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VALUE

Value Valves

VF-7 SERIES
Centric Butterfly Valves

TÜVRheinland CERTIFIED

Management System ISO 9001:2015

www.tuv.com ID 9105016048

VALUE VALVES

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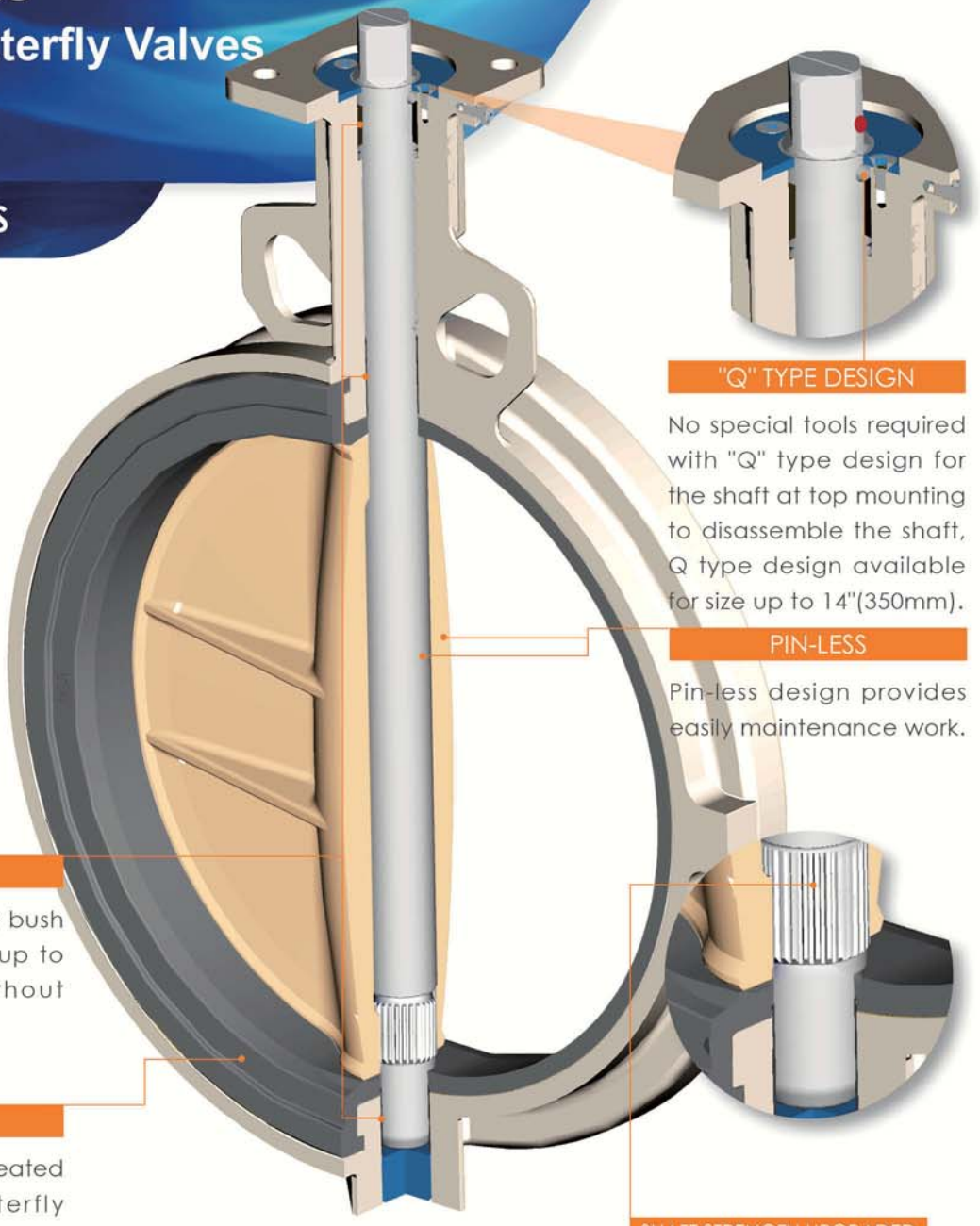
VF-7 SERIES

Centric Butterfly Valves

Design

DESIGN DETAILS



"Q" TYPE DESIGN

No special tools required with "Q" type design for the shaft at top mounting to disassemble the shaft, Q type design available for size up to 14"(350mm).

PIN-LESS

Pin-less design provides easily maintenance work.

