

API GLOBE VALVE

1. USE:

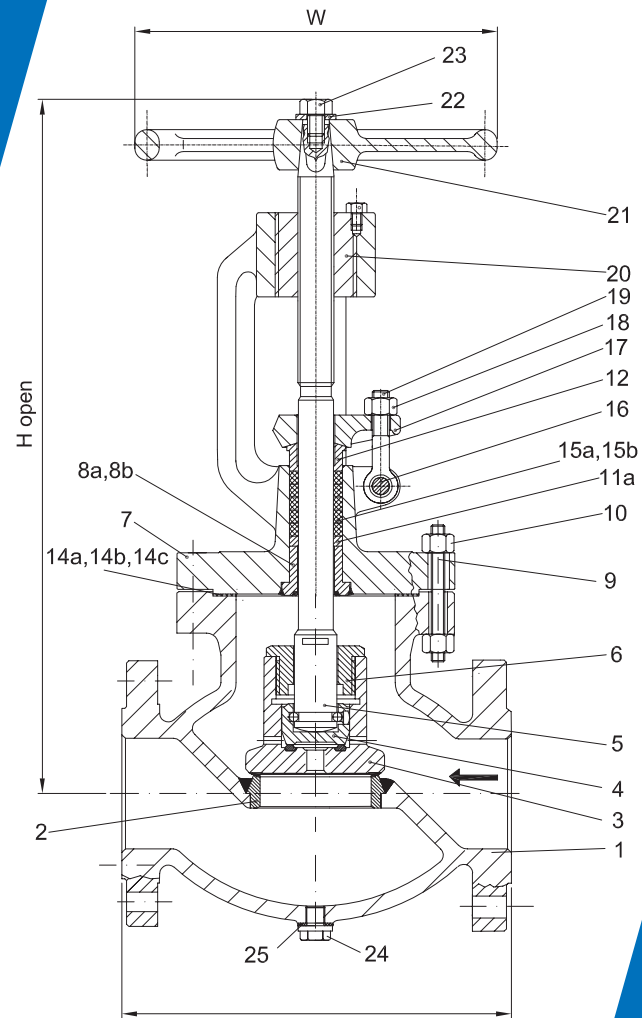
Extraction, transportation and distribution systems in:
water, steam, gas and oil industry.

2. SERVICE CONDITIONS:

- 2.1. Ambient temperature: from - 35°C to + 40°C
(-22°F to + 104°F)
- 2.2. Service temperature: from -59°C to + 595°C
(-75°F to + 1100°F)

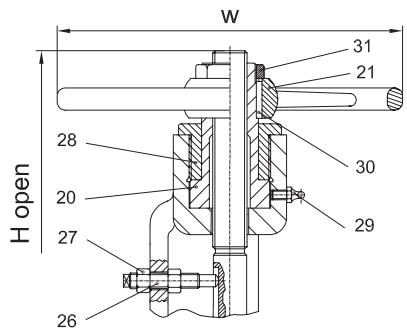
3. TECHNICAL CHARACTERISTICS:

- 3.1. Design standard: BS 1873
- 3.2. End-to-end dimensions: ASME B16.10
- 3.3. Connection flanges: ASME B16.5
- 3.4. Weld ends: ASME B16.25 or ASME B31.1
- 3.5. Temperature pressure rating: ASME B16.34
- 3.6. Testing: API 598
- 3.7. Operation: manual - handwheel
- gear
electrical - actuator

