

Vtek

Controls

SERIES VSS

SS Resilient Lined Butterfly Valve



Design Specifications

- **Standard Sizes** : 2" – 48"
- **Body Material**: Stainless (CF8M)
- **Seats**: NBR, EPDM, FKM, PTFE Silicone
- **ISO 5211** Direct Mount - 2" to 12", 14 to 48"
Key Type
- **Blow-Out Proof Stem**
- **ANSI 125 / 150, Lug & Wafer**
- **General & Industrial Applications**

Standards

- **Compliance Standard**: API 609, EN593, ISO 5211, BS5155, EN1092, ISO 5208
- **Testing**: API 598, ISO5208, EN512266-1
- **Quality Assurance**: ISO 9001, 5209

Data:

Size : 2" ~ 48"

Type: Wafer , Lug

Pressure Rating: Class 125, 150

Body Material: Stainless CF8M

Seat Material: NBR, EPDM, FKM, PTFE, Silicone

Operation: Lever , Gear operated, Bare stem.

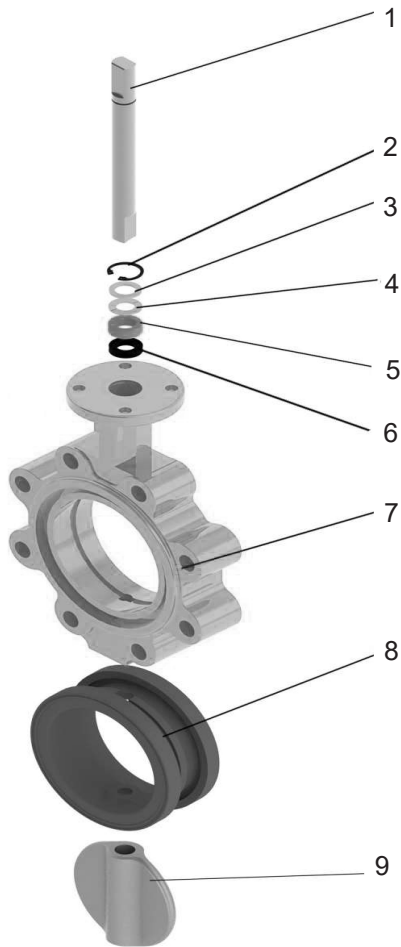


- Tight shut-off design.
- One - piece body.
- Cartridge Type Seat
 - One-piece and two-piece stems in A564 Gr.630 / PH 17-4 / 316 materials.
 - ISO 5211 mounting pad with square shaft 2" ~ 14, Key Type Connection 16" ~ 48"
 - High Cv flow coefficient
 - Bi-directional flow
 - Under-Cut Disc available upon request.
- Seat type available in both encapsulated phenolic or Aluminum backed Cartridge seat and Boot design. Cartridge design seat permits easy change without special tools
- Conform to API 598 and MSS SP 61. Shell tested to 150% and seat tested to 110% of maximum working pressure
- Lug body valves are rated for 145 PSI in dead end service.
- Valve Rating:
 - Top flange mounting pad: ISO 5211
 - Basic Design: API 609, MSS-SP-67, BS 5155, ISO 5752, DIN 3202
 - Shell/Seat Test: API 598, MSS-SP-61

