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