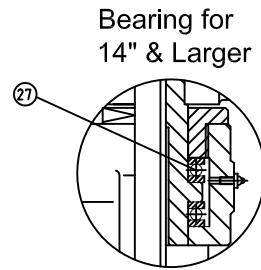
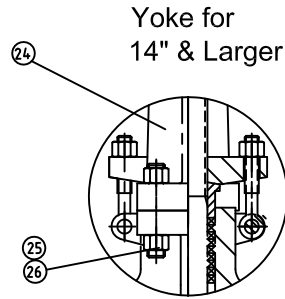
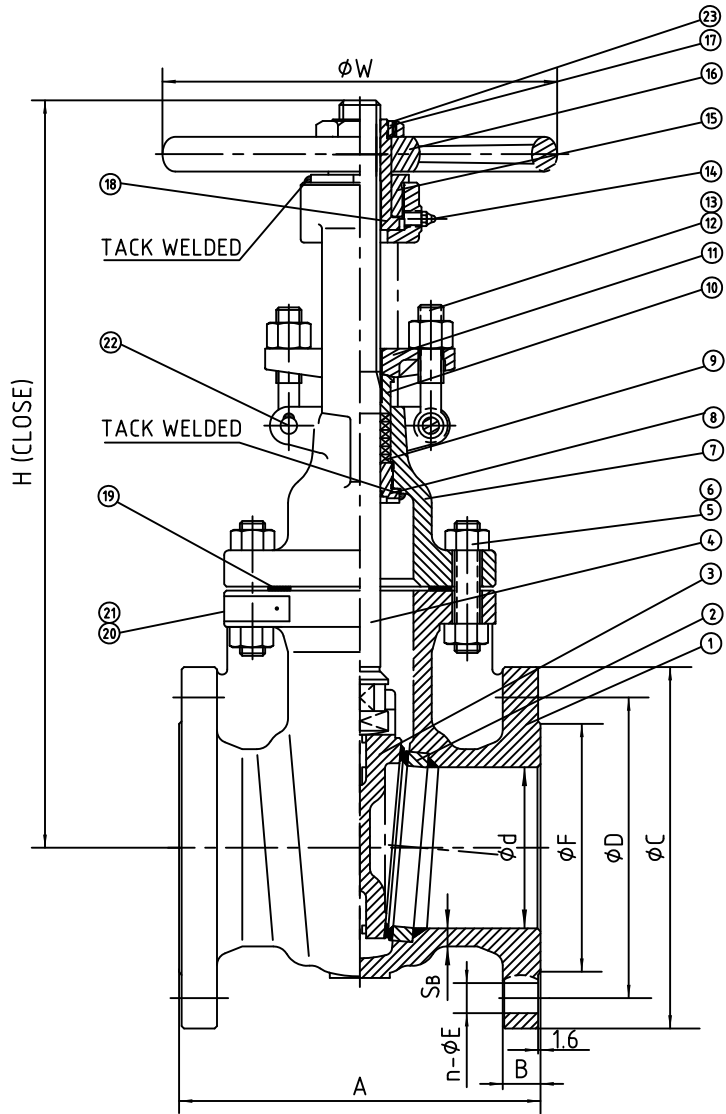


Wm. E. Williams No. 15F4AB Class 150 RF OS&Y Gate Valve ASTM A216 WCB (ALUMINUM BRONZE TRIM)



BILL OF MATERIALS

ITEM	PART	MATERIAL
1	BODY	ASTM A216-WCB
2	BODY RING	ASTM A105+ALUM BRONZE
3	GATE	ASTM A216-WCB+ALUM BRONZE
4	STEM	ALUMINUM BRONZE
5	BONNET BOLT	ASTM A193-B7
6	BONNET NUT	ASTM A194-2H
7	BONNET	ASTM A216-WCB
8	BACKSEAT	ASTM A276-410
9	PACKING RING	GRAPHITE
10	GLAND	ASTM A276-410
11	GLAND FLANGE	ASTM A216-WCB
12	EYE BOLT	ASTM A193-B7
13	EYE BOLT NUT	ASTM A194-2H
14	OILFILLER	ASTM A570 Gr.A
15	GLAND NUT	ASTM A29-1035
16	HANDWHEEL	NODULAR CAST IRON
17	HANDWHEEL NUT	ASTM A29-1035
18	STEM NUT	ASTM A439 D-2
19	GASKET	304+GRAPHITE
20	NAMEPLATE	304SS
21	RIVET	304SS
22	PIN	ASTM A29-1035
23	SCREW	CARBON STEEL
24	YOKE	ASTM A216-WCB
25	YOKE BOLT	ASTM A193-B7
26	YOKE NUT	ASTM A194-2H
27	BEARING	STEEL

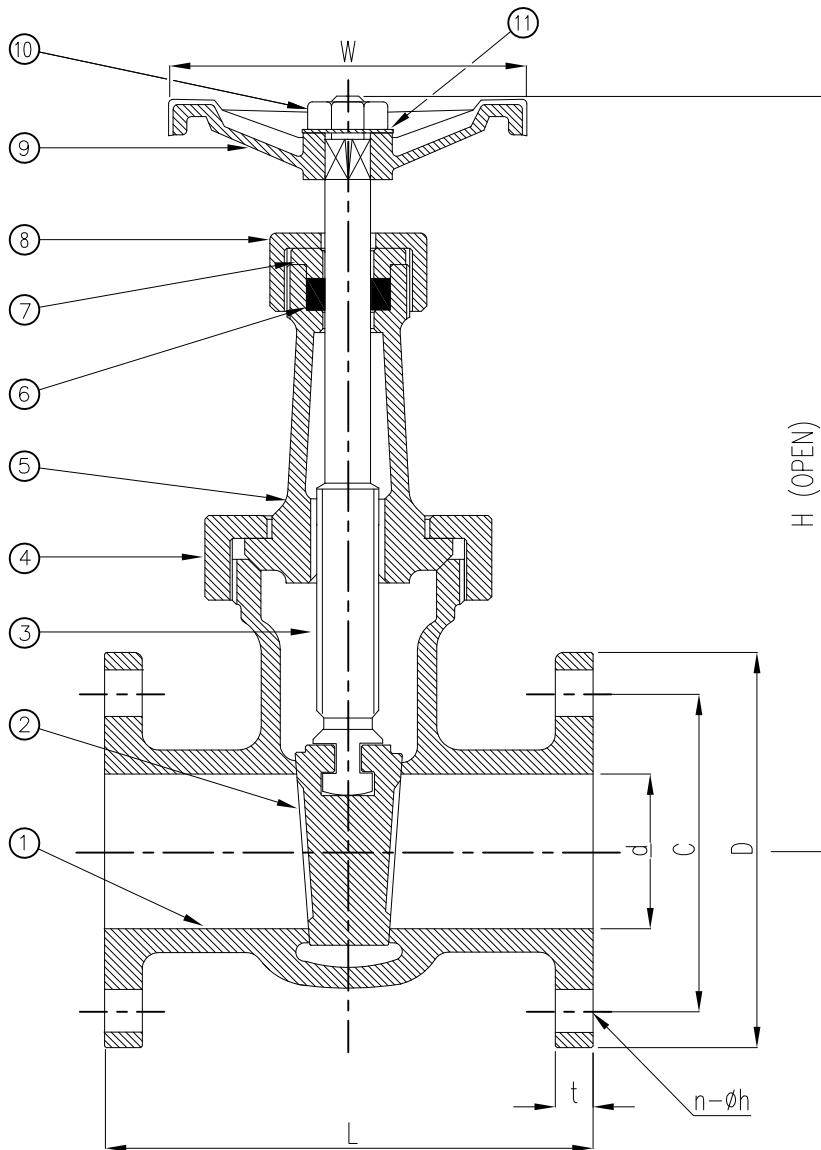
SIZE	d	A	B	C	D	n	E	F	H	W	S _b
2"	51	178	16	152	120.7	4	19	92.1	322	200	8.6
2-1/2"	64	190	17.5	178	139.7	4	19	104.8	354	200	9.5
3"	76	203	19	190	152.4	4	19	127	391	250	10.5
4"	102	229	24	229	190.5	8	19	157.2	465	250	11.5
5"	127	254	24	254	215.9	8	22	185.7	538	300	12
6"	152	267	26	279	241.3	8	22	215.9	590	300	12
8"	203	292	29	343	298.5	8	22	269.9	729	350	12.7
10"	254	330	31	406	362	12	25	323.8	885	400	14.5
12"	305	356	32	483	431.8	12	25	381	1013	450	16
14"	337	381	35	533	476.3	12	29	412.8	1151	500	17
16"	387	406	37	597	539.8	16	29	469.9	1305	560	17.5

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 TEL: 718-392-1660 FAX: 718-729-5106

TITLE: CAST STEEL GATE VALVE CLASS 150 - ALUMINUM BRONZE TRIM- RF, BB, OS&Y

MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST:	API 598	MATERIAL:	ASTM A216 GR.WCB	UNITS:	Inch, mm				
DIM.OF FLANGE	ANSI B16.5	SHELL	HYDRO	450PSI	CLASS:	150	DATE:	06/12/15	SCALE:	N.T.S.	
FACE TO FACE	ANSI B16.10	SEAT	AIR	80PSI	SIZE:	2" - 16"	FIG. No.:				
WALL THICKNESS	API 600	BACK SEAT	HYDRO	315PSI	DRAWN BY:	F.J.				15F-4AB	
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	API 600, ANSI B16.34	CHK'D & APR'D BY:	R.P.	REV: 1	DWG No.: 60GA120139-28

Wm. E. Williams No. 111F Class 150 Flanged Union Bonnet Gate Valve ASTM B62



BILL OF MATERIALS			
NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	WEDGE	ASTM B62	1
3	STEM	ASTM B124	1
4	UNION NUT	ASTM B62	1
5	BONNET	ASTM B62	1
6	PACKING	TFE (SEE NOTE 1)	1
7	PACKING GLAND	ASTM B124	1
8	PACKING NUT	ASTM B62	1
9	HANDWHEEL	ASTM A126 Gr B	1
10	HANDWHEEL NUT	ASTM B16	1
11	WASHER	ASTM B16	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.

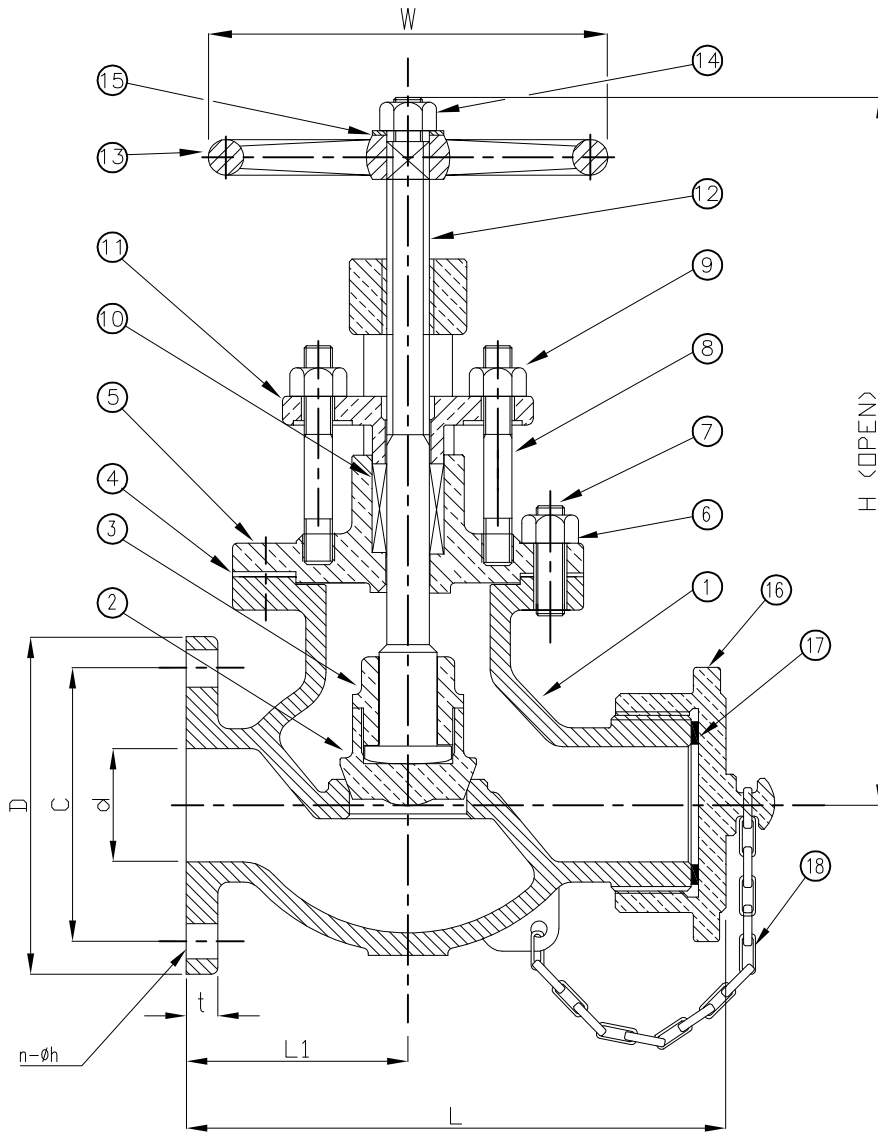
SIZE	d	L	D	C	t	H	n-øh	W
1/2	0.50	3.16	3.50	2.37	0.312	6.18	4-0.62	2.25
3/4	0.75	3.94	3.88	2.75	0.343	7.32	4-0.62	2.63
1	1.00	4.25	4.25	3.12	0.375	7.68	4-0.62	3.06
1-1/4	1.25	4.50	4.63	3.50	0.406	9.50	4-0.62	3.25
1-1/2	1.50	4.68	5.00	3.87	0.437	10.43	4-0.62	4.00
2	2.00	5.50	6.00	4.75	0.500	12.68	4-0.75	4.00
2-1/2	2.50	6.50	7.00	5.50	0.562	15.25	4-0.75	4.75
3	3.00	7.50	7.50	6.00	0.625	18.25	4-0.75	6.50
4	4.00	9.00	9.00	7.50	0.687	21.50	8-0.75	8.00



