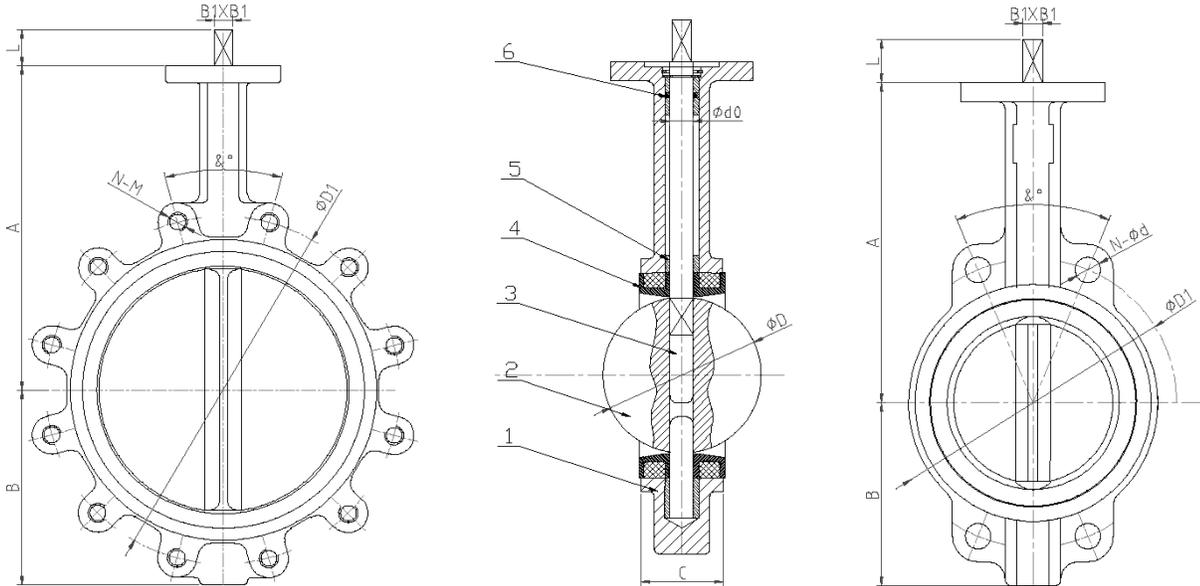




- SM500 (Lug)
- SM550 (Wafer)
- 200 PSI 2" - 14"
- 150 PSI 16" - 24"

Applicable Standards

- Valve Design Conforms to API 609 Class A
- Mounting Pad Conforms to ISO 5211
- Ends Conforms to ASME B16.1 and B16.5
- Inspected & Tested According to API 598



Materials of Construction

Item	Part	Material	ASTM
1	Body	Ductile Iron	A536
2	Disc	Aluminum Bronze, 316 SS	B505 C95400, CF8M
3	Shaft	410 SS	410 SS
4	Seat	EPDM, BUNA (NBR)	N/A
5	Bushing	PTFE	N/A
6	O-Ring	BUNA (NBR)	N/A
7	Lever	Ductile Iron	A536
8	Indicator	Carbon Steel	201 SS
9	Handwheel	Cast Iron	A126 B
10	Gear	Cast Iron	A536

Dimensions (Inches)

