Lug Type Butterfly Triple Offset Valve With CL150 CL300 PN16 PN25 PN40 MBV-0150-6L

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: DY-V-01
- Minimum Order Quantity: 10PCS
- Price: USD2-USD20000 each
- Packaging Details: carton box+ ply wooden cases or carton+ Pallets
- Delivery Time: 20 days for usual order, 7 days for stocked items
- Payment Terms: T/T, L/C, D/P
- Supply Ability: 1000pcs one month

Product Specification

- Highlight: **Lug butterfly triple offset valve**, **CL150 butterfly triple offset valve**, **PN16 offset butterfly valve**

Product Description

Butterfly valve is used to shut off or modulate the flow of a fluid (isolation and regulation). API 609 Centric butterfly valves (soft seated) are preferred to gate and ball valves for low-pressure and non-critical applications as they are cheaper, lighter and easier to install. Eccentric butterfly valves (double offset and triple offset valves) with metal seats have surged in popularity and compete with globe and ball valves for some applications.

Product Information/Product Description / Basis Information / Specification

API VALVE Standard	API609 Butterfly valve API600 Bolted Bonnet Steel Gate Valves for Petroleum and Natural Gas Industries API602 Forged Steel valves API603 Stainless steel valve API6D Gate valve, Plug valve and Ball valve API594 Wafer, Lug check valve BS1868 check valve BS1873/ /BS 5352 cast and forged Globe valve
Types	Butterfly valve with wafer, Lug, flanged type
	Butterfly valve with concentric type, double eccentric type, triple offset type
Size	1/2"-48 DN15-DN1200
End Connection	Flange Ends, RF, FF, RTJ, LM, BW ends, threaded ends NPT, BSPT, BSPP, Socket Welded Ends
Pressure Range	CL150LBS, 300LBS, 600LBS, 800LBS 900LBS, 1500LBS, 2500LBS PN6 PN10 PN16 PN25 PN40. PN64 PN110, PN160, PN250, PN420
Surface	Acid pickling, Polished, Galvanized, Painting, epoxy Power Coated

Material List Grade

Main Ingredients	**Standards**							
	Castings				**Bar or Forgings**			
	ASTM	**DIN (W.-Nr.)**	**UNS-No.**	**JIS**	**ASTM**	**DIN (W.-Nr.)**	**UNS-No.**	**JIS**
Martenstic Stainless Steel								
13Cr-4Ni-0.8Mo	A743 CA6NM	1.4313	J91540	SCS6	A276 S41500	1.4313	S41500	
Austenitic Stainless Steel								
18Cr-8Ni	A351 CF8	1.4308	J92600	SCS13A	A276 304	1.4301	S30400	SUS 304
18Cr-8Ni-LS (1)								
18Cr-8Ni-LC (2)	A351 CF3	1.4306	J92500	SCS19A	A276 304L	1.4306	S30403	SUS 304L
18Cr-9Ni-2Mo	A351 CF8M	1.4408	J92900	SCS14A	A276 316	1.4401	S31600	SUS 316
18Cr-9Ni-2Mo-LS (1)								
18Cr-9Ni-2Mo-LC (2)	A351 CF3M	1.4404	J92800	SCS16A	A276 316L	1.4404	S31603	SUS 316L
18Cr-10Mi-Nb	A351 CF8C	1.4552	J92710	SCS21	A276 347	1.455	S34700	SUS 347
18Cr-12Ni-3.5Mo	A351 CG8M		J93000		A276 317	1.4449	S31700	SUS 317
18Cr-12Ni-3.5Mo-LC (2)	A351 CG3M		J92999		A276 317L	1.4438	S31703	SUS 317L
18Cr-13Ni-4.5Si								
21Cr-29Ni-2.5Mo-3.5Cu	A351 CN7M	1.4536	J95150	SCS23	A473 N08020	2.466	N08020	
21Cr-29Ni-2.7Mo-3.2Cu-LC (2)	A990 CN3MCu							
25Cr-20N	A351 CK20		J94202	SCS18	A276 310S	1.4845	S31008	SUS 310S
33Ni-20Cr-45Fe-Nbi	A351 CT15C	1.4859	N28820		B408 N08800	1.4876	N08800	NCF800
Super Austenitic Stainless Steel								
21Cr-24Ni-6.5Mo-N	A351 CN3MN				B691 N08367		N08367	SUS 836L
25Cr-24Ni-6.5Mo-N	A351 CN3MN mod.							
20Cr-18Ni-6.5Mo-N-Cu	A351 CK3MCuN		J93254		A276 S31254		S31254	

