Stock Code : 002438
Stock Abbr. JiangsuShentong

Butterfly Valve

Professional flow control solutions provider

Jiangsu Shentong Valve Co., Ltd.
Add: NanYang Industrial Zone, Qi Dong City,
Jiangsu Province
Tel : 86-21-3255 5823 86-139 13171496
Fax: 86-21-3255 5898
Mailbox: stv@stvalves.com.cn
Website: www.stfm.cn
Post Code: 200333

Distributed by :

Directory

ISO 14001:2004

ISO 9001:2004

OHS Cer.

API607 Fire safety Cer. for Ball Valve

Ghost-R Cer.

TS Piping parts Cer.

TS-Piping Cer.

BV Cer.

API6D

API609

API600

API607 Fire safety Cer. for Butterfly

Overview

As one of the professional industrial valve manufactures in China, STV always focuses on the continuous innovation to provide our customers reliable fluid control solutions. STV product line concentrate on both of commodity valve and high engineering valve with more than 90 serious and 2000 specs covering the different size and rating, high temperature and cryogenic service as well as other critical environment. STV has been

STV plant covered area over 158,000 ㎡, with a building area of 88,000 ㎡. We have large number of vertical lathe, machining center, numerical control lathe etc sophisticated machining and casting, forging, and special equipments. ST equipped with modern valve quality inspection & test center, material chemical composition analysis, mechanical property testing, magnetic particle detection, dye check, X-ray detection, supersonic detection, impact test, flow resistance test, torque test, corrosion test, spectral analysis, metallographic analysis etc test equipments, test equipments such as valve type test machine, life test machine, torque test bench can satisfy various

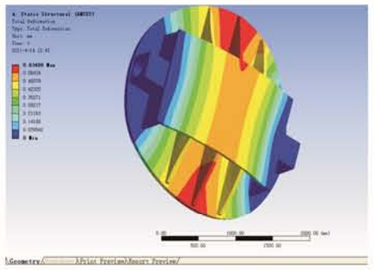
STV product include Ball, butterfly, check, globe and gate valve obtained nuclear valve design and manufacture license by NNSA. We possessed ISO9001quality management system, ISO14001 environmental management system, Manufacture

ISO 9001:2008 ISO 14001:2004 OHSAS 18001:2007 API6D API609 TUV BV CE

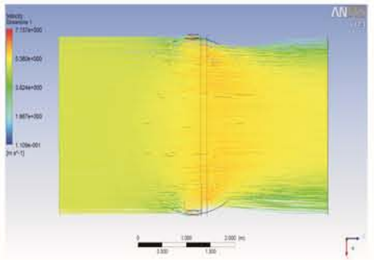
Technology R&D

The technical advantage of STV includes perfect technology R&D system and personnel. for the purpose of technology continuous innovation, STV has founded its own R&D center which equipped the comprehensive R&D system, like flow resistance test, cryogenic test, fire-safe test, high-temp test， etc. with the development of technical R&D, the advanced design software include ANSYS, JSCAST, Solidworks has been widely applied in STV to ensure the safety of products.

STV introduced great many technical personnel every year to study the prototype design, material and surface treatment technology and have got lots of intellectual property and patent through a series of innovation activities.



Finite element structural analysis



Fluid Analysis

Cryogenic Testing

Flow Resisitance Testing

3D Coordinate Instrument

Quality Control

STV has excellent personnel quality management concept and has set up the strict quality system, the complete inspection equipment have been utilized to control the overall process quality from raw material to valve. The inspection includes RT, MT, PT, Spectral Analysis, metallographic Analysis etc. STV's industrial certificates include ISO9001, API6D, API609,

Advanced Manufacturing

The advanced equipment are also widely used in valve manufacture, this include a large number of Vertical Lathe, Horizontal type Lathe, Machining Center, Sphere Grinder, CNC boring and milling machine, DN500 Sphere Grinder etc. All the product process is control by the ERP system to ensure the both of quality and delivery.

Horizontal type Lathe

Machining Center

Ball Valve Assembling workshop

DN500 Sphere Grinder

CNC boring and milling machine

Butterfly Valve Assembling workshop

Concentric Butterfly Valve is widely used in industrial flow control with the advantage of reliable sealing performance, long time service, light weight and cost effective.

Application Field

- Pipeline
- Water Treatment
- Power Plant
- Shipbuilding
- Oil & Petrochemical
- Paper mill

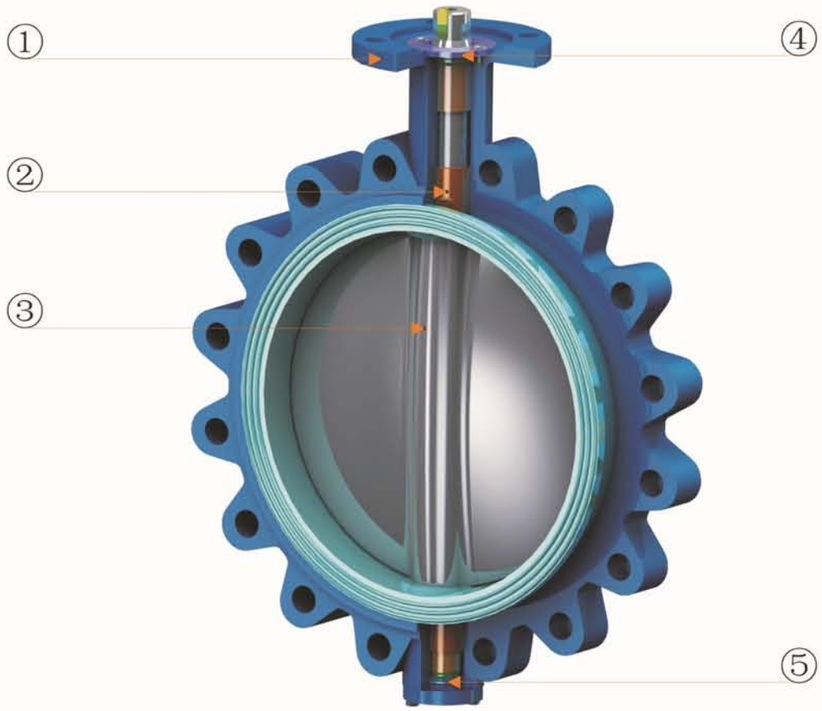
Product Range

Size	2"~72" (DN50~DN1800)
Class	ANSI 125LB~150LB(PN6~PN16)
Temperature	–35℃~ +200℃
Body	DI, CS, SS, Duplex Steel,
Rubber Material	EPDM, NBR, VITON
Connection	Flanged, Wafer, BW, Lug

Applicable temperature for Valve seat

Material	Temperature
NBR	–20℃~ +100℃
EPDM	–35℃~ +135℃
VITOR	–20℃~ +200℃

Concentric Butterfly



① ISO5211 Top Flange Design.