BUSHING

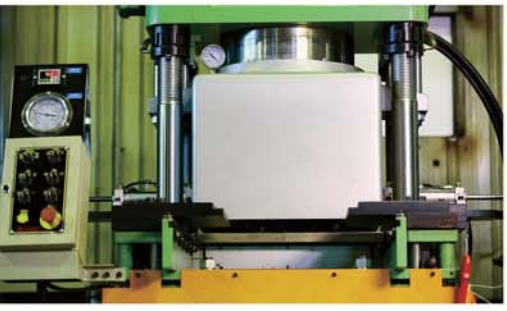
With self-lubricating bush design, life cycles up to 50,000 cycles without jamming.

SEAT

VF-730 with rubber seated centric type butterfly valve design.

SHAFT STRENGTH UPGRADED

Shaft strength increased by splined shaft without drilling on the shaft for taper pin.



DESIGN STANDARDS

End Connection: Wafer, Lugged, Flanged
Wall Thickness: AWWA C504, ASME B 16.34
Mounting Flange: ISO 5211
Design: ISO 5208, AWWA C504 , ASME B16.34,
Face to Face: API 609, ISO 5752
Pressure Test: ISO 5208
Marketing System: MSS-SP-25
ATEX Certificate: ATEX 2014/34/EU
ABS Certificate: ABS Steel Vessel Rules 1-1-7/7,4-6-2/5.11

(Other flange connection please contacts with Value Valves Co., Ltd.)

CERTIFICATE

TUV-Rheinland:
PED(H)(Pressure Equipment Directive)
ATEX-Atmosphere Explosibl
TR CU approval available with
(Customs Union Technical Regulations)
TR CU 032 Certificate - Gas / Liquid
TR CU 010 Certificate - Gas / Liquid
ABS-American Bureau of Shipping:
Manufacture Assessment
Design Assessmnet
CR-China Corporation Register of Shipping:
Manufacture Assessment
TS-Manufacture License of Special
Equipment People's Republic of China

Certificate

VF-730/733/737

CV FLOW COFFICIENT

Size		Disc Angle (Open Degree)								
mm	inch	10°	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	0.8	2.8	8.1	16.6	25.7	42.1	69.0	94.8	132.2
50	2	1.3	4.4	11.9	25.7	44.5	70.2	117.0	154.4	225.8
65	2 1/2	2.3	8.8	21.3	41.0	71.4	111.2	218.8	280.8	368.6
80	3	2.9	11.5	30.4	56.2	97.1	147.4	250.4	395.5	497.3
100	4	4.4	17.1	45.6	84.2	139.2	258.6	422.4	709.0	845.9
125	5	7.6	28.1	72.5	138.1	253.9	461.0	700.8	1214.5	1454.3
150	6	11.7	48.0	111.2	204.8	381.4	634.1	1021.4	1474.2	2175.0
200	8	22.2	74.9	193.1	358.0	670.4	1164.2	1833.4	2702.7	3655.1
250	10	32.8	118.2	286.7	527.7	978.1	1710.5	2636.0	3809.5	5565.7
300	12	39.8	150.9	365.0	719.6	1330.3	2486.3	3800.2	5839.5	8257.9
350	14	55.0	190.7	456.3	930.2	1752.7	3010.4	4656.6	6726.3	9733.2
400	16	72.5	270.3	594.4	1260.1	2308.4	3955.8	6300.5	9475.8	13405.9
450	18	87.8	299.5	726.6	1413.4	2708.6	4592.3	7407.3	11084.6	15926.0
500	20	120.5	404.8	1005.0	1979.6	3610.6	6257.2	9960.2	15337.5	21935.2
550	22	146.3	489.1	1215.6	2395.0	4368.8	7571.1	12051.0	18557.4	26541.5
600	24	162.6	578.0	1349.0	2795.1	5225.2	8846.4	13975.7	21163.0	29503.9

Note:
1.Other dimensions please consult with Value Valves.

2.The pressure-drop corresponding to the spring action, is refered to the normal torque type.

3.Cv=The number of U.S. Gallons/minute that will result in 1 psi pressure lose across the valve at temp of 15.6℃ (60 ℉).