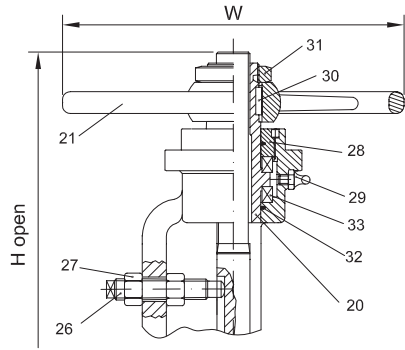


The Science Of Detail

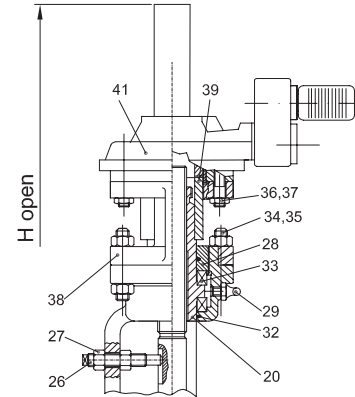
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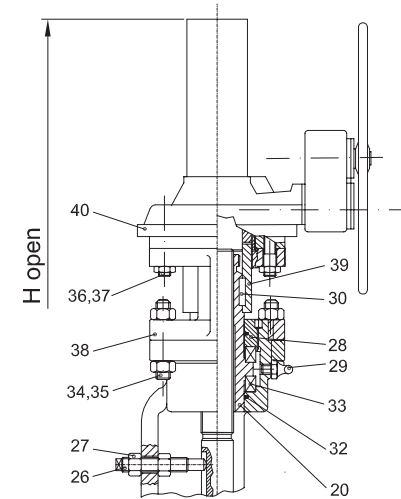
NPS 1 1/2" + NPS 4" cls. 400 + cls. 2500
VALVE WITH HANDWHEEL



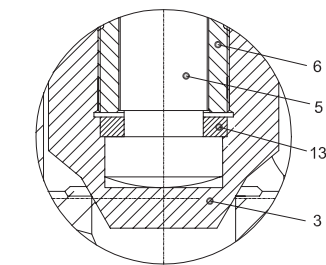
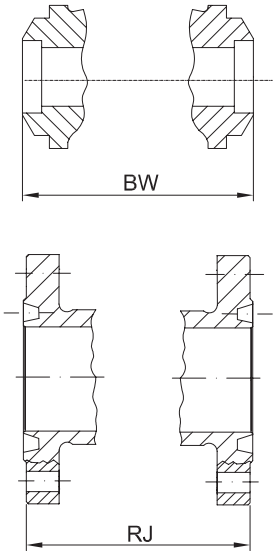
NPS 5" + NPS 12" cls. 400 + cls. 2500
VALVE WITH HANDWHEEL



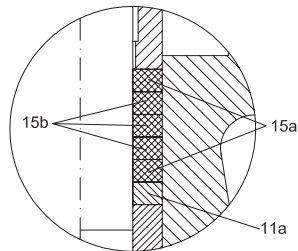
VALVE WITH ELECTRIC ACTUATOR



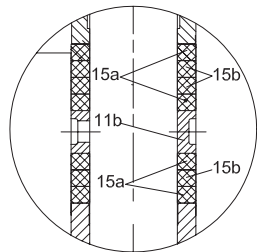
VALVE WITH MANUAL OPERATOR



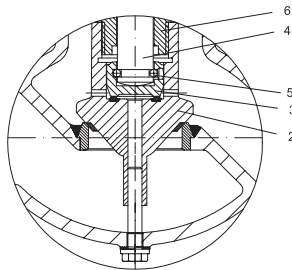
NPS 1 1/2" + NPS 2 1/2" cls. 150 + cls. 300
NPS 1 1/2" + NPS 2 1/2" cls. 400 + cls. 2500



Version from execution standard



Version from execution with lantern



Version from execution with parabolic disk

API GLOBE VALVE CLASS 150

	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
	DN	mm	40	50	65	80	100	125	150	200	250	300
Overall	RF	inch	6 1/2"	8"	8 1/2"	9 1/2"	11 1/2"	14"	16"	19 1/2"	24 1/2"	27 1/2"
	BW	mm	165	203	216	241	292	356	406	495	622	698
	RJ	inch	7"	8 1/2"	9"	10"	12"	14 1/2"	16 1/2"	20"	25"	28"
		mm	178	216	229	254	305	368	419	508	635	711
	H open	inch	13"	13 3/4"	15 3/8"	16 1/8"	19 1/4"	21 7/8"	23 5/8"	27"	29 1/8"	32 5/8"
		mm	330	349	390	409	489	556	600	686	740	829
W	inch	8"	8"	8"	9"	10"	12"	12"	16"	18"	22"	
	mm	203	203	203	228	254	305	305	406	457	559	
Net weight	RF	lbs.	49	55	71	97	132	183	258	408	670	930
		kg	22	25	32	44	60	83	117	185	304	422
	BW	lbs.	37	42	60	84	119	176	234	337	505	840
		kg	17	19	27	38	54	80	106	153	229	381

