20	27.10	27.58	30.45
	mm	152.2	169.2	187.2	205.2	231.2	284.5	334.5	387.5	433.5	484.5	538.5	688.3	700.5	773.5
WEIGHTS	kg	16	25	34	44	68	127	196	299	422	714	893	1002	1180	1950
	lbs	35	55	75	97	150	280	432	659	931	1574	1969	2209	2602	4300

FIGURE #	END CONNECTIONS
353-RF	RF-Raised Face
353-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Graphite	

• 16" and larger sizes – octagonal ring joint gasket



SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 600



NOMINAL SIZE	in	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	DN	50	65	80	100	150	200	250	300	350	400	450	500	600
L1	in	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
	mm	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	889.0	990.6	1092.2	1193.8	1397.0
L2	in	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
	mm	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2	889.0	990.6	1092.2	1193.8	1397.0
H	in	8.08	8.71	9.69	11.07	13.74	15.20	18.07	20.71	25.49	27.30	29.07	32.93	35.31
	mm	205.2	221.2	246.2	281.2	349.1	386.0	459.1	526.1	647.5	693.5	738.5	836.5	896.9
WEIGHTS	kg	35	46	62	108	217	318	535	707	981	1350	1750	2270	3528
	lbs	77	101	137	238	478	701	1180	1559	2163	2977	3859	5005	7779



SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 900

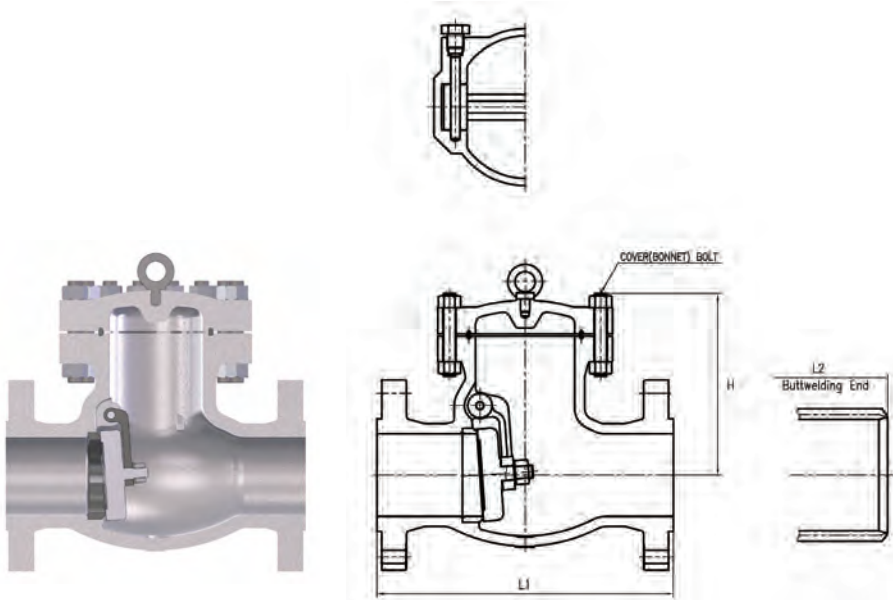


FIGURE #	END CONNECTIONS
453-RF	RF-Raised Face
453-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868 / ASME B1634
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Low Carbon Steel	

NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
	DN	50	80	100	150	200	250	300	350	400	450	500
L1	in	14.5	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	1028.7	1130.3	1219.2	1320.8
L2	in	14.5	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00
	mm	368.3	381.0	457.2	609.6	736.6	838.2	965.2	1028.7	1130.3	1219.2	1320.8
H	in	8.66	9.45	11.81	14.37	17.91	19.88	21.85	25.00	26.57	30.51	34.02
	mm	220	240.0	300.0	365.0	455.0	505.0	555.0	635.0	675.0	775.0	864.0
WEIGHTS	kg	84	86	160	307	532	644	992	1384	1500	2395	3538
	lbs	185	190	353	677	1173	1420	2187	3052	3308	5280	7801

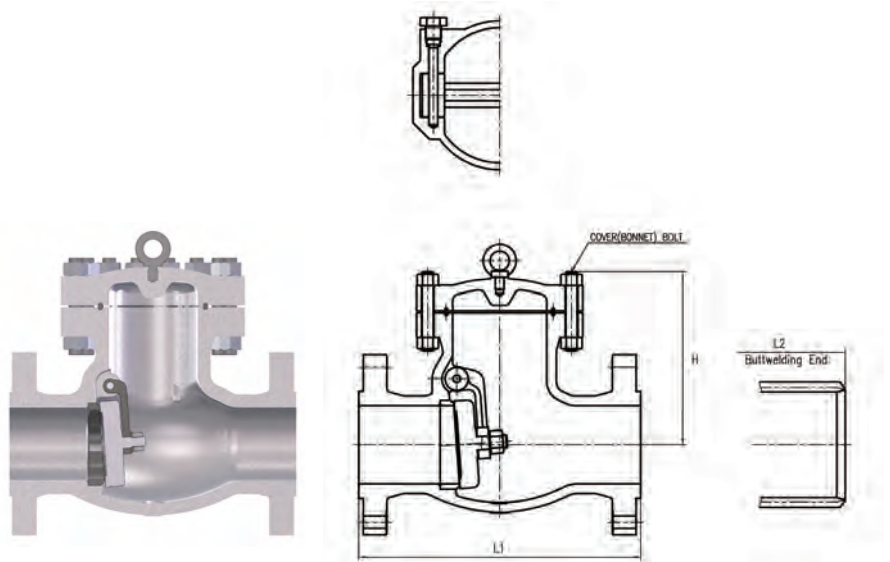
FIGURE #	END CONNECTIONS
553-RF	RF-Raised Face
553-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868 / ASME B1634
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Low Carbon Steel	

SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 1500



NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"	14"	16"
	DN	50	80	100	150	200	250	300	350	400
L1	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	1257.3	1384.3
L2	in	14.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50
	mm	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	1257.3	1384.3
H	in	10.79	12.99	14.17	17.72	21.18	26.33	30.48	34.48	39.15
	mm	274.0	330.0	360.0	450.0	538.0	629.0	703.4	812.0	875.8
WEIGHTS	kg	84	138	197	442	854	1446	2100	2553	3888
	lbs	185	304	434	975	1883	3188	4631	5629	8573



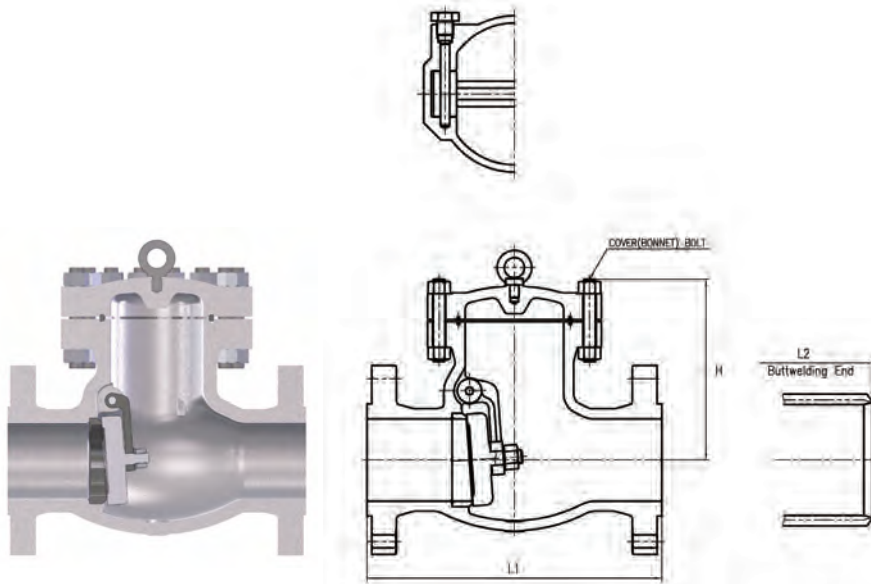
SWING CHECK VALVE

Bolted Cover, Swing Type Disc
Class 2500

FIGURE #	END CONNECTIONS
653-RF	RF-Raised Face
653-BW	BW-Butt Weld

STANDARDS	Face to Face / End to End	ASME B.16.10
	Flange Dimensions	ASME B16.5
	BW End Dimensions	ASME B16.25
	*Basic Design	API 594 / BS 1868 / ASME B1634
	Testing	API 598

DESCRIPTION	MATERIAL	SPECIFICATIONS
Body	Carbon Steel	A216 Gr. WCB
Cover	Carbon Steel	A216 Gr. WCB
Disc	Stainless Steel	A217 Gr. CA15
Hinge	Carbon Steel	A216 Gr. WCB
Hinge Pin	Stainless Steel	A276 Type 410
Seat Ring	Carbon Steel	A105 HF
Plug	Carbon Steel	A105
Wheel Nut	Carbon Steel	A105 / Zn. Plating
Cover Bolt	Carbon Steel	A193 Gr. B7
Cover Nut	Carbon Steel	A194 Gr. 2H
Disc Nut	Stainless Steel	A276 Type 410
Washer	Stainless Steel	A240 Type 304
Eye Bolt	Carbon Steel	A307 Gr. B
Nameplate	Stainless Steel	
Gasket	Low Carbon Steel	



NOMINAL SIZE	in	2"	3"	4"	6"	8"	10"	12"
	DN	50	80	100	150	200	250	300
L1	in	17.75	22.75	26.50	36.00	40.25	50.00	56.00
	mm	450.9	577.9	673.1	914.4	1022.4	1270.0	1422.4
L2	in	17.75	22.75	26.50	36.00	40.25	50.00	56.00
	mm	450.9	577.9	673.1	914.4	1022.4	1270.0	1422.4
H	in	16.38	20.51	22.13	26.61	32.87	37.64	42.36
	mm	416.0	521.0	562.0	676.0	835.0	956.0	1076.0
WEIGHTS	kg	141	347	658	1060	2526	2800	5004
	lbs	310	765	1450	2340	5570	6180	11033



 **LOCKWOOD**

10203 Wallisville Road
Houston, TX 77013
Phone: 713-675-8186
Toll Free: 1-800-456-5625
Fax: 713-675-2733
Info@lockwoodint.com



 **TY VALVE CORPORATION**

3rd Floor
Gangnam-Gu, Yeoksam-Dong 629-1
Seoul 135-080, Korea
Phone: +82.2.6930.5560
Fax: +82.2.6930.5576
Asia@lockwoodint.com