4.Cv=1.17Kv

5.Where the Kv value denotes the rate in m^3/hr for water at 25 ℃ (77 ℉) flowing under pressure differential 1 Kg/cm^3

$$Q = C_V \sqrt{\frac{\triangle P}{G_L}}$$

Q= Flow in gpm
(U.S. gallons per minute)
△ p= pressure drop through the valve (psi)
GL= specific gravity
(for water at 15.6℃ (60 ℉) =1)

TORQUE CHART (Nm)

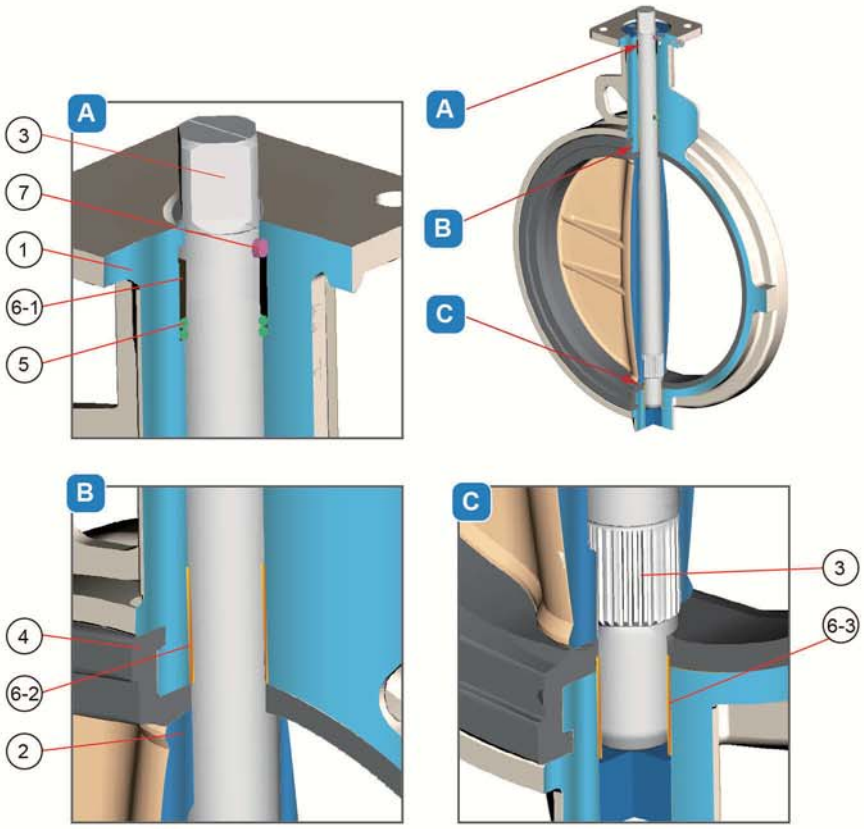
Including 30% Safety Factor

Size		Differential pressure (kg/cm^2)
		Lubricating(Non-corrosive) (Nm)
mm	inch	20 Bar
40	1.5	14
50	2	14
65	2.5	16
80	3	25
100	4	35
125	5	77
150	6	131
200	8	213
250	10	347
300	12	450
350	14	514
400	16	688
450	18	970
500	20	1208
550	22	1662
600	24	1595

To use torque chart, note the following:
1. Seating / unseating torque valves above included friction bearing torque for stated Δp.
2. Do not apply a safety factor to above torque valves when determining actuator out put torque requirement.
3. Other dimensions please consult with Value Valves. 4.Test medium: water / room temperature