API GLOBE VALVE CLASS 300

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	9"	10 1/2"	11 1/2"	12 1/2"	14"	15 3/4"	17 1/2"	22"	24 1/2"	28"	
	BW	mm	228	267	292	318	396	400	444	559	622	711	
	RJ	inch	9 1/2"	11 1/8"	12 1/8"	13 1/8"	14 5/8"	16 3/4"	18 1/8"	22 5/8"	25 1/8"	28 5/8"	
		mm	241	283	308	333	371	416	460	575	638	727	
	H open	inch	14 3/8"	15 3/8"	17"	18 1/2"	19 7/8"	22 7/8"	25 3/4"	32 1/8"	34 5/8"	36 5/8"	
		mm	365	390	432	470	504	581	654	916	879	930	
	W	inch	8"	8"	8"	9"	10"	12"	12"	16"	18"	22"	
		mm	203	203	203	228	254	305	305	406	457	559	
	Net weight	RF	lbs.	49	66	119	143	212	306	390	677	937	1318
			kg	22	30	54	65	96	139	177	307	425	598
BW		lbs.	42	55	99	112	176	265	333	589	813	1144	
		kg	19	25	45	51	80	120	151	267	369	519	

API GLOBE VALVE CLASS 900

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	12"	14 1/2"	16 1/2"	18 1/2"	21 1/2"	26 1/2"	27 3/4"	32 3/4"	39"	44 1/2"	
	BW	mm	305	368	419	470	546	673	705	832	991	1130	
	RJ	inch	12 1/8"	14 5/8"	16 5/8"	18 5/8"	21 5/8"	26 5/8"	28"	33 1/8"	39 3/8"	45 1/8"	
		mm	368	371	422	473	549	676	711	841	1000	1146	
	H open	inch	14 3/4"	17 1/2"	20 1/4"	21 1/2"	26"	36 1/4"	46"	49 1/4"	55 3/4"	60 1/2"	
		mm	375	444	514	546	660	921	1168	1251	1416	1538	
	W	inch	8"	8"	8"	10"	10"	14"	18"	22"	22"	24"	24"
		mm	203	203	254	254	356	457	559	559	610	610	
	Net weight	RF	lbs.	157	245	344	432	619	1008	1396	2987	4517	5851
			kg	71	111	156	196	281	457	633	1355	2049	2654
BW		lbs.	95	181	269	344	516	855	1195	2650	4136	5300	
		kg	43	82	122	156	234	388	542	1202	1876	2404	

API GLOBE VALVE CLASS 400

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	9 1/2"	11 1/2"	13"	14"	16"	18"	19 1/2"	23 1/2"	26 1/2"	30"	
	BW	mm	241	292	330	356	406	457	495	597	673	762	
	RJ	inch	9 5/8"	11 5/8"	13 1/8"	14 1/8"	16 5/8"	18 5/8"	19 5/8"	23 5/8"	26 5/8"	30 1/2"	
		mm	245	299	333	359	410	460	498	600	673	765	
	H open	inch	16 1/8"	17"	18 5/8"	20 3/4"	23 1/8"	26 7/8"	30 3/8"	34 5/8"	37 1/8"	43 1/2"	
		mm	409	432	473	527	587	683	771	879	943	1105	
	W	inch	9"	9"	10"	12"	14"	16"	18"	20"	22"	24"	
		mm	228	228	254	305	356	406	457	508	559	610	
	Net weight	RF	lbs.	53	93	141	176	280	419	553	1124	1700	2756
			kg	24	42	64	80	127	190	251	510	771	1250
BW		lbs.	46	86	123	150	243	364	485	1019	1638	2557	
		kg	21	39	56	68	110	165	220	462	743	1160	

