

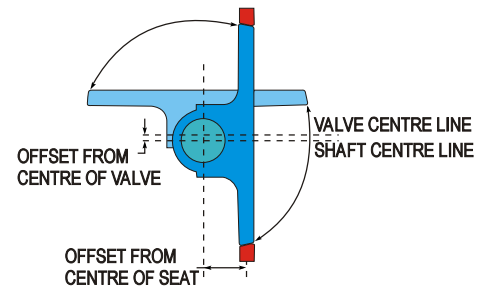
VARIMEX®

**HIGH PERFORMANCE
BUTTERFLY VALVE
VG - 7400 SERIES**



Aiming at Perfection

Design Construction



Double Offset

Varimex TVAP High Performance Butterfly Valves are available in Wafer and Lug type designs conforming to API 609 standard. The Disc construction is Double Offset providing excellent controllability, bubble tight shut off, greater seat life and smooth operation. Valves are specially designed for applications in Chemical, Petroleum, Hydro Carbons Processing, Pulp & Paper and HVAC industries.

Well supported shaft with heavy duty bearings ensure perfect alignment of seat and disc for smooth and trouble free operations. Valves have been rigorously tested to ensure industry performance requirements.

Features

- ▶ Valve body is solid, heavy duty. Seat Retainer construction allows Gasket conforming to API 609.
- ▶ Optimal disc geometry and cavity free flow passage offers minimum flow resistance and high Cv values.
- ▶ Heavy duty pins connecting valve shaft to disc avoids lost motion under high torque conditions.
- ▶ Long life, easy field replaceable seat placed in body, away from flow steam, provides bubble tight shut off. Valves are equally suitable for control and tight shut off applications.
- ▶ Low friction bearings provide maximum radial support for higher shaft loads. The PTFE lined bearings having low co-efficient of friction minimizes operating torque and reduces actuator size. They are slip in-place type, easy for assembly and disassembly.
- ▶ Seat option includes PTFE, EPDM, Viton Soft Seats and Flexible Metal Seats to suit variety of fluids and applications.
- ▶ Recommended for critical applications including high temperature services, throttling steam control, liquor services, gas applications, vacuum applications, corrosive fluids, refinery services, chemical services, hydrocarbon services, etc.

Specifications

Valve Sizes	:	2" (50mm) to 80" (2032mm)
Ratings	:	Class 150 , Class 300 ,Equivalent to DIN
Body Style	:	Wafer , Lug (Single Flange)
Design Standard	:	API 609 , ANSI B 16.34 , ANSI B 16.5
Testing Standard	:	API 598 , FCI 70-2
Seat Leakage Option	:	Class VI for PTFE, EPDM, Viton Soft Seats, Class IV for Flexible Metal Seats
Flow Direction	:	Bi Directional