TITLE: BRONZE UNION BONNET GATE VALVE
CLASS 150 - FLANGED - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
△	6/30/16	RELEASED PER P/L & DIM. UPDATES	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
△	1/5/15	RELEASED PER UPDATED P/L	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 1/2" - 4"	FIG. No.: 111F
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	
		CHK'D & APR'D BY: R.P.			REV: 3	DWG No.: 20GA120002-20			

Wm. E. Williams No. 115F Class 150 Flanged OS&Y Bolted Bonnet Hose End Globe Valve ASTM B62



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B124	1
4	GASKET	ASTM B62 (SEE NOTE 2)	1
5	BONNET	ASTM B62	1
6	BONNET NUT	ASTM B16	1 SET
7	BONNET STUD	ASTM B16	1 SET
8	GLAND STUD	ASTM B16	2
9	GLAND NUT	ASTM B16	2
10	PACKING	TFE (SEE NOTE 1)	1
11	GLAND FLANGE	ASTM B62	1
12	STEM	ASTM B124	1
13	HANDWHEEL	ALUMINUM	1
14	HANDWHEEL NUT	ASTM B16	1
15	I.D. TAG	ALUMINUM	1
16	CAP	ASTM B62	1
17	CAP GASKET	RUBBER	1
18	CHAIN	BRASS	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.
2. ALTERNATE MATERIALS AVAILABLE.

SIZE	d	L	L1	D	C	t	H	n-øh	W
1-1/2	1.50	6.63	3.31	5.00	3.87	0.437	7.37	4-0.62	5.50
2-1/2	2.50	9.63	4.63	7.00	5.50	0.562	13.03	4-0.75	7.50

STANDARD HOSE THREADS

SIZE	NATIONAL STANDARD		STRAIGHT IRON PIPE		NEW YORK CITY FIRE DEPT.		NAVY IFT		CHICAGO HOSE THREAD	
	ODM	TPI	ODM	TPI	ODM	TPI	ODM	TPI	ODM	TPI
1-1/2	1.99	9	1.879	11-1/2	2.168	8	1.879	11-1/2	1.937	11-1/2
2-1/2	3.069	7-1/2	2.844	8	3.030	8	3.069	7-1/2	3.062	7

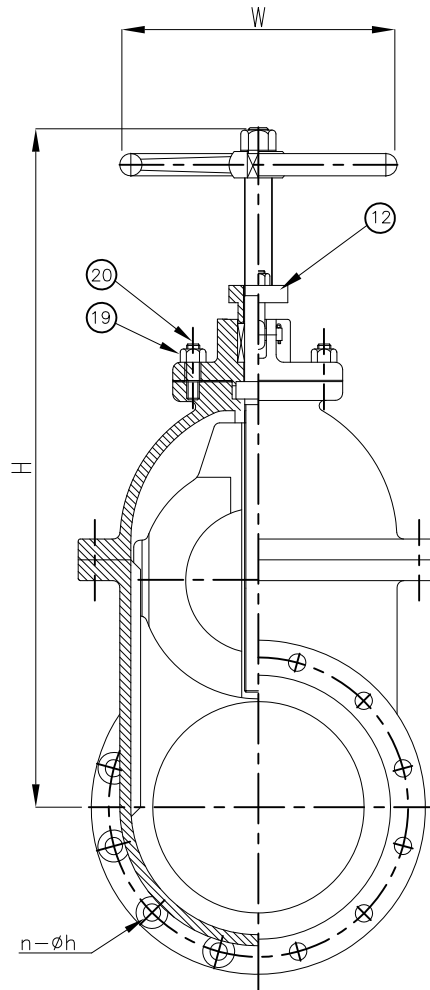
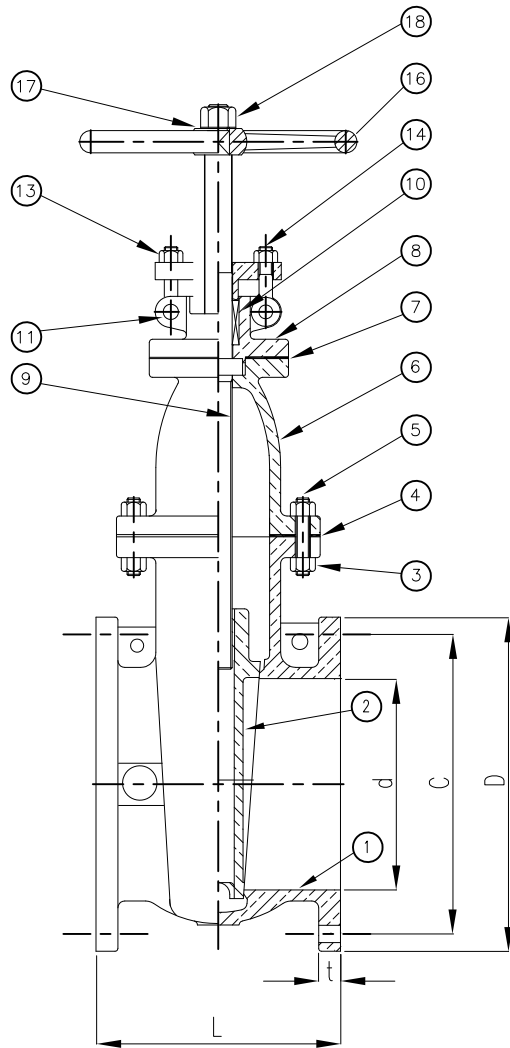


TITLE: BRONZE HOSE END GLOBE VALVE
BOLTED BONNET - CLASS 150 - OS&Y - ASTM B62

						APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm				
						MSS-SP-6	MSS-SP-25	SHELL	HYDRO	350PSI	CLASS: 150	DATE: 01/01/12	SCALE: N.T.S.
						MSS-SP-9	MSS-SP-82	SEAT	AIR	-	SIZE: 1-1/2" & 2-1/2"	FIG. No.: 115F	
						DESIGNED	ANSI B16.24	BACK SEAT	HYDRO	225PSI	DRAWN BY: F.J.		
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D			CHK'D & APR'D BY: R.P.	REV: 1	DWG No.: 20HG120008			

1/1/12 ISSUED FOR PROPOSAL

Wm. E. Williams No. 141F Class 150 Flanged Bolted Bonnet NRS Gate Valve ASTM B62



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	WEDGE	ASTM B62 (SEE NOTE 2 & 3)	1
3	BONNET NUT	ASTM B16	1 SET
4	GASKET	ASTM B62 (SEE NOTE 2)	1
5	BONNET BOLT	ASTM B16	1 SET
6	BONNET	ASTM B62	1
7	STUFFING BOX GASKET	TFE	1
8	STUFFING BOX	ASTM B62	1
9	STEM	ASTM B124	1
10	PACKING	TFE (SEE NOTE 2)	1 SET
11	HINGE PIN	ASTM B16	2
12	PACKING GLAND	ASTM B62	1
13	GLAND NUT	ASTM B16	2
14	GLAND BOLT	ASTM B16	2
16	HAND WHEEL	ASTM A216 GR WCB	1
17	WASHER	BRASS	1
18	HANDWHEEL NUT	ASTM B16	1
19	STUFFING BOX NUT	ASTM B16	1 SET
20	STUFFING BOX STUD	ASTM B16	1 SET

NOTE:

- STANDARD INTEGRAL SEAT.
- ALTERNATE MATERIALS AVAILABLE UPON REQUEST.
- SOLID WEDGE.

SIZE	L	d	D	C	t	H	n-øh	W
2.00	7.00	2.00	6.00	4.75	0.50	10.18	4-0.75	7.50
2.50	7.50	2.50	7.00	5.50	0.56	11.18	4-0.75	7.50
3.00	8.00	3.00	7.50	6.00	0.63	13.06	4-0.75	7.875
4.00	9.00	4.00	9.00	7.50	0.69	15.62	8-0.75	8.812
5.00	10.00	6.00	10.00	8.50	0.75	16.50	8-0.87	9.84
6.00	10.50	6.00	11.00	9.50	0.81	20.50	8-0.87	12.41
8.00	11.50	8.00	13.50	11.75	0.94	22.31	8-0.87	14.00
10.00	13.00	10.00	16.00	14.25	1.00	29.28	12-1.00	14.00
12.00	14.00	12.00	19.00	17.00	1.06	33.25	12-1.00	17.75

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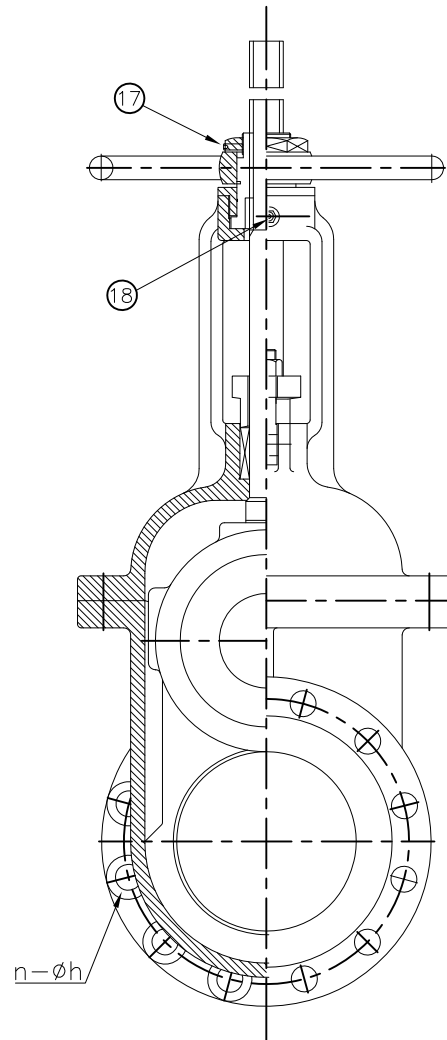
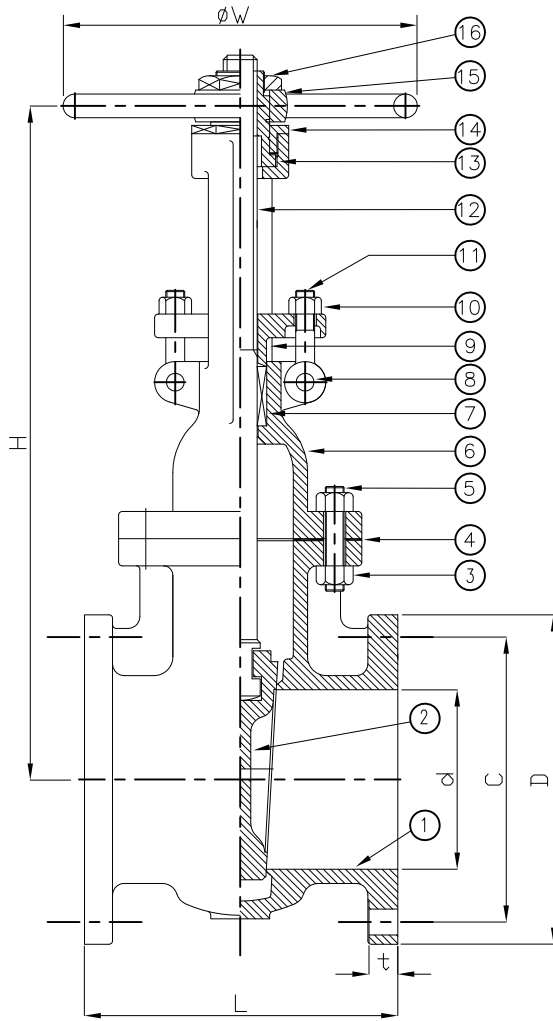
WILLIAMS
VALVE CORPORATION

