

# SHARPE® VALVES

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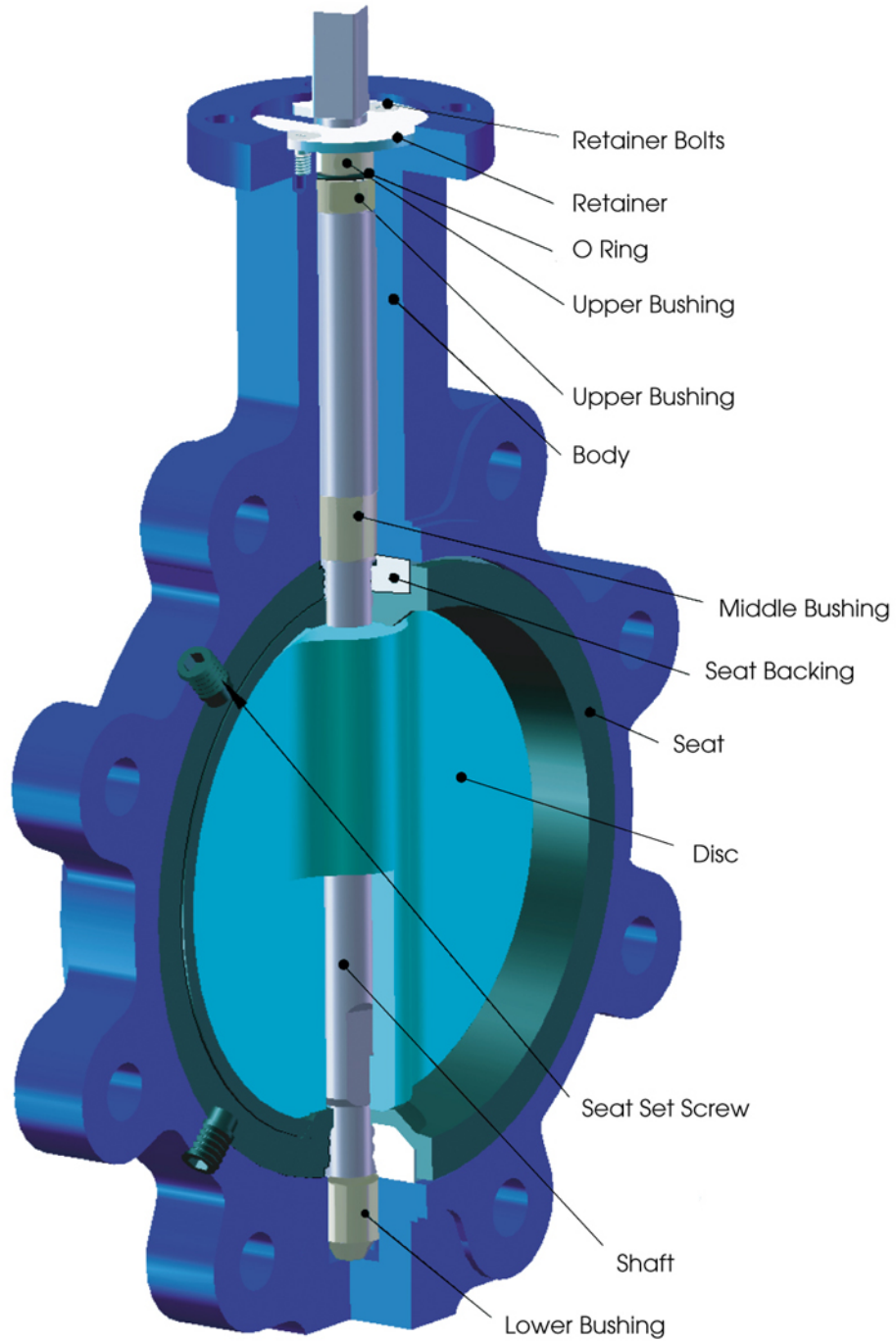


**SERIES 17  
BUTTERFLY VALVES**

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# SERIES 17 BUTTERFLY VALVES

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## SERIES 17

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Series 17 is available in various materials to meet a wide range of needs. It is a highly versatile butterfly valve for industries such as:

- Chemical
- Power
- HVAC
- Marine
- Petro Chemical
- Pulp and Paper
- Water and Waste Water
- Dry Bulk Handling
- Food and Beverage
- Oil & Gas Drilling Production
- Mining

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## FEATURES and BENEFITS

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The Series 17 Butterfly Valve utilizes a phenolic backed cartridge seat and features precision machined parts, ensuring low maintenance over the life of the valve.