API GLOBE VALVE CLASS 1500

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	12"	14 1/2"	16 1/2"	18 1/2"	21 1/2"	26 1/2"	27 3/4"	32 3/4"	39"	44 1/2"	
	BW	mm	305	368	419	470	546	673	705	832	991	1130	
	RJ	inch	12 1/8"	14 5/8"	16 5/8"	18 5/8"	21 5/8"	26 5/8"	28"	33 1/8"	39 3/8"	45 1/8"	
		mm	308	371	422	473	549	676	711	841	1000	1146	
	H open	inch	20 3/8"	23 1/4"	26 1/8"	33 3/4"	36 1/2"	52"	67 1/2"	77 1/2"	91 1/4"	105 3/4"	
		mm	517	590	664	857	927	1321	1714	1968	2318	2686	
	W	inch	16"	16"	16"	20"	20"	22"	24"	24"	30"	30"	
		mm	406	406	406	508	508	559	610	610	762	762	
	Net weight	RF	lbs.	168	249	344	514	886	1451	2015	4638	7066	9718
			kg	76	113	156	233	402	658	914	2104	3205	4408
BW		lbs.	101	179	269	412	734	1305	1744	4191	6171	8404	
		kg	46	81	122	187	333	592	791	1901	2799	3812	

API GLOBE VALVE CLASS 600

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	9 1/2"	11 1/2"	13"	14"	17"	20"	22"	26"	31"	33"	
	BW	mm	241	292	330	356	432	508	558	660	787	838	
	RJ	inch	9 5/8"	11 5/8"	13 1/8"	14 1/8"	17 1/8"	20 1/8"	22 1/8"	26 1/8"	31 1/8"	33 1/8"	
		mm	244	295	333	359	435	511	562	664	791	841	
	H open	inch	18"	18 3/4"	20 1/4"	23"	26 1/2"	31 3/4"	35"	37 1/4"	41"	50 1/2"	
		mm	457	476	514	584	673	806	889	946	1041	1283	
	W	inch	9"	9"	12"	12"	16"	16"	20"	20"	26"	30"	
		mm	228	228	305	305	406	406	508	508	660	762	
	Net weight	RF	lbs.	57	117	163	209	348	531	716	1570	2776	4195
			kg	26	53	74	95	158	241	325	712	1259	1903
BW		lbs.	49	106	146	187	306	463	635	1451	2463	3970	
		kg	22	48	66	85	139	210	288	658	1117	1801	

API GLOBE VALVE CLASS 2500

Overall	NPS	inch	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	
	DN	mm	40	50	65	80	100	125	150	200	250	300	
	RF	inch	16"	18 1/4"	20 1/2"	23 1/4"	27"	31 3/4"	36 1/2"	40 3/4"	50 1/2"	56 1/2"	
	BW	mm	406	464	521	591	686	806	927	1035	1283	1435	
	RJ	inch	15 1/2"	18 3/8"	20 3/4"	23 3/4"	27 1/2"	32 1/4"	37"	41 3/8"	51 1/8"	57 1/8"	
		mm	394	467	527	603	698	819	940	1051	1298	1451	
	H open	inch	25 3/4"	28 7/8"	32"	35 3/8"	50 7/8"	63 1/8"	75 1/2"	97 1/2"	110 3/4"	138 1/2"	
		mm	654	733	813	898	1292	1603	1918	2476	2813	3518	
	W	inch	16	16	20	20	24	24	30	30	30	30	
		mm	406	406	508	508	610	610	610	762	762	762	
	Net weight	RF	lbs.	207	439	670	783	1861	3472	5084	10692	15046	18805
			kg	94	199	304	355	844	1575	2306	4850	6825	8530
BW		lbs.	196	364	531	615	1526	2972	4416	9731	13263	16576	
		kg	89	165	241	279	692	1348	2003	4414	6016	7519	