38-52 REVIEW AVENUE
LONG ISLAND CITY, NY 11101 TEL: 718-392-1660
FAX: 718-729-5106

TITLE: BRONZE BOLTED BONNET NRS GATE VALVE
CLASS 150 - FLANGED - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
△	5/4/16	RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 2" - 12"	FIG. No.: 141F
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	
								CHK'D & APR'D BY: R.P.	REV: 2 DWG No.: 20GA120004-20

Wm. E. Williams No. 142F Class 150 Flanged OS&Y Bolted Bonnet Gate Valve ASTM B62



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	WEDGE	ASTM B62 (SEE NOTE 2 & 3)	1
3	BONNET STUD NUT	ASTM B16	1 SET
4	GASKET	NON-ASBESTOS (SEE NOTE 2)	1
5	BONNET STUD	ASTM B16	1 SET
6	BONNET	ASTM B62	1
7	PACKING	TFE (SEE NOTE 2)	1
8	GLAND EYE BOLT PIN	ASTM B16	2
9	GLAND FLANGE	ASTM B62	1
10	GLAND EYE BOLT NUT	ASTM B16	2
11	GLAND EYE BOLT	ASTM B16	2
12	STEM	ASTM B124	1
13	STEM NUT	ASTM B62	1
14	YOKE CAP NUT	ASTM B62	1
15	HAND WHEEL	ASTM A197	1
16	HANDWHEEL NUT	C/S 1020	1
17	SET SCREW	ALLOY STEEL	1
18	GREASNIFFLE	STEEL	1

NOTE:

- STANDARD INTEGRAL SEAT.
- ALTERNATE MATERIALS AVAILABLE UPON REQUEST.
- SOLID WEDGE.

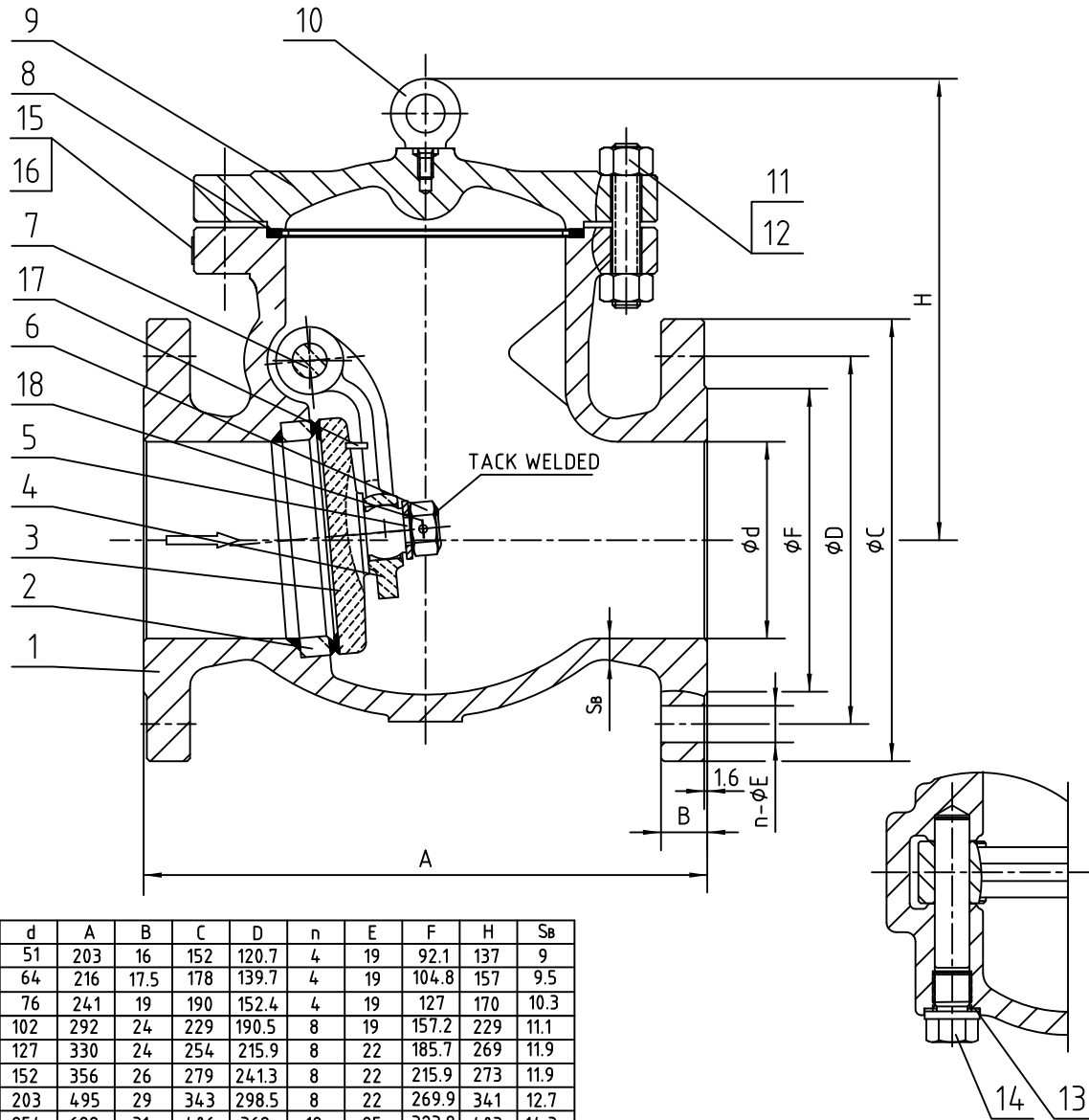
SIZE	L	d	D	C	t	H	n-øh	W
2.00	7.00	2.00	6.00	4.75	0.50	11.50	4-0.75	7.500
2.50	7.50	2.50	7.00	5.50	0.56	14.75	4-0.75	7.500
3.00	8.00	3.00	7.50	6.00	0.63	16.06	4-0.75	7.875
4.00	9.00	4.00	9.00	7.50	0.69	20.12	8-0.75	8.812
5.00	10.00	6.00	10.00	8.50	0.75	24.12	8-0.87	9.844
6.00	10.50	6.00	11.00	9.50	0.81	28.44	8-0.87	12.41
8.00	11.50	8.00	13.50	11.75	0.94	35.63	8-0.87	14.00
10.00	13.00	10.00	16.00	14.25	1.00	44.81	12-1.00	14.00
12.00	14.00	12.00	19.00	17.00	1.06	52.62	12-1.00	17.75


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TITLE: BRONZE BOLTED BONNET GATE VALVE
CLASS 150 - FLANGED - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
Δ	6/30/16	RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
Δ	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 2" - 12"	FIG. No.: 142F
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	
								CHK'D & APR'D BY: R.P.	REV: 2 DWG No.: 20GA120003-20

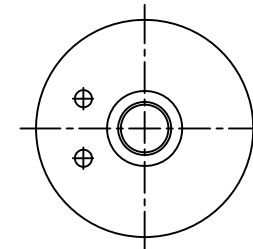
Wm. E. Williams No. 151F4AB Class 150 RF Swing Check Valve A216 WCB (Aluminum Bronze Trim)



BILL OF MATERIAL		
ITEM	NAME	MATERIAL
1	BODY	ASTM A216-WCB
2	BODY RING	ASTM A105+ALUM BRONZE
3	DISC	ASTM A105+ALUM BRONZE
4	HINGE	ASTM A216-WCB
5	GASKET	ASTM A276-410
6	NUT	ASTM A276-410
7	PIN	ALUMINUM BRONZE
8	GASKET	SS304+GRAPHITE
9	BONNET	ASTM A216-WCB
10	EYEBOLT	ASTM A29-1035
11	NUT	ASTM A194-2H
12	BOLT	ASTM A193-B7
13	GASKET	ASTM A276-304
14	PLUG	ASTM A276-410
15	NAMEPLATE	304SS
16	RIVET	304SS
17	PIN	ASTM A29-1020
18	PIN	316SS

SIZE	d	A	B	C	D	n	E	F	H	S _B
2"	51	203	16	152	120.7	4	19	92.1	137	9
2-1/2"	64	216	17.5	178	139.7	4	19	104.8	157	9.5
3"	76	241	19	190	152.4	4	19	127	170	10.3
4"	102	292	24	229	190.5	8	19	157.2	229	11.1
5"	127	330	24	254	215.9	8	22	185.7	269	11.9
6"	152	356	26	279	241.3	8	22	215.9	273	11.9
8"	203	495	29	343	298.5	8	22	269.9	341	12.7
10"	254	622	31	406	362	12	25	323.8	403	14.3
12"	305	698	32	483	431.8	12	25	381	471	15.8
14"	337	787	35	533	476.3	12	29	412.8	510	16.6
16"	387	864	37	597	539.8	16	29	469.9	580	17.5

Stop pin position in Disc

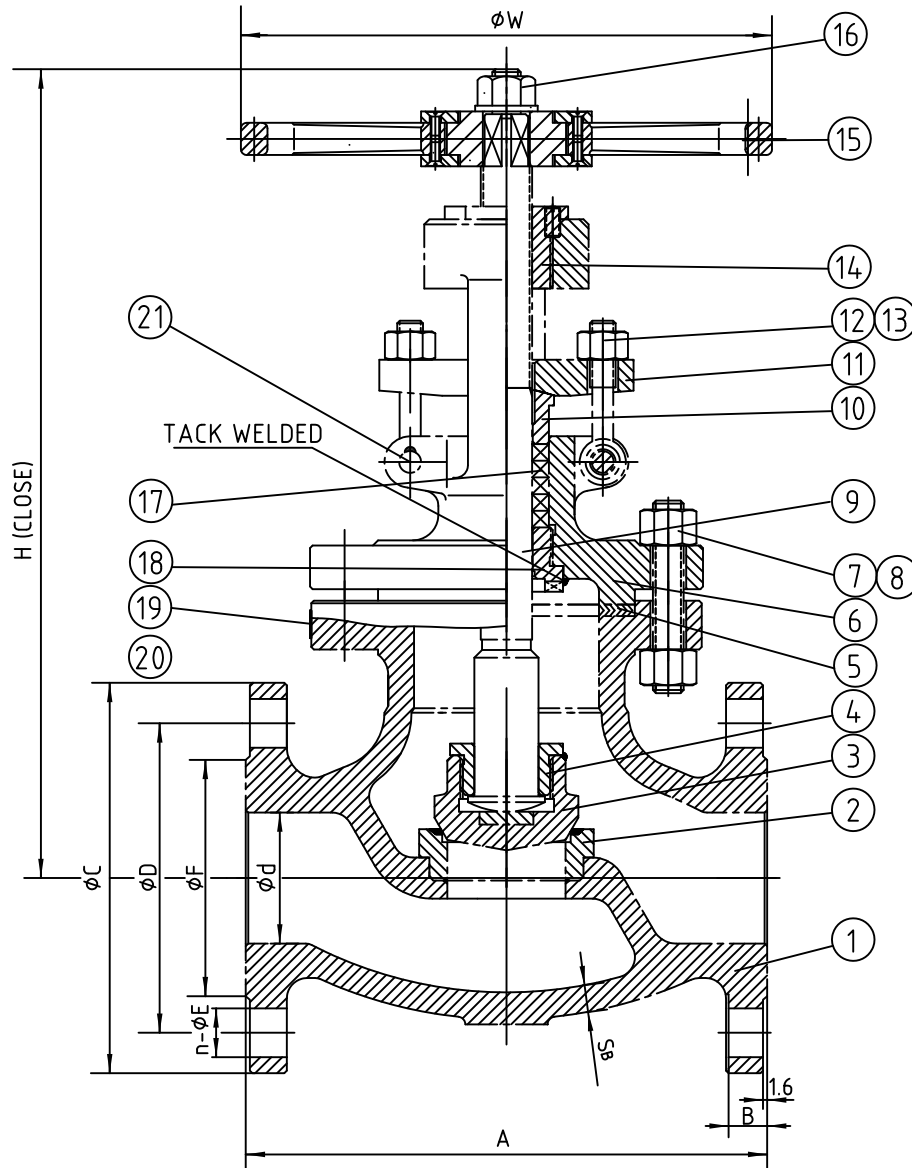


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TITLE: CAST STEEL SWING CHECK VALVE CLASS 150 - ALUMINUM BRONZE TRIM - BOLTED COVER		MATERIAL: ASTM A216 GR.WCB	UNITS: Inch, mm
CLASS: 150	DATE: 06/12/15	SCALE: N.T.S.	FIG. No.: 151F-4AB
SIZE: 2" - 16"	DRAWN BY: F.J.	REV: 2	DWG No.: 60SC120142-28
CHK'D & APR'D BY: R.P.	REV: 2		