The Series 17 can be used for bi-directional or dead end service (LUG only) at pressure ratings up to 200 PSI (2" - 12") and 150 PSI (14" - 48").

The Series 17 complies with **MSS SP-67** and **API 609**.

With the seal molded into the seat edge of the valve as an integral flange seal, this allows the valve to be mounted between ASME B16.5 flanges without the need for separate gaskets.

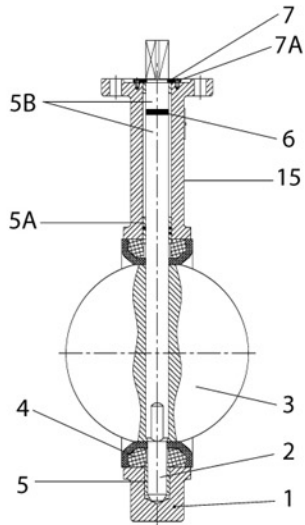
The valve is engineered to be used with ANSI B16.1 Class 125 (Iron) and ANSI B16.5 (Steel) Class 150 flanges.

Each valve features an ISO 5211 mounting pad, to accommodate pneumatic, electric and gear operators (2"-24").

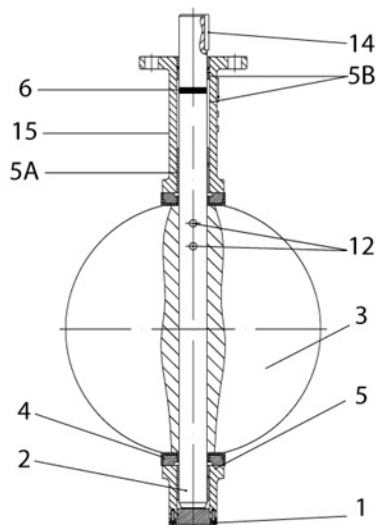
The one piece double D shaft connects to the disc internally, without taper pins (2"-12")

- Self-lubricated bushings eliminate side loading.
- Blow-out proof shaft.
- One piece wafer and lug body, epoxy painted offering excellent protection against abrasion and corrosion.
- Wafer body features four alignment holes.
- **MSS SP-25** marking.
- Fusion bonded epoxy coated
- Valves available with undercut discs to 50 PSI.
- Extended neck allowing for piping insulation.