DN 40~300
INCH 1 1/2~12

PARTS AND MATERIALS

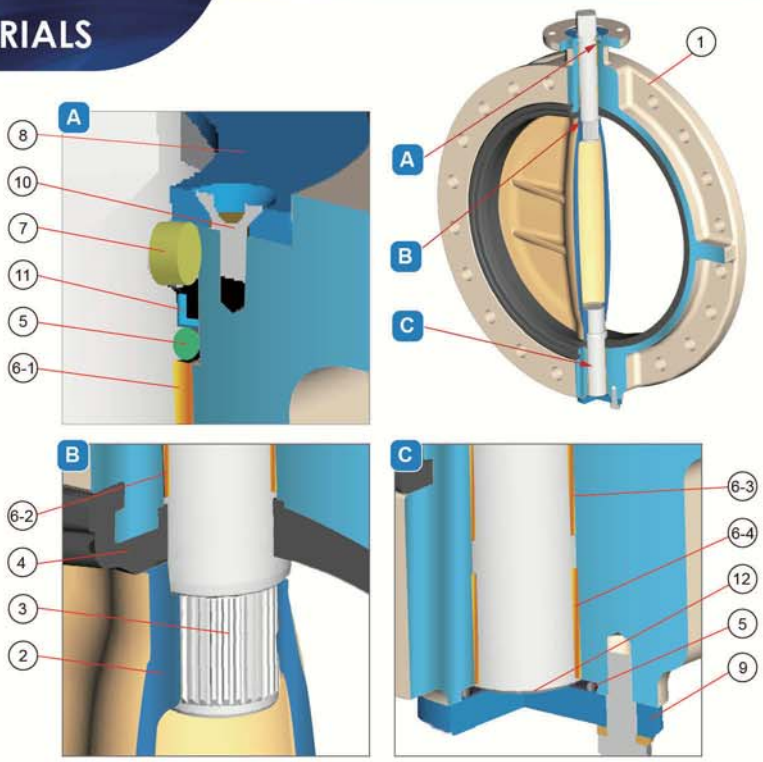


No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	DUCTILE IRON	FCD 450	A536-65-45-12	
			FCD 400	A395-60-40-18	
2	DISC	DUCTILE IRON	FCD 450	A536-65-45-12	Nylon 11 coated
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
		~~ALU-BRONZE~~	~~ALBC 2~~	~~B148 C95400~~	
3	SHAFT	STAINLESS STEEL	SUS 630	A 564 Gr. 630	
4	SEAT	EPDM			-20°C ~120°C (-4 °F ~248 °F) Shore Hardness 80
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	DELRIN			*
6-2		RPTFE+STAINLESS STEEL	RPTFE+SUS 304	RPTFE+A240 Gr. 304	*
6-3		BRONZE	BC 6	B62	*For ductile iron body
7	PIN	STAINLESS STEEL	SUS 304	A182 Gr. F304	*

1. Each materials can provide on different process of customer's requirements.
2. " * " Value Valves offer high quality replacement parts for our own product.

DN 350~600
INCH 14~24

PARTS AND MATERIALS



No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	DUCTILE IRON	FCD 450	A536-65-45-12	
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr.CF8	
			SCS 14A	A351 Gr.CF8M	
		CARBON STEEL	SC 480	A216 Gr. WCB	
2	DISC	DUCTILE IRON	FCD 450	A536-65-45-12	Nylon 11 coated
			FCD 400	A395-60-40-18	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
		ALU-BRONZE	ALBC 2	B148 C95400	
3	SHAFT	STAINLESS STEEL	SUS 630	A 564 Gr. 630	
4	SEAT	EPDM			-20℃ ~120℃ (-4 °F ~248 °F) Shore Hardness 80
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	RPTFE+STAINLESS STE EL	RPTFE+SUS 304	RPTFE+A240 Gr. 304	
6-2					
6-3					
6-4					
7	PIN	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
8	UPPER COVER	CAST IRON	FC 200	A126 Cl. B	For ductile iron body.
		STAINLESS STEEL	SUS 13A	A351 Gr.CF8	For stainless steel body
			SUS 14A	A351 Gr.CF8M	
9	BOTTOM COVER	CAST IRON	FC 200	A126 Cl. B	For ductile iron body
		STAINLESS STEEL	SUS 13A	A351 Gr.CF8	For stainless steel body
			SUS 14A	A351 Gr.CF8M	
10	BOLT	STEEL			
11	THRUST RING	STAINLESS STEEL	SUS 304	A240 Gr. 304	*
12	PACKING	PTFE			

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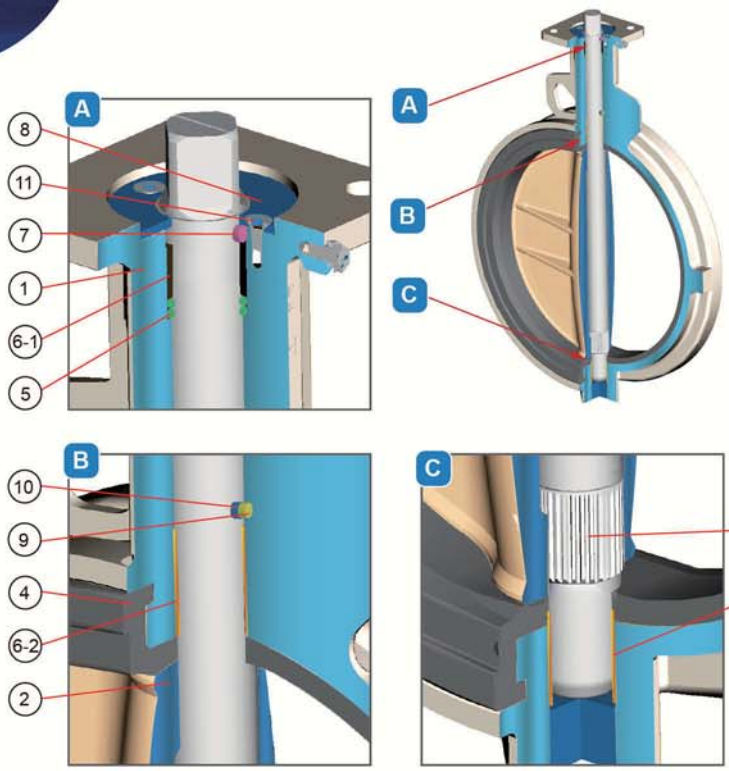
STAINLESS STEEL

DN 40~300
INCH 1 1/2~12

PARTS AND MATERIALS

VALUE VALVES offer a new line a of butterfly valves with stainless steel investment cast bodies(1) and discs (2) from size DN40 up to DN300(12") IN BOTH WAFER AND LUG STYLES.

