

# BUTTERFLY VALVES

contact@tfvusao.com www.**tfvusao**.com

Call free from USA and CANADA

t: 1-866-TFV-USAO (838-8726)

### **Q - RESILIENT SEATED BUTTERFLY VALVE**



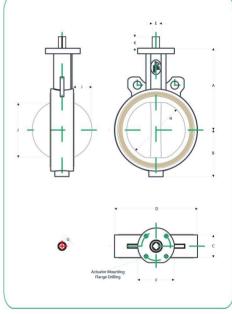
### STANDARD PARTS

1	Body	A216 WCB
2	DIsc	316 SS
3	Stem	316 SS
4	Resilient Seat	EPDM food grade
5	Bearing	ACETAL
6	Stem Seal	VITON
7	Top Bushing	ACETAL
8	Stem Cotter	301 SS
9	Body Cotter	301 SS
10	Handle	ALUMINIUM

### **FEATURES**

- · One piece shaft.
- Wafer version with flange locating holes.
- Spline connection. Male splines in the stem and female in the disc.
- The internal Disc/Stem Connection eliminate exposed external disc-to-stem connections such as screws and taper pins.
- Tfv's precision machinning minimizes hysteresis and produces maximum strength engagements.
- Pressure: 150# PSI
- Resilient seat design provides complete isolation of flowing media from the body because of the membrane and o-rings that contains internally.
- The seat is specifically designed to seal with slip-on or weldneck flanges and eliminates the use of flange gaskets.
- Valve mounting top flanges are based on ISO 5211 standars for direct mounting of manual operators and power actuators.
- Designed to handle a wide variety of liquid and gases.





### **DIMENSION (INCHES)**

Ins	mm	· · ·	y)	9		Į.Į		3	<b>5</b> h		5	[K
2	50	5.50	2.81	1.69	3.70	0.55	3.55	0.43	1.91	0.26	1.44	1.20
21/2	65	6.00	2.91	1.81	4.20	0.55	2.75	0.43	2.39	0.47	2.05	1.20
3	80	6.30	3.05	1.81	4.92	0.55	3.55	0.43	2.87	0.70	2.62	1.20
4	100	7.00	3.68	2.06	6.09	0.71	3.55	0.55	3.82	0.99	3.42	1.20
5	125	7.50	4.01	2.19	7.09	0.71	3.55	0.55	4.78	1.36	4.31	1.20
- 6	150	8.01	4.56	2.19	8.12	0.71	4.92	0.56	5.50	1.80	5.30	1.20
8	200	9.50	5.64	2.38	10.50	0.86	6.88	0.67	7.41	2.57	7.03	1.20
10	250	10.75	7.06	2.69	12.75	1.11	6.88	0.87	9.33	3.30	8.83	1.92
12	300	12.25	9.00	3.06	14.92	1.42	8.26	1.06	11.24	4.07	10.71	1.92



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### Cv Valve Sizing Coefficient (Ins)

Valve	Size			Dis	sc Pos	ition	Degre	ee		ĺ
Ins	mm	10	20	30	40	50	60	70	80	90
2	50	0.53	5	12	21	35	53	77	110	130
2 1/2	65	8.0	9	18	34	56	91	141	201	239
3	80	4.1	12	27	50	83	135	225	320	382
4	100	1.65	22	49	94	155	252	430	624	721
5	125	3	36	80	152	253	410	698	1153	11199
6	150	4	51	112	215	360	586	992	1490	1715
8	200	7	96	215	415	704	1142	1883	2848	3226
10	250	11	157	351	681	1157	1879	3094	4692	5385
12	300	16	235	525	1039	1753	2853	4699	7119	8164
14	350	20	318	735	1435	2455	3976	6585	9859	11228
16	400	27	431	992	1940	3142	5383	8905	13337	15177
18	450	35	561	1292	2530	4336	7028	11617	17124	19460
20	500	43	712	1621	3207	5501	8921	14733	22104	25124
22	550	116	973	2175	4012	6704	10835	17457	26235	31063
24	600	141	1125	2487	4925	8476	13784	22196	33211	38135