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 598
Δ	7/18/16	RELEASED	F.J.	R.P.	R.P.		DIM.OF FLANGE	ANSI B16.5	SHELL HYDRO 450PSI
Δ	6/12/15	RELEASED	F.J.	R.P.	R.P.		FACE TO FACE	ANSI B16.10	SEAT AIR N/A
							WALL THICKNESS	ANSI B16.34	HPC SEAT HYDRO 315PSI
								API 594, ANSI B16.34	

Wm. E. Williams No. 152F4AB Class 150 RF Globe Valve ASTM A 216 WCB (Aluminum Bronze Trim)



BILL OF MATERIALS		
ITEM	PART	MATERIAL
1	BODY	ASTM A216-WCB
2	SEAT	ASTM A105+ALUM BRONZE
3	DISC	ASTM A105+ALUM BRONZE
4	DISC COVER	ASTM A276-410
5	GASKET	SS304+GRAPHITE
6	BONNET	ASTM A216-WCB
7	BONNET BOLT	ASTM A193-B7
8	BONNET NUT	ASTM A194-2H
9	STEM	ALUMINUM BRONZE
10	GLAND	ASTM A276-410
11	GLAND FLANGE	ASTM A216-WCB
12	EYE BOLT	ASTM A193-B7
13	EYE BOLT NUT	ASTM A194-2H
14	STEM NUT	ASTM A439-D-2
15	HANDWHEEL	NODULAR CAST IRON
16	HANDWHEEL NUT	ASTM A29-1035
17	PACKING RING	GRAPHITE
18	BACKSEAT BUSHING	ASTM A276-410
19	NAMEPLATE	304SS
20	RIVET	304SS
21	PIN	ASTM A29-1035

SIZE	d	A	B	C	D	n	E	F	H	W	Sb
2"	51	203	16	152	120.7	4	19	92.1	327	200	9
2-1/2"	64	216	17.5	178	139.7	4	19	104.8	343	250	9.5
3"	76	241	19	190	152.4	4	19	127	350	250	10.3
4"	102	292	24	229	190.5	8	19	157.2	441	300	11.2
5"	127	356	24	254	215.9	8	22	185.7	460	300	11.5
6"	152	406	26	279	241.3	8	22	215.9	468	350	11.9
8"	203	495	29	343	298.5	8	22	269.9	542	450	12.7
10"	254	622	31	406	362	12	25	323.8	636	450	14
12"	305	698	32	483	431.8	12	25	381	830	560	16
14"	337	787	35	533	476.3	12	29	412.8	877	560	17
16"	387	914	37	597	539.8	16	29	469.9	878	560	17.5

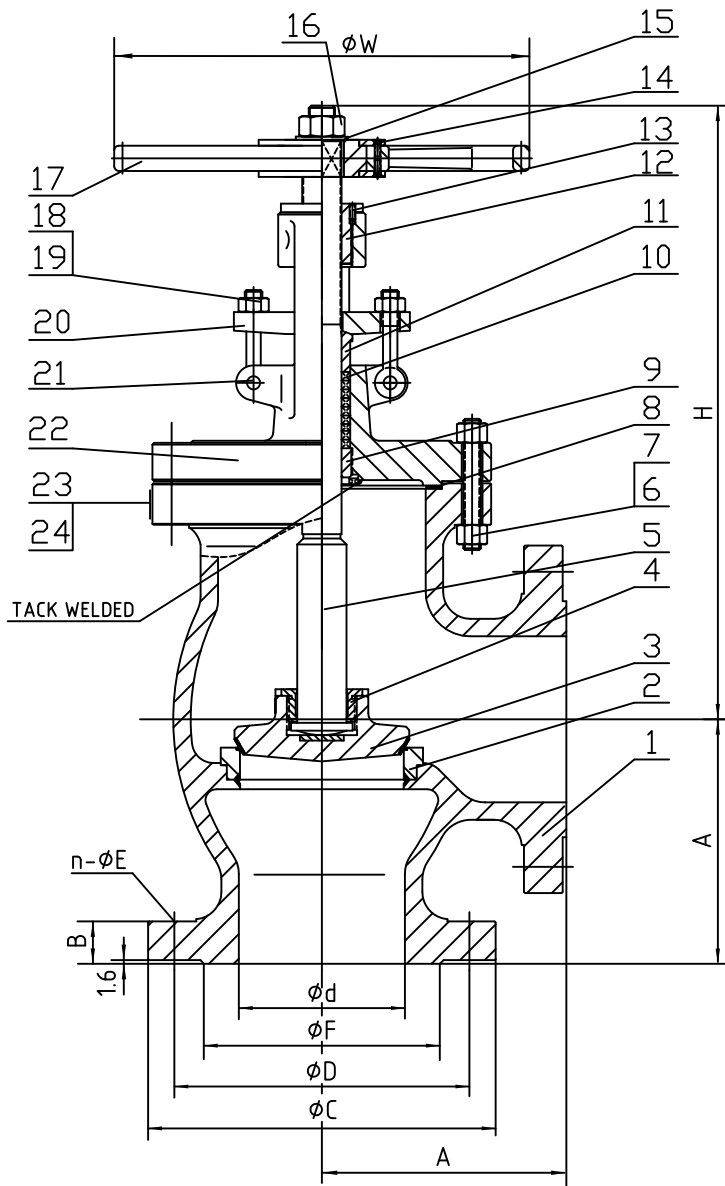
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 WWW.WILLIAMSVALVE.COM
 38-52 REVIEW AVENUE LONG ISLAND CITY, NY 11101
 TEL: 718-392-1660 FAX: 718-729-5106

TITLE: CAST STEEL GLOBE VALVE
 CLASS 150 - ALUMINUM BRONZE TRIM - B, B R, F OS&Y

MARKING SYSTEM		MSS-SP-25	INSPECTION & TEST: API 598			MATERIAL: ASTM A216 GR.WCB		UNITS: Inch, mm		
DIM.OF FLANGE		ANSI B16.5	SHELL	HYDRO	450PSI	CLASS: 150	DATE: 06/12/15	SCALE: N.T.S.		
FACE TO FACE		ANSI B16.10	HPC SEAT	HYDRO	315PSI	SIZE: 2" - 16"		FIG. No.: 152F-4AB		
WALL THICKNESS		BS1873	BACK SEAT	HYDRO	315PSI	DRAWN BY: F.J.				
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	BS1873, ANSI B16.34	CHK'D & APR'D BY: R.P.	REV: 1	DWG No.: 60GL120141-28

6/12/15	RELEASED	F.J.	R.P.	R.P.
---------	----------	------	------	------

Wm. E. Williams No. 153F4AB Class 150 RF Angle Valve ASTM A 216 WCB (Aluminum Bronze Trim)



BILL OF MATERIALS

ITEM	PART	MATERIAL
1	BODY	ASTM A216-WCB
2	SEAT	ASTM A105+ALUM BRONZE
3	DISC	ASTM A105+ALUM BRONZE
4	DISC COVER	ASTM A276-410
5	STEM	ALUMINUM BRONZE
6	BONNET BOLT	ASTM A193-B7
7	BONNET NUT	ASTM A194-2H
8	GASKET	SS304+GRAPHITE
9	BACKSEAT BUSHING	ASTM A276-410
10	PACKING RING	GRAPHITE
11	GLAND	ASTM A276-410
12	STEM NUT	ASTM A439 D-2
13	SCREW	ASTM A29-1035
14	SCREW	ASTM A29-1035
15	WASHER	ASTM A29-1035
16	HANDWHEEL NUT	ASTM A29-1035
17	HANDWHEEL	NODULAR CAST IRON
18	EYE BOLT	ASTM A193-B7
19	EYE BOLT NUT	ASTM A194-2H
20	GLAND FLANGE	ASTM A216-WCB
21	PIN	ASTM A29-1035
22	BONNET	ASTM A216-WCB
23	RIVET	304SS
24	NAMEPLATE	304SS

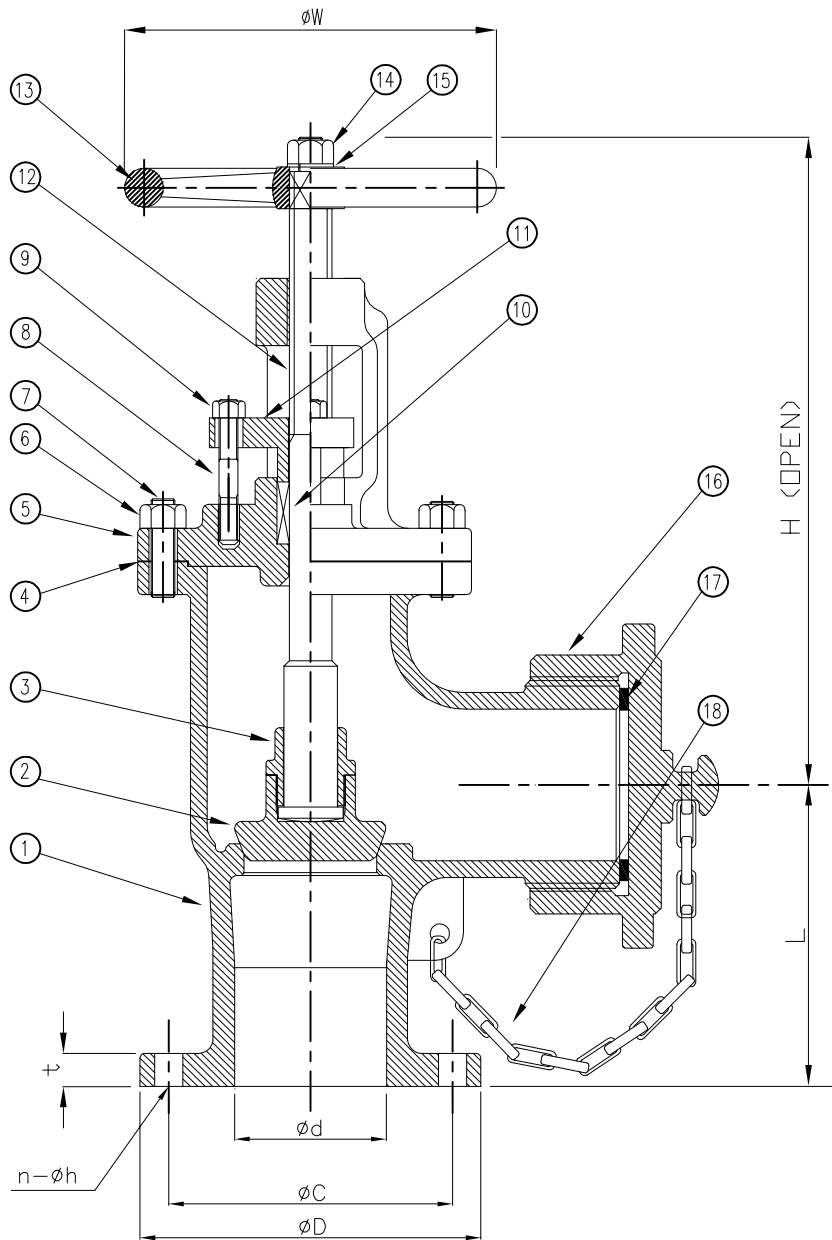
SIZE	d	A	B	C	D	n-φE	F	H	W
2"	51	101.5	16	152	120.5	4-19	92	323	200
2 1/2"	64	108	17.9	178	139.5	4-19	105	337	250
3"	76	121	20	190	152.5	4-19	127	350	250
4"	102	146	24.5	229	190.5	8-19	157	441	300
5"	127	177.8	24	255	216	8-22	186	460	350
6"	152	203.2	26	279	241.5	8-22	216	471	350
8"	203	247.65	29	343	298.5	8-22	270	542	450