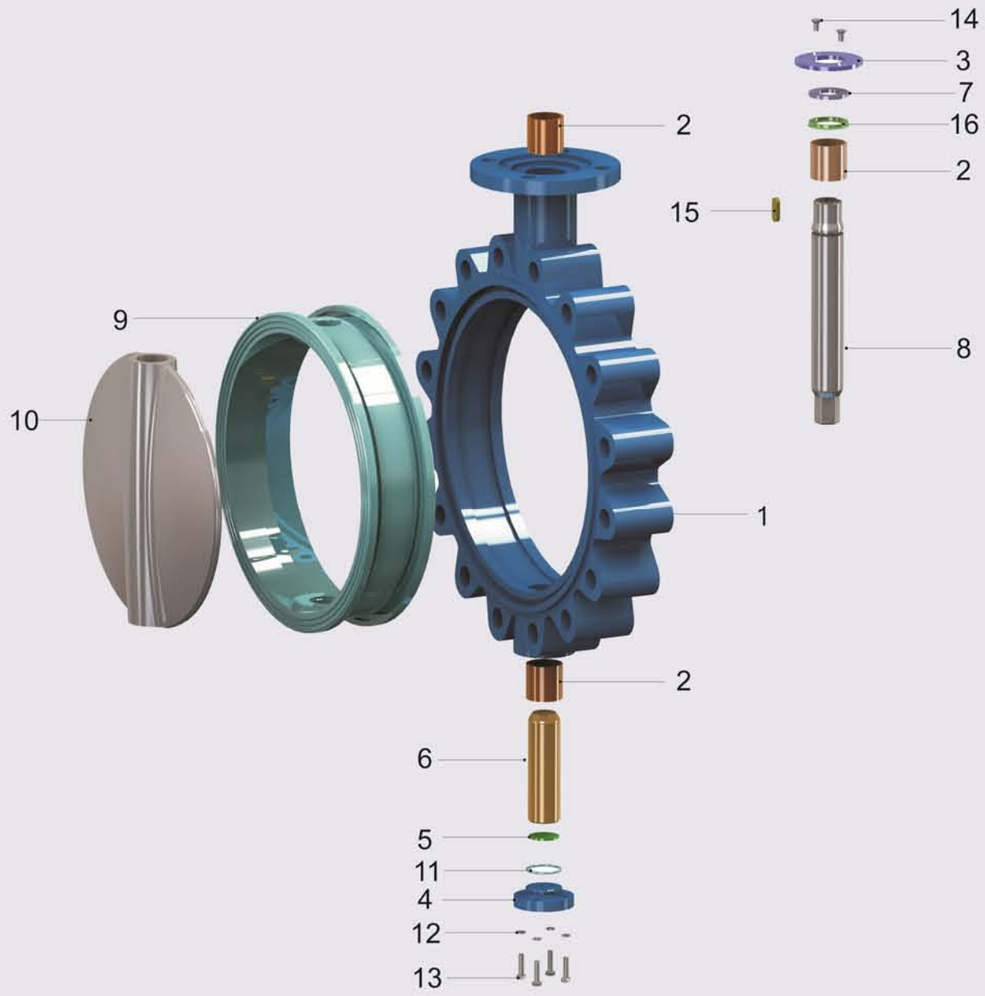
② Oil less bearing to reduce the Valve torque.

③ Double spindle structure to avoid the defect of leakage.

④ Blow-out proof & Anti-static Design

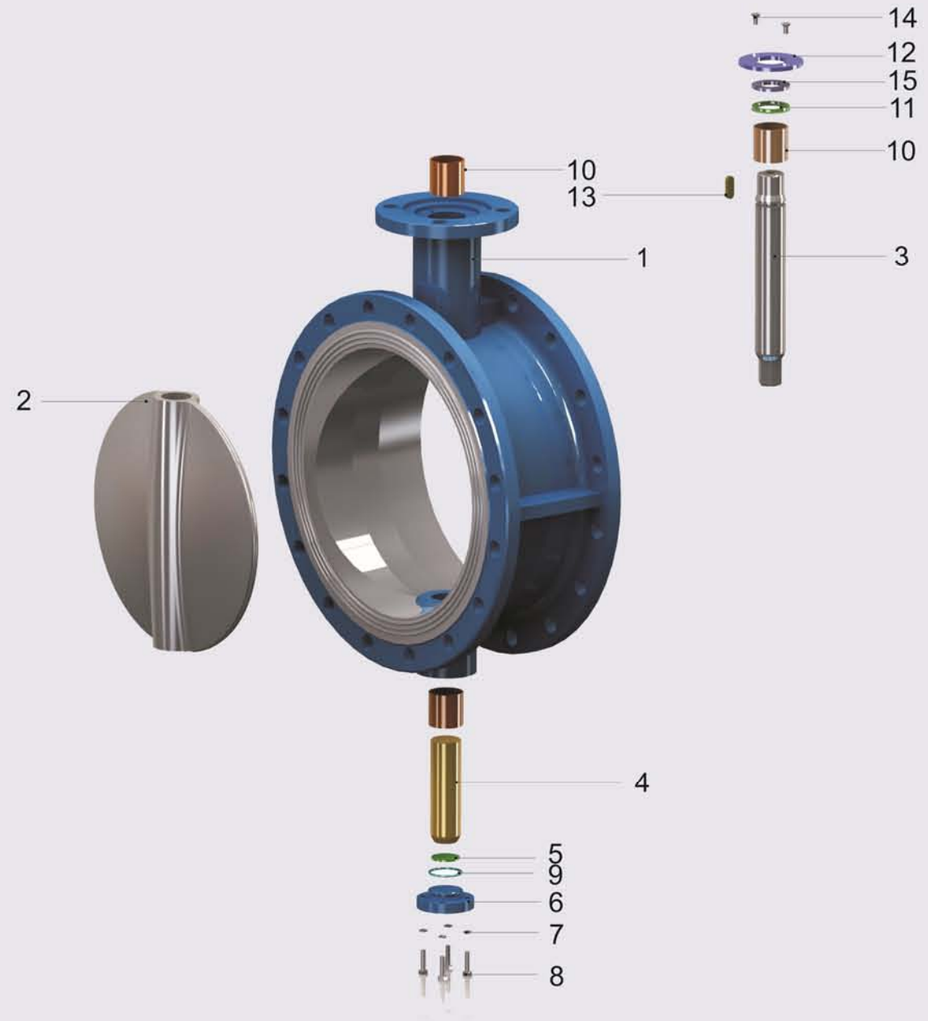
⑤ Additional packing to prevent stem leakage

NO.	Parts.	Qty.	NO.	Parts.	Qty.
1	Body	1	9	Seat	1
2	Bearing	3	10	Disc	1
3	Location Plate	1	11	O-ring	1
4	Below Flanged	1	12	Gasket	4
5	Thrust Washer	1	13	Screw	4
6	Pivot	1	14	Screw	2
7	Split Collar	1	15	Key	1
8	Stem	1	16	Seal-Ring	1



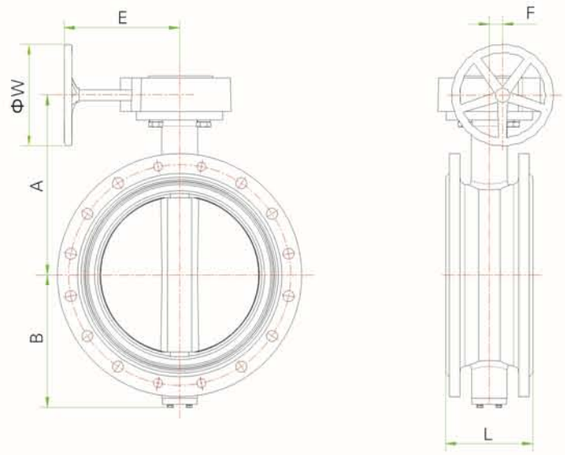
This illustrator shows the Lug type parts, it is same as Wafer type except valve body.