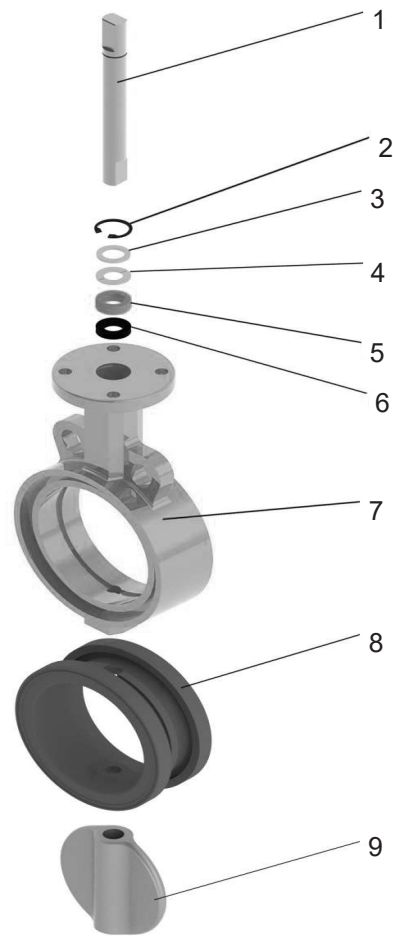
Shut Off 2"~12" : 232psig

14"~24" : 188psig

Material 2" to 14" :



Lug Style

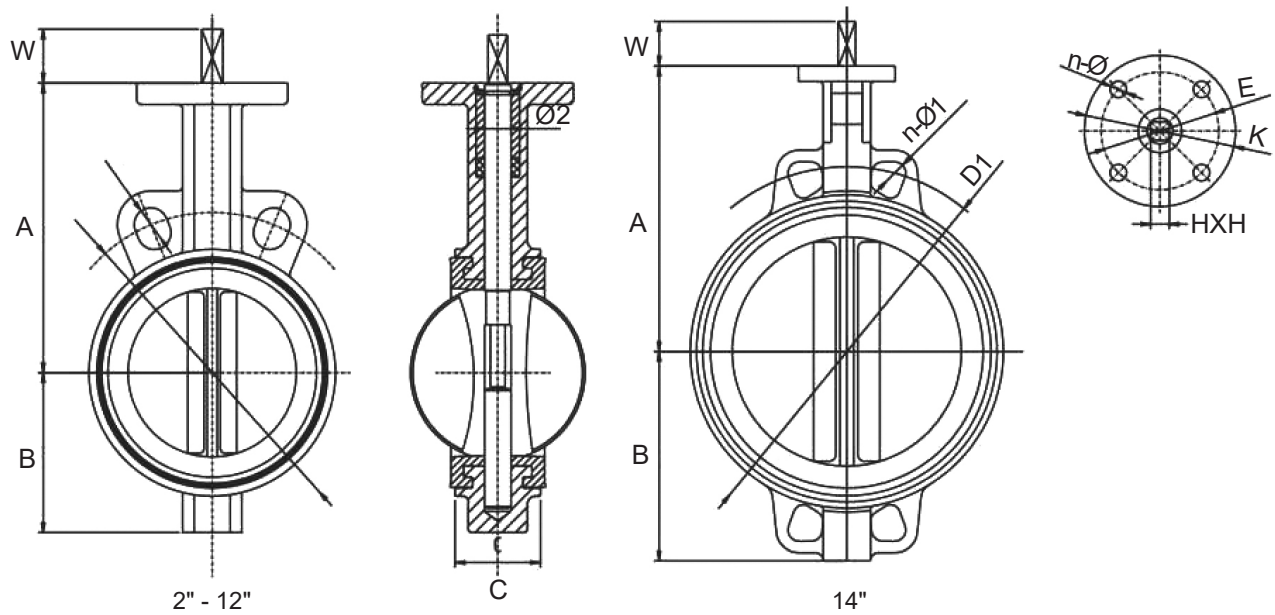


Wafer Style

No.	Part Name	Material
1	Shaft	SS410, SS304, SS431, SS316, Monel K500, 17-4PH, C6300, C92200, 2507, 2205
2	Retaining Ring	Sk7 (High Grade Carbon Stl.
3	Thrust Washer	Stainless Steel, Carbon Steel
4	Shaft Retainer	Stainless Steel, Carbon Steel
5	"O" Ring	NBR, Viton, Silicone
6	Bushing	FRP
7	Body	304, 316, 316L
8	Body Seat (Tongue & Groove)	NBR (BUNA-N), EPDM, HEPDM, FKM (Viton), PTFE, Polychloroprene, Natural Rubber, Silicon Rubber
9	Disc	CF8, CF8M, CF3, CF3M, SAF2507, SAF2205