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TITLE: CAST STEEL ANGLE GLOBE VALVE CLASS 150 - ALUMINUM BRONZE TRIM - B,B R,F

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 598	MATERIAL: ASTM A216 GR.WCB	UNITS: Inch, mm
Δ	7/19/16	RELEASED	F.J.	R.P.	R.P.		DIM.OF FLANGE	ANSI B16.5	SHELL HYDRO 450PSI	CLASS: 150	SCALE: N.T.S.
Δ	6/12/15	RELEASED	F.J.	R.P.	R.P.		CENTER TO FACE	ANSI B16.10	HPC SEAT HYDRO 315PSI	DATE: 06/12/15	FIG. No.: 153F-4AB
							WALL THICKNESS	BS1873	BACK SEAT HYDRO 315PSI	DRAWN BY: F.J.	
										CHK'D & APR'D BY: R.P.	REV: 2
											DWG No.: 60AN120143-28

Wm. E. Williams No. 215F Class 150 Flanged OS&Y Bolted Bonnet Hose End Angle Valve ASTM B62



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B124	1
4	GASKET	ASTM B62 (SEE NOTE 2)	1
5	BONNET	ASTM B62	1
6	BONNET NUT	ASTM B16	1 SET
7	BONNET STUD	ASTM B16	1 SET
8	GLAND STUD	ASTM B16	2
9	GLAND NUT	ASTM B16	2
10	PACKING	TFE (SEE NOTE 1)	1
11	GLAND FLANGE	ASTM B62	1
12	STEM	ASTM B124	1
13	HANDWHEEL	ALUMINUM	1
14	HANDWHEEL NUT	ASTM B16	1
15	I.D. TAG	ALUMINUM	1
16	CAP	ASTM B62	1
17	CAP GASKET	RUBBER	1
18	CHAIN	BRASS	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.
2. ALTERNATE MATERIALS AVAILABLE.

SIZE	d	L	D	C	t	H	n- ϕ h	W
1-1/2	1.50	3.25	5.00	3.87	0.437	6.63	4-0.62	5.50
2-1/2	2.50	4.75	7.00	5.50	0.562	11.75	4-0.75	7.50

STANDARD HOSE THREADS

SIZE	NATIONAL STANDARD		STRAIGHT IRON PIPE		NEW YORK CITY FIRE DEPT.		NAVY IFT		CHICAGO HOSE THREAD	
	ODM	TPI	ODM	TPI	ODM	TPI	ODM	TPI	ODM	TPI
1-1/2	1.99	9	1.879	11-1/2	2.168	8	1.879	11-1/2	1.937	11-1/2
2-1/2	3.069	7-1/2	2.844	8	3.030	8	3.069	7-1/2	3.062	7

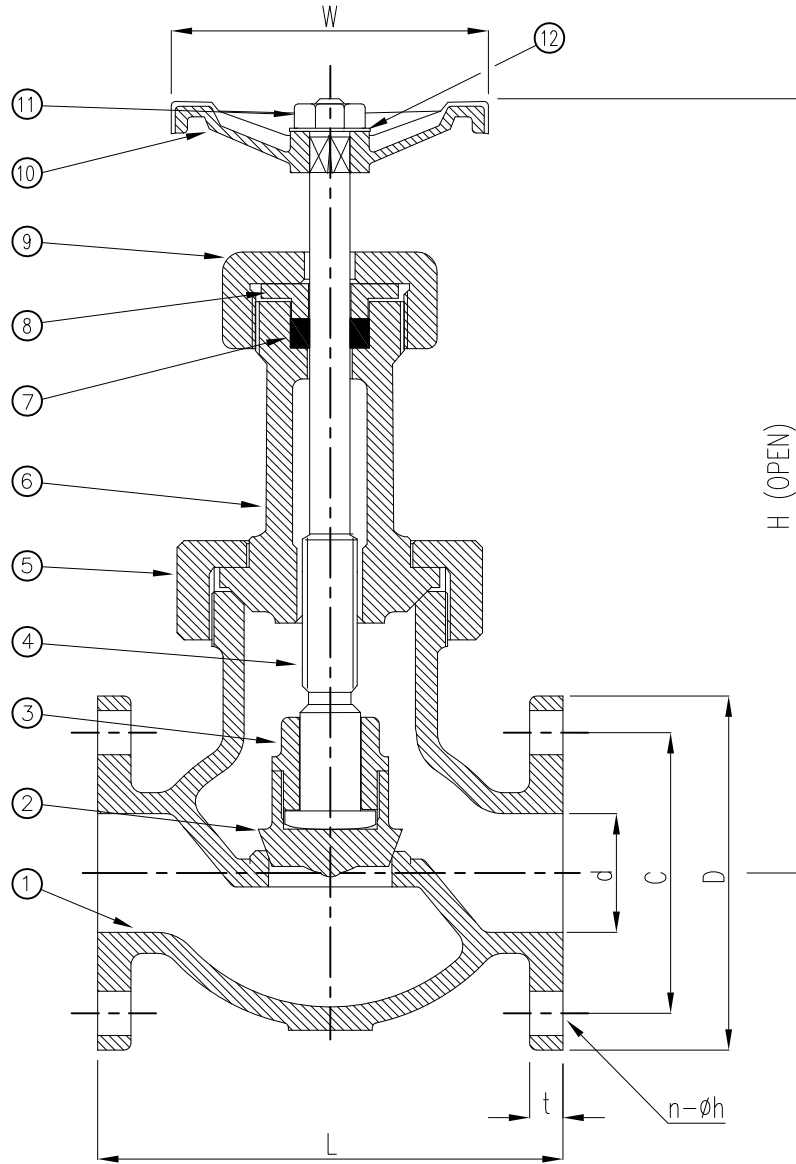

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38-52 REVIEW AVENUE
 LONG ISLAND CITY, NY 11101
TEL: 718-392-1660
 FAX: 718-729-5106

TITLE: BRONZE HOSE END ANGLE VALVE
BOLTED BONNET - CLASS 150 - OS&Y - ASTM B62

						APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm				
						MSS-SP-6	MSS-SP-25	SHELL	HYDRO	350PSI	CLASS: 150	DATE: 01/01/12	SCALE: N.T.S.
						MSS-SP-9	MSS-SP-82	SEAT	AIR	-	SIZE: 1-1/2" & 2-1/2"	FIG. No.: 215F	
						DESIGNED	ANSI B16.24	BACK SEAT	HYDRO	225PSI	DRAWN BY: F.J.		
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D			CHK'D & APR'D BY: R.P.	REV: 1	DWG No.: 20HA120009			

1/1/12 ISSUED FOR PROPOSAL

Wm. E. Williams No. 1160F Class 150 Flanged Union Bonnet Globe Valve ASTM B62



BILL OF MATERIALS			
NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B62	1
4	STEM	ASTM B124	1
5	UNION NUT	ASTM B62	1
6	BONNET	ASTM B62	1
7	PACKING	TFE (SEE NOTE 1)	1
8	PACKING GLAND	ASTM B124	1
9	PACKING NUT	ASTM B62	1
10	HANDWHEEL	ASTM A126 Gr B	1
11	HANDWHEEL NUT	ASTM B16	1
12	WASHER	ASTM B16	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.

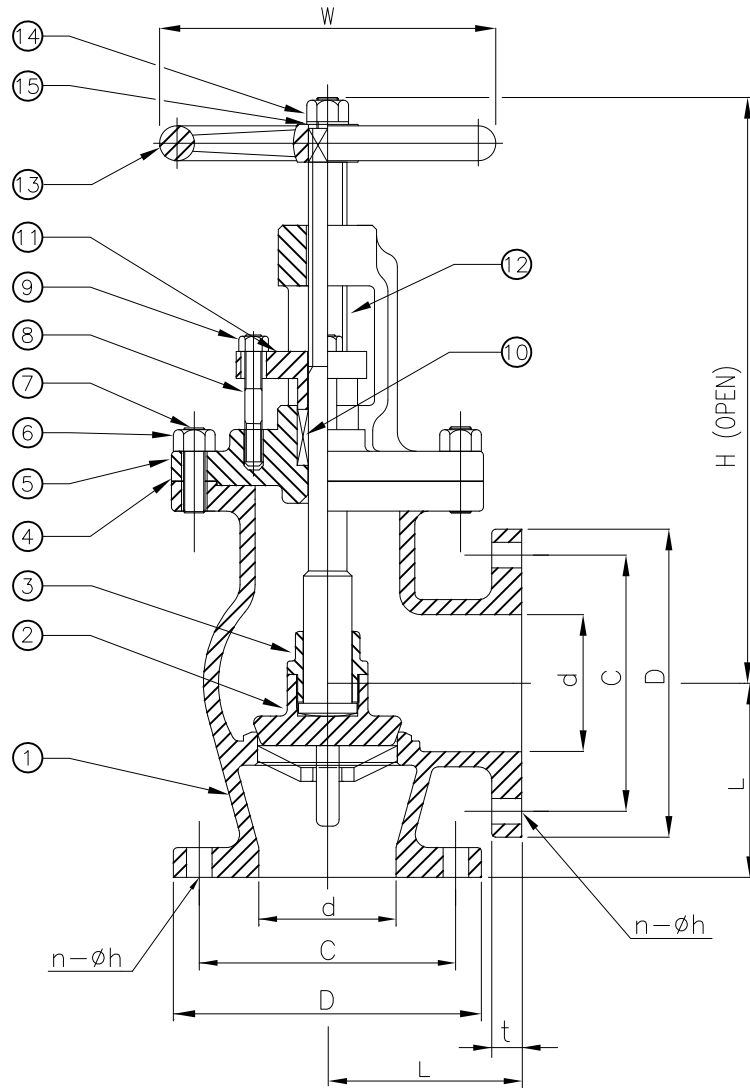
SIZE	d	L	D	C	t	H	n-øh	W
1/2	0.50	3.34	3.50	2.37	0.312	4.37	4-0.62	2.37
3/4	0.75	3.75	3.88	2.75	0.343	4.88	4-0.62	2.63
1	1.00	4.16	4.25	3.12	0.375	5.31	4-0.62	3.06
1-1/4	1.25	4.56	4.63	3.50	0.406	6.75	4-0.62	3.25
1-1/2	1.50	5.31	5.00	3.87	0.437	7.19	4-0.62	4.00
2	2.00	6.00	6.00	4.75	0.500	8.19	4-0.75	4.00
2-1/2	2.50	6.75	7.00	5.50	0.562	9.12	4-0.75	4.75
3	3.00	7.94	7.50	6.00	0.625	10.81	4-0.75	6.50

WILLIAM E. VALVE CORPORATION
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 LONG ISLAND CITY, NY 11101
 TEL: 718-392-1660
 FAX: 718-729-5106

TITLE: CAST BRONZE UNION BONNET GLOBE VALVE
 CLASS 150 - FLANGED - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
Δ	5/17/16	RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
Δ	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 1/2" - 3"	FIG. No.: 1160F
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	
								CHK'D & APR'D BY: R.P.	REV: 2 DWG No.: 20GL120005-20

Wm. E. Williams No. B15A Class 150 Flanged OS&Y Bolted Bonnet Angle Valve ASTM B62