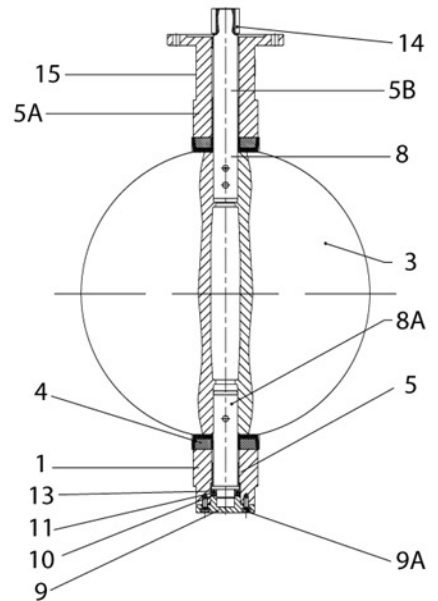
**SERIES 17**  
**BILL OF MATERIALS**



**2" - 12"**



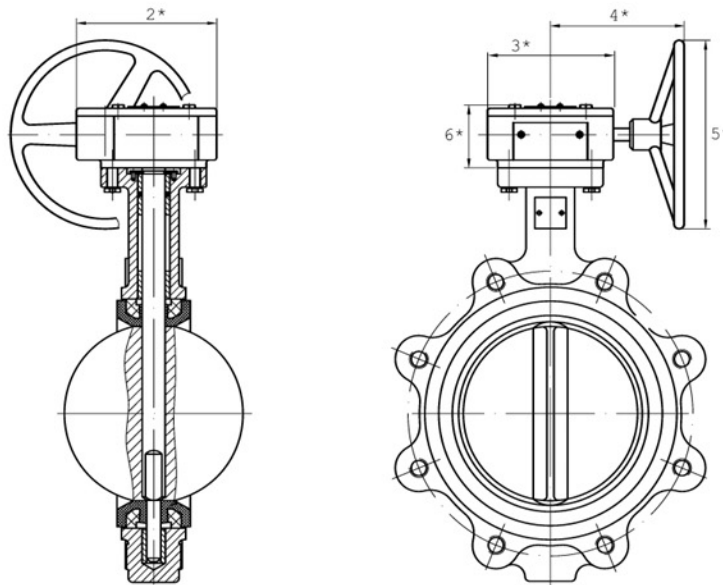
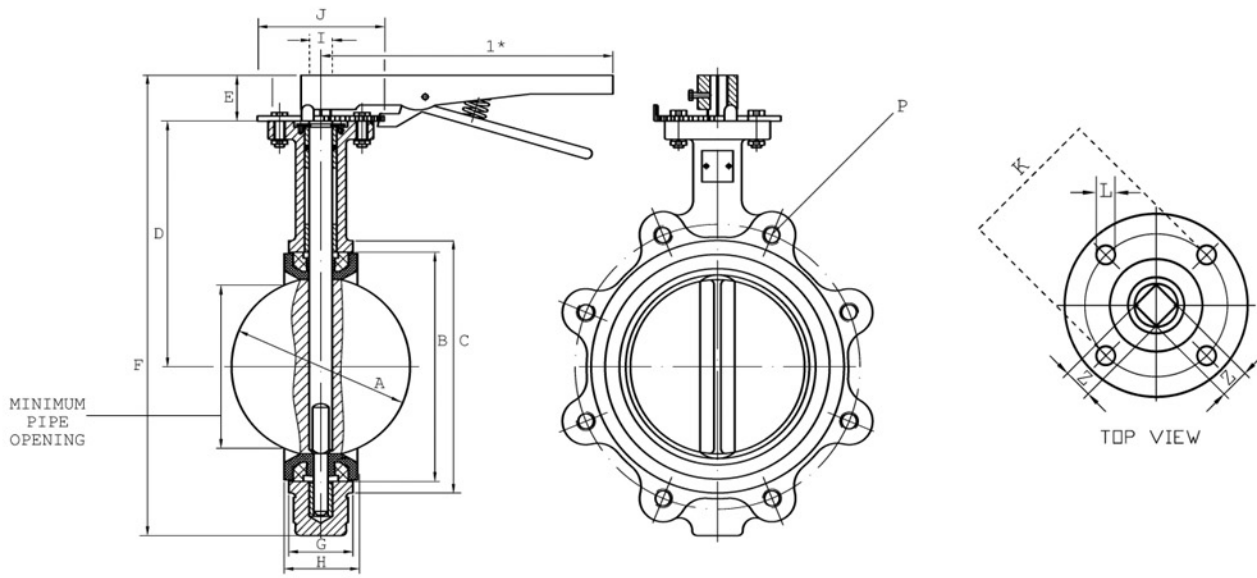
**14" - 24"**



