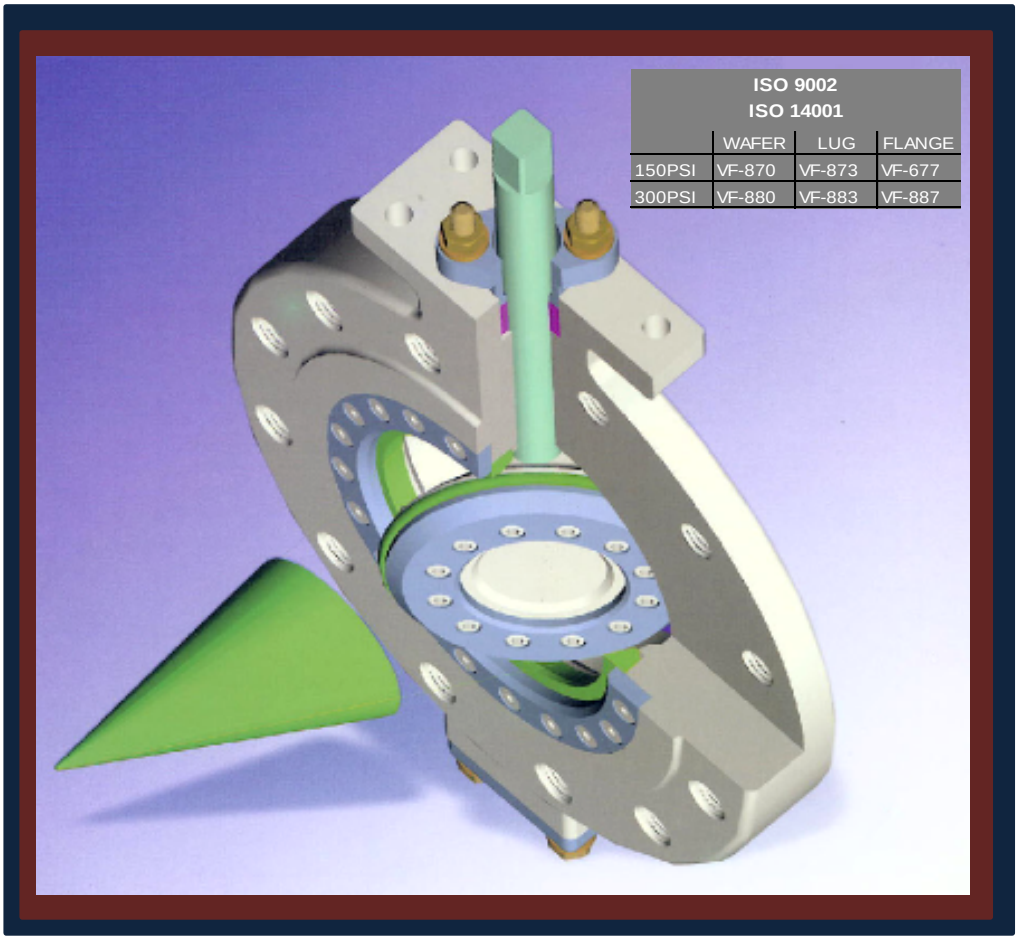
PLEIX-QUIP Africa *(Pty)Ltd*

BUTTERFLY VALVE

TRIPLE ECCENTRIC, METAL SEATED

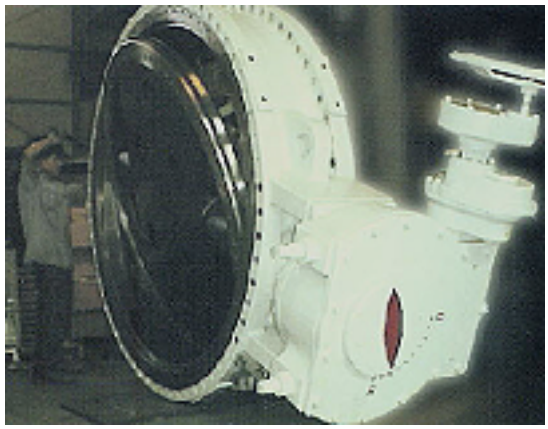


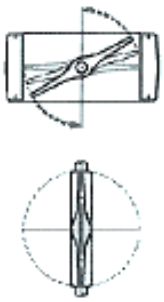
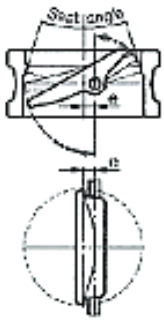
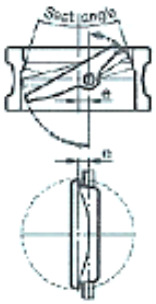
127 Lemmer Road, Vulcania Ext. 2, Brakpan, RSA
PO Box 10270 Dalview 1544.
Phone No. : +27 11 736 4994 **Fax:** +27 11 736 6130
Email: pleixquip@pleixquip.co.za
Website: www.pleixquip.co.za