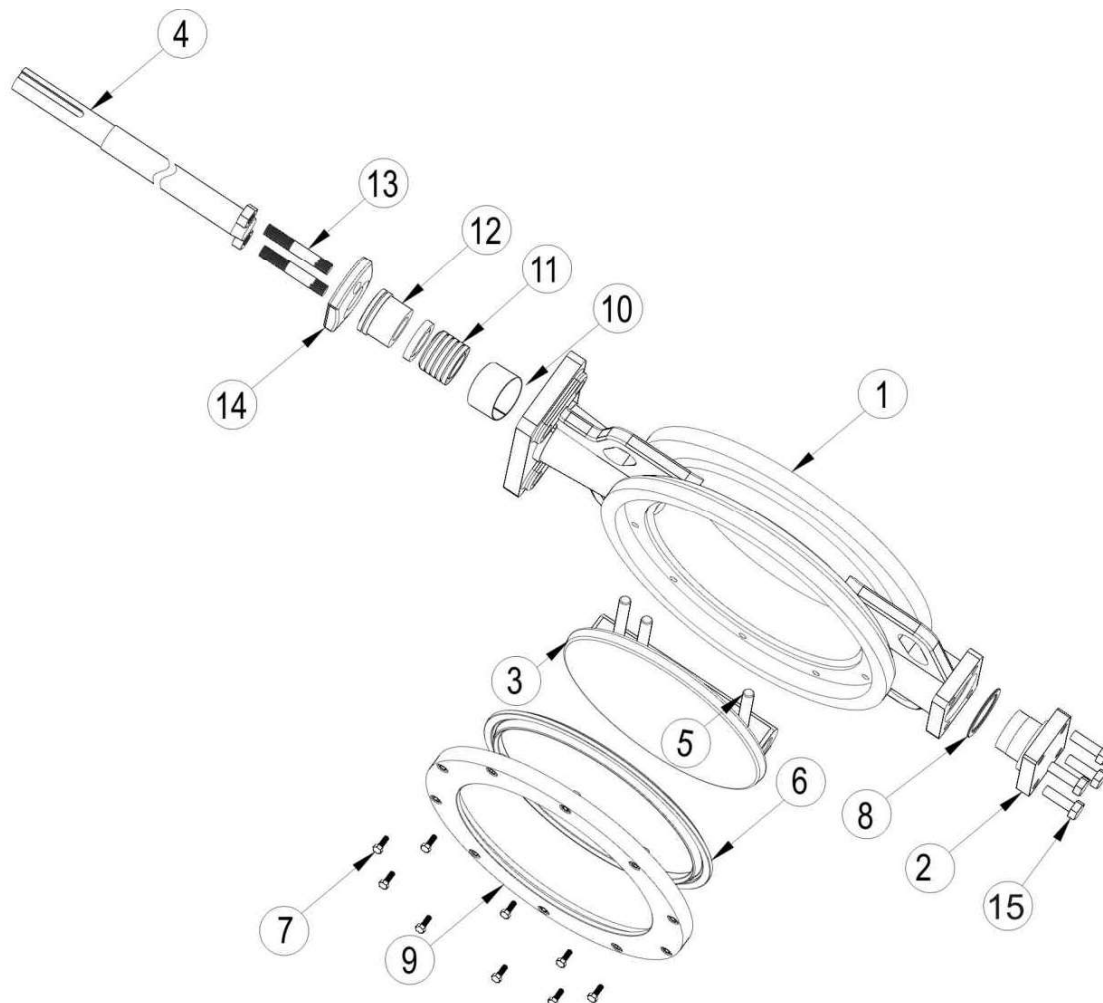
Conformity To Codes

Design & Manufacturing	:	API 609 Category B BS 5155 API 607 (Fire Safe)
Face to Face Dimensions	:	API 609 BS 5155 BS EN 558-1 ISO 5752
Flange Dimensions	:	ANSI B 16.5 (DN 50 to DN 600) ANSI B 16.47 (DN 650 to DN 1500)
Pressure Temperature Rating	:	ANSI B 16.34
Valve Inspection	:	API 598 FCI 70-2

Testing and Inspection

Test	Test Pressures	Test Stds	Test Medium	Acceptance Criteria
Hydro Test	30 Bar (ANSI 150#)	API 598	Water	No Leakage
	80 Bar (ANSI 300#)	API 598	Water	No Leakage
Seat Leakage Test	Max Δ P Shut Off	FCI 70-2	Water	Class VI
	20 Bar (ANSI 150#)	API 598	Water	No Leakage
	54 Bar (ANSI 300#)	API 598	Water	No leakage

Material Of Construction



Sr. No.	Part Name
1	Valve Body
2	End Cover
3	Disc
4	Valve Shaft
5	Disc
6	Seat Ring
7	Seat Retainer Screw

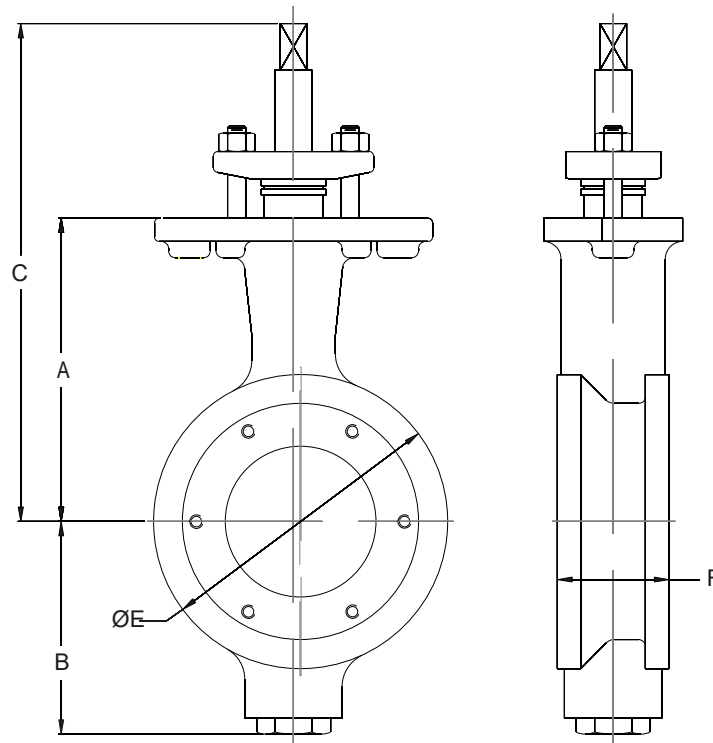
Sr. No.	Part Name
8	Body Gasket
9	Seat Retainer
10	Guide Bush
11	Gland Packing
12	Gland Bush
13	Gland Studsr
14	Gland Flange
15	End cover bolts