NO.	Parts.	Qty.	NO.	Parts.	Qty.
1	Body	1	9	O-ring	1
2	Disc	1	10	Bearing	3
3	Stem	1	11	Split Collar	1
4	Pivot	1	12	Location Plate	1
5	Thrust Washer	1	13	Key	1
6	Below Flanged	1	14	Bolt	2
7	Gasket	4	15	Seal-Ring	1
8	Screw	4			

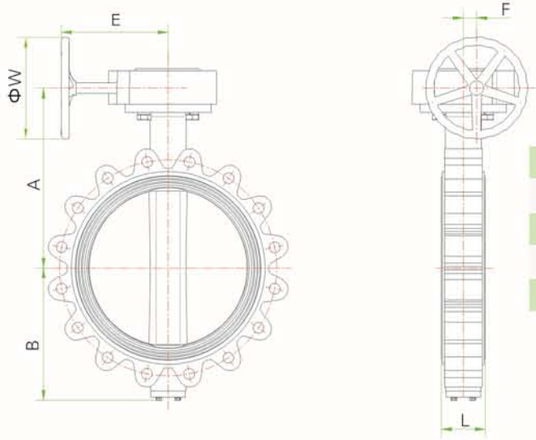


This illustrator shows double flanges parts.

Concentric Butterfly



Flange Type



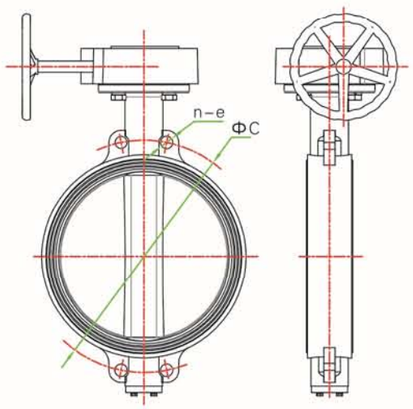
Lug Type

L	Structure Length
A	Channel Center to Handwheel Center
B	Channel Center to Bottom
E	Stem Center to Handwheel
W	Handwheel diameter

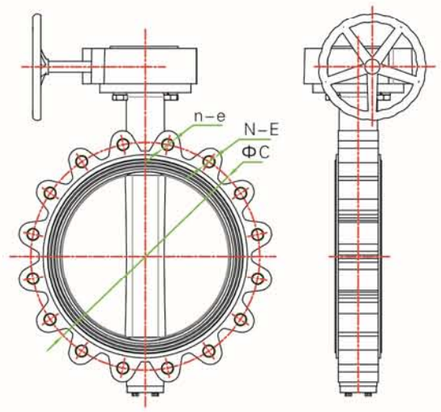
SIZE & WEIGHT

SIZE		L			Dimension		Handle Length	Gear Box			Weight			Handle Type	Gear box type
		Wafer	Lug	RF	A	B		E	F	W	Wafer	Lug	RF		
In	mm	mm		mm	mm	mm	mm	mm	mm	mm	kg	kg	kg		
2	50	43	108	185	93	195	*	*	*	3	4.5	8	FH11	*	
2–1/2	65	46	112	199	102	195	*	*	*	4	5	11	FH11	*	
3	80	46	114	205	108	195	*	*	*	5	6	14	FH11	*	
4	100	52	127	224	127	270	*	*	*	6	9	19	FH14	*	
5	125	56	140	237	139	270	*	*	*	8	12	24	FH14	*	
6	150	56	140	250	151	270	*	*	*	9	13	26	FH14	*	
8	200	60	152	291	195	*	235	63	300	26	31	60	*	SD75	
10	250	68	165	336	228	*	235	63	300	35	41	80	*	SD75	
12	300	78	178	383	270	*	226	81	300	48	64	118	*	SD120	
14	350	78	190	411	285	*	270	80	400	54	80	142	*	SW10	
16	400	102	216	450	322	*	270	80	400	120	135	190	*	SW10	
18	450	114	222	470	339	*	420	120	500	130	154	223	*	SW20	
20	500	127	229	528	380	*	420	120	500	169	214	262	*	SW20	
24	600	154	267	613	465	*	460	126	600	264	316	385	*	SW40	
28	700	165	292	740	491	*	560	138	600	345	400	530	*	SW70	
32	800	190	318	835	588	*	560	138	600	540	630	790	*	SW70	
36	900	200	330	845	640	*	560	138	760	630	680	950	*	SW100	
40	1000	216	410	940	740	*	560	138	760	850	900	1320	*	SW180	
48	1200	276	470	989	810	*	650	171	760	1445	1700	1840	*	SW270	
56	1400	279	530	1141	940	*	690	231	760	1970	2320	2660	*	SW300	

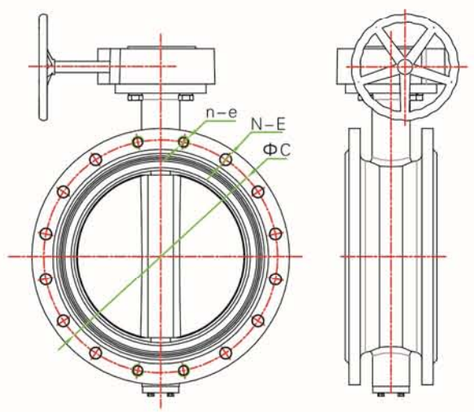
Concentric Butterfly



Wafer



Lug

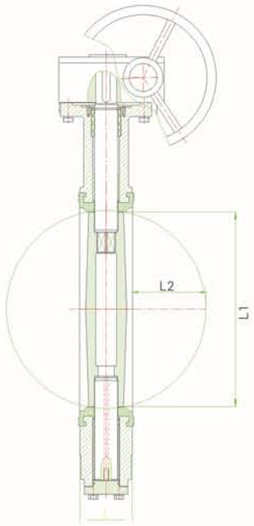


RF

ΦC	Bolt hole diameter
n	Bolt/ thread hole quantity.
e	Thread hole inner diameter& type.
N	Bolt/ thread hole Qty.
E	Thread hole inner diameter& through-hole diameter.