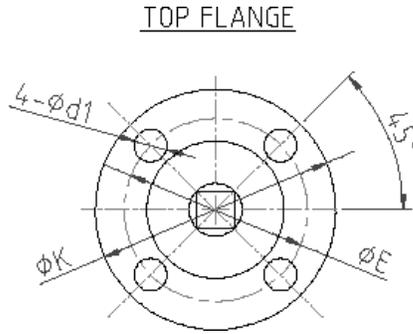
Size	A	B	C	D	d0	B1	L	D1	N-M	N - Ø d	&°	Weight (Lbs)	
												Wafer	Lug
2"	6.34	3.15	1.65	2.09	0.50	0.43	1.02	4.74	4-5/8"-11 (UNC)	4-0.75	90°	5.29	6.61
2-1/2"	6.89	3.50	1.76	2.56	0.50	0.43	1.02	5.49	4-5/8"-11 (UNC)	4-0.75	90°	6.39	7.94
3"	7.13	3.74	1.81	3.11	0.50	0.43	1.02	6.00	4-5/8"-11 (UNC)	4-0.75	90°	7.83	8.27
4"	7.87	4.49	2.05	4.09	0.62	0.43	1.10	7.50	8-5/8"-11 (UNC)	4-0.75	45°	10.14	15.21
5"	8.39	5.00	2.14	4.85	0.74	0.55	1.10	8.50	8-3/4"-10 (UNC)	4-0.89	45°	14.55	20.28
6"	8.90	5.47	2.20	6.12	0.74	0.55	1.10	9.51	8-3/4"-10 (UNC)	4-0.89	45°	15.21	24.14
8"	10.24	6.89	2.39	7.97	0.87	0.67	1.50	11.75	8-3/4"-10 (UNC)	4-0.89	45°	26.01	35.38
10"	11.50	7.99	2.58	9.86	1.12	0.87	1.50	14.25	12-7/8"-9 (UNC)	4-1.00	30°	42.77	64.37
12"	13.27	9.53	3.03	11.87	1.24	0.87	1.57	17.01	12-7/8"-9 (UNC)	4-1.00	30°	66.36	92.37
14"	14.49	10.51	3.01	13.12	1.24	0.87	1.65	18.76	12-1"-8 (UNC)	4-1.12	30°	84.11	106.70
16"	15.75	12.17	4.02	15.34	1.31	1.06	1.97	21.26	16-1"-8 (UNC)	4-1.12	22.5°	130.07	174.16
18"	16.61	13.39	4.49	17.34	1.49	1.06	1.97	22.76	16-1-1/8"-7 (UNC)	4-1.26	22.5°	178.57	262.35
20"	18.90	14.21	5.00	19.35	1.62	1.42	2.36	25.00	20-1-1/8"-7 (UNC)	20-1.26	18°	220.46	317.47
24"	22.13	18.07	5.98	23.33	1.99	1.42	2.36	29.51	20-1-1/4"-7 (UNC)	20-1.38	18°	434.31	440.92

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Mounting Pad (Inches)

Size	ISO 5211	Ø K	Ø E	4 - Ø d1
2"	F07	3.54	2.76	4-0.39
2-1/2"	F07	3.54	2.76	4-0.39
3"	F07	3.54	2.76	4-0.39
4"	F07	3.54	2.76	4-0.39
5"	F07	3.54	2.76	4-0.39
6"	F07	3.54	2.76	4-0.39
8"	F10	4.92	4.02	4-0.47
10"	F10	4.92	4.02	4-0.47
12"	F10	4.92	4.02	4-0.47
14"	F10	4.92	4.02	4-0.47
16"	F14	6.89	5.51	4-0.71
18"	F14	6.89	5.51	4-0.71
20"	F14	6.89	5.51	4-0.71
24"	F16	8.27	6.50	4-0.91

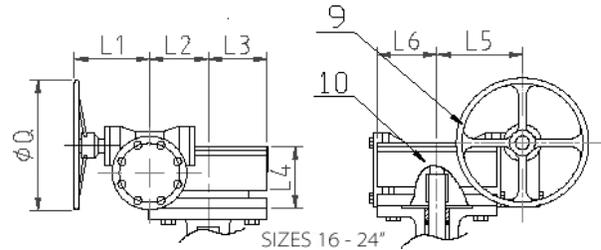
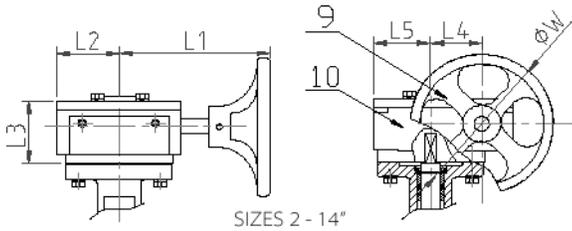


Torque (In-Lbs)

Size	200 PSI	150 PSI
2"	133.6	124
2-1/2"	152.2	142
3"	204	195
4"	354	327
5"	549	513
6"	903	832
8"	1,699	1531
10"	2,859	2531
12"	4,337	3717
14"	5,532	4868
16"	N/A	8364
18"	N/A	11196
20"	N/A	14940
24"	N/A	23357

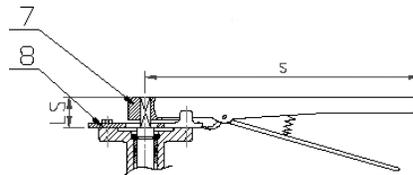
Gear Operator (Inches)

Size	Ø W	Ø Q	L1	L2	L3	L4	L5	L6	Weight
2" - 6"	5.91	N/A	5.98	2.05	2.95	1.77	2.05	N/A	8.38
8" - 10"	11.42	N/A	9.84	2.95	3.39	2.48	2.95	N/A	17.64
12" - 14"	11.42	N/A	8.94	3.19	3.27	3.19	3.19	N/A	21.83
16" - 20"	N/A	11.80	6.30	3.70	4.07	4.33	7.13	4.07	57.32
24"	N/A	15.74	6.93	4.92	5.16	5.04	7.85	5.16	57.32