**30" - 48" \***

PART NO.	PART	QTY.	MATERIAL
1	Body	1	CI : ASTM A126 CL B. DI (A536) : ASTM A536 65 45 12 DI (A395) : ASTM A395 60 40 18 Stainless Steel 316 CF8M A351
2	Shaft	1	Stainless Steel 416: ASTM A276 SS41600 Monel: ASTM B164 UNS04400 Stainless Steel 316: ASTM A276 SS31600
3	Disc	1	Stainless Steel: ASTM A351 CF8M Aluminum Bronze: ASTM B148 C95400 Monel: ASTM A494 M-35-1: Ductile Iron Nickel Plated: ASTM A536 65 45 12 Ductile Iron Nylon Coated: ASTM A536 65 45 12
4	Seat	1	EPDM BUNA VITON PTFE
5	Lower Bushing	2 / 1*	Bronze ASTM B584 C 83600
5A	Middle Bushing	2 / 1*	Bronze ASTM B584 C 83600
5B	Upper Bushing	2 / 4*	Bronze ASTM B584 C 83600
6	O Ring	1 / 3*	O Ring ASTM 02002 (NBR)
7	Cover	1	Steel ASTM A283 M Gr.D
7A	Cover Bolts	2	Steel ASTM A283 M Gr.D
8	Upper Shaft	1	Stainless Steel ASTM A582 SS41600
8A	Lower Shaft	1	Stainless Steel ASTM A582 SS41600
9	Bottom Cover	1	ASTM A536 65 45 12
9A	Cover Screw	4	Steel
10	Bottom O Ring	1	O Ring ASTM D 2000 (NBR)
11	Spacer	1	Steel ASTM A283 M Gr.D
12	Taper Pins	2 / 3*	Stainless Steel 416/316
13	Bearing	1	Bearing Steel ASTM A295 S2100
14	Key	1 / 2*	ASTM A108 UNS 10 450
15	Name Plate	1	Aluminum

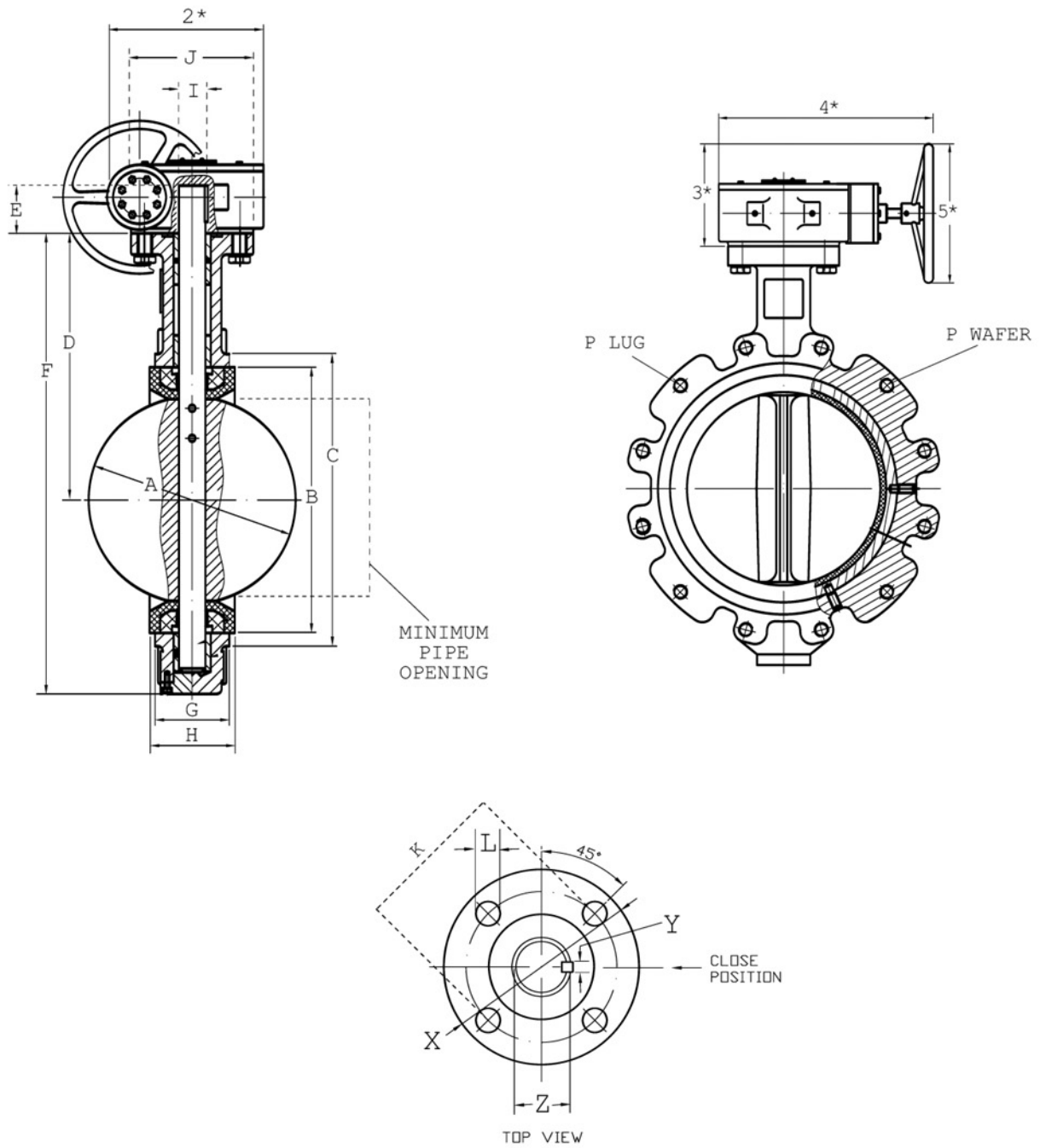
**SERIES 17**  
**DIMENSIONS 2" TO 12"**