This line of valves has the same design features of VF-730/733 valves, plus the advantage parts like RTFE+SS 304 bushings(6-2,6-3), upper cover(8), stainless steel lever lever operator set and gear box etc., to reach a high integrity corrosion resistance exterior for use in aggressive environment.



Anti static device (9,10) has to be equipped with this valve, since the valve disc & stem was isolated by rubber liner and stem bushings. It will collect the static, which resulted by the friction between the fluids and disc. In order to prevent the dangers caused by static, the antistatic device is required.

No.	NAME	MATERIAL	SPECIFICATION		REMARK
			JIS	ASTM	
1	BODY	STAINLESS STEEL	SCS 13A	A351 Gr.CF8	
			SCS 14A	A351 Gr.CF8M	
		CARBON STEEL	SC 480	A216 Gr. WCB	
2	DISC	STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
3	SHAFT	STAINLESS STEEL	SUS 630	A564 Gr. 630	
4	SEAT	EPDM			-20°C ~120°C (-4 °F ~248 °F) Shore Hardness 80
5	O-RING	NBR(NITRILE)			*
6-1	BUSHING	DELRIN			*
6-2		PRTFE+STAINLESS STEEL	RPTFE+SUS 304	RPTFE+A240 Gr. 304	*
6-3					
7	PIN	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
8	UPPER COVER	STAINLESS STEEL	SUS 304	A240 Gr. 304	
9	PIN(ANTI-STATIC)	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
10	SPRING	STAINLESS STEEL	SUS 304	A182 Gr. F304	*
11	BOLT	STAINLESS STEEL	SUS 304	A193 Gr. B8	

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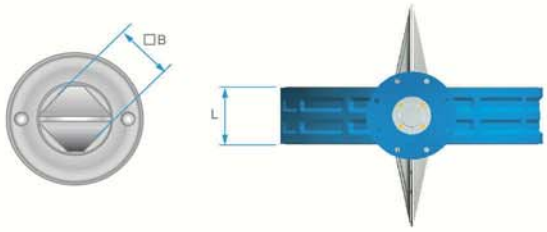
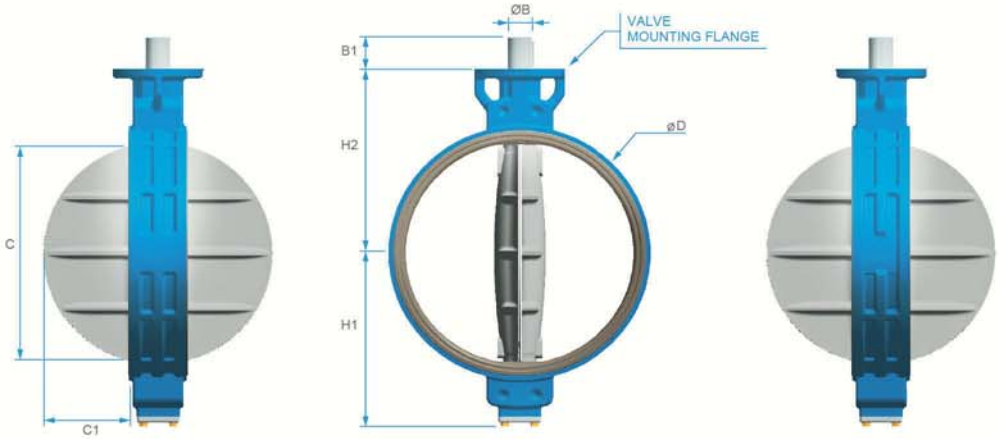
2. " * " Value Valves offer high quality replacement parts for our own product.