Valve Torques (N m)

ANSI Class 150
 ΔP , Bar

VALVE SIZE		SOFT SEATED VALVE				FIRE SAFE DESIGNED VALVE				METAL SEATED VALVE			
INCH	MM	$\Delta P=5$	$\Delta P=10$	$\Delta P=15$	$\Delta P=20$	$\Delta P=5$	$\Delta P=10$	$\Delta P=15$	$\Delta P=20$	$\Delta P=5$	$\Delta P=10$	$\Delta P=15$	$\Delta P=20$
2"	50	32	40	46	49	51	55	59	65	53	65	69	72
2.5"	65	36	39	48	53	52	54	62	72	60	72	78	89
3"	80	38	40	49	55	58	65	72	79	72	81	89	97
4"	100	42	46	54	65	72	82	90	98	82	92	112	127
5"	125	52	62	68	89	78	95	109	168	98	112	129	190
6"	150	64	94	148	164	112	145	178	190	124	160	197	230
8"	200	105	149	168	199	285	320	360	390	308	325	402	422
10"	250	190	230	270	350	290	328	392	410	318	336	408	428
12"	300	240	290	380	440	298	375	460	582	336	433	531	635
14"	350	420	490	620	732	558	740	950	1040	598	784	971	1158
16"	400	510	790	890	1400	942	1062	1340	1730	948	1089	1386	1780
18"	450	780	975	1680	1920	980	1318	1862	2100	1046	1345	1944	2180
20"	500	970	1480	1980	2300	1240	1724	2100	2640	1366	1793	2305	2818
22"	550	1312	1970	2550	3400	1620	2240	2700	3890	1628	2320	2896	3990
24"	600	1840	2400	2950	3940	2350	2850	3450	4300	2500	2930	3780	4400
26"	650	2290	2978	3818	4334	2817	3663	4695	5634	3467	4506	5778	6934
28"	700	2901	3741	4656	5084	3568	4601	5728	7043	4392	5663	7050	8668
30"	750	3208	4200	5268	5778	3945	5165	6479	7700	4853	6356	7974	9477
32"	800	3741	4886	6107	7164	4601	6009	7511	8919	5663	7397	9246	10980
34"	850	4581	5955	7252	8320	5634	7324	8919	11268	6934	9014	10890	13867
36"	900	5343	6870	8697	9592	6573	8451	10329	13146	8091	10402	12712	16180
38"	950	6107	7634	9925	10862	7511	9391	12208	15023	9246	11556	15023	18491
40"	1000	6870	9161	11451	12712	8451	11268	14085	16902	10402	13867	17335	20802
42"	1050	7634	10688	12979	13867								
44"	1100	9161	12213	14124	15023								
46"	1150	10688	12979	15269	17334								
48"	1200	12213	14504	17176	19067								
50"	1250	13507	15973	18791	21234								
52"	1300	15034	17852	21024	23834								
54"	1350	16559	19730	23254	26290								
56"	1400	19379	22784	26895	30046								
58"	1450	22432	25016	29244	34967								
60"	1500	25955	30301	35351	43768								
64"	1600	32063	37113	42984	50558								
66"	1650	35467	41106	47682	55902								
72"	1800	41927	48622	55904	70347								
76"	1900	46714	54174	62288	78381								
80"	2000	51762	60026	69017	86848								
84"	2100	57067	66180	76091	95750								
88"	2200	62631	72633	83511	105087								
92"	2300	68454	79385	91275	114857								
96"	2400	74536	86439	99384	125061								
100"	2500	80879	93793	107838	135701								
104"	2600	87610	101446	116639	146883								
108"	2700	94478	109399	125782	158281								
110"	2750	98010	113489	130484	164198								
112"	2800	101606	117653	125273	170222								
116"	2900	108994	126206	145107	182598								
120"	3000	116640	135061	155288	195408								