Lever (Inches)

Size	S	LS	Weight
2" - 3"	8.66	1.02	1.02
4" - 6"	10.24	1.10	1.98
8" - 10"	13.98	1.50	4.30
12"	19.88	1.57	5.07



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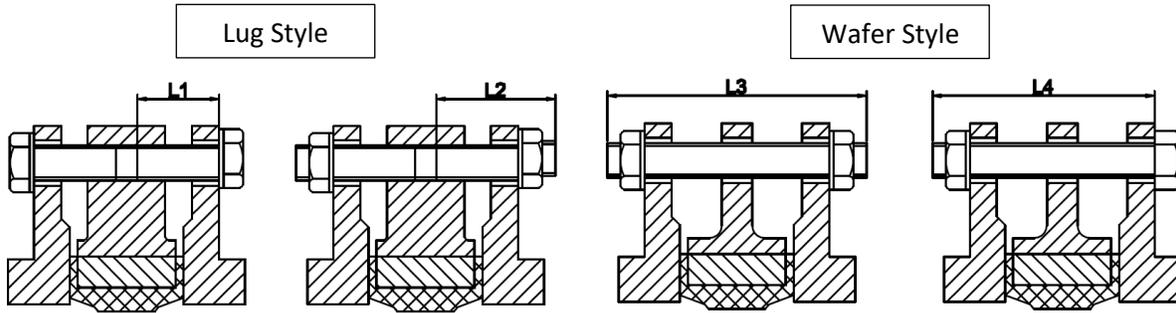


Seat Temperature Ratings

Material	Temperature Ratings °F
Buna-N	+14 to 199
EPDM	-4 to 230
Viton®	+14 to 275

CV Values – Valve Sizing Coefficients (US-GPM @ 1ΔP) 2" to 24"

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.06	3.0	7.0	15	27	44	70	105	115
2-1/2"	0.10	6.0	12	25	45	75	119	178	196
3"	0.20	9.0	18	39	70	116	183	275	302
4"	0.30	17	36	78	139	230	364	546	600
5"	0.50	29	61	133	237	392	620	930	1,022
6"	0.80	45	95	205	366	605	958	1,437	1,579
8"	2.0	89	188	408	727	1,202	1,903	2,854	3,136
10"	3.0	151	320	694	1,237	2,047	3,240	4,859	5,340
12"	4.0	234	495	1,072	1,911	3,162	5,005	7,507	8,250
14"	6.0	338	715	1,549	2,761	4,568	7,230	10,844	11,917
16"	8.0	464	983	2,130	3,797	6,282	9,942	14,913	16,388
18"	11	615	1,302	2,822	5,028	8,320	13,168	19,752	21,705
20"	14	791	1,647	3,628	6,465	10,698	16,931	25,396	27,908
24"	22	1,222	2,587	5,605	9,989	16,528	26,157	39,236	43,116



Size	# Bolts	Lug			Wafer	
		Threading	Cap Screw L1	Stud & Nut L2	Stud & 2 Nuts L3	Cap Screw L4
2"	4	4-5/8"-11 (UNC)	1 1/2	2 3/4	5	4 1/2
2-1/2"	4	4-5/8"-11 (UNC)	1 1/2	2 3/4	5 1/4	5
3"	4	4-5/8"-11 (UNC)	1 3/4	3	5 1/2	5
4"	8	8-5/8"-11 (UNC)	1 3/4	3	5 3/4	5 1/4
5"	8	8-3/4"-10 (UNC)	1 3/4	3 1/4	6	5 1/2
6"	8	8-3/4"-10 (UNC)	2	3 1/4	6 1/4	5 1/2
8"	8	8-3/4"-10 (UNC)	2 1/4	3 1/2	6 3/4	6
10"	12	12-7/8"-9 (UNC)	2 1/4	3 3/4	7 1/4	6 3/4
12"	12	12-7/8"-9 (UNC)	2 1/2	3 3/4	7 3/4	7 1/4
14"	12	12-1"-8 (UNC)	2 3/4	4	8 1/4	7 3/4
16"	16	16-1"-8 (UNC)	3 1/4	4 1/2	9 1/4	8 3/4
18"	16	16-1-1/8"-7 (UNC)	3 1/2	5	10 1/4	9 1/2
20"	20	20-1-1/8"-7 (UNC)	4	5 1/4	11 1/4	10 1/2
24"	20	20-1-1/4"-7 (UNC)	4 1/2	5 3/4	12 3/4	12