VF-730 WAFER TYPE DN 40~600 INCH 1 1/2~24

DIMENSIONS



DN 40~ 600
INCH 1 1/2"~24"



Unit : mm

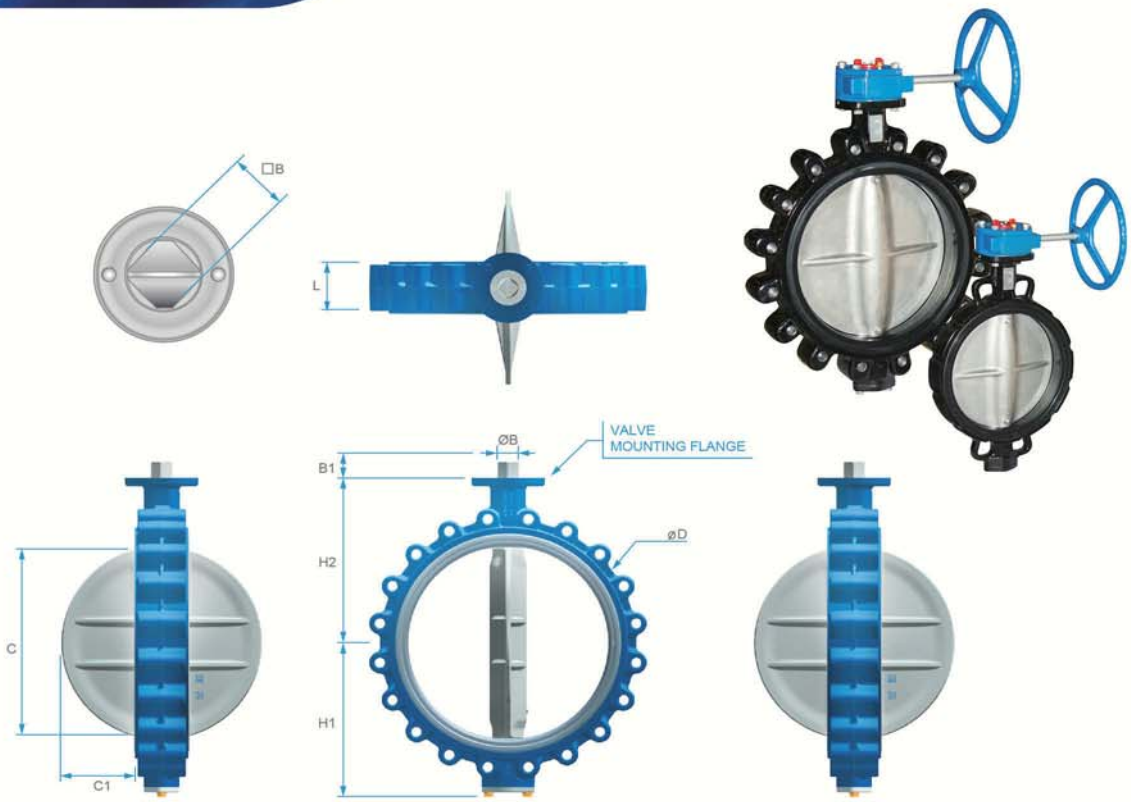
Size		Face to Face	Dimensions					Mounting flange (ISO 5211)		Shaft end			Weight
mm	Inch	L	H1	H2	φD	C	C1	VALVE Type	VALVE PCD	φB	B1	□ B	kg
40	1 1/2	33	60	120	81	34	7	F07	70	14.00	19	11	2
50	2	43	65	143	96	39	8	F07	70	14.00	19	11	3
65	2 1/2	46	71	155	110	55	13	F07	70	14.00	19	11	4
80	3	46	77	162	124	69	19	F07	70	14.00	19	11	4
100	4	52	107	181	148	91	27	F07	70	14.00	19	11	6
125	5	56	122	197	180	115	36	F07	70	17.90	19	14	8
150	6	56	150	210	206	140	47	F07	70	17.90	19	14	9
200	8	60	165	240	259	186	68	F10/*F12	102/*125	22.00	24	17	14
250	10	68	201	286	320	239	90	F10/*F12	102/*125	25.00	24	19	22
300	12	78	234	309	370	289	111	F10/*F12	102/*125	27.85	24	22	33
350	14	78	303	329	412	325	128	F12/*F14	125/*140	35.00	29	27	48
400	16	102	335	361	475	375	143	F12/*F14	125/*140	35.00	29	27	60
450	18	114	363	393	530	423	162	F14/*F16	140/*165	47.70	38	36	80
500	20	127	397	427	585	473	182	F14/*F16	140/*165	47.70	38	36	125
550	22	154	426	475	635	507	186	F14/*F16	140/*165	47.70	38	36	130
600	24	154	459	492	687	560	214	F16	165	60.00	48	46	200

1. *Other dimensions please consult with Value Valves.
2. Size of Stainless Steel is 12" and below, please see page10.
3. Inside Pipe Diameter > C