PLEIX-QUIP Africa *(Pty)Ltd*

THE NEW CONCEPT FOR METAL SEATED VALVE WITH PROVEN ADVANTAGES

- A double eccentric geometry of the disc rotating center
- Body seat is designed as a tilted cone geometry
- Valve seat is floating inside the disc profile, seat will be shaped into an elliptical form at closed position
- 360° continuous line contact between seat and seal of body and disc. The dimensions change due to temperature influences leads the seat ring to alternate seating position during the cone geometry.
- The seat rings both of body and disc are solid and real metal, can't be flushed away as lamellar seat.



CENTRIC	DOUBLE ECCENTRIC	TRIPLE ECCENTRIC
		
*Valve with soft seat *Not for high temperature	*Valve with soft seat *For frequencies operating or long stationary times	*Valve with metal seat *Advantages in all areas-pressure, wear, sealing, torque and temperature.

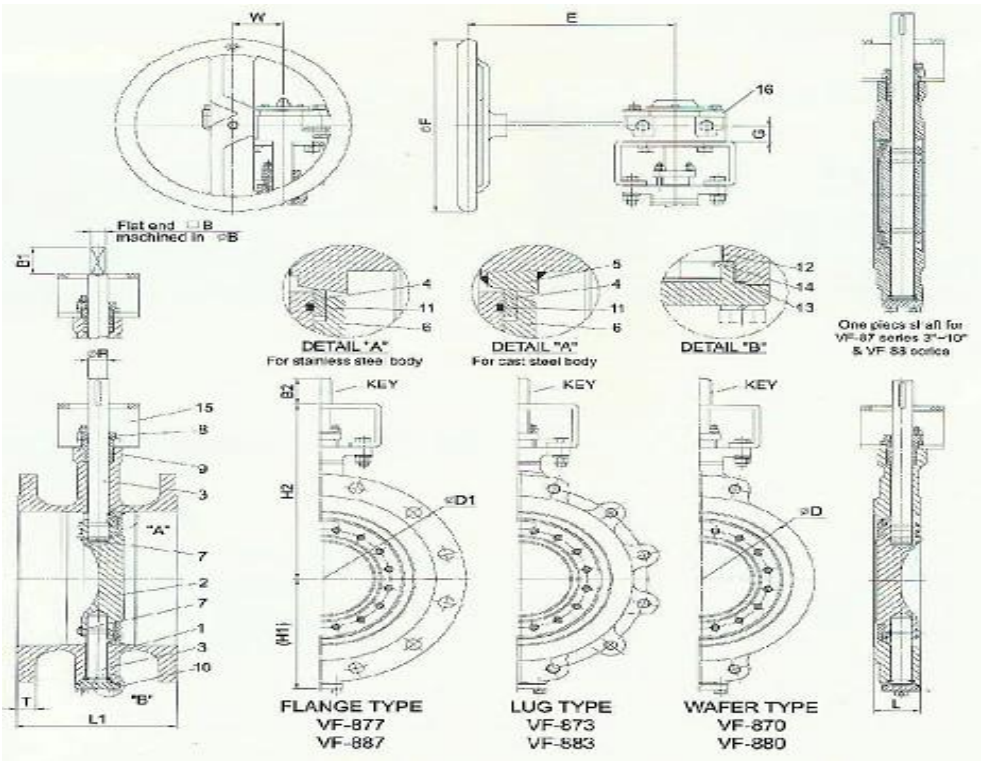
127 Lemmer Road, Vulcania Ext. 2, Brakpan, RSA
PO Box 10270 Dalview 1544.
Phone No. : +27 11 736 4994 **Fax:** +27 11 736 6130
Email: pleixquip@pleixquip.co.za
Website: www.pleixquip.co.za

PLEIX-QUIP Africa *(Pty)Ltd*

No.	Name	Materials	
		ASTM	JIS
1	BODY	A216WCB A351CF8 A351CF8M	SC49 SCS13 SCS14
2	DISC	A216WCB A351CF8 A351CF8M	SC19 SCS13 SCS14
3	STEM	17-4PH	SUS304
4	DISC EDGE	A240 304 A240 316	SUS304 SUS316
5	BODY SEAT	A240 304 A240 316	SUS304 SUS316
6	DISC SET RING	A216WCB A351CF8 A351CF8M	SC49 SCS13 SCS14
7	PIN	A182 F316	SUS316

No.	Name	Materials	
		ASTM	JIS
8	GLAND	A351CF8 A351CF8M	SCS13 SCS14
9	GLAND PACKING	PTFE + GRAPHITE GRAPHITE	
10	BOTTOM COVER	A216WCB A351 CF8 A351 CF8M	SC49 SCS13 SCS14
11	GASKET	VITON GRAPHITE	‹220°C ‹220°C
12	BUSHING	PTFE + SS316 A182F 316	‹220°C ‹220°C
13	GASKET	PTFE + GRAPHITE GRAPHITE	‹220°C ‹220°C
14	THRUST UNIT	A240 316	SUS316
15	YOKE	A240 304	SUS304
16	GEAR BOX	A536-65-45-12	FCD450

Special material on request, such as Inconel, monel.