Duplex Stainless Steel								
22Cr-5Ni-3Mo-N	A995 Gr.4A CD3MN		J92205		A276 UNS32205	1.4462	S32205	SUS 329J3L
25Cr-5Ni-Mo-Cu	A890 Gr.1A CD4MCu		J93370		A790 UNS31260		S31260	
Super Duplex Stainless Steel								
25Cr-7Ni-3Mo-N				SCS10	A479 S32750	1.446	S32750	SUS 329J4L
28Cr-7Ni-4Mo-N				SCS10 mod.				
25Cr-7Ni-3Mo-Cu-N-W	A890 Gr.6A CD3MWCuN	1.4468	J93380		A479 S32750	1.446	S32750	
25Cr-7Ni-4Mo-N	A890 Gr.5A CE3MN		J93404		A479 S32750	1.446	S32750	

High Temperature Material CF8, 304, 304H CF8M, 316, 316H CK-20, 310, 310H WC4, WC5, F2, WC6, F11C1.2, F12C1.2, WC9, F22C1.3, C5, F5, WC4, WC5, F2, WC6, F11C1.2, F12C1.2, WC9, F22C1.3, C5, F5

Low Temperature Material A352 LCB, LCC, LC1 LC2, LC3, LC4, CF8M, CF8, CF3M
Alloy Material: Bronze, IN Conoy, DUPLEX SS, Alloy 20, Hastelloy C 276, Hastelloy B

Technical Pressure Test

Shell Test	1.5xworking pressure				
Seal Test	1.1x Working Pressure				
air test for seal	0.6Mpa by air				
Valve Size		Minimum Test Duration (Seconds)			
DN	NPS	Shell ,タ	Backseat (for Valves with Backseat Featu_re)	Closure Check Valves (API 594)	Closure Other Valves
≤50	≤ 2"	15	15	60	15
65 to 150	2 1/2" to 6"	60	60	60	60
200 to 300	8"-12"	120	60	120	120
≥350	≥14"	300	60	120	120
a The test duration is the period of inspection aft the valve is fully prepared and is unde full pressure.					

Maximum allowable Leakage Rates for Closure Test							
Valve Size		All Resilient Seated Valves	Metal Seated Valves Except Check		Metal Seated Check Valves		
DN (mm)	NPS		Liquid Test (drops/ minute)	Gas. Test (bubbles/ minute)	Liquid Test (cc/min)	Gas Test (m3/h)	Gas Test (ft3/h)
≤50	≤2	0	0	0	6	0.08	3
65	21/2	0	5	10	7.5	0.11	3.75
80	3	0	6	12	9	0.13	4.5
100	4	0	8	16	12	0.17	6
125	5	0	10	20	15	0.21	7.5
150	6	0	12	24	18	0.25	9
200	8	0	16	32	24	0.34	12
250	10	0	20	40	30	0.42	15
300	12	0	24	48	36	0.5	18
350	14	0	28	56	42	0.59	21
400	16	0	32	64	48	0.67	24
450	18	0	36	72	54	0.76	27
500	20	0	40	80	60	0.84	30
600	24	0	48	96	72	1.01	36
650	26	0	52	104	78	1.09	39
700	28	0	56	112	84	1.18	42
750	30	0	60	120	90	1.26	45
800	32	0	64	128	96	1.34	48
900	36	0	72	144	108	1.51	54
1000	40	0	80	160	120	1.68	60
1050	42	0	84	168	126	1.76	63
1200	48	0	96	192	144	2.02	72
a For the liquid test, 1 ml is considered equivalent to 16 drops. b There shall be no leakage for the minimum specified test duration . For liquid test, 0 drops means no visible leakage per minimum specified test duration. For gas test, 0 bubbles means less than 1 bubble per minimum specified test duration.							