### Valves Torque Rating (Lbs - Ins)

Valve Size			Disc Posit	ion Degree	
Ins	mm	50 PSI	100 PSI	150 PSI	200 PSI
2	50	113	118	123	129
2 1/2	65	173	184	196	205
3	80	234	248	261	271
4	100	345	374	404	426
5	125	519	576	633	677
6	150	691	781	868	939
8	200	1267	1417	1566	1673
10	250	1956	2196	2437	2608
12	300	2994	3333	3672	3898
14	350	3795	4385	4975	-
16	400	5330	6290	7250	72
18	450	7069	8547	10025	-
20	500	9330	11040	12750	1 🖦
22	550	10063	11944	13825	-
24	600	10978	13030	15082	<del>-</del>



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# **ADVANTAGES**



### **HANDLE**

This part is the control valve and is made to specify the position of the disc or degree valves opening.

This kit contains a throttling plate, which opening or closing (on/off) and also offer the modulation marks the valve choice that has 10 positions (every 10° until 90°).

All sizes contain an stop to prevent over rotation of the valve.

The principal part has a section where user can see grades or on/off simbols, that helps to know the disc opening place.



### **SEAT DESIGN**

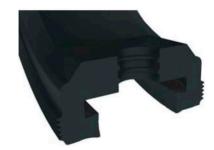
- One of the most important parts of these kind of valves is the resilient seat.
- The new TFV seat has a trap with a suction attachment that makes a superior retention to traditional designs and the basic material is EPDM

food-grade . Its characteristics are :

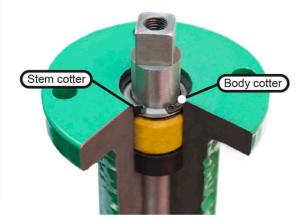
- · Completely isolation of flowing media from the body.
- Negates need for flange gaskets.
- Easy and fast assembly or replacement.
   Improved retention between the seat and the body using a clamping trap.
- It's design avoids the loss of the seat geometry during opening, closing or modulation.

It provides an excellent stem stability.

- Decrease the internal parts number such as o-rings, bearings or bushings.
- The o-rings that resilient seat contains in the shaft enter have the purpose of eliminate leakage into the stem journal as well as migration of line media.







### **SHAFT SFETY DEVICE**

This assembly is a crucial part of the valves because has been designed to prevent the stem blowout or an unintentional removal of the shaft during field service, which is formed by two retainer rings that can be removed with a standard hand tool.



## **BALL VALVES**

tfv usaoperation

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### **Q - RESILIENT SEATED BUTTERFLY VALVE**

### **HOW TO ORDER**

Q Resilient Seated Butterfly Valve NS NSF / ANSI 61	VALVE BODY DESIGN (SERIES)	SPECIAL FEATURES			
	Q Resilient Seated				

	MATERIAL	
BODY	TRIM	SEAT
2 WCB 3 CF8M 4 CF8 6 A395 L A126 7 7 A395 D NYLO	1 BRONZE ALUMINIUM 3 316SS 4 304SS 6 A395 DI/ A126 CI	E EPDM (FOOD GRADE) V FPM B NBR V VITON N NEOPRENE H HYPALON R R-PTFE <sup>(1)</sup>

	ENDS	CLASS	SIZ	E <sup>(1)</sup>	OPERATION		
L	LUG	<b>0</b> ANSI 150#	02 02.5	2" 2 1/2"	L	Manual Lever Operator	
w	WAFER		03 04	3" 4"	G	Gear Operator	
			05	5"	В	Bare Shaft	
			06	6"	Р	Pneumatic Actuator	
			08	8"	E	Electric	
			10 12	10" 12"	_	Actuator	
			14	14"			
			16	16"			
			18	18"			
			20	20"			
			22 24	22" 24"			

### Example

Resilient Seated Butterfly Valve, Body A395 Ductil Iron, Disc CF8M, Seat EPDM, Wafer 150# Size 6" with Lever Q-66E-W006L

\*Nylon 11 coating can be certified to NSF / ANSI 61 for water service.

The figure numbers shown in this page are designed to cover essential features of TFV valves.