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B124	1
4	GASKET	ASTM B62 (SEE NOTE 3)	1
5	BONNET	ASTM B62	1
6	BONNET STUD	ASTM B16	1 SET
7	BONNET NUT	ASTM B16	1 SET
8	GLAND STUD	ASTM B16	2
9	GLAND NUT	ASTM B16	2
10	PACKING	TFE (SEE NOTE 1)	1
11	GLAND FLANGE	ASTM B62	1
12	STEM	ASTM B124	1
13	HANDWHEEL	ASTM A197	1
14	HANDWHEEL NUT	ASTM B16	1
15	WASHER	BRASS	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.
2. STOP CHECK DESIGN. (OPTIONAL)
3. ALTERNATE MATERIALS AVAILABLE.
4. BOTTOM GUIDE (2" & UP)

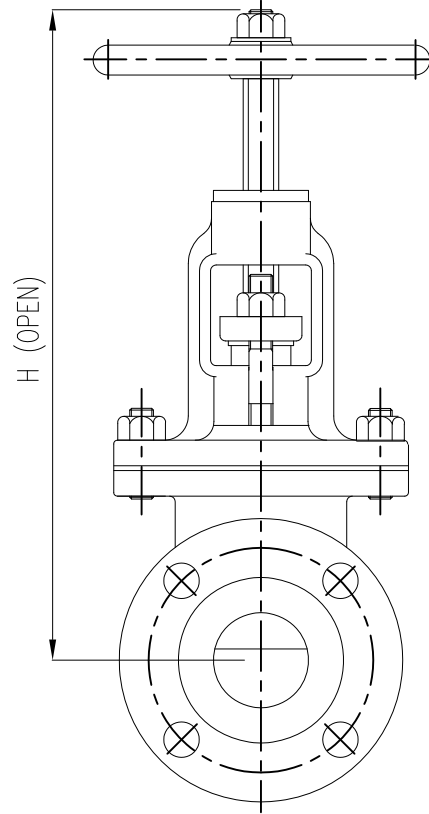
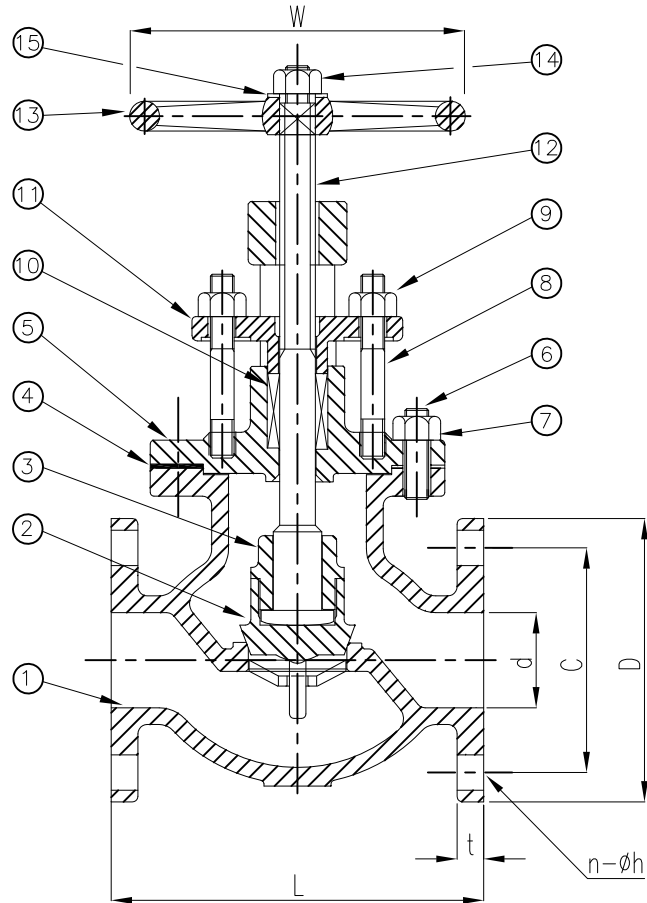
SIZE	d	L	D	C	t	H	n-øh	W
1-1/2	1.50	3.25	5.00	3.87	0.437	9.25	4-0.63	5.50
2	2.00	4.00	6.00	4.75	0.500	10.94	4-0.75	7.12
2-1/2	2.50	4.13	7.00	5.50	0.562	12.41	4-0.75	7.12
3	3.00	4.63	7.50	6.00	0.625	14.00	4-0.75	7.87
4	4.00	5.63	9.00	7.50	0.687	14.00	8-0.75	8.81
5	5.00	7.00	10.00	8.50	0.750	16.25	8-0.87	12.41
6	6.00	7.37	11.00	9.50	0.813	18.00	8-0.87	14.00
8	8.00	9.75	13.50	11.75	0.938	21.25	8-0.87	14.00



TITLE: CAST BRONZE BOLTED BONNET ANGLE VALVE
CLASS 150 - OS&Y - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
△	6/30/16	RELEASED PER P/L & DIM. UPDATE	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
△	3/19/14	RELEASED PER P/L UPDATE	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 1 1/2" - 8"	FIG. No.: B15A
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	
								CHK'D & APR'D BY: R.P.	REV: 3 DWG No.: 20AN120001-20

Wm. E. Williams No. B15G Class 150 Flanged OS&Y Bolted Bonnet Globe Valve ASTM B62



BILL OF MATERIALS			
NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B124	1
4	GASKET	ASTM B62 (SEE NOTE 3)	1
5	BONNET	ASTM B62	1
6	BONNET STUD	ASTM B16	1 SET
7	BONNET NUT	ASTM B16	1 SET
8	GLAND STUD	ASTM B16	2
9	GLAND NUT	ASTM B16	2
10	PACKING	TFE (SEE NOTE 1)	1
11	GLAND FLANGE	ASTM B62	1
12	STEM	ASTM B124	1
13	HANDWHEEL	ASTM A197	1
14	HANDWHEEL NUT	ASTM B16	1
15	WASHER	BRASS	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.
2. STOP CHECK DESIGN. (OPTIONAL)
3. ALTERNATE MATERIALS AVAILABLE.
4. BOTTOM GUIDE DESIGN (2" AND UP)

SIZE	d	L	D	C	t	H	n-øh	W
1-1/2	1.50	6.50	5.00	3.87	0.437	9.25	4-0.62	5.50
2	2.00	7.00	6.00	4.75	0.500	10.94	4-0.75	7.12
2-1/2	2.50	8.50	7.00	5.50	0.562	12.41	4-0.75	7.12
3	3.00	9.12	7.50	6.00	0.625	14.00	4-0.75	7.87
4	4.00	12.00	9.00	7.50	0.687	14.00	8-0.75	8.81
5	5.00	14.00	10.00	8.50	0.750	16.25	8-0.87	12.41
6	6.00	16.62	11.00	9.50	0.813	18.00	8-0.87	14.00
8	8.00	19.50	13.50	11.75	0.938	21.25	8-0.87	14.00

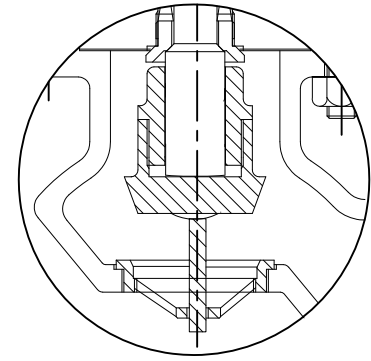
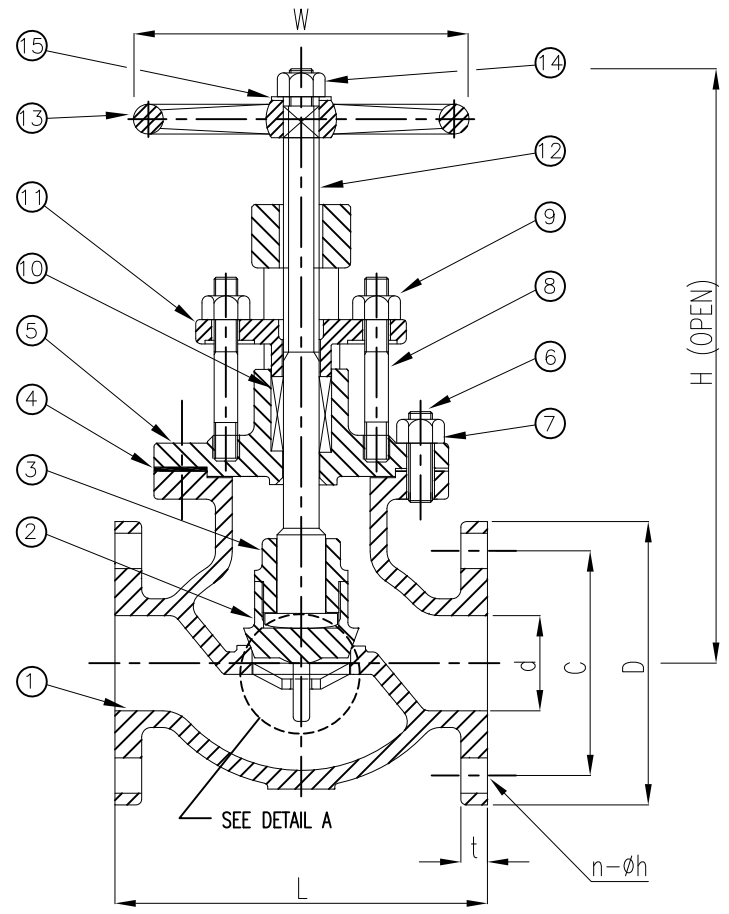
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
△	5/17/16	RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150 DATE: 01/01/12	SCALE: N.T.S.
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 1-1/2" - 8"	FIG. No.: B15G
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F. J.	
							CHK'D & APR'D BY: R.P.	REV: 2	DWG No.: 20GL120006-20

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TITLE: CAST BRONZE BOLTED BONNET GLOBE VALVE CLASS 150 - OS&Y - ASTM B62

Wm. E. Williams No. B15G-SC Class 150 Flanged OS&Y Globe Valve ASTM B62

BILL OF MATERIALS			
NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	DISC NUT	ASTM B124	1
4	GASKET	ASTM B62 (SEE NOTE 2)	1
5	BONNET	ASTM B62	1
6	BONNET STUD	ASTM B16	1 SET
7	BONNET NUT	ASTM B16	1 SET
8	GLAND STUD	ASTM B16	2
9	GLAND NUT	ASTM B16	2
10	PACKING	TFE (SEE NOTE 1)	1
11	GLAND FLANGE	ASTM B62	1
12	STEM	ASTM B124	1
13	HANDWHEEL	ASTM A197	1
14	HANDWHEEL NUT	ASTM B16	1
15	WASHER	BRASS	1



DETAIL A
(THE DISC AND STEM AT FULL OPEN POSITION)

- NOTE:
1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.
 2. ALTERNATE MATERIALS AVAILABLE.