Dimension Wafer Design



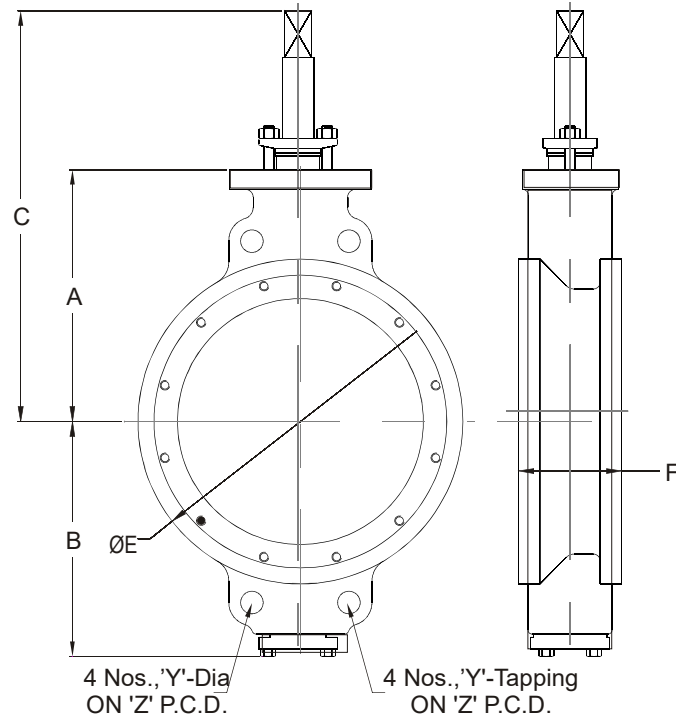
150#

VALVE SIZE		150#-WAFER DESIGN				
INCH	(DN)	A	B	C	ØE	F
2"	(50.0)	100.0	75.0	172.0	92.0	43.0
2.1/2"	(65.0)	110.0	80.0	182.0	105.0	46.0
3"	(80.0)	131.0	97.0	221.0	127.0	48.0
4"	(100.0)	153.0	122.0	243.0	157.0	54.0
5"	(125.0)	187.0	155.0	275.0	186.0	57.0
6"	(150.0)	187.0	155.0	277.0	216.0	57.0

300#

VALVE SIZE		300#-WAFER DESIGN				
INCH	(DN)	A	B	C	ØE	F
2"	(50.0)	100.0	75.0	172.0	92.0	43.0
2.1/2"	(65.0)	110.0	80.0	182.0	105.0	46.0
3"	(80.0)	131.0	97.0	221.0	127.0	48.0
4"	(100.0)	160.0	142.0	250.0	162.0	54.0
5"	(125.0)	187.0	155.0	257.0	186.0	59.0
6"	(150.0)	187.0	167.0	278.0	216.0	59.0

Dimension Wafer Design



150#

VALVE SIZE	150#-WAFER DESIGN							
INCH, (DN)	A	B	C	ØE	F	ØY Hole	Y Tapping	Z
8" (200.0)	217.0	210.0	318.0	270.0	64.0	22.2	-	298
10" (250.0)	250.0	240.0	352.0	324.0	71.0	25.4	-	362
12" (300.0)	310.0	285.0	425.0	381.0	81.0	25.4	-	432
14" (350.0)	320.0	300.0	438.0	413.0	92.0	28.6	-	476
16" (400.0)	340.0	350.0	458.0	470.0	102.0	28.6	-	540
18" (450.0)	375.0	385.0	503.0	535.0	114.0	31.75	-	578
20" (500.0)	406.0	400.0	551.0	584.0	127.0	-	1.1/8"	635.0
24" (600.0)	510.0	460.0	660.0	692.0	154.0	-	1.1/4"	749.0
36" (900.0)	666.0	640.0	893.0	1022.0	241.0	-	1.1/2"	1086.0

300#

VALVE SIZE	300#-WAFER DESIGN						
INCH (DN)	A	B	C	ØE	F	Y	Z
8" (200.0)	217.0	225.0	318.0	270.0	73.0	7/8"	330.0
10" (250.0)	270.0	250.0	378.0	324.0	83.0	1"	387.0
12" (300.0)	310.0	300.0	435.0	381.0	92.0	1.1/8"	451.0
14" (350.0)	335.0	335.0	490.0	413.0	117.0	1.1/8"	514.0
16" (400.0)	400.0	402.0	545.0	470.0	133.0	1.1/4"	571.5
18" (450.0)	425.0	427.0	578.0	533.0	149.0	1.1/4"	629.0
20" (500.0)	460.0	450.0	700.0	584.0	159.0	1.1/4"	686.0
24" (600.0)	550.0	564.0	728.0	692.0	181.0	1.1/2"	813.0
36" (900.0)	742.0	730.0	960.0	1022.0	241.0	1.5/8"	1089.0