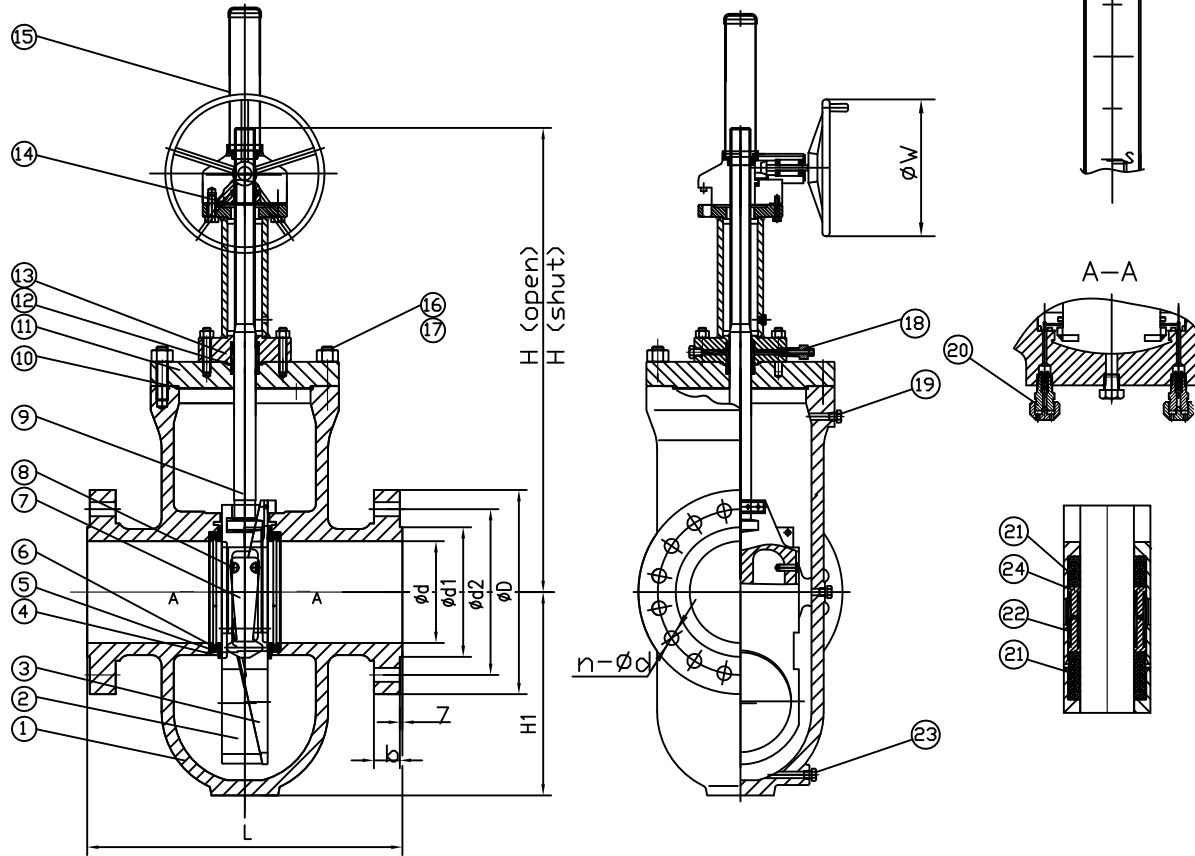
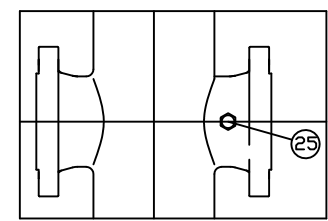


Wm. E. Williams No. 99F-61D GO Class 900 RF Expanding Gate Valve ASTM A216 WCC NACE