127 Lemmer Road, Vulcania Ext. 2, Brakpan, RSA
PO Box 10270 Dalview 1544.
Phone No. : +27 11 736 4994 **Fax:** +27 11 736 6130
Email: pleixquip@pleixquip.co.za
Website: www.pleixquip.co.za

VF-870. VF-873. VF-877.

Please consult to factory if the valve size larger than 600mm.

Size													Mounting flange (ISO5211)	Shaft				
mm	inch "	L	L1	H1	H2	øD	øD1	T	E	øF	G	W	Type	øB	□B	B1	B2	Key
80	3 "	47	180	111	216	125	191	24	165	150	36	51	F07	15.9	11	19		
100	4 "	53	190	130	235	155	229	24	165	150	36	51	F07	15.9	11	30		
125	5 "	56	200	142	255	185	254	24	165	150	36	51	F07	18.9	14	30		
150	6 "	56	210	155	260	215	279	25.5	165	150	36	51	F07	18.9	14	30		
200	8 "	62	230	187	292	265	343	29	165	250	36	51	F10	24.85	19	35		
250	10 "	69	250	218	323	325	406	30.5	170	250	38	60	F12	27.85	22	35	50	8x8
300	12 "	79	270	257	406	382	483	31.7	351	400	37	84	F14	34.7	27	50	80	10x8
350	14 "	79 92	290	285	418	415	535	35	351	400	37	84	F14	37.7	27	50	60	10x8
400	16 "	102	310	314	438	470	597	36.5	330	400	56	123	F16	44.7	32	50	60	12x8
450	18 "	114	330	335	518	530	635	40	330	400	56	123	F16	49.7	36	50	60	16x10
500	20 "	127	350	388	565	585	700	43	330	400	56	123	F16	54.7	46	60	90	16x10
600	24 "	154	390	422	601	692	813	47.6	393	400	65	160	F25	64.7			90	18x12

79mm ISO5752 TABLE 5 SHORT

*14" Face to face dimension 92mm is according to API 609 TABLE 2

Note: 1 The face to face dimension of VF-870 & VF-873 is according to ISO 5752 TABLE 5 SHORT.
2 The face to face dimension of VF-877 is according to ISO5752 TABLE 4 LONG SERIES.

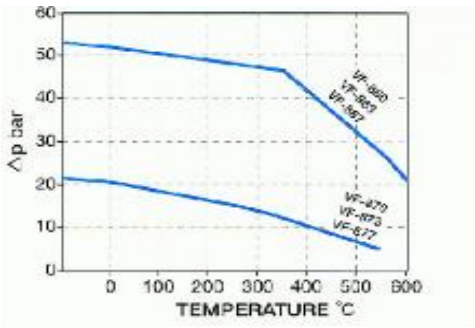
VF-880. VF-883. VF-887.

Please consult to factory if the valve size larger than 600mm.

Size													Mounting flange (ISO5211)	Shaft				
mm	inch "	L	L1	H1	H2	øD	øD1	T	E	øF	G	W	Type	øB	□B	B1	B2	Key
80	3 "	48	180	142	225	135	210	29	165	150	36	51	F07	15.9	11	19		
100	4 "	54	190	164	247	160	254	32	165	150	36	51	F07	18.9	14	30		
125	5 "	56	200	177	260	195	280	35	165	250	36	51	F10	18.9	14	30		
150	6 "	61	210	193	278	230	38	37	165	250	36	51	F10	24.85	19	30		
200	8 "	75	230	230	311	275	381	41.5	170	250	38	60	F12	31.85	22	35	50	8x8
250	10 "	85	250	262	363	345	445	46	351	400	37	84	F14	37.7	27	50	60	10x8
300	12 "	94	270	301	410	395	521	51	351	400	37	84	F14	44.7	32	50	60	12x8
350	14 "	117	290	338	443	440	584	54	330	400	56	123	F16	49.7	36	50	60	16x10
400	16 "	133	310	370	475	495	648	57.5	330	400	56	123	F16	59.7			60	18x12
450	18 "	149	330	396	521	560	711	80.5	330	400	56	123	F16	64.7			90	18x12
500	20 "	159	350	435	603	615	775	83.5	393	400	65	160	F25	74.7			120	20x12
600	24 "	181	390	506	672	720	915	70	471	600	86	197	F30	89.5			150	25x14

Note: 1 The face to face dimension of VF-880 & VF-883 is according to API 609 TABLE 2 CLASS 300
2 The face to face dimension of VF-887 is according to ISO5752 TABLE 4 LONG SERIES.