4. MATERIALS

No.	Name of Part	ASTM SPECIFICATION								
		Standard	High Temperature				Low Temperature Service			
		-20°F 800°F -29°C 427°C	-20°F 850°F -29°C 455°C	-20°F 1000°F -29°C 538°C	-20°F 1100°F -29°C 594°C	-20°F 1100°F -29°C 594°C	-50°F 650°F -46°C 345°C	-50°F 700°F -46°C 370°C	-75°F 650°F -59°C 345°C	
1	Body	A216-WCB	A217-WC1	A217-WC6	A217-WC9	A217-C5	A352-LCB	A352-LCC	A352-LC1	
2	Welded Seat Ring	A53-A/A573 gr. 65	A691-CM-70/A204 gr. A	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A672-B65/A515 gr. 65	A672-B65/A516 gr. 65	A691-CM-70/A204 gr. B	
3	Disc Seat	Forged	A182-F6	A182-F6	A182-F316	A182-F316	A182-F304	A182-F304	A182-F304	
		Casting	A216-WCB	A217-WC1	A217-WC6	A217-WC9	A217-C5	A352-LCB	A352-LCC	A352-LC1
4	Discharge Globe	A182-F6a	A182-F6a	A182-F316	A182-F316	A182-F316	A182-F304	A182-F304	A182-F304	
5	Stem	A182-F6a	A182-F6a	A182-F316	A182-F316	A182-F316	A182-F304	A182-F304	A182-F304	
6	Disc Nuts	A108 gr.1025	A182-F1	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A350-LF2	A350-LF2	A182-F1	
7	Bonnet	A216-WCB	A217-WC1	A217-WC6	A217-WC9	A217-C5	A352-LCB	A352-LCC	A352-LC1	
8a	Backseat	Thread	A182-F6a	A182-F6a	A182-F316	A182-F316	A182-F304	A182-F304	A182-F304	
8b	Bushing	Welded	A108 gr.1025	A182-F1	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A350-LF2	A182-F1	
9	Bonnet Studs	A193-B7	A193-B7	A193-2H or A193-B16	A193-2H or A193-B16	A193-2H or A193-B16	A320-L7M	A320-L7M	A320-L7M	
10	Bonnet Nuts	A194-2H	A194-2H	A194-2H or A194-4	A194-2H or A194-4	A194-2H or A194-4	A194-4	A194-4	A194-4	
11a	Packing Washer	A108 gr.1025	A182-F1	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A350-LF2	A350-LF2	A182-F1	
11b	Lantern	A108 gr.1025	A182-F1	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A350-LF2	A350-LF2	A182-F1	
12	Gland	A108 gr.1025	A182-F1	A182-F11 CL. 2	A182-F22 CL. 3	A182-F5a	A350-LF2	A350-LF2	A182-F1	
13	Retainer Ring	A182-F6a	A182-F6a	A182-F316	A182-F316	A182-F316	A182-F304	A182-F304	A182-F304	

5. BASIC TRIM MATERIALS

No.	Name of Part	
14a	Bonnet Gasket	Plane gasket – graphite with metal filler class 150
14b		Spiral wound gasket – stainless steel with graphite filler
14c		Ring-Joint gasket – carbon steel or stainless steel, as required
15a	Packing	Graphite with metal filler and corrosion inhibitor
15b		Graphite with corrosion inhibitor
16	Gland Lug Bolts	A108 gr. 1035
17	Gland Flange	A105/A573 gr. 65
18	Gland Nuts	A194-2H
19	Gland Bolts	A193-B7
20	Stem Bushing	A439-D2C
21	Handwheel	A216-WCB
22	Plate	Carbon Steel
23	Cap Screw	A193-B7
24	Threaded Plug	Carbon Steel
25	Threaded Plug Gasket	Carbon Steel
26	Lockbolts	Carbon Steel
27	Screw Nuts	Carbon steel
28	Locknut	Carbon Steel
29	Lubricant Fitting	Commercial
30	Handwheel Key	Carbon Steel
31	Handwheel Nuts	Carbon Steel
32	Ring	Viton
33	Bearings	Commercial
34	Yoke Bolts	A193-B7
35	Yoke Nuts	A194-2H
36	Actuator Bolts	Commercial
37	Actuator Nuts	Commercial
38	Linking Part	A216-WCB
39	Actuator Bushing	Carbon Steel
40	Manual Actuator	Commercial
41	Electric Motor Actuator	Commercial

TRIM Number	Nominal TRIM	Material Type	Seat Surface	Stem	Backseat Bushing
			Hardness [HB]		
1	F6	13 Cr	250 min 300 min	200 min-275 max	250 min
2	304	18 Cr – 8 Ni	Manufacturer's Standard		
5	HF	Co – Cr A	350 min	200 min-275 max	250 min
5A		Ni – Cr			
8	F6 / HF	13 Cr	250 min	200 min-275 max	250 min
8A		Co – Cr A			
		Ni – Cr			
10	316	18 Cr – 8 Ni - Mo	Manufacturer's Standard		
12	316 / HF	18 Cr – 8 Ni - Mo	Manufacturer's Standard		
		Co – Cr A	350 min	Manufacturer's Standard	
12A		18 Cr – 8 Ni - Mo	Manufacturer's Standard		
		Ni - Cr	350 min	Manufacturer's Standard	



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