DOUBLE VS. TRIPLE ECCENTRIC BUTTERFLY VALVE

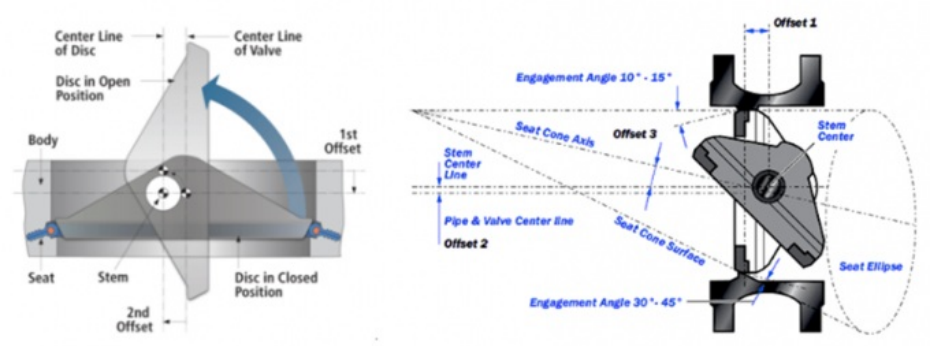
DOUBLE ECCENTRIC BUTTERFLY VALVE

Double eccentric butterfly valves find large application in underground water supply applications and compete with gate valves (especially in larger bore sizes) due to the fact that they are lighter, cheaper and minimize the excavation works.

TRIPLE ECCENTRIC BUTTERFLY VALVE

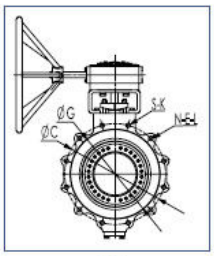
Triple offset butterfly valves are built with high-grade materials like stainless steel and duplex/super duplex steel and compete with ball valves in mission-critical applications with remarkable corrosion and high temperature/pressure. Triple offset butterfly valves are the most sophisticated type and are gaining market share in the latest years.

The images show the design difference between a double and a triple eccentric butterfly valve (respectively at the left and right side of the diagram).

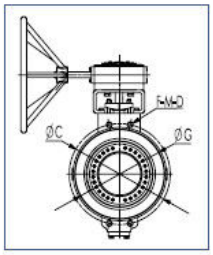


Engineering Data

End Connection Dimensions



Lug



Wafer

Wafer	Lug	
G	G	Raised Face Facing Diameter
C	C	Bolting Circle Diameter
N	N	Total Flange Bolt Holes Quantity
F	S	Special Bolt Holes Quantity
M	E	Standard Bolt Hole/Thread Callout
D	L	Effective Thread/Hole Depth
	K	Shortened Thread Depth

Class 150 (Lug and Wafer)

Size		G		C		F	M	D		N	E	L		S	K	
inch	mm	inch	mm	inch	mm			inch	mm			inch	mm		inch	mm
3"	80	5.00	127	6.00	152.5		NONE	NONE		4	5/8-11UNC-2B	full thread		NONE	NONE	NONE
4"	100	6.18	157	7.50	190.5	4	Φ19	through hole		8	5/8-11UNC-2B	full thread		NONE	NONE	NONE
6"	150	8.50	216	9.51	241.5	4	Φ21	through hole		8	3/4-10UNC-2B	full thread		NONE	NONE	NONE
8"	200	10.63	270	11.75	298.5	4	Φ22	through hole		8	3/4-10UNC-2B	full thread		NONE	NONE	NONE
10"	250	12.76	324	14.25	362	4	Φ25	through hole		12	7/8 -9UNC-2B	full thread		NONE	NONE	NONE
12"	300	15.00	381	17.01	432	4	Φ25	through hole		12	7/8 -9UNC-2B	1.30	33	NONE	NONE	NONE
14"	350	16.26	413	18.74	476	4	Φ29	through hole		12	1-8UNC-2B	1.30	33	NONE	NONE	NONE
16"	400	18.50	470	21.24	539.5	4	1-8UNC-2B	0.67	17	16	1-8UNC-2B	1.50	38	4	0.67	17
18"	450	20.98	533	22.76	578	4	1-1/8-8UN-2B	0.79	20	12	1-1/8-8UN-2B	1.50	38	4	0.79	20
20"	500	22.99	584	25.00	635	4	1-1/8-8UN-2B	0.79	20	16	1-1/8-8UN-2B	1.69	43	4	0.79	20
24"	600	27.24	692	29.51	749.5	4	1-1/8-8UN-2B	0.87	22	16	1-1/8-8UN-2B	1.89	48	4	0.87	22