End Connection Size

SIZE		ΦC				Wafer				Lug								RF							
						n-e				N-E				n-e				N-E				n-e			
		PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB
In	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2	50	110	125	125	120.7	4-Φ14	4-Φ18	4-Φ18	4-Φ19	4-M12	4-M16	4-M16	4-5/8	*	*	*	*	4-Φ14	4-Φ18	4-Φ18	4-Φ19	*	*	*	*
2-1/2	65	130	145	145	139.7	4-Φ14	4-Φ18	4-Φ18	4-Φ19	4-M12	4-M16	4-M16	4-5/8	*	*	*	*	4-Φ14	4-Φ18	4-Φ18	4-Φ19	*	*	*	*
3	80	150	160	160	152.5	4-Φ18	4-Φ18	4-Φ18	4-Φ19	4-M16	8-M16	8-M16	4-5/8	*	*	*	*	4-Φ18	4-Φ18	4-Φ18	4-Φ19	*	4-M16	4-M16	*
4	100	170	180	180	190.5	4-Φ18	4-Φ18	4-Φ18	4-Φ19	4-M16	8-M16	8-M16	8-5/8	*	*	*	*	4-Φ18	4-Φ18	4-Φ18	8-Φ19	*	4-M16	4-M16	*
5	125	200	210	210	215.9	4-Φ18	4-Φ18	4-Φ18	4-Φ23	8-M16	8-M16	8-M16	8-3/4	*	*	*	*	4-Φ18	4-Φ18	4-Φ18	8-Φ22	4-M16	4-M16	4-M16	*
6	150	225	240	240	241.5	4-Φ18	4-Φ22	4-Φ22	4-Φ23	8-M16	8-M20	8-M20	8-3/4	*	*	*	*	4-Φ18	4-Φ22	4-Φ22	8-Φ22	4-M16	4-M20	4-M20	*
8	200	280	295	295	298.5	4-Φ18	4-Φ22	4-Φ22	4-Φ23	8-M16	8-M20	12-M20	8-3/4	*	*	*	*	4-Φ18	4-Φ22	8-Φ22	8-Φ22	4-M16	4-M20	4-M20	*
10	250	335	350	355	362	4-Φ18	4-Φ22	4-Φ26	4-Φ26	12-M16	12-M20	12-M24	12-7/8	*	*	*	*	8-Φ18	8-Φ22	8-Φ26	8-Φ22	4-M16	4-M20	4-M24	*
12	300	395	400	410	431.8	4-Φ22	4-Φ22	4-Φ26	4-Φ26	12-M20	12-M20	12-M24	12-7/8	*	*	*	*	8-Φ22	8-Φ22	8-Φ26	12-Φ26	4-M20	4-M20	4-M24	*
14	350	445	460	470	476.3	4-Φ22	4-Φ22	4-Φ26	4-Φ29	12-M20	16-M20	16-M24	12-1	*	*	*	*	8-Φ22	12-Φ22	12-Φ26	12-Φ29	4-M20	4-M20	4-M24	*
16	400	495	515	525	539.8	4-Φ22	4-Φ26	4-Φ30	4-Φ29	16-M20	16-M24	16-M27	16-1	*	*	*	*	12-Φ22	12-Φ26	12-Φ30	16-Φ29	4-M20	4-M24	4-M27	*
18	450	550	565	585	577.9	4-Φ22	4-Φ26	4-Φ30	4-Φ32	16-M20	20-M24	20-M27	16-1-1/8	*	*	*	*	12-Φ22	16-Φ26	16-Φ30	16-Φ32	4-M20	4-M24	4-M27	*
20	500	600	620	650	635	4-Φ22	4-Φ26	4-Φ33	4-Φ32	20-M20	20-M24	20-M30	20-1-1/8	*	*	*	*	16-Φ22	16-Φ26	16-Φ33	16-Φ32	4-M20	4-M24	4-M30	4-1-1/8
24	600	705	725	770	749.3	4-Φ26	4-Φ30	4-Φ36	4-Φ34	20-M24	20-M27	20-M33	20-1-1/4	*	*	*	*	16-Φ26	16-Φ30	16-Φ36	16-Φ35	4-M24	4-M27	4-M33	4-1-1/4
28	700	810	840	840	863.6	4-M24	4-M27	4-M33	4-1-1/4	20-M24	20-M27	20-M33	24-1-1/4	4-M24	4-M27	4-M33	4-1-1/4	20-Φ26	20-Φ30	20-Φ36	24-Φ35	4-M24	4-M27	4-M33	4-1-1/4
32	800	920	950	950	978	4-M27	4-M30	4-M36	4-1-1/2	20-M27	20-M30	20-M36	24-1-1/2	4-M27	4-M30	4-M36	4-1-1/2	20-Φ30	20-Φ33	20-Φ39	24-Φ41	4-M27	4-M30	4-M36	4-1-1/2
36	900	1020	1050	1050	1086	4-M27	4-M30	4-M36	4-1-1/2	20-M27	24-M30	24-M36	28-1-1/2	4-M27	4-M30	4-M36	4-1-1/2	20-Φ30	24-Φ33	24-Φ39	28-Φ41	4-M27	4-M30	4-M36	4-1-1/2
40	1000	1120	1160	1170	1200	4-M27	4-M33	4-M39	4-1-1/2	24-M27	24-M33	24-M39	32-1-1/2	4-M27	4-M33	4-M39	4-1-1/2	24-Φ30	24-Φ36	24-Φ42	32-Φ41	4-M27	4-M33	4-M39	4-1-1/2
48	1200	1340	1380	1390	1422.5	4-M30	4-M36	4-M45	4-1-1/2	28-M30	28-M36	28-M45	40-1-1/2	4-M30	4-M36	4-M45	4-1-1/2	28-Φ33	28-Φ39	28-Φ48	40-Φ41	4-M30	4-M36	4-M45	4-1-1/2
56	1400	1560	1590	1590	1651	8-M33	8-M39	8-M45	4-1-3/4	28-M33	28-M39	28-M45	44-1-3/4	8-M33	8-M39	8-M45	4-1-3/4	28-Φ36	28-Φ42	28-Φ48	44-Φ48	8-M33	8-M39	8-M45	4-1-3/4

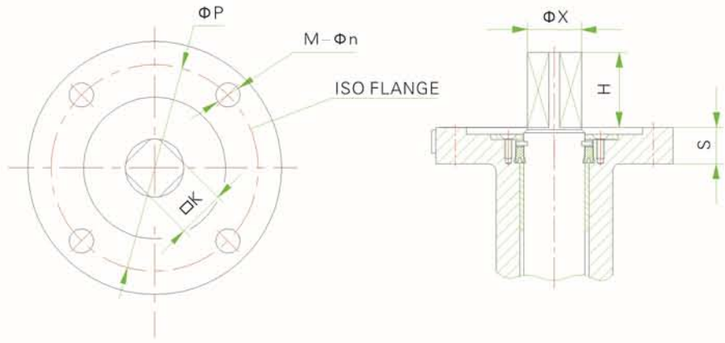


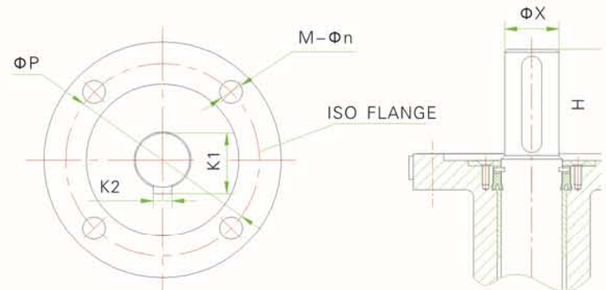
L1: Min. pipe inner diameter
L 2: Fully opened disc go deep size into pipe

The min. inner diameter for fully opened disc with 90°.

SIZE		L1		L2	
		Wafer	Lug	Wafer	Lug
In	mm	mm	mm	mm	mm
2	50	23		3	
2-1/2	65	41		7	
3	80	61		15	
4	100	84		22	
5	125	106		33	
6	150	140		46	
8	200	188		67	
10	250	237		88	
12	300	285		107	
14	350	319		123	
16	400	369		139	
18	450	418		157.5	
20	500	467.5		176	
24	600	565		214	
28	700	640		250	
32	800	731		282	
36	900	812		319	
40	1000	943		375	
48	1200	1088		423	
56	1400	1340		545	

Concentric Butterfly





Top Flange data.