BILL OF MATERIALS			
NO.	PART NAME	MATERIAL	NOTE
1	BODY	A216-WCC	NACE
2	MAJOR GATE	A515. GR.70 +ENP	
3	MINOR GATE ASSLY	A515. GR.70 +ENP	
4	GATE GUIDE	Q235-A+ENP	
5	□ RING	Viton	
6	SEAT	A105N+ENP+DEVLON	
7	LEVER LOCK ARM	1025+ENP	
8	LEVER LOCK PIN	A276-410	
9	STEM	ASTM A182 F316	
10	RING JOINT GASKET	304SS	
11	BONNET	A105N	
12	GASKET	316SS+GRAPHITE	
13	YUKE TUBE ASSLY	A1020	
14	GEAR		
15	STEM PROTECT & INDICATION	PLASTIC	
16	BOLT	A193-B7M	
17	NUT	A194-2HM	
18	PACKING FITTING	A276 304	
19	VENT VALVE	A276 304	
20	INJECTION	A276 304	
21	PACKING RING	RPTFE	
22	INJECTION PACKING	YP7603	
23	DRAIN	A276 304	
24	LANTERN RING	SS316	
25	PLUG	SS304	

UNIT	NPS	φd	φd1	φd2	φD	b	n-φd	L	H (shut)	H (open)	H1	φW
mm	4"	100	157.2	235	290	44.5	8-φ32	457	666	787	230	450
Inch	4"	4.0	6.2	9.3	11.4	1.8	8-φ1.3	18.0	26.2	31.0	9.1	17.7
mm	6"	150	215.9	317.5	380	55.6	12-φ32	610	835	1015	333	500
Inch	6"	5.9	8.5	12.5	15.0	2.2	12-φ1.3	610	32.9	40.0	13.1	19.7