Class 300 (Lug and Wafer)

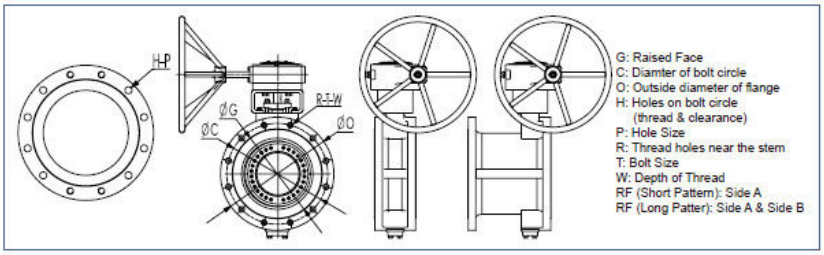
Size		G		C		F	M	D		N	E	L		S	K	
inch	mm	inch	mm	inch	mm			inch	mm			inch	mm		inch	mm
3"	80	5.00	127	6.63	168.5	4	3/4-10UNC-2B	0.51	13	4	3/4-10UNC-2B	full thread		4	0.51	13
4"	100	6.18	157	7.87	200	2	Φ22	through hole		8	3/4-10UNC-2B	full thread		NONE	NONE	NONE
6"	150	8.50	216	10.63	270	4	Φ22	through hole		12	3/4-10UNC-2B	full thread		NONE	NONE	NONE
8"	200	10.63	270	12.99	330	4	Φ25	through hole		12	7/8 -9UNC-2B	full thread		NONE	NONE	NONE
10"	250	12.76	324	15.26	387.5	4	1-8UNC-2B	0.67	17	12	1-8UNC-2B	full thread		4	0.67	17
12"	300	15.00	381	17.76	451	4	1-1/8-8UN-2B	0.79	20	12	1-1/8-8UN-2B	full thread		4	0.79	20
14"	350	16.26	413	20.26	514.5	4	1-1/8-8UN-2B	0.79	20	16	1-1/8-8UN-2B	1.69	43	4	0.79	20
16"	400	18.50	470	22.50	571.5	4	1-1/4-8UN-2B	0.87	22	16	1-1/4-8UN-2B	1.89	48	4	0.87	22
18"	450	21.02	534	24.76	629	4	1-1/4-8UN-2B	0.87	22	20	1-1/4-8UN-2B	1.89	48	4	0.87	22
20"	500	22.99	584	27.01	686	4	1-1/4-8UN-2B	0.87	22	20	1-1/4-8UN-2B	1.89	48	4	0.87	22
24"	600	27.24	692	32.01	813	4	1-1/2-8UN-2B	0.98	25	20	1-1/2-8UN-2B	2.24	57	4	0.98	25

Class 600 (Lug and Wafer)