SIZE	A	MIN.	B	C	D	E	F	G	H	I	J	K	L	Z	P LUG	P WAFER	WEIGHT	
																	WAFER	LUG
2"	2.08	1.27	3.00	3.50	6.33	1.26	10.74	1.65	1.77	0.49	2.56	1.96	0.27	0.35	5/8-11 UNC-2B	0.74	5.50	8.50
2-1/2"	2.53	1.81	3.50	4.25	6.89	1.26	11.65	1.76	1.87	0.49	2.56	1.96	0.27	0.35	5/8-11 UNC-2B	0.74	7.00	9.25
3"	3.10	2.53	4.01	4.72	7.12	1.26	12.12	1.78	1.93	0.49	2.56	1.96	0.27	0.35	5/8-11 UNC-2B	0.74	8.00	10.50
4"	4.09	3.39	5.31	5.90	7.87	1.26	13.62	2.05	2.15	0.62	3.54	2.76	0.39	0.43	5/8-11 UNC-2B	0.74	11.00	18.75
5"	4.85	4.35	6.26	7.12	8.38	1.26	14.64	2.14	2.28	0.74	3.54	2.76	0.39	0.55	3/4-10 UNC-2B	0.88	15.50	24.00
6"	6.12	5.30	7.41	8.18	8.89	1.26	15.63	2.19	2.30	0.74	3.54	2.76	0.39	0.55	3/4-10 UNC-2B	0.88	17.25	31.25
8"	7.97	7.57	9.37	10.23	10.23	1.77	18.89	2.38	2.49	0.87	4.92	4.01	0.47	0.67	3/4-10 UNC-2B	0.88	29.00	43.00
10"	9.86	9.51	11.51	12.59	11.49	1.77	21.26	2.58	2.75	1.12	4.92	4.01	0.47	0.86	7/8-9 UNC-2B	1.00	46.25	70.50
12"	11.87	11.48	13.54	14.76	13.26	1.77	24.56	3.02	3.15	1.24	5.51	4.01	0.47	0.86	7/8-9 UNC-2B	1.00	71.50	88.00