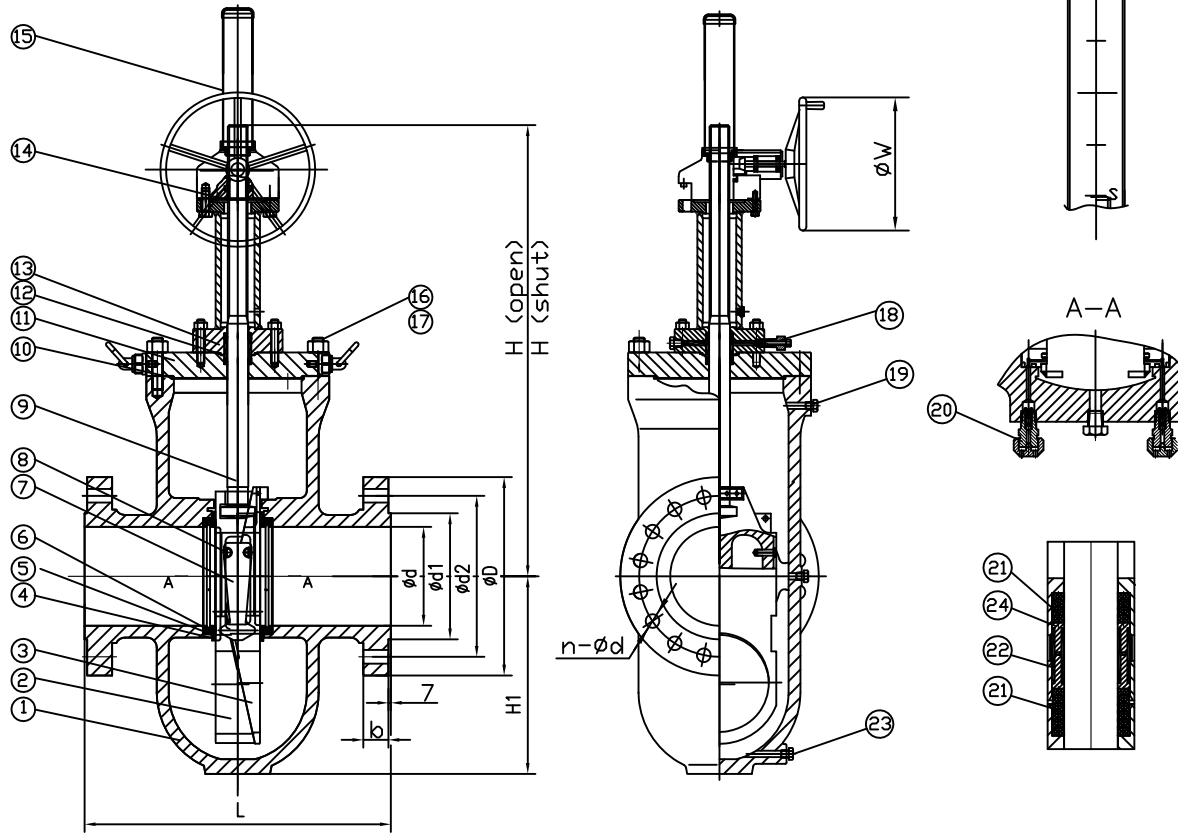



WILLIAMS
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 FAX: 718-729-5108

TITLE: CAST STEEL EXPANDING GATE VALVE CLASS 900 - ENP TRIM - GEAR OPERATED			
MATERIAL: ASTM A216 GR.WCC	UNITS: Inch, mm		
CLASS: 900	DATE: 09/03/15		
SCALE: N.T.S.	FIG. No.: 99F-61D GO		
SIZE: 4" - 6"	DRAWN BY: F.J.		
CHK'D & APR'D BY: R.P.	REV: 2		
DWG No.: 60EG120459-28			

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	API 6D	NACE MR 0175
Δ	2/1/16	RELEASED	F.J.	R.P.	R.P.	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 6D
						DIM.OF FLANGE	ANSI B16.5	SHELL HYDRO 3350PSI
						FACE TO FACE	API 6D	SEAT AIR 80PSI
Δ	9/3/15	RELEASED	F.J.	R.P.	R.P.	WALL THICKNESS	API 600	BACK SEAT HYDRO 2450PSI

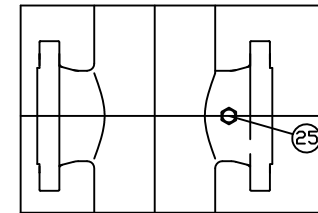
Wm. E. Williams No. 99F-61D GO Class 900 RF Expanding Gate Valve ASTM A216 WCC NACE



BILL OF MATERIALS

NO.	PART NAME	MATERIAL	NOTE
1	BODY	A216-WCC	NACE
2	MAJOR GATE	A515, GR.70 +ENP	
3	MINDR GATE ASSLY	A515, GR.70 +ENP	
4	GATE GUIDE	Q235-A+ENP	
5	O RING	Viton	
6	SEAT	A105N+ENP+DEVLON	
7	LEVER LOCK ARM	1025+ENP	
8	LEVER LOCK PIN	A276-410	
9	STEM	ASTM A182 F316	
10	RING JOINT GASKET	304SS	
11	BONNET	A105N	
12	GASKET	316SS+GRAPHITE	
13	YOKE TUBE ASSLY	A1020	
14	GEAR		
15	STEM PROTECT & INDICATION	PLASTIC	
16	BOLT	A193-B7M	
17	NUT	A194-2HM	
18	PACKING FITTING	A276 304	
19	VENT VALVE	A276 304	
20	INJECTION RING	A276 304	
21	PACKING RING	RPTFE	
22	INJECTION PACKING	YP7603	
23	DRAIN	A276 304	
24	LANTERN RING	SS316	
25	PLUG	SS304	

UNIT	NPS	phi d	phi d1	phi d2	phi D	b	n-phi d	L	H (shut)	H (open)	H1	phi W
mm	8"	201	269.9	393.7	470	63.5	12-phi 38	737	981	1200	418	460
Inch	8"	7.9	10.6	15.5	18.5	2.5	12-phi 1.5	29.0	38.7	47.2	16.5	18.1
mm	10"	252	323.8	469.9	545	69.9	16-phi 38	838	1180	1452	508	460
Inch	10"	9.9	12.8	18.5	21.5	2.8	16-phi 1.5	33.0	46.5	57.2	20.0	18.1
mm	12"	303	381	533.4	610	79.4	20-phi 38	965	1370	1695	605	710
Inch	12"	11.9	15.0	21.0	24.0	3.1	20-phi 1.5	38.0	53.9	66.7	23.8	28.0