SIZE		H	S	K	K2	K1	ΦX	ISO5211	ΦP	M-Φn
In	mm	mm	mm	mm	mm	mm	mm			
2	50	24	15	11	*	*	14	F07	70	4-Φ10
2-1/2	65	24	15	11	*	*	14	F07	70	4-Φ10
3	80	24	15	11	*	*	14	F07	70	4-Φ10
4	100	24	15	14	*	*	18	F07	70	4-Φ10
5	125	24	15	14	*	*	20	F07	70	4-Φ10
6	150	24	15	14	*	*	20	F07	70	4-Φ10
8	200	24	15	17	*	*	24	F10	102	4-Φ12
10	250	24	17	22	*	*	30	F10	102	4-Φ12
12	300	29	20	27	*	*	35	F12	125	4-Φ14
14	350	52	20	*	10	38	35	F12	125	4-Φ14
16	400	60	20	*	12	43	40	F16	165	4-Φ22
18	450	73	25	*	14	48.5	45	F16	165	4-Φ22
20	500	82	25	*	14	53.5	50	F16	165	4-Φ22
24	600	103	25	*	18	64	60	F16	165	4-Φ22
28	700	110	30	*	20	74.5	70	F25	254	8-Φ18
32	800	120	30	*	22	85	80	F25	254	8-Φ18
36	900	130	30	*	22	85	80	F25	254	8-Φ18
40	1000	145	35	*	28	106	100	F25	254	8-Φ18
48	1200	160	35	*	28	116	110	F30	298	8 Φ22
56	1400	200	38	*	32	137	130	F35	356	8-Φ33

Operating Torque

SIZE		PN10		PN16	
In	mm	Wet	Dry	Wet	Dry
2	50	9	12	12	16
2-1/2	65	13	18	18	24
3	80	20	27	30	40
4	100	40	50	55	70
5	125	50	65	75	95
6	150	80	104	110	143
8	200	135	185	200	270
10	250	220	300	330	440
12	300	330	430	490	650
14	350	500	680	670	900
16	400	710	950	950	1300
18	450	980	1300	1265	1650
20	500	1230	1640	1825	2410
24	600	1850	2440	2750	3600

1. Torques above shown are based on the normal temperature.
2. The wet means the lubrication medium like water, seawater, oil etc.
3. The dry means the gaseous medium.
4. Other valve size & pressure that is not included in above table, please contact our engineering dept.

Concentric Butterfly

Flow Coefficient (Cv value)

SIZE		Opening Angle								
In	DN	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	50	9	22	33	48	70	99	143	198	220
2-1/2"	65	13	32	48	70	102	150	224	288	320
3"	80	20	50	75	110	160	235	350	450	500
4"	100	33	82	123	180	262	385	574	738	820
5"	125	52	130	195	286	416	611	910	1170	1300
6"	150	76	190	285	418	608	893	1330	1710	1900
8"	200	132	330	495	726	1056	1551	2310	2970	3300
10"	250	216	540	810	1188	1728	2538	3780	4860	5400
12"	300	320	800	1200	1760	2560	3760	5600	7200	8000
14"	350	400	1000	1500	2200	3200	4700	7000	9000	10000
16"	400	520	1300	1950	2860	4160	6110	9100	11700	13000
18"	450	720	1800	2700	3960	5760	8460	12600	16200	18000
20"	500	880	2200	3300	4840	7040	10340	15400	19800	22000
24"	600	1200	3000	4500	6600	9600	14100	21000	27000	30000

High Performance Butterfly

Product Range

Size	3"~64"(DN80~DN1600)
Class	ANSI 150LB~600LB(PN16~100)
Temperature	-46℃~ 450 ℃
Body	CS, SS, Duplex steel
Rubber Material	EPDM, NBR, VITON
Connection	Flanged, Wafer, BW, Lug

Product Sandard

Design:	API609
Pressure temperature rating:	ASME B16.34
Face to face dimensions:	API609
End Flange dimensons:	ASME B16.5 & ASME B16.47
Test & Inspection:	API598

Application Field

- FOSSIL POWER PLANTS
- PETROLEUM REFINING
- PETROCHEMICAL PLANTS
- PULP AND PAPER

Advantage

> High safety level through bi-directional and zero leakage

> Friction free sealing for long cycle life

> Safety and reliable shut off and control function

Technical Feature

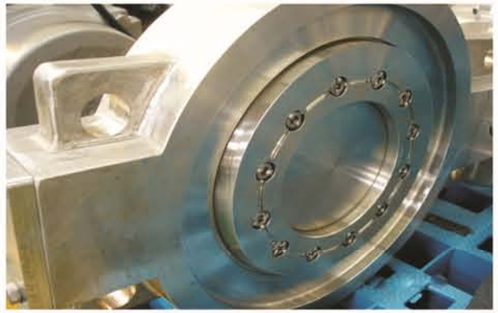
> Conical seat prevent solids build-up from interfering with seal

> Double shaft blowout protection conforms to API 609

> Laminated resilient disc seal to 600 ℃

> API 6FA Fire Safe Design

> Zero leakage-seat tightness



Options

> Stem extensions for buried service applications among others

> Three sealing structure: multiple metal sealing, whole panel metal sealing or elastic metal sealing can be adapted for various conditions

> Special cleaning (oxygen, chlorine etc.)

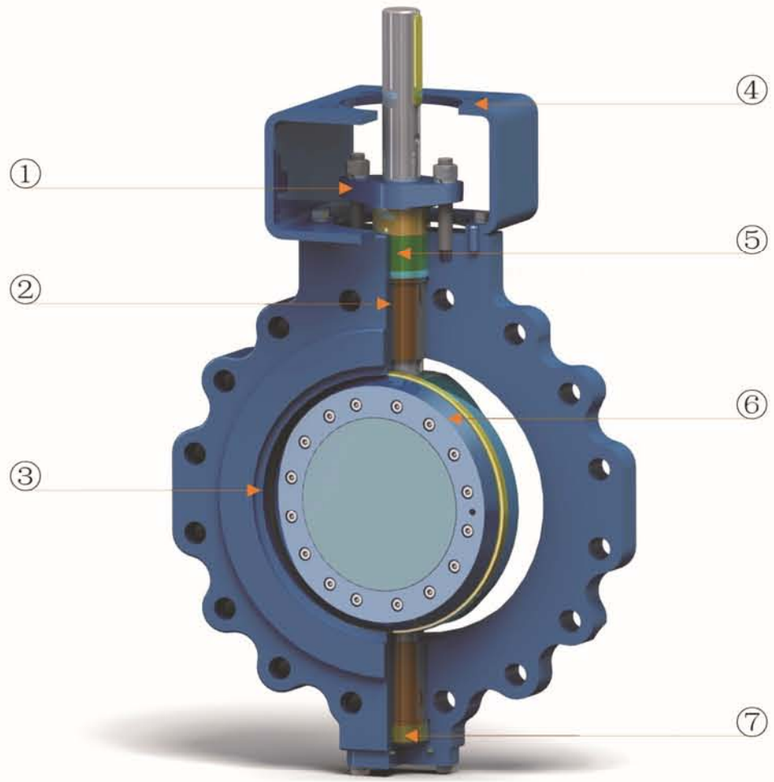
> Zero leakage-seat tightness

Certificates

Registration: acc. to API 609

Certificate:

> ISO 9001
> ISO 14001
> ATEX
> Fire-safe API 607



① Upper Anti Blow-out

② EXtended Bearing.

③ Stellited seat.

④ Mounting pad designed as per ISO5211.