\* 1-6 REFER TO PAGE 10

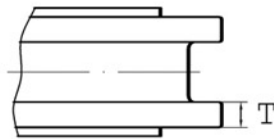
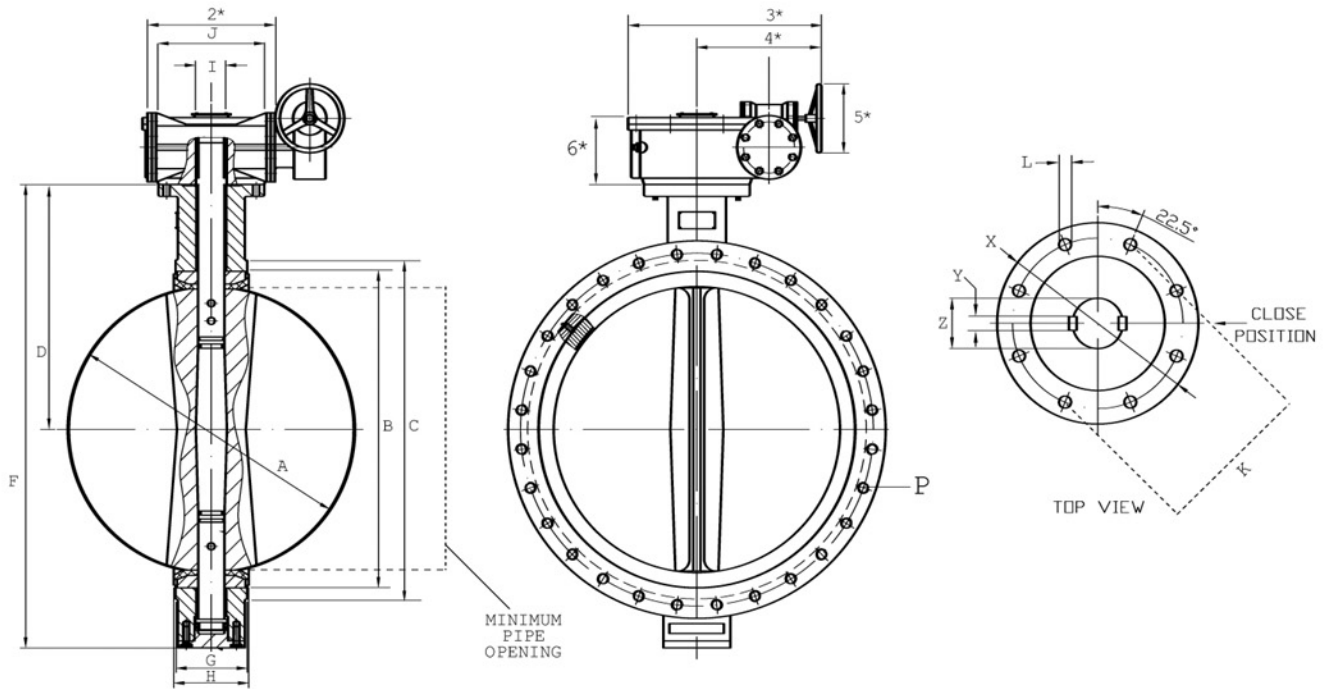
# SERIES 17 DIMENSIONS



SIZE	A	MIN.	B	C	D	E	F	G	H	I	J	K	L	P LUG	P WAFER	X	Y	Z	WEIGHT	
																			WAFER	LUG
14"	13.12	12.68	14.77	15.94	14.49	1.77	26.77	3.01	3.13	1.25	5.51	4.01	0.47	1-8 UNC-2B	1.11	5.51	0.315	1.36	91	124
16"	15.34	14.92	17.30	18.50	15.75	2.01	29.91	3.37	3.54	1.30	7.56	5.51	0.70	1-8 UNC-2B	1.11	7.75	0.394	1.42	135	212
18"	17.34	16.80	19.31	20.51	16.61	2.01	31.52	4.11	4.29	1.49	7.56	5.51	0.70	1 1/8-7 UNC-2B	1.25	7.75	0.394	1.61	174	269
20"	19.35	18.61	21.07	22.24	18.90	2.52	35.62	5.13	5.31	1.61	7.56	5.51	0.70	1 1/8-7 UNC-2B	1.25	7.75	0.394	1.73	282	445
24"	23.32	22.50	25.74	27.28	22.12	2.76	42.94	5.96	6.14	1.99	10.86	6.49	0.86	1 1/4-7 UNC-2B	1.38	10.86	0.630	2.15	414	594

\* 2-6 REFER TO PAGE 10

# SERIES 17 DIMENSIONS



SIZE	A	MIN.	B	C	D	E	F	G	H	I	J	K	L	P	T	Z	Y	X	WEIGHT
30"	29.29	28.56	31.29	38.75	25.98	2.59	50.63	6.57	6.81	2.49	11.81	7.87	0.708	1 1/4-7 UNC-2B	2.12	2.49	0.709	11.81	1188
36"	34.05	33.09	37.28	46.00	28.34	4.64	58.82	7.99	8.30	2.95	11.81	7.87	0.708	1 1/2-6 UNC-2B	2.40	2.95	0.787	11.81	1716
42"	40.55	39.33	44.27	53.00	33.78	5.90	70.27	9.88	10.27	3.74	11.81	7.87	0.866	1 1/2-6 UNC-2B	2.63	3.74	0.984	13.77	2706
48"	45.66	44.35	49.77	59.50	37.04	5.90	76.95	10.86	11.26	4.13	13.78	9.05	0.866	1 1/2-6 UNC-2B	2.75	4.13	1.102	13.77	3498