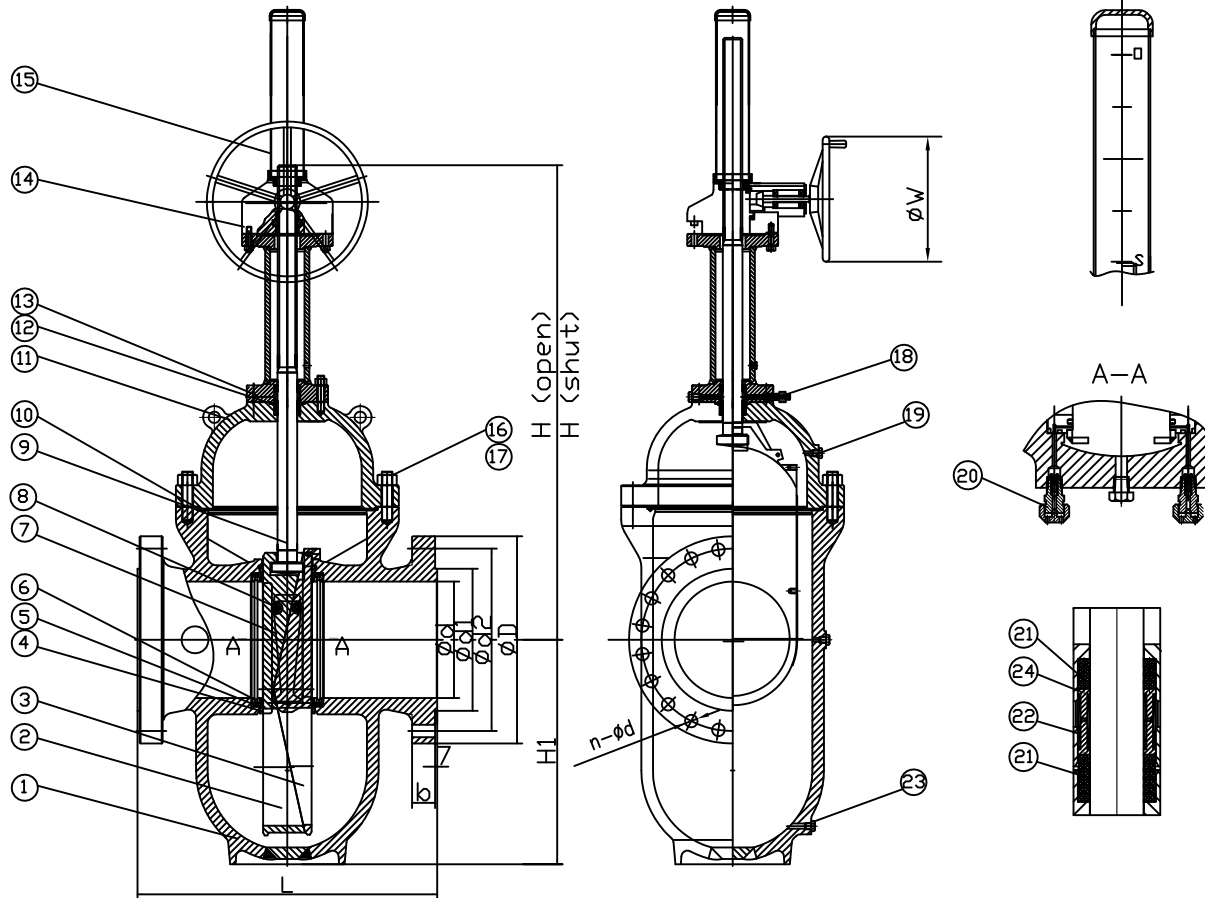


WILLIAM E. WILLIAMS VALVE CORPORATION
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 TEL: 718-392-1660 FAX: 718-739-5106

TITLE: CAST STEEL EXPANDING GATE VALVE CLASS 900 - ENP TRIM - GEAR OPERATED

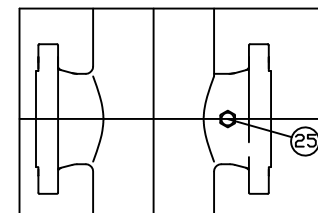
NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED	MARKING SYSTEM	MSS-SP-25	INSPECTION & TEST: API 6D	MATERIAL: ASTM A216 GR.WCC	UNITS: Inch, mm
Δ	2/1/16	RELEASED	F.J.	R.P.	R.P.		DIM.OF FLANGE	ANSI B16.5	SHELL HYDRO 3350PSI	CLASS: 900	SCALE: N.T.S.
Δ	9/3/15	RELEASED	F.J.	R.P.	R.P.		FACE TO FACE	API 6D	SEAT AIR 80PSI	DATE: 09/03/15	FIG. No.: 99F-61D GO
							WALL THICKNESS	API 600	BACK SEAT HYDRO 2450PSI	DRAWN BY: F.J.	
									NACE MR 0175	CHK'D & APR'D BY: R.P.	REV: 2
											DWG No.: 60EG120459-8-12-28