Please consult to factory if the working temperature over 220°C



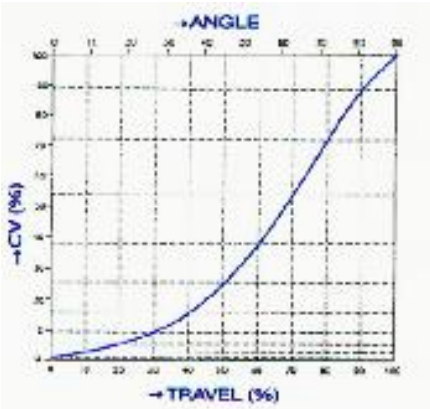
SEAT LEAK RATE		
STANDARD	CLASS	%CVS %KVS
ANSI B 16.104	KL V	0.000005%
IEC 534-4 KL	KL V	0.000007%
MSS-SP 72	50%	0.000080%
IEC 534-4 KL	KL IV S2	0.000180%
MSS-SP 72	100%	0.000200%
MSS-SP 72	300%	0.000600%
IEC 534-4 KL	KL IV S1	0.004500%
IEC 534-4 KL	KL IV	0.010000%

Effective leak rates based on △p=3.5kg air.
As a ˜% - value of the rated valve cv

127 Lemmer Road, Vulcania Ext. 2, Brakpan, RSA
PO Box 10270 Dalview 1544.
Phone No. : +27 11 736 4994 **Fax:** +27 11 736 6130
Email: pleixquip@pleixquip.co.za
Website: www.pleixquip.co.za

FLOW CHARACTERISTICS

FIG 1



TYPE / Size		VF-870 VF-873 VF-877		VF-880 VF-883 VF-887	
mm	inch "	CV	KV	CV	KV
80	3 "	173	148	173	148
100	4 "	355	303	258	220
125	5 "	655	560	550	470
150	6 "	1040	888	890	700
200	8 "	1980	1692	1520	1300
250	10 "	3150	2692	2520	2154
300	12 "	4680	4000	3685	3150
350	14 "	6388	5460	5195	4440
400	16 "	8312	7104	7120	6085
450	18 "	10525	8995	9398	8032
500	20 "	13053	11156	11850	9700
600	24 "	18610	15906	16180	13850

CLOSING TORQUES

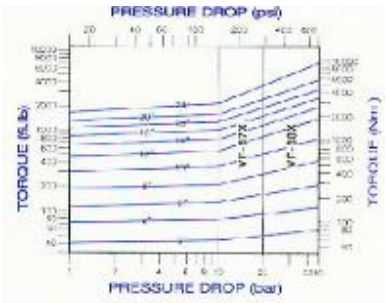


FIG 2

The value getting from Fig. 2 specifies the Actuator Torque required for closing the valve. Since the valve being a torque seated design, the closed position of the valve is not self-locking, the actuator has to keep the torque during the valve at closed position.

The valves shown in Fig.2 are valid for metal seated valves with a seal qualified to IEC 534-4 class IV. For higher tightness requirement i.e. IEC 534-4 Class IVS and V, the torque value has to be multiplied by 1.2.

DYNAMIC TORQUES

FIG 3

The value getting from Fig. 2 specifies the Dynamic Torque of the valve during open position. The valves are valid for Bi-directional flow and are expressed in torque per △p-unit i.e in Nm/bar or in ft-lb/psi.
In general, the dynamic torque of seated butterfly valve is smaller than the closing torque shown in Fig. 3. Only relative large valve size working under a high pressure drop can have dynamic torque value of signification. It must be considered that the value at the pressure drop shall never be higher than the product out of X1xP1 resp. FL^2 x (P1-Pv).
Where Xt: Pressure differential ratio factor
P1: Inlet pressure
Pv: Saturated vapor pressure of the liquid at the inlet temperature (kgf/cm^2abs)
FL: Liquid pressure recovery tactor

.

127 Lemmer Road, Vulcania Ext. 2, Brakpan, RSA
PO Box 10270 Dalview 1544.
Phone No. : +27 11 736 4994 **Fax:** +27 11 736 6130
Email: pleixquip@pleixquip.co.za
Website: www.pleixquip.co.za