\* 2-6 REFER TO PAGE 10

**VALVE PRESSURE**

2" - 12"	200 PSI (125 PSI FOR PTFE SEAT)
14" - 18"	150 PSI

**SEAT TEMPERATURE RATINGS °F**

EPDM 2" - 16" 18" - 48"	-30° to 275° -30° to 225°
EPDM Food Grade	-30° to 225°
BUNA	+10° to 180°
VITON	+10° to 275°
PTFE	+10 to 150°
HYPALON	0° to 275°
Hi-Temp Viton	+10° to 400°

**GEAR DATA**

	OUTPUT TORQUE (IN-LBS)	RATIO
2"	1504	24:1
2-1/2"	1504	24:1
3"	1504	24:1
4"	1504	24:1
5"	1504	24:1
6"	1504	24:1
8"	6195	30:1
10"	6195	30:1
12"	12620	50:1
14"	12620	50:1
16"	22126	80:1
18"	22126	80:1
20"	22126	14:1*
24"	35403	16:1*
30"	70806	16:1*
36"	132761	16:1*
42"	221268	16:1*
48"	354030	20:1*

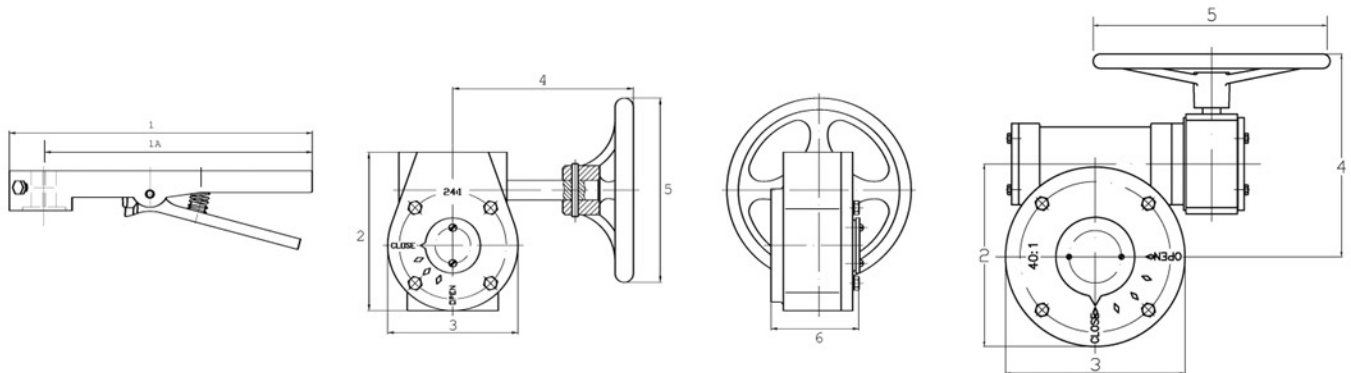


**SERIES 17**  
**CV DATA**

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VALVE SIZE	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.1	5	12	24	45	64	90	125	135
2-1/2"	0.2	8	20	37	65	98	144	204	220
3"	0.3	12	22	39	70	116	183	275	302
4"	0.5	17	36	78	139	230	364	546	600
5"	0.8	29	61	133	237	392	620	930	1022
6"	2	45	95	205	366	605	958	1437	1579
8"	3	89	188	408	727	1202	1903	2854	3136
10"	4	151	320	694	1237	2047	3240	4859	5340
12"	5	234	495	1072	1911	3162	5005	7507	8250
14"	6	338	715	1549	2761	4568	7230	10844	11917
16"	8	464	983	2130	3797	6282	9942	14913	16388
18"	11	615	1302	2822	5028	8320	13168	19752	21705
20"	14	791	1674	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116
26"	26	1434	3036	6578	11723	19397	29263	46047	50600
30"	35	1912	4050	8142	13152	20411	31226	47562	63328
34"	51	2697	5414	9872	15580	23293	35476	54372	77123
36"	60	3021	6063	11055	17449	26086	39731	60895	86375
42"	93	4601	9235	16838	26575	39783	60592	92868	131725
48"	121	5981	12001	21890	34548	51718	78770	120728	171243