Wm. E. Williams No. 99F-61D GO Class 900 RF Expanding Gate Valve ASTM A216 WCC NACE



BILL OF MATERIALS			
NO.	PART NAME	MATERIAL	NOTE
1	BODY	A216-WCC	NACE
2	MAJOR GATE	A515, GR.70 +ENP	
3	MINDR GATE ASSLY	A515, GR.70 +ENP	
4	GATE GUIDE	Q235-A+ENP	
5	D RING	Viton	
6	SEAT	A105N+ENP+DEVLON	
7	LEVER LOCK ARM	1025+ENP	
8	LEVER LOCK PIN	A276-410	
9	STEM	ASTM A182 F316	
10	RING JOINT GASKET	304SS	
11	BONNET	A105N	
12	GASKET	316SS+GRAPHITE	
13	YOKE TUBE ASSLY	A1020	
14	GEAR		
15	STEM PROTECT & INDICATION	PLASTIC	
16	BOLT	A193-B7M	
17	NUT	A194-2HM	
18	PACKING FITTING	A276 304	
19	VENT VALVE	A276 304	
20	INJECTION	A276 304	
21	PACKING RING	RPTFE	
22	INJECTION PACKING	YP7603	
23	DRAIN	A276 304	
24	LANTERN RING	SS316	
25	PLUG	SS304	

UNIT	NPS	φd	φd1	φd2	φD	b	n-φd	L	H (shut)	H (open)	H1	φW
mm	14"	322	412.8	558.8	640	85.8	20-φ41	1029	1480	1840	675	710
Inch	14"	12.7	16.3	2.2	25.2	3.4	20-φ1.61	40.5	58.3	72.4	26.6	28.0
mm	16"	373	469.9	616	705	88.9	20-φ44	1130	1758	2176	755	710
Inch	16"	14.7	18.5	24.3	27.8	3.5	20-φ1.73	44.5	70.3	85.7	29.7	28.0
mm	18"	423	533.4	685.8	785	101.6	20-φ51	1219	1780	2247	841	710
Inch	18"	16.7	21.0	27.0	30.9	4.0	20-φ2.0	45.0	70.1	88.5	33.1	28.0
mm	20"	471	584.2	749.3	855	108	20-φ54	1321	1975	2505	928	810
Inch	20"	18.5	23.0	29.5	33.7	4.3	20-φ2.1	52.0	77.8	98.6	36.5	31.9
mm	24"	570	692.2	901.7	1040	139.7	20-φ67	1549	2270	2905	1108	900
Inch	24"	22.4	27.3	35.5	40.9	5.5	20-φ2.6	61.0	89.4	114.4	43.6	35.4



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TITLE: CAST STEEL EXPANDING GATE VALVE CLASS 900 - ENP TRIM - GEAR OPERATED			
MATERIAL: ASTM A216 GR.WCC	UNITS: Inch, mm	CLASS: 900	DATE: 09/03/15
FACE TO FACE: API 6D	SEAT: AIR	SEAT: AIR	SCALE: N.T.S.
WALL THICKNESS: API 600	BACK SEAT: HYDRO	2450PSI	FIG. No.: 99F-61D GO
MARKING SYSTEM: MSS-SP-25	INSPECTION & TEST: API 6D	3350PSI	DRAWN BY: F.J.
NO. DATE	DESCRIPTION	PRP'D	REV'D
DESIGNED	API 6D	NACE MR 0175	CHK'D & APR'D BY: R.P. REV: 2

NO.	DATE	DESCRIPTION	PRP'D	REV'D	APP'D	DESIGNED
Δ	2/1/16	RELEASED	F.J.	R.P.	R.P.	
Δ	9/3/15	RELEASED	F.J.	R.P.	R.P.	