Dimensions Wafer Type 150 lb:

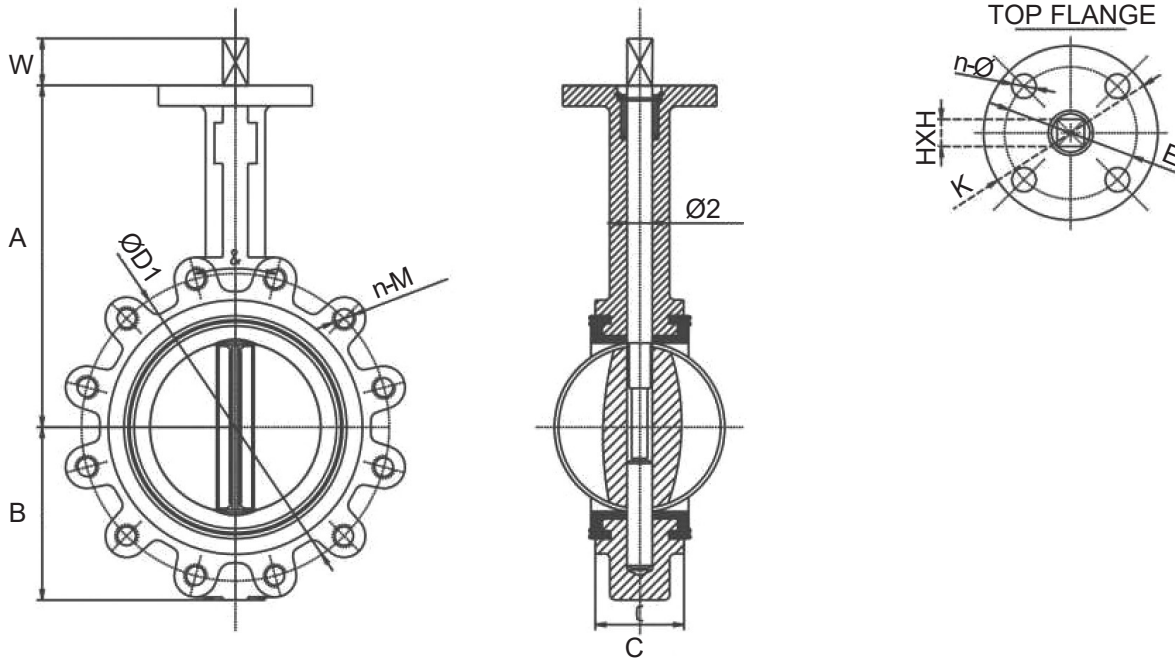
2" to 14"



Size	Dimensions									
	A	B	C	Ø2	ISO5211	K	E	n-Ø	HXH	W
2"	5.51	2.40	1.69	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
2-1/2"	5.91	2.68	1.81	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
3"	6.22	2.99	1.81	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
4"	6.93	3.62	2.05	0.62	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
5"	7.48	4.21	2.20	0.74	F07	3.54	2.76	0.16-0.39	0.55x0.55	0.67
6"	8.35	4.72	2.20	0.74	F07	3.54	2.76	0.16-0.39	0.55x0.55	0.67
8"	9.29	5.94	2.36	0.87	F10	4.92	4.02	0.16-0.47	0.67x0.67	0.87
10"	10.43	7.32	2.68	1.12	F10	4.92	4.02	0.16-0.47	0.87x0.87	0.87
12"	12.01	8.31	3.07	1.24	F10	4.92	4.02	0.16-0.47	0.87x0.87	0.87
14"	14.49	10.63	3.07	1.24	F10	4.92	4.02	0.16-0.47	0.87x0.87	0.87

Dimensions: Lug Style 150lbs:

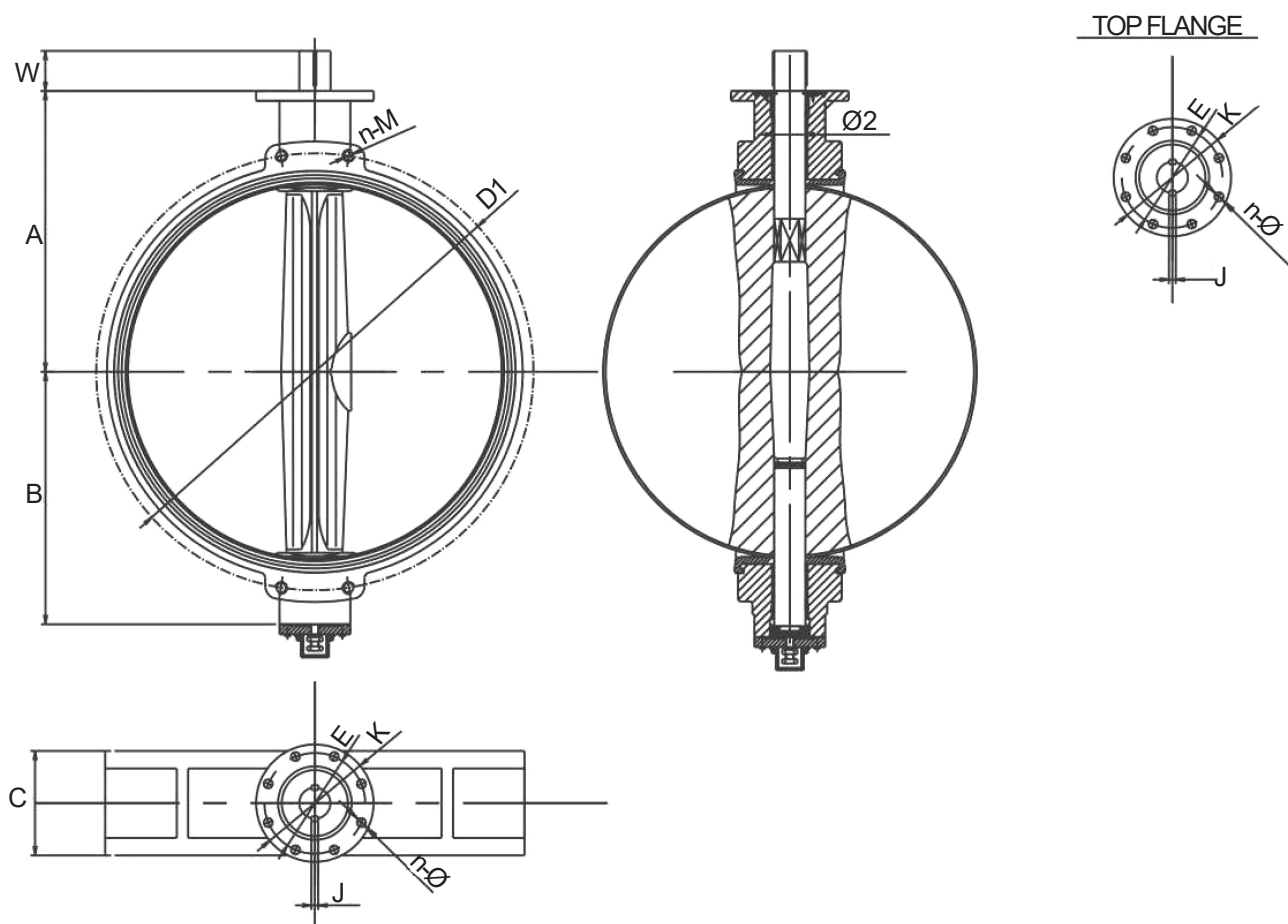
2" to 14"