Size		G		C		F	M	D		N	E	L		S	K	
inch	mm	inch	mm	inch	mm			inch	mm			inch	mm		inch	mm
4"	100	6.18	157	8.50	216	4	7/8-9UNC-2B	0.59	15	4	7/8-9UNC-2B	full thread		4	0.59	15
6"	150	8.50	216	11.50	292	4	1-8UNC-2B	0.67	17	8	1-8UNC-2B	full thread		4	0.67	17
8"	200	10.63	270	13.74	349	4	1-1/8-8UN-2B	0.79	20	8	1-1/8-8UN-2B	full thread		4	0.79	20
10"	250	12.76	324	17.01	432	4	1-1/4-8UN-2B	0.87	22	12	1-1/4-8UN-2B	1.89	48	4	0.87	22
12"	300	15.00	381	19.25	489	4	1-1/4-8UN-2B	0.87	22	16	1-1/4-8UN-2B	1.89	48	4	0.87	22
14"	350	16.26	413	20.75	527	4	1-3/8-8UN-2B	0.94	24	16	1-3/8-8UN-2B	1.77	45	4	0.94	24
16"	400	18.50	470	23.74	603	4	1-1/2-8UN-2B	0.98	25	16	1-1/2-8UN-2B	2.24	57	4	0.98	25
18"	450	20.98	533	25.75	654	4	1-5/8-8UN-2B	1.06	27	16	1-5/8-8UN-2B	2.44	62	4	1.06	27
20"	500	22.99	584	28.50	724	4	1-5/8-8UN-2B	1.06	27	20	1-5/8-8UN-2B	2.44	62	4	1.06	27
24"	600	27.24	692	32.99	838	4	1-7/8-8UN-2B	1.26	32	20	1-7/8-8UN-2B	2.83	72	4	1.26	32

Engineering Data

End Connection Dimensions



RF

Class 150 (RF)

Size		G		C		O		R	T	W		H	P
inch	mm	inch	mm	inch	mm	inch	mm			inch	mm		
3"	80	5.00	127	6.00	152.5	7.48	190					4	Φ19
4"	100	6.18	157	7.50	190.5	9.02	229	4	3/4-10UNC-2B	0.79	20	4	Φ19
6"	150	8.50	216	9.51	241.5	10.98	279	4	3/4-10UNC-2B	0.94	24	4	Φ22
8"	200	10.63	270	11.75	298.5	13.58	345	4	7/8 -9UNC-2B	0.94	24	4	Φ22
10"	250	12.76	324	14.25	362	15.98	406	4	1-8UNC-2B	1.10	28	8	Φ25
12"	300	15.00	381	17.01	432	19.02	483	4	1-1/8-8UN-2B	1.26	32	8	Φ25
14"	350	16.26	413	18.74	476	21.06	535	4	1-1/8-8UN-2B	1.26	32	8	Φ29
16"	400	18.50	470	21.24	539.5	23.50	597	4	1-1/4-8UN-2B	1.57	40	12	Φ29
18"	450	20.98	533	22.76	578	25.00	635	4	1-1/4-8UN-2B	1.42	36	12	Φ32
20"	500	22.99	584	25.00	635	27.48	698	4	1-1/4-8UN-2B	1.42	36	16	Φ32
24"	600	27.24	692	29.51	749.5	32.01	813	4	1-1/2-8UN-2B	1.57	40	16	Φ35

Class 300 (RF)

Size		G		C		O		R	T	W		H	P
inch	mm	inch	mm	inch	mm	inch	mm			inch	mm		
3"	80	5.00	127	6.63	168.5	8.27	210	4	3/4 10UNC-2B	0.94	24	4	Φ22
4"	100	6.18	157	7.87	200	10.00	254	4	3/4-10UNC-2B	0.94	24	4	Φ22
6"	150	8.50	216	10.63	270	12.60	320	4	3/4-10UNC-2B	0.94	24	8	Φ22
8"	200	10.63	270	12.99	330	14.96	380	4	7/8 -9UNC-2B	1.06	27	8	Φ25
10"	250	12.76	324	15.26	387.5	17.52	445	4	1-8UNC-2B	1.18	30	12	Φ29
12"	300	15.00	381	17.76	451	20.51	521	4	1-1/8-8UN-2B	1.42	36	12	Φ32
14"	350	16.26	413	20.26	514.5	23.03	585	4	1-1/8-8UN-2B	1.34	34	16	Φ32
16"	400	18.50	470	22.50	571.5	25.51	648	4	1-1/4-8UN-2B	1.57	40	16	Φ35
18"	450	21.02	534	24.76	629	27.99	711	4	1-1/4-8UN-2B	1.57	40	20	Φ35
20"	500	22.99	584	27.01	686	30.51	775	6	1-1/4-8UN-2B	1.57	40	18	Φ35
24"	600	27.24	692	32.01	813	36.02	915	6	1-1/2-8UN-2B	1.89	48	18	Φ41