SIZE	d	L	D	C	t	H	n-øh	W
1-1/2	1.50	6.50	5.00	3.87	0.437	9.25	4-0.62	5.50
2	2.00	7.00	6.00	4.75	0.500	10.94	4-0.75	7.12
2-1/2	2.50	8.50	7.00	5.50	0.562	12.41	4-0.75	7.12
3	3.00	9.12	7.50	6.00	0.625	14.00	4-0.75	7.87
4	4.00	12.00	9.00	7.50	0.687	14.00	8-0.75	8.81
5	5.00	14.00	10.00	8.50	0.750	16.25	8-0.87	12.41
6	6.00	16.62	11.00	9.50	0.813	18.00	8-0.87	14.00
8	8.00	19.50	13.50	11.75	0.938	21.25	8-0.87	14.00

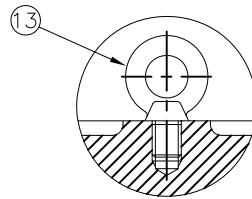
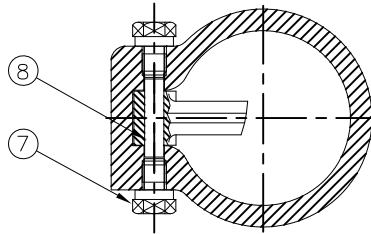
WILLIAM E. VALVE CORPORATION
 38-52 REVIEW AVENUE
 LONG ISLAND CITY, NY 11101
 TEL: 718-392-1660
 FAX: 718-729-5106
 WWW.WILLIAMSVALVE.COM

TITLE: CAST BRONZE BOLTED BONNET GLOBE VALVE
 STOP CHECK - CLASS 150 - OS&Y - ASTM B62

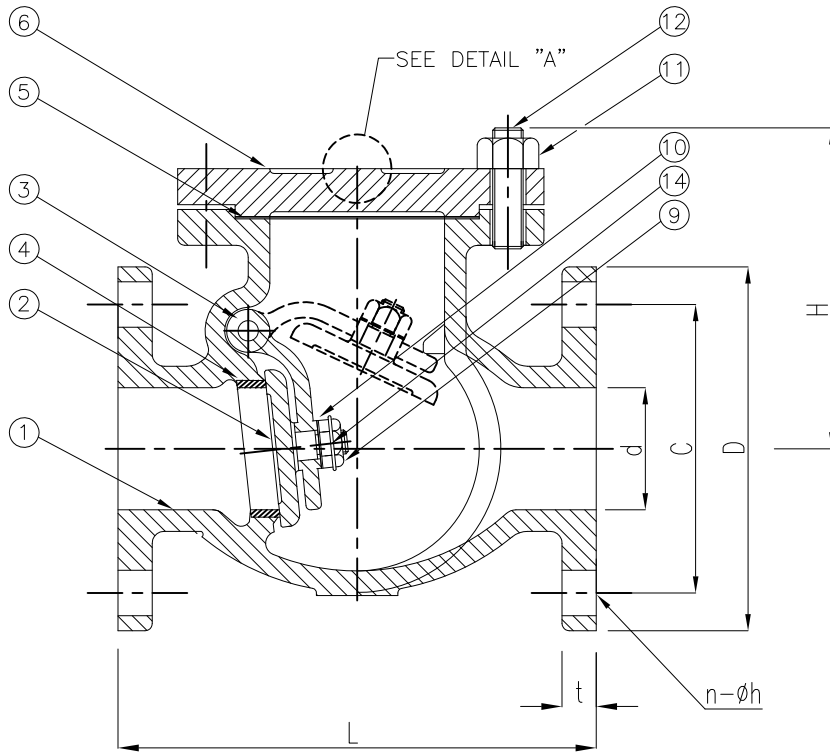
MATERIAL: ASTM B62	UNITS: Inch, mm
CLASS: 150	DATE: 01/01/12
SCALE: N.T.S.	FIG. No.: B15G-SC
SIZE: 1-1/2" - 8"	
DRAWN BY: F.J.	
CHK'D & APR'D BY: R.P.	REV: 2
DWG No.: 20GL120010-20	

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80
△	5/17/16	RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI

Wm. E. Williams No. B15SW Class 150 Flanged Bolted Cover Swing Check Valve ASTM B62



DETAIL "A" (8" OVER)



BILL OF MATERIALS

NO.	PART NAME	MATERIALS	Q'TY
1	BODY	ASTM B62	1
2	DISC	ASTM B62	1
3	HINGE ARM	ASTM B62	1
4	SEAT RING	ASTM B62	1
5	GASKET	TFE (SEE NOTE 1)	1
6	COVER	ASTM B62	1
7	SIDE PLUG	ASTM B16	2
8	HINGE PIN	ASTM B36	1
9	DISC NUT	ASTM B16	1
10	WASHER	ASTM B16	1
11	STUD NUT	ASTM B16	1 SET
12	COVER STUD	ASTM B16	1 SET
13	EYE HOOK	STEEL	1
14	COTTER PIN	BRASS	1

NOTE:

1. ALSO AVAILABLE IN GRAPHITE. PLEASE SPECIFY WHEN ORDERING.

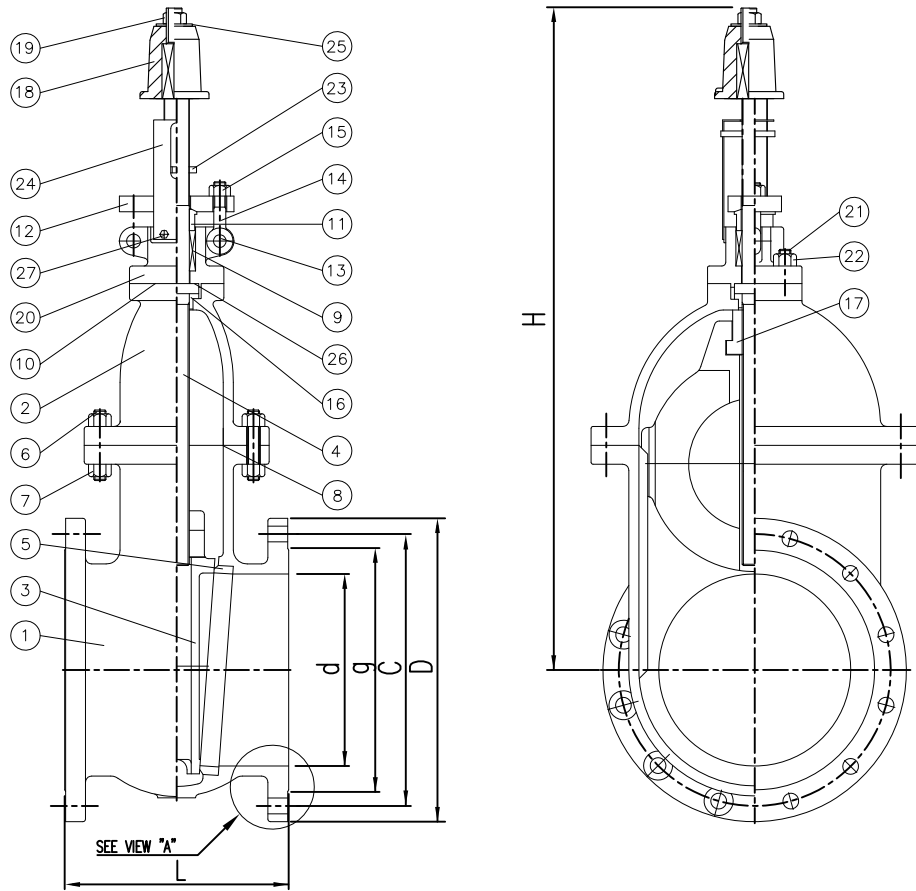
SIZE	d	L	D	C	t	H	n-øh
1-1/2	1.50	6.50	5.00	3.87	0.437	4.812	4-0.62
2	2.00	8.00	6.00	4.75	0.500	5.250	4-0.75
2-1/2	2.50	8.50	7.00	5.50	0.562	5.750	4-0.75
3	3.00	9.50	7.50	6.00	0.625	6.187	4-0.75
4	4.00	11.50	9.00	7.50	0.687	7.000	8-0.75
5	5.00	13.00	10.00	8.50	0.750	7.812	8-0.87
6	6.00	13.00	11.00	9.50	0.813	8.250	8-0.87
8	8.00	19.50	13.50	11.75	0.938	10.18	8-0.87
10	10.00	24.50	16.00	14.25	1.000	12.06	12-1.00
12	12.00	27.50	19.00	17.00	1.062	12.50	12-1.00



TITLE: CAST BRONZE SWING CHECK VALVE
CLASS 150 - FLANGED - ASTM B62

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	APPLICABLE STANDARDS	INSPECTION & TEST: MSS-SP80	MATERIAL: ASTM B62	UNITS: Inch, mm
△	1/20/15	RE-RELEASED	F.J.	R.P.	R.P.	MSS-SP-6 MSS-SP-25	SHELL HYDRO 350PSI	CLASS: 150	DATE: 01/01/12
△	1/1/12	RELEASED	F.J.	R.P.	R.P.	MSS-SP-9 MSS-SP-82	SEAT AIR -	SIZE: 1-1/2" - 12"	SCALE: N.T.S.
						DESIGNED ANSI B16.24	BACK SEAT HYDRO 225PSI	DRAWN BY: F.J.	FIG. No.: B15SW
								CHK'D & APR'D BY: R.P.	REV: 2 DWG No.: 20SC120007-20

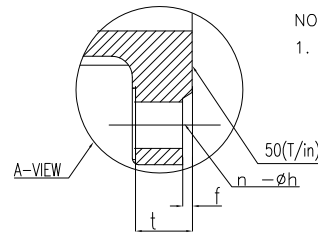
Wm. E. Williams No.N15F2N Class 150 RF NRS Gate Valve ASTM A 216 WCB (API Trim 8) NACE



BILL OF MATERIALS			
NO.	PART NAME	MATERIAL	Q'TY
1	BODY	A216Gr WCB	1
2	BONNET	A216Gr WCB	1
3	DISC	A216Gr WCB + 13Cr Faced	1
4	STEM	A479Gr 410 SS	1
5	SEAT RING	A105N + HF	2
6	BONNET BOLT	A193Gr B7M	1SET
7	BONNET NUT	A194Gr 2HM	1SET
8	BONNET GASKET	304 + GRAPHITE	1
9	PACKING	GRAPHITE WITH CORROSION INHIBITOR AND DIE FORMED RINGS	1SET
10	P/BOX GASKET	TBA#2100	1
11	GLAND RING	A479Gr 410	1
12	GLAND FLANGE	WCB	1
13	HINGE PIN	410 SS	2
14	GLAND BOLT	A193Gr B7M	2
15	GLAND NUT	A194Gr 2HM	2
16	THRUST BUSH	ALUMINUM BRONZE	1
17	STEM NUT	D42	1
18	OPERATING NUT	A439-DC2	1
19	HEX NUT	A194Gr 2HM	1
20	PACKING BOX	A216Gr WCB	1
21	BOX BOLT	A193Gr B7M	4
22	BOX NUT	A194Gr 2HM	4
23	INDICATOR	STEEL	2
24	INDICATOR PLATE	STEEL	1
25	WASHER	A576-1020	1
26	THRUST WASHER	ALUMINUM BRONZE	1
27	PLATE BOLT	A307Gr B	2

SIZE	d	L	H	W	D	C	g	t	f	n-h
2.00	2.00	7.00	12.75	7.00	6.00	4.75	3.62	0.625	0.060	4-0.75
2.50	2.50	7.50	13.50	7.00	7.00	5.50	4.13	0.689	0.060	4-0.75
3.00	3.00	8.00	15.00	7.87	7.50	6.00	5.00	0.750	0.060	4-0.75
4.00	4.00	9.00	17.75	8.87	9.00	7.50	6.18	0.940	0.060	8-0.75
6.00	6.00	10.50	23.00	12.50	11.00	9.50	8.50	1.000	0.060	8-0.86
8.00	8.00	11.50	27.00	12.50	13.50	11.75	10.62	1.125	0.060	8-0.86
10.00	10.00	13.00	31.62	14.00	16.00	14.25	12.75	1.187	0.060	12-1.00
12.00	12.00	14.00	35.62	15.75	19.00	17.00	15.00	1.250	0.060	12-1.00
14.00	13.25	15.00	41.00	17.75	21.00	18.75	16.25	1.375	0.060	12-1.12
16.00	15.25	16.00	43.37	19.62	23.50	21.25	18.50	1.437	0.060	16-1.12

Remark: Larger sizes available upon request.