Size	Dimensions									
	A	B	C	Ø2	ISO5211	K	E	n-Ø	HXH	W
2"	5.51	2.40	1.69	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
2-1/2"	5.91	2.68	1.81	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
3"	6.22	2.99	1.81	0.50	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
4"	6.93	3.62	2.05	0.62	F07	3.54	2.76	0.16-0.39	0.43x0.43	0.55
5"	7.48	4.21	2.20	0.74	F07	3.54	2.76	0.16-0.39	0.55x0.55	0.67
6"	8.35	4.72	2.20	0.74	F07	3.54	2.76	0.16-0.39	0.55x0.55	0.67
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14"	14.49	10.63	3.07	1.24	F10	4.92	4.02	0.16-0.47	0.87x0.87	0.87

Dimensions Wafer Type 150 lb:

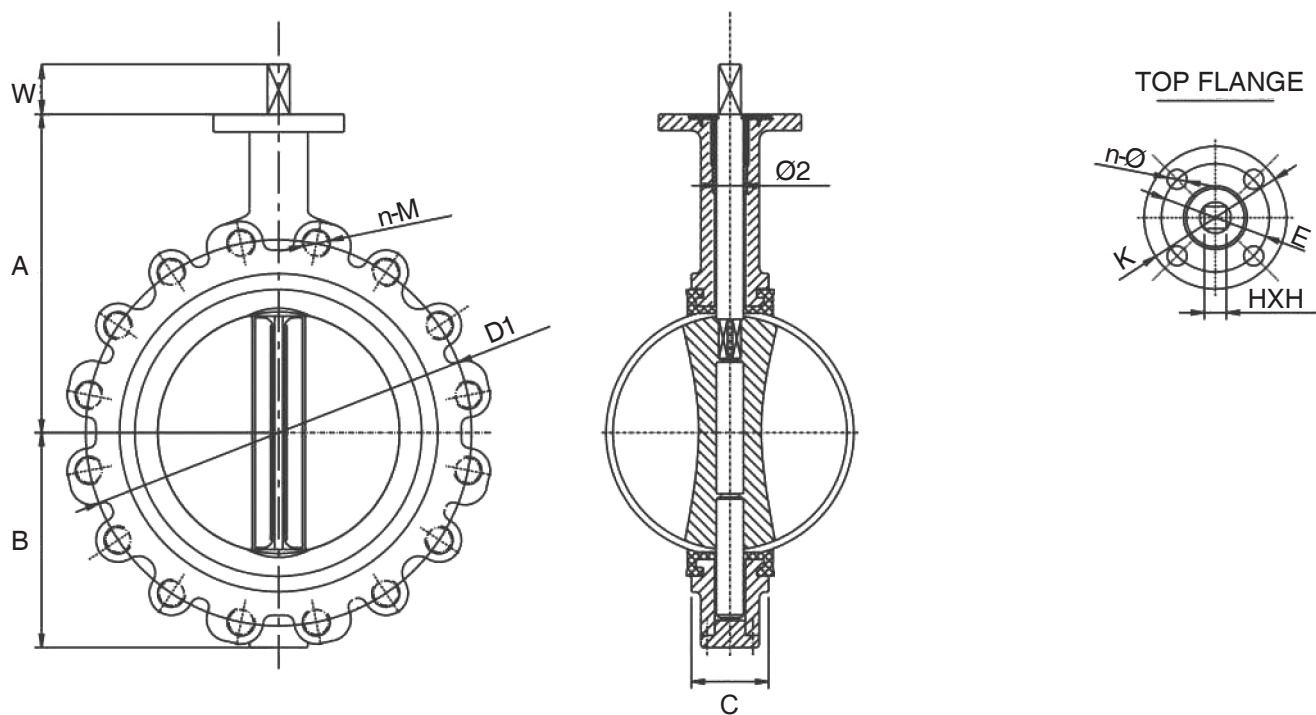
28" to 48"



Size	Dimensions									
	A	B	C	Ø2	ISO5211	K	E	n-Ø	J	W
28"	24.57	20.47	6.50	2.49	F25	11.81	10.00	0.31-0.71	0.71	4.33
32"	26.46	22.44	7.48	2.49	F25	11.81	10.00	0.31-0.71	0.71	4.33
36"	28.35	25.04	7.99	2.95	F25	11.81	10.00	0.31-0.71	0.79	4.33
40"	31.69	27.95	8.50	3.35	F25	11.81	10.00	0.31-0.71	0.87	4.33
48"	37.68	33.19	10.87	4.13	F30	13.78	11.73	0.31-0.87	1.10	5.12