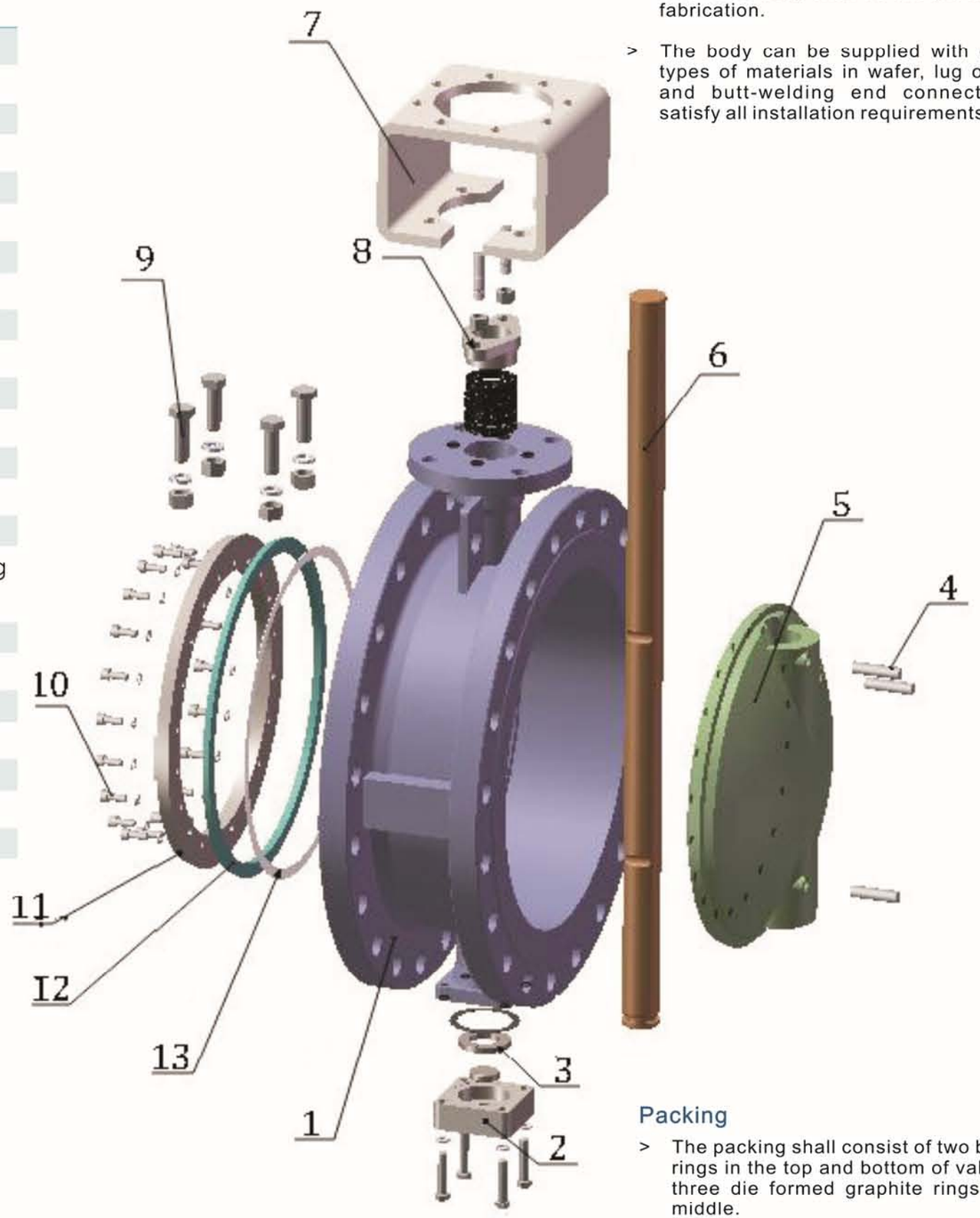
⑤ Low emission packing

⑥ Laminated Seal

⑦ Lower Anti Blow out

Design Feature

1	**Body**
	Seat (hard faced)
2	Bottom cover
3	Locking plate
4	Taper pin
5	Disc
6	Stem
7	Actuator bracket
8	Gland bushing
9	Actuator bracket screw locking device
10	Screw locking device
11	Plate pinch
12	Sealing ring
13	Sealing gasket



Body

> The valve body shall be one piece cast or fabrication.

> The body can be supplied with different types of materials in wafer, lug or flange and butt-welding end connections to satisfy all installation requirements.

Packing

> The packing shall consist of two braided rings in the top and bottom of valve and three die formed graphite rings in the middle.

> The lantern ring may be provided as

High Performance Butterfly

Design Feature

Actuator

> All valves shall be self-locking manual gear operation type which is served as standard.

> Electric, pneumatic or hydraulic actuator can be provided as required by customer.

Body Seat

> The valve seat shall be integrated with the body.

> Stellite or stainless steel shall be applied on the sealing surfaces of the valve body.

> The valve seat is designed for inclined cone to ensure non-rubbing, non-jamming, bi-directional shut off and zero leakage.

DISC

> The valve disc shall be the same material as the valve body. It is supported by a laminated seal ring, which is kept in place by a seat retainer ring bolted to the disc and can be replaced easily.

> The spiral wound gasket shall be provide between laminated seal ring and disc.

Seal Ring

> The seal ring shall be resilient stainless steel lamella alternated by graphite or PTFE layers.

> The surface contacting between seal ring and body seat is an inclined cone type and the inclined angle generates a slight wedging effect.

> With a seat retainer ring bolted to the disc, the seal ring is fixed to disc not too tightly to be replaced easily.

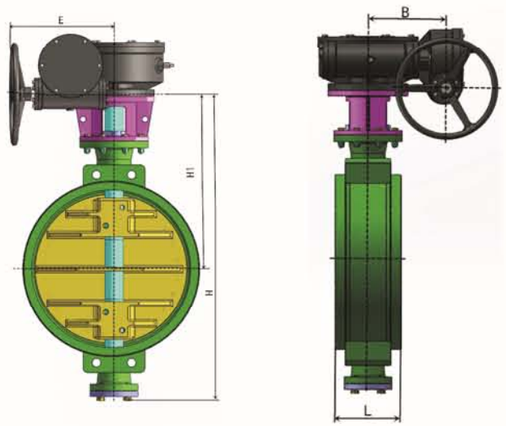
Stem

> The stem shall be stainless steel and one piece or two piece construction.

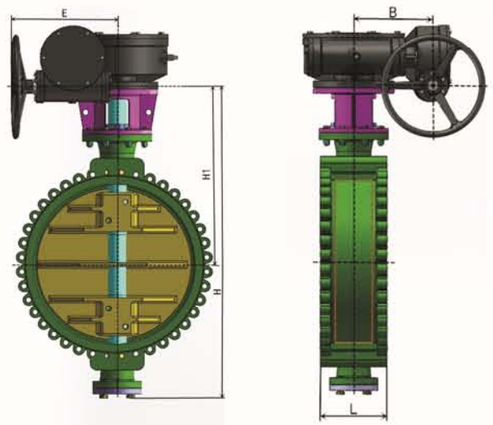
> The stem shall be fixed to the disc by pin or in combination of pin or key. It can be protected by internal thrust bush and bush bearing.

> The thrust bush and bush bearing shall be provided to locate the valve disc in a proper position.

> The retainer ring shall be installed to avoid blowing out the stem.