Class 600 (RF)

Size		G		C		O		R	T	W		H	P
inch	mm	inch	mm	inch	mm	inch	mm			inch	mm		
4"	100	6.18	157	8.50	216	10.75	273	4	7/8-9UNC-2B	1.10	28	4	Φ25
6"	150	8.50	216	11.50	292	14.02	356	4	1-8UNC-2B	1.26	32	8	Φ29
8"	200	10.63	270	13.74	349	16.50	419	4	1-1/8-8UN-2B	1.42	36	8	Φ32
10"	250	12.76	324	17.01	432	20.00	508	4	1-1/4-8UN-2B	1.57	40	12	Φ35
12"	300	15.00	381	19.25	489	22.01	559	4	1-1/4-8UN-2B	1.57	40	16	Φ35
14"	350	16.26	413	20.75	527	23.82	605	4	1-3/8-8UN-2B	1.89	48	16	Φ38
16"	400	18.50	470	23.74	603	26.97	685	4	1-1/2-8UN-2B	1.81	46	16	Φ41
18"	450	20.98	533	25.75	654	29.33	745	4	1-5/8-8UN-2B	2.05	52	16	Φ45
20"	500	22.99	584	28.50	724	32.01	813	6	1-5/8-8UN-2B	2.83	72	18	Φ45
24"	600	27.24	692	32.99	838	37.01	940	4	1-7/8-8UN-2B	2.28	58	20	Φ51

Application:

Valve is a universal component industrial product that is widely used in many industries, such as petroleum, petrochemical, chemical, metallurgy, power, water conservancy, urban construction, machinery, coal, food, Sea water, 0il Refining, environment, energy.

Reference Standard:
API 600: cast carbon and alloy valves
API 603: stainless steel valves
API 602/BS 5352: forged valves
API 6D: slab and through conduit valves for pipelines
API 598 and BS EN 12266-1: valves testing
ASME B16.10: face to face dimensions for valves
ASME B16.5 and ASME B16.47: flanged connections
ASME B16.25: butt weld connections design
ASME B16.34: Pressure ratings pressure and temperature ratings by material grade
ISO 7-1:1994, Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation.
ISO 4200:1991, Plain end steel tubes, welded and seamless — Dimensions.
ISO 5208:1993, Industrial valves — Pressure testing of valves.
ISO 5209:1977, General purpose industrial valves — Marking.
ISO 5210:1991, Industrial valves — multi-turn valve actuator attachments.
ISO 5752: — 1), Metal valves for use in flanged pipe systems — Face-to-face and center-to-face dimensions.
ISO 6708:1995, Pipework components — Definition and selection of DN (nominal size) .
ISO 7005-1:1992, Metallic flanges — Part 1: Steel flanges.
ISO 7268:1983, Pipe components — Definition of nominal pressure.
ASME B1.1:1989, Unified inch screw threads (UN and UNR thread form) .
ASME B1.5:1988 (R1994), Acme screw threads.
ASME B1.8:1988 (R1994), Stub Acme screw threads.
ASME B1.12:1987 (R1992), Screw threads — Class 5 interference — Fit thread.
ASME B1.20.1:1983 (R1992), Pipe threads, general purpose (inch) .
ASME B16.5:1996, Pipe flanges and flanged fittings.
ASME B16.34:1996, Valves — Flanged, threaded and welding end.
ASME B18.2.2:1987 (R1993), Square and hex nuts (inch series) .
ASTM A193:1996, Specification for alloy steel and stainless-steel bolting materials for high-temperature service.
ASTM A194:1996, Specification for carbon and alloy steel nuts for bolts for high-pressure and high-temperature service.
ASTM A307:1994, Specification for carbon steel bolts and studs, 60 000 psi tensile strength.
MSS SP-55:1985 (R1990), Quality standard for steel castings, visual surface examination.
1) To be published. (Revision of ISO 5752:1982)

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