Dimensions Lug Type 150 lb:

28" to 48"



Size	Dimensions									
	A	B	C	$\varnothing 2$	ISO5211	K	E	$n-\varnothing$	HXH	W
16"	15.75	12.17	4.02	1.49	F14	6.89	5.51	0.16-0.71	1.06-1.06	1.42
18"	16.61	13.39	4.49	1.49	F14	6.89	5.51	0.16-0.71	1.06-1.06	1.42
20"	17.91	14.37	5.00	1.80	F14	6.89	5.51	0.16-0.71	0.87-1.42	1.42
24"	22.24	17.80	6.06	1.99	F16	8.27	6.50	0.16-0.87	0.87-1.42	1.81

Torque:

Size	EPDM			Size	Viton / NBR / PTFE		
	87 PSIG/ 6 Bar	145 PSIG/ 10 Bar	232 PSIG/ 16 Bar		87 PSIG/ 6 Bar	145 PSIG/ 10 Bar	232 PSIG/ 16 Bar
	(N.m)	(N.m)	(N.m)		(N.m)	(N.m)	(N.m)
1-1/2"	7	9	9	1-1/2"	9	12	12
2"	8	9	10	2"	10	12	13
2-1/2"	13	15	17	2-1/2"	17	20	22
3"	19	21	26	3"	25	27	34
4"	33	37	43	4"	43	48	56
5"	51	57	65	5"	66	74	85
6"	80	94	103	6"	104	122	134
8"	140	171	206	8"	182	222	268
10"	216	264	299	10"	280	343	389
12"	299	402	417	12"	389	523	542
14"		519	782	14"		675	1017
16"		757	1224	16"		984	1591
18"		1054	1513	18"		1370	1967
20"		1420	1879	20"		1846	2443
24"		2176	3383	24"		2829	4398
28"		3162	4182	28"		4111	5437
32"		4794	6664	32"		6232	8663
36"		6503	8296	36"		8454	10785
40"		8330	11526	40"		10829	14984
48"		14280	18020	48"		18564	23426

NOTE:

The above torque data has no included safety factor and is based on water applications.

(N.m. X 8.8507 = In-Lbs)

Cv Value:

Size	Flow in Gpm@ 1 PSI P@ Various Disc Angles								
	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	971	1674	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116
28"	30	1633	3522	7630	12599	20036	30482	46899	58696
32"	45	2387	4791	8736	13786	20613	31395	48117	68250
36"	60	3021	6063	11055	17449	26086	39731	60895	86375
40"	84	4183	8395	15307	24159	36166	55084	84425	119750
48"	102	4651	10365	17010	27242	43853	70431	108968	132888

Ordering:

Series	Port	Body Material	Disc	Stem	End Connection	Size
VSS	Full Port	S - Stainless Steel O - 304 Stainless Stl L - 316L Stainless Stl	S - 316 SS O - 304 Stainless Stl L - 316L Stainless Stl	S - 316 SS P - 17-4PH O - 304 SS	L1- Lug 125 / 150 W1- Wafer 125 / 150	0200 - 2" 0250 - 2-1/2" 0300 - 3" 0400 - 4" 0500 - 5" 0600 - 6" 0800 - 8" 1000 - 10" 1200 - 12" 4800 - 48"
Seats	Packing	Body Seal	Operator	Options	Stem O-ring	
P - PTFE B - BUNA V - VITON / FKM E - EPDMI L - SILICONE	P - PTFE B - BUNA V - VITON / FKM E - EPDMI L - SILICONE	N/A	Blank - Bare Stem L - Locking Handle G - Gear Operated	Blank - No Options	P - PTFE B - BUNA V - VITON / FKM E - EPDMI L - SILICONE	

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