WAFER Type



LUG Type

DIMENSIONS/ ASME CLASS 150(MM)

Size		Valve Dimensions			Gear Dimensions*		Torque*	Weight* (kg)	
NPS	DN	L	H*	H1*	E	B	N · m	Wafer	Lug
3	80	48	472	350	154	50	174	9	11
4	100	54	520	386	154	50	250	11	14
6	150	57	653	475	230	63	473	17	22
8	200	64	773	565	230	63	674	25	31
10	250	71	880	640	270	80	983	40	49
12	300	81	989	710	420	120	2022	61	76
14	350	92	1044	760	420	120	2520	82	107
16	400	102	1142	826	420	120	3175	123	153
18	450	114	1228	887	460	126	4239	150	166
20	500	127	1337	959	510	138	5531	204	254
24	600	154	1554	1109	510	138	6011	300	405
28	700	165	1456	956	650	205	10440	386	506
30	750	190	1541	991	650	205	12654	454	602
32	800	190	1611	1036	650	205	14462	562	756
36	900	203	1743	1103	690	231	18078	762	926
40	1000	216	1792	1230	690	231	24179	932	1044
42	1050	229	1971	1255	620	231	28457	1023	1278
48	1200	254	2208	1361	740	256	35040	1247	1503

* All data approximate. The weight excluding the actuator.

For size over 48"(DN1200), consult the factory.

High Performance Butterfly

Weight & Size

DIMENSIONS/ ASME CLASS 300(MM)

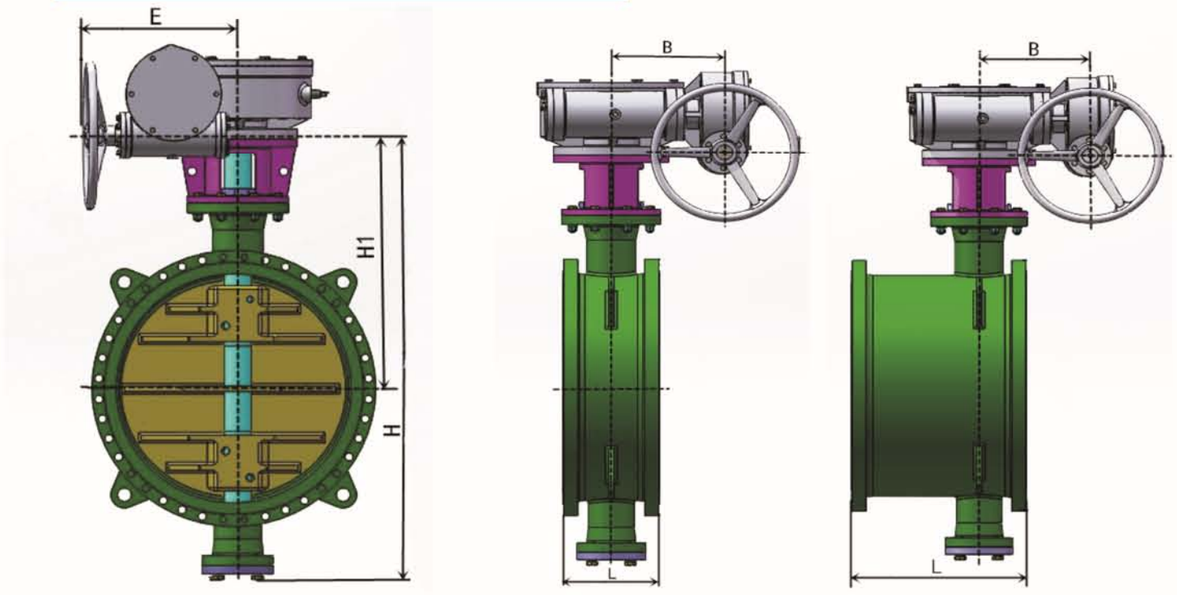
Size		Valve Dimensions			Gear Dimensions*		Torque*	Weight* (kg)	
NPS	DN	L	H*	H1*	E	B	N · m	Wafer	Lug
3	80	48	378	253	154	50	271	13.5	
4	100	54	421	274	154	50	395	18	
6	150	59	543	351	230	63	825	28	
8	200	73	628	392	270	80	1503	49	
10	250	83	855	480	420	120	1887	68	
12	300	92	812	515	420	120	2508	109	
14	350	117	885	555	510	138	4158	186	
16	400	133	951	590	510	138	6271	264	
18	450	149	1106	636	530	138	7864	297	
20	500	159	1308	685	650	205	10361	363	
24	600	181	1445	934	650	205	17559	454	
28	700	229	1495	1039	690	231	27923	658	
30	750	229	1535	1060	620	231	33105	816	
32	800	241	1575	1120	620	231	39696	1052	
36	900	241	1605	1190	740	256	52877	1429	
40	1000	300	1642	1282	740	256	71105	1815	

* All data approximate. The weight excluding the actuator.

DIMENSIONS/ ASME CLASS 600(MM)

Size		Valve Dimensions			Gear Dimensions*		Torque*	Weight* (kg)	
NPS	DN	L	H*	H1*	E	B	N · m	Wafer	Lug
3	80	54	572	122	270	200	460	15	
4	100	64	622	134	270	200	834	20	
6	150	78	806	178	405	280	979	34	
8	200	102	1033	208	405	280	2938	56	
10	250	117	1110	240	405	280	3616	80	
12	300	140	1194	279	570	420	5649	130	
14	350	155	1222	284	570	420	11863	256	
16	400	178	1371	316	675	470	14123	364	
18	450	200	1533	341	700	490	17061	456	
20	500	216	1613	378	700	490	21015	652	
24	600	232	1718	445	700	490	26551	695	
28	700	/	1741	500	960	660	38415	862	
30	750	/	1811	550	960	660	56244	968	
32	800	/	1935	575	960	660	74698	1562	
36	900	/	1943	640	1125	860	82123	1756	
40	1000	/	2015	660	1275	900	102354	2016	

* All data approximate. The weight excluding the actuator.



Flange Type

DIMENSIONS/ ASME CLASS 150(MM)

Size		Valve Dimensions					Gear Dimensions		Torque	Weight
NPS	DN	L-Short	L-Long	H1	H	D	A	B	N·m	Kg
3	80	114	203	572	122	190	270	200	174	15.4
4	100	127	229	622	134	230	270	200	250	23
6	125	140	267	806	178	280	405	280	473	33
8	150	152	292	1033	208	345	405	280	674	50
10	200	165	330	1110	240	405	405	280	983	73
12	300	178	356	1194	279	485	570	420	2022	108
14	350	190	381	1222	284	535	570	420	2520	143
16	400	216	406	1371	316	595	675	470	3175	186
18	450	222	432	1533	341	635	700	490	4239	234
20	500	229	457	1613	378	700	700	490	5531	277
24	600	267	508	1718	445	815	700	490	6011	408
28	700	292	610	1741	500	835	960	660	10440	653
30	750	318	610	1811	550	885	960	660	12654	816
32	800	318	660	1935	575	940	960	660	14462	914
36	900	330	711	1943	640	1055	1125	860	18078	1157
40	1000	410	/	2015	660	1175	1275	900	24179	1458
42	1050	410	/	2160	730	1225	1275	900	28457	1586
48	1200	470	/	2289	810	1390	1275	900	36155	1863

For size over 48(DN1200), consult the factory.

The weight excluding the actuator.