DN 40~600
INCH 1 1/2~24

LUG TYPE VF-733

DIMENSIONS



Unit : mm

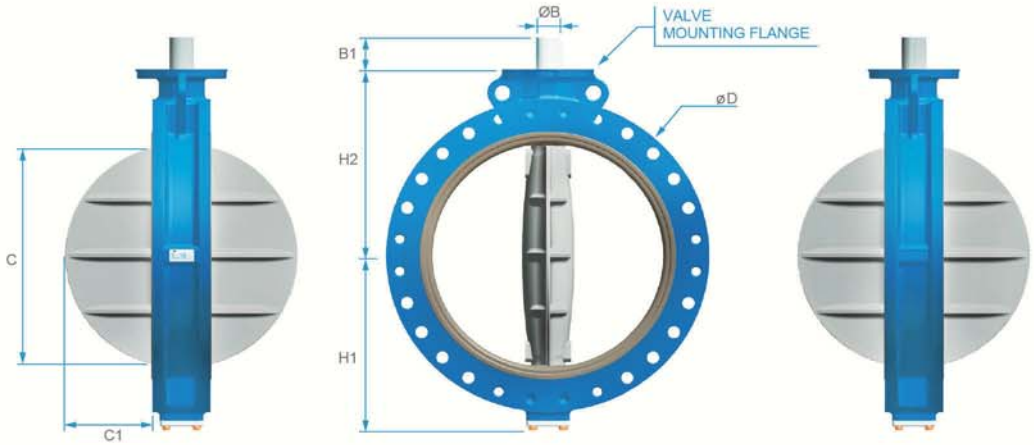
Size		Face to Face	Dimensions					Mounting flange (ISO 5211)		Shaft end			Weight
mm	Inch	L	H1	H2	φD	C	C1	VALVE		φB	B1	□ B	kg
								Type	PCD				
40	1 1/2	33	60	120	81	34	7	F07	70	14.00	19	11	3
50	2	43	65	143	96	39	8	F07	70	14.00	19	11	4
65	2 1/2	46	71	155	110	55	13	F07	70	14.00	19	11	4
80	3	46	77	162	124	69	19	F07	70	14.00	19	11	5
100	4	52	89	181	148	91	27	F07	70	14.00	19	11	8
125	5	56	112	197	180	115	36	F07	70	17.90	19	14	10
150	6	56	123	210	206	140	47	F07	70	17.90	19	14	11
200	8	60	150	240	259	186	68	F10/*F12	102/*125	22.00	24	17	18
250	10	68	179	286	320	239	90	F10/*F12	102/*125	25.00	24	19	27
300	12	78	216	309	370	289	111	F10/*F12	102/*125	27.85	24	22	44
350	14	78	303	329	412	325	128	F12/*F14	125/*140	35.00	29	27	58
400	16	102	335	361	475	375	143	F12/*F14	125/*140	35.00	29	27	81
450	18	114	363	393	530	423	162	F14/*F16	140/*165	47.70	38	36	110
500	20	127	397	427	585	473	182	F14/*F16	140/*165	47.70	38	36	155
600	24	154	459	492	687	560	214	F16	165	60.00	48	46	318

1. *Other dimensions please consult with Value Valves.
2. Size of Stainless Steel is 12" and below, please see page10.
3. Inside Pipe Diameter > C

VF-737 FLANGE TYPE DN 350~600 INCH 14~24

DIMENSIONS

DN 350~DN 600
INCH 14"~24"



Unit : mm

Size		Face to Face	Dimensions					Mounting flange (ISO 5211)		Shaft end			Thickness of Flange	Weight
mm	Inch	L	H1	H2	φD	C	C1	VALVE Type	VALVE PCD	φB	B1	□B	T	kg
350	14	78	303	329	535	325	128	F12/*F14	125/*140	35.00	29	27	21	69
400	16	102	335	361	600	375	143	F12/*F14	125/*140	35.00	29	27	22	95
450	18	114	363	393	648	423	162	F14/*F16	140/*165	47.70	38	36	27	129
500	20	127	397	427	715	473	182	F14/*F16	140/*165	47.70	38	36	30	161
550	22	154	426	475	762	507	186	F14/*F16	140/*165	47.70	38	36	31	191
600	24	154	459	492	840	560	214	F16	165	60.00	48	46	36	248

1. *Other dimensions please consult with Value Valves.
2. Inside Pipe Diameter > C