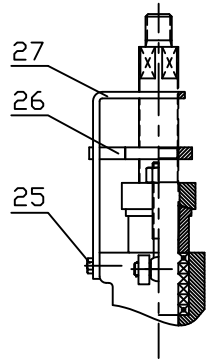
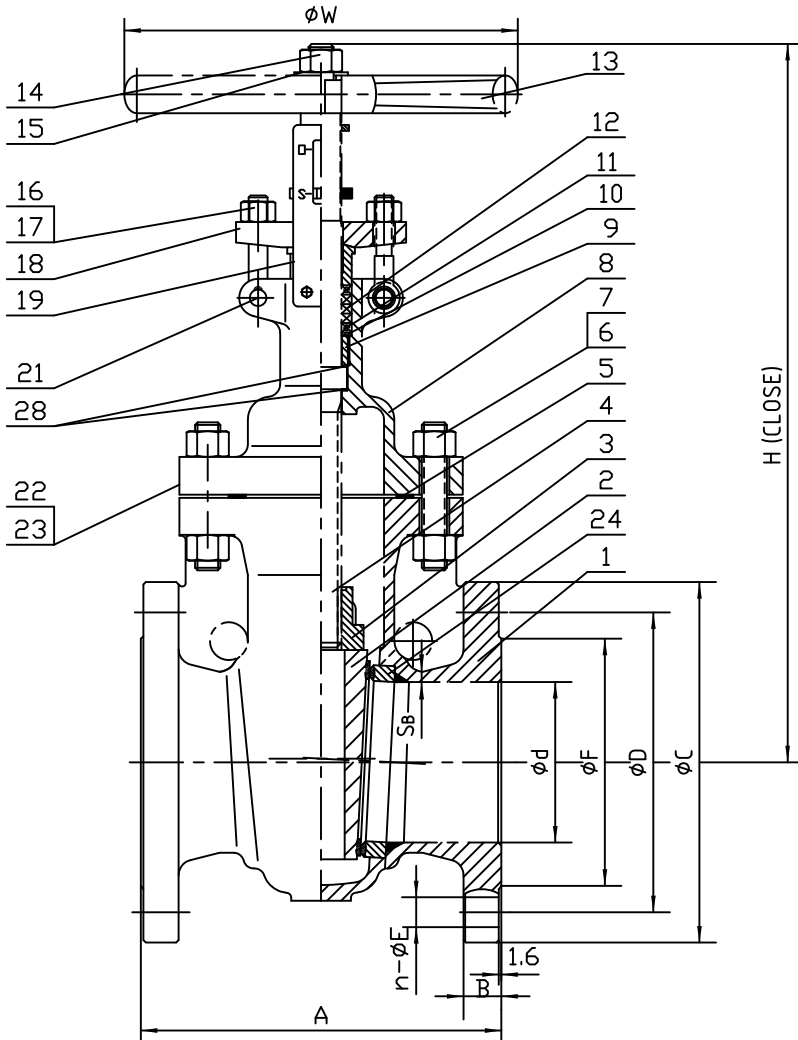
NOTE:
1. FLEXIBLE WEDGE.

WILLIAM E. WILLIAMS VALVE CORPORATION
 38-52 REVIEW AVENUE LONG ISLAND CITY, NY 11101
 TEL: 718-392-1660 FAX: 718-728-5106

TITLE: CAST STEEL NRS GATE VALVE WITH OPERATING NUT CLASS 150 - TRIM 8 - WCB BODY

MARKING SYSTEM			MSS-SP-25	INSPECTION & TEST: API 598			MATERIAL: ASTM A216 GR.WCB		UNITS: Inch, mm	
DIM.OF FLANGE			ANSI B16.5	HYDRO 450PSI			CLASS: 150		DATE: 02/23/15	
FACE TO FACE			ANSI B16.10	SEAT AIR			SIZE: 2" - 16"		SCALE: N.T.S.	
WALL THICKNESS			API 600	BACK SEAT HYDRO			DRAWN BY: F.J.		FIG. No.: N15F-2N	
DESIGNED			API 600, ANSI B16.34	NACE MR 0175			CHK'D & APR'D BY: R.P.		REV: 1	
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DWG No.: 60NRSGA120028-28				
△	2/23/15	RELEASED	F.J.	R.P.	R.P.					

Wm. E. Williams No. N15F4AB Class 150 RF NRS Gate Valve ASTM A216 WCB (ALUMINUM BRONZE TRIM)



BILL OF MATERIALS		
ITEM	PART	MATERIAL
1	BODY	ASTM A216-WCB
2	WEDGE	ASTM A216-WCB+ALUM BRONZE
3	STEM NUT	ASTM A439 D-2
4	STEM	ALUMINUM BRONZE
5	GASKET	304+GRAPHITE
6	BOLT	ASTM A193-B7
7	NUT	ASTM A194-2H
8	BONNET	ASTM A216-WCB
9	RETAIN NUT	ASTM A276-410
10	GASKET	ASTM A276-410
11	PACKING	Stainless Steel Wire With Flexible
12	PACKING	GRAPHITE
13	HANDWHEEL	NODULAR CAST IRON
14	NUT	ASTM A29-1035
15	WASHER	ASTM A276-410
16	EYE BOLT	ASTM A193-B7
17	EYE NUT	ASTM A194-2H
18	GLAND FLANGE	ASTM A216-WCB
19	GLAND	ASTM A276-410
21	PIN	ASTM A29-1035
22	NAME PLATE	304SS
23	RIVET	304SS
24	BODY RING	ASTM A105+ALUM BRONZE
25	BOLT	ASTM A193-B7
26	INDICATOR	ASTM A29-1045
27	INDICATION ROD	ASTM A29-1020
28	THRUST WASHER	ALUMINUM BRONZE

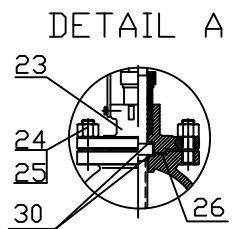
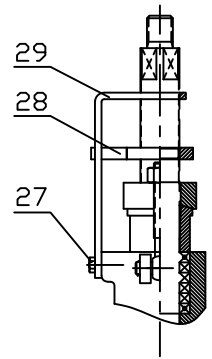
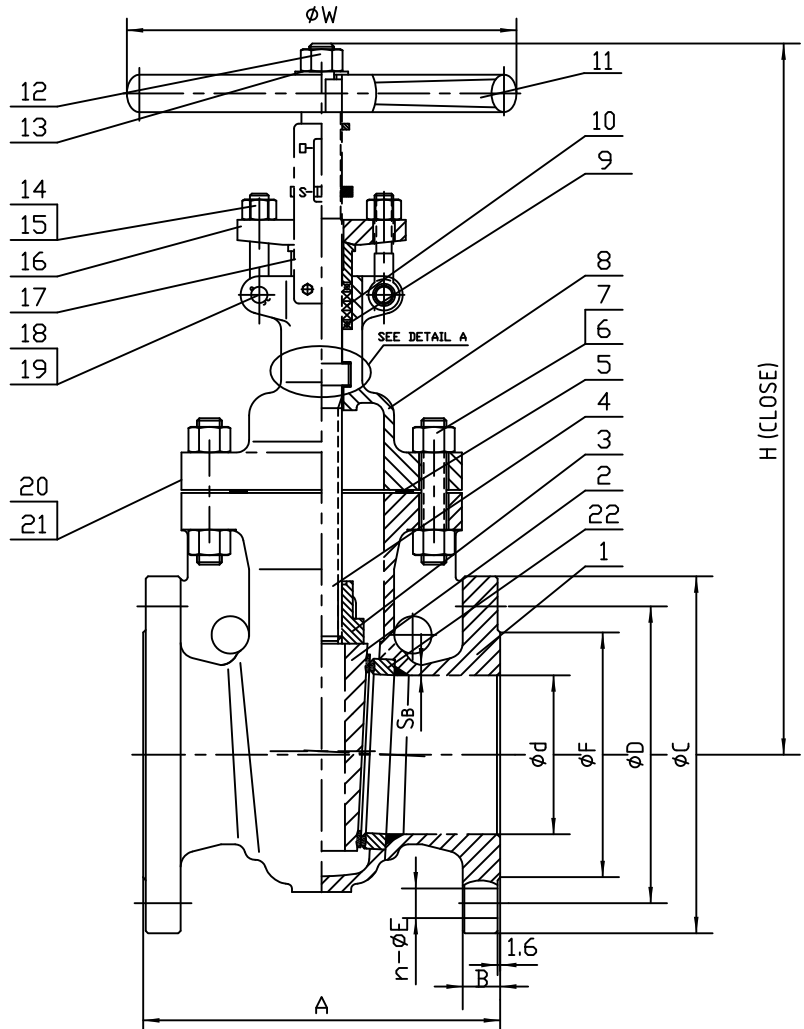
SIZE	d	A	B	C	D	n	E	F	H	W	S _B
2"	51	178	16	152	120.7	4	19	92.1	332	200	8.6
2-1/2"	64	190	17.5	178	139.7	4	19	104.8	362	200	9.5
3"	76	203	19	190	152.4	4	19	127	410	250	10.5
4"	102	229	24	229	190.5	8	19	157.2	464	250	11.5

WILLIAM E. WILLIAMS VALVE CORPORATION
 38-52 REVIEW AVENUE LONG ISLAND CITY, NY 11101
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TITLE: CAST STEEL NRS GATE VALVE
 CLASS 150 - ALUMINUM BRONZE TRIM- RF - WCB BODY

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	API 600, ANSI B16.34	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 598	MATERIAL: ASTM A216 GR.WCB	UNITS: Inch, mm	
△	6/30/16	RELEASED PER P/L UPDATE	F.J.	R.P.	R.P.	DIM.OF FLANGE	ANSI B16.5	SHELL	HYDRO	450PSI	CLASS: 150	DATE: 06/12/15	SCALE: N.T.S.
△	6/12/15	RELEASED	F.J.	R.P.	R.P.	FACE TO FACE	ANSI B16.10	SEAT	AIR	80PSI	SIZE: 2" - 4"	FIG. No.: N15F-4AB	
						WALL THICKNESS	API 600	BACK SEAT	HYDRO	315PSI	DRAWN BY: F.J.		
											CHK'D & APR'D BY: R.P.	REV: 2	DWG No.: 60GA120140-2-4-28

Wm. E. Williams No. N15F4AB Class 150 RF NRS Gate Valve ASTM A216 WCB (ALUMINUM BRONZE TRIM)



BILL OF MATERIALS		
ITEM	PART	MATERIAL
1	BODY	ASTM A216-WCB
2	WEDGE	ASTM A216-WCB+ALUM BRONZE
3	STEM NUT	ASTM A439 D-2
4	STEM	ALUMINUM BRONZE
5	GASKET	304+GRAPHITE
6	BOLT	ASTM A193-B7
7	NUT	ASTM A194-2H
8	BONNET	ASTM A216-WCB
9	PACKING	GRAPHITE
10	PACKING	GRAPHITE
11	HANDWHEEL	NODULAR CAST IRON
12	NUT	ASTM A29-1035
13	WASHER	ASTM A276-410
14	EYE BOLT	ASTM A193-B7
15	EYE NUT	ASTM A194-2H
16	GLAND FLANGE	ASTM A216-WCB
17	GLAND	ASTM A276-410
18	SPLIT PIN	ASTM A570 Gr.A
19	PIN	ASTM A29-1035
20	NAME PLATE	304SS
21	RIVET	304SS
22	BODY RING	ASTM A105+ALUM BRONZE
23	BONNET	ASTM A216-WCB
24	EYE BOLT	ASTM A193-B7
25	EYE NUT	ASTM A194-2H
26	GASKET	SS304+GRAPHITE
27	BOLT	ASTM A193-B7
28	INDICATOR	ASTM A29-1045
29	INDICATION ROD	ASTM A29-1020
30	THRUST WASHER	ALUMINUM BRONZE

SIZE	d	A	B	C	D	n	E	F	H	W	S _a
6"	152	267	26	279	241.3	8	22	215.9	609	300	12
8"	203	292	29	343	298.5	8	22	269.9	716	350	12.7
10"	254	330	31	406	362	12	25	323.8	801	400	14.5
12"	305	356	32	483	431.8	12	25	381	949	450	16
14"	337	381	35	533	476.3	12	29	412.8	1020	500	17
16"	387	406	37	597	539.8	16	29	469.9	1138	560	17.5
18"	438	432	40	635	578	16	32	533	1206	640	18.5
20"	489	457	43	699	635	20	32	584	1320	640	19.1

WILLIAMS VALVE CORPORATION

 38-52 REVIEW AVENUE, LONG ISLAND CITY, NY 11101

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TITLE: CAST STEEL NRS GATE VALVE
CLASS 150 - ALUMINUM BRONZE TRIM- RF - WCB BODY

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	API 600, ANSI B16.34	CHK'D & APR'D BY: R.P.	REV: 2	DWG No.: 60GA120140-28
△	6/30/16	RELEASED PER P/L UPDATE	F.J.	R.P.	R.P.	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 598	MATERIAL: ASTM A216 GR.WCB	UNITS: Inch, mm
						DIM.OF FLANGE	ANSI B16.5	SHELL	HYDRO	450PSI
						FACE TO FACE	ANSI B16.10	SEAT	AIR	80PSI
△	6/12/15	RELEASED	F.J.	R.P.	R.P.	WALL THICKNESS	API 600	BACK SEAT	HYDRO	315PSI
										FIG. No.: N15F-4AB