# SERIES 17 HANDLE AND GEAR DIMENSIONS



VALVE SIZE	1	1A	2	3	4	5	6
2"	7.21	6.39	3.90	4.13	6.10	5.90	2.67
2-1/2"	11.36	10.50	3.90	4.13	6.10	5.90	2.67
3"	11.36	10.50	3.90	4.13	6.10	5.90	2.67
4"	11.36	10.50	3.90	4.13	6.10	5.90	2.67
5"	11.36	10.50	3.90	4.13	6.10	5.90	2.67
6"	11.36	10.50	3.90	4.13	6.10	5.90	2.67
8"	15.63	14.21	5.61	6.02	8.74	11.81	2.67
10"	21.26	19.84	5.61	6.02	8.74	11.81	2.67
12"	21.26	19.84	6.24	6.37	8.38	11.81	3.17
14"	X	X	6.24	6.37	8.38	11.81	3.18
16"	X	X	11.31	10.03	9.88	11.81	4.72
18"	X	X	11.31	10.03	9.88	11.81	4.72
20"	X	X	8.15	8.42	10.00	11.81	4.88
24"	X	X	10.35	10.87	10.98	11.81	2.68
30"	X	X	11.42	11.81	13.19	15.74	9.13
36"	X	X	13.35	13.94	14.05	17.71	7.51
42"	X	X	16.22	19.68	17.72	17.71	9.92
48"	X	X	23.35	28.50	22.95	19.68	11.69

**SERIES 17****TORQUE**

NORMAL CONDITION\*

VALVE SIZE	50 PSI	100 PSI	150 PSI	200 PSI
2"	70	105	108	115
2-1/2"	100	126	136	152
3"	150	176	192	204
4"	230	260	328	352
5"	350	465	512	548
6"	460	680	831	907
8"	740	1110	1527	1697
10"	1330	1880	2530	2857
12"	2260	3150	3794	4338
14"	4070	4620	4870	5527
16"	5400	6285	6685	7484
18"	6300	8750	8958	10010
20"	8000	10800	11950	12667
24"	14600	16375	18680	20361
26"	/	/	26472	/
30"	/	/	33336	/
34"	/	/	43917	/
36"	/	/	46528	/
42"	/	/	79684	/
48"	/	/	111112	/

\* Consult Factory for other conditions and undercut disc

# SHARPE® VALVES

Choose from our full line of high quality valves and actuators to meet your needs.



## HOW TO ORDER

VALVE SIZE	VALVE STYLE	BODY	DISC	SHAFT	SEAT	ACTUATOR	OPTION
2"	17W = Wafer	1 = CI	6 = Stainless Steel 316	4 = Stainless Steel 416	1 = EPDM	1 = 10 Position Lever	A = Memory Stop
2-1/2"	17L = Lug	2 = DI (A536)	2 = Ductile Iron 536		2 = BUNA (Perox.Cured)	2 = Gear Operator	B = Stem Extension
3"	17F = Flanged	3 = DI (A395)	Nickel Plated	6 = Stainless Steel 316	3 = EPDM (Food Grade)	3 = Pneumatic Double Acting	C = Pad Lock Handle
4"		6 = 316 Stainless Steel A351	3 = Aluminum Bronze (C594)	1 = Monel	4 = White BUNA (Food Grade)	4 = Pneumatic SR Fail Close	D = Square Nut
5"			4 = Ductile Iron Nylon Coated		5 = Viton	5 = Pneumatic SR Fail Open	E = Infinite Throttling with Memory Stop Handle
6"			1 = Monel		7 = Hypalon	6 = Electric Actuator	
8"					8 = Hi-Temp Viton	7 = Gear with a Chainwheel	
10"					9 = PTFE	8 = Bare Stem	
12"							
14"							
16"							
18"							
20"							
24"							
26"							
30"							
34"							
36"							
42"							
48"							



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