DIMENSIONS/ ASME CLASS 300(MM)

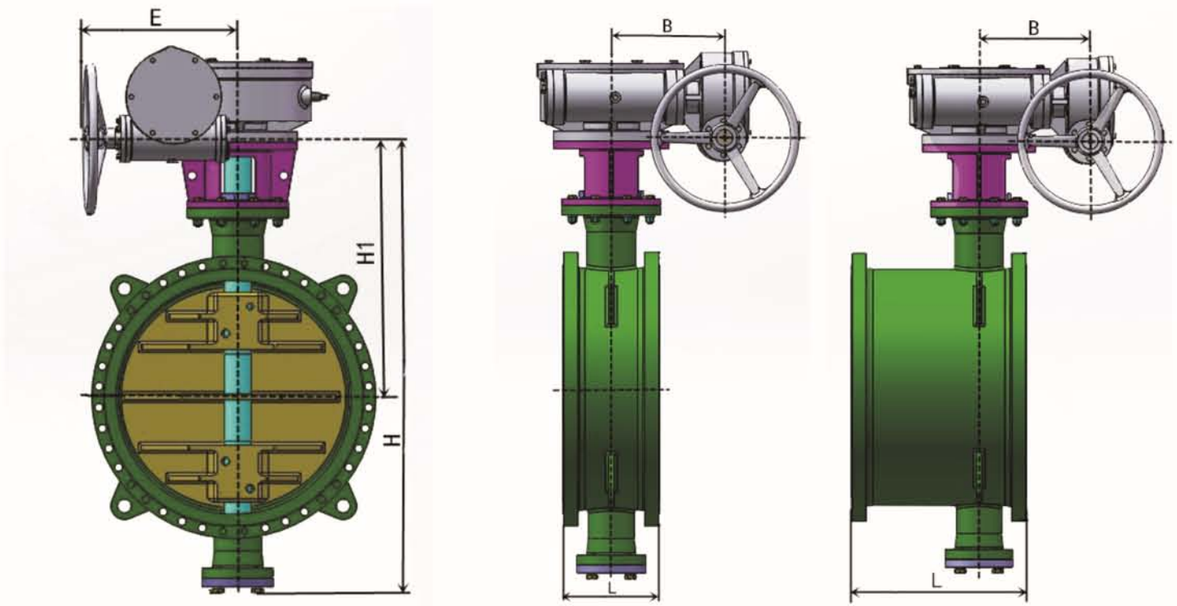
Size		Valve Dimensions					GearDimensions		Torque	Weight
NPS	DN	L-Short	L-Long	H1	H	D	A	B	N·m	Kg
3	80	180	282	612	152	210	270	200	271	29
4	100	190	305	672	164	255	270	200	395	39
6	125	210	403	856	208	320	405	280	825	54
8	150	230	418	1533	238	380	405	280	1503	84
10	200	250	457	1610	270	445	405	280	1887	118
12	300	270	502	1794	309	520	570	420	2508	170
14	350	290	762	1722	314	585	570	420	4158	231
16	400	310	838	1871	346	650	675	470	6271	299
18	450	330	914	2033	371	710	700	490	7864	390
20	500	350	991	2113	408	775	700	490	10361	499
24	600	390	1143	2218	475	915	700	490	17559	726
28	700	430	1346	2241	530	920	960	660	27923	1360
30	750	450	1397	2311	580	990	960	660	33105	1429
32	800	470	1524	2435	605	1055	960	660	39696	1757
36	900	510	1727	2443	670	1170	1125	860	52877	2223
40	1000	550	/	2515	690	1275	1275	900	71105	2653
42	1050	570	/	2660	760	1335	1275	900	80219	3205
48	1200	630	/	2789	840	1510	1275	900	105655	3752

The weight excluding the actuator.

DIMENSIONS/ ASME CLASS 600(MM)

Size		Valve Dimensions					Gear Dimensions		Torque	Weight
NPS	DN	L-Short	L-Long	H1	H	D	A	B	N·m	Kg
3	80	180	356	572	122	210	270	200	460	40
4	100	190	432	622	134	275	270	200	834	53
6	125	210	559	806	178	355	405	280	979	72
8	150	230	660	1033	208	420	405	280	2938	92
10	200	250	787	1110	240	510	405	280	3616	133
12	300	270	838	1194	279	560	570	420	5649	196
14	350	290	889	1222	284	605	570	420	11863	256
16	400	310	991	1371	316	685	675	470	14123	360
18	450	330	1092	1533	341	745	700	490	17061	463
20	500	350	1194	1613	378	815	700	490	21015	499
24	600	390	1397	1718	445	940	700	490	26551	836
28	700	/	1549	1741	500	950	960	660	38415	1436
30	750	/	1651	1811	550	1020	960	660	56244	1685
32	800	/	1778	1935	575	1085	960	660	74698	2014
36	900	/	2083	1943	640	1215	1125	860	82123	2635
40	1000	/	/	2015	660	1320	1275	900	102354	2865

The weight excluding the actuator.



Flange Type

DIMENSIONS/ ASME CLASS 900(MM)

Size		Valve Dimensions					Gear Dimensions		Torque	Gear	Weight
NPS	DN	L-Short	L-Long	H1	H	D	A	B	N·m	Model	Kg
3	80	/	/	/	/	/	/	/			/
4	100	/	/	/	/	/	/	/			/
6	125	225	/	806	178	350	405	280			150
8	150	275	/	1033	208	470	405	280			160
10	200	325	/	1110	240	545	405	280			250
12	300	375	/	1194	279	610	570	420			380
14	350	425	/	1222	284	640	570	420			480
16	400	475	/	1371	316	705	675	470			712
18	450	500	/	1533	341	785	700	490			879
20	500	575	/	1741	500	855	700	490			1065
24	600	675	/	1811	550	1040	700	490			1536
28	700	/	/	/	/	/	/	/			/

The weight excluding the actuator.

How to order

FIGURE NUMBERS

350	D	6	4	3	H	-	150	PL
①	②	③	④	⑤	⑥		⑦	⑧

1) Valve Size			
80=DN80	3"	1050=DN1050	42"
100=DN100	4"	1200=DN1200	48"
150=DN150	6"	1300=DN1300	52"
200=DN200	8"	1400=DN1400	56"
250=DN250	10"	1500=DN1500	60"
300=DN300	12"	1400=DN1400	56"
350=DN350	14"	1500=DN1500	60"
400=DN400	16"	1400=DN1400	56"
450=DN450	18"	1500=DN1500	60"
500=DN500	20"	1400=DN1400	56"
600=DN600	24"	1500=DN1500	60"
700=DN700	28"	1600=DN1600	64"
750=DN750	30"	1800=DN1800	72"
900=DN900	36"	2000=DN2000	80"

2) Valve Type	
D	Butterfly valve

3) Operator	
3	Gear operator
6	Pneumatic actuator
9	Electric actuator

4) End Connection	
4	Flanged
6	Welding
7	Wafer

7_L	Lug

5) Valve Structure Type	
0	Single offset
1	Concentric
2	Double offset
3	Triple offset

6) Metal Sealing Material	
P	F304
R	F316
H	13Cr
PL	F304L
RL	F316L
Y	Stellite

7) Nominal Pressure	
150	Class 150
300	Class 300
600	Class 600
900	Class 900

8) Body Material	
C	Carbon steel
P	SS304
R	SS316
H	13Cr
PL	SS304L