Dimension

DN 40~300
INCH 1 1/2~12

WAFER TYPE LUG TYPE VF-730/733 STAINLESS STEEL

DIMENSIONS

Unit : mm

Size		Face to Face	Dimensions						Mounting flange (ISO 5211)		Flat shaft end			Weight (kg)	
mm	Inch	L	H1		H2	φD	C	C1	VALVE		φB	B1	□B	VF-730 WAFER	VF-733 LUG
			VF-730	VF-733					Type	PCD					
40	1.5	33	60	60	120	81	34	7	F07	70	14.00	19	11	3	3
50	2	43	65	65	143	96	39	8	F07	70	14.00	19	11	4	4
65	2.5	46	71	71	155	110	55	13	F07	70	14.00	19	11	5	5
80	3	46	77	77	162	126	69	19	F07	70	14.00	19	11	5	5
100	4	52	91	91	182	153	91	27	F07	70	17.90	19	11	6	9
125	5	56	103	103	197	180	115	36	F07	70	17.90	19	14	8	11
150	6	56	120	120	210	206	140	47	F07	70	18.00	19	14	9	12
200	8	60	144	144	240	259	186	68	F10/*F12	102/125	22.00	24	17	15	19
250	10	68	174	178	288	325	239	90	F10/*F12	102/125	25.00	24	19	23	29
300	12	78	206	210	311	373	289	111	F10/*F12	102/125	27.85	24	22	36	48

1. *Other dimensions please consult with Value Valves.
2. Inside Pipe Diameter > C

General Ordering Information

VF	-	TYPE	END CONNECTION	-	SIZE	-	BODY	DISC	SHAFT	-	SEAT	-	FLANGE DRILLING	-	OPERATOR
		73	X		X		X	X	X		X		X		X

END CONNECTION	
0	WAFER
3	LUG
7	FLANGE

SIZE	mm
015	40
02	50
025	65
03	80
04	100
05	125
06	150
08	200
10	250
12	300
14	350
16	400
18	450
20	500
24	600

BODY		DISC		SHAFT	
13	CF8	13	CF8	63	A564 630
14	CF8M	14	CF8M	0	OTHER
D5	A536	D5	A536		
D3	A395	AB	ALBC2		
WC	WCB	0	OTHER		
0	OTHER				

OPERATOR	
N	BARE SHAFT
G	GEAR BOX
P	PNEUMATIC
E	ELECTRIC
H	HYDRAULIC
L	LEVER

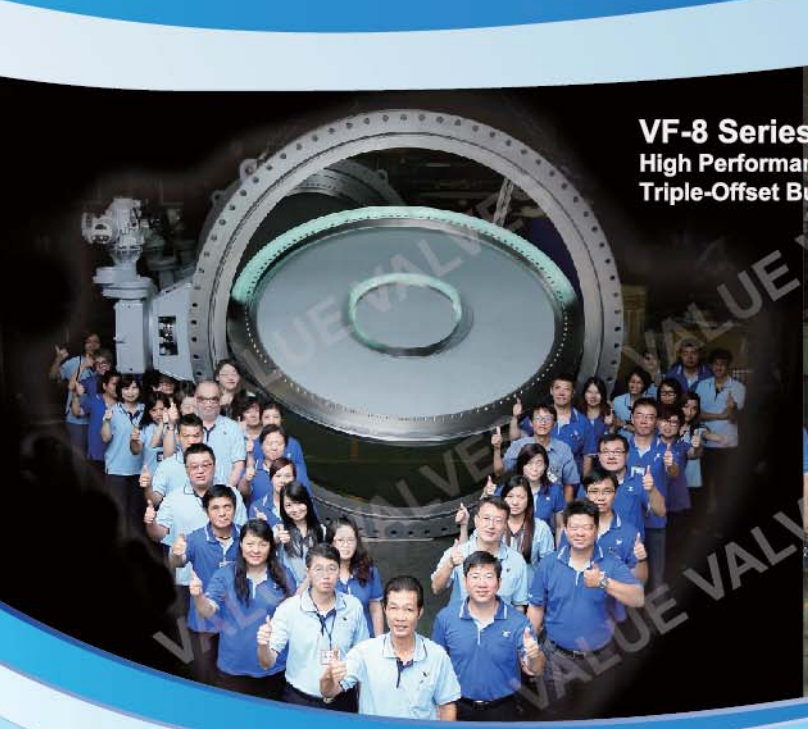
FLANGE DRILLING	
A	ANSI 150
B	PN 10
C	PN 16
F	JIS 10K
L	A.S. 10 Table E

SEAT	
EP80	EPDM

Note: Example VF-730-08-131463-EP80-F-N

Shall be a: Centric butterfly valve(73)˙Wafer Type(0)˙DN200(08)˙
CF8 Body(13)˙CF8M Disc(14)˙Shaft in A564 630(63)˙
Seat in EPDM(EP80)˙JIS 10K(F)˙Bare Shaft(N)

* For any other special offers, please contact Value Valves.



VF-8 Series 136 inch
High Performance
Triple-Offset Butterfly Valves

www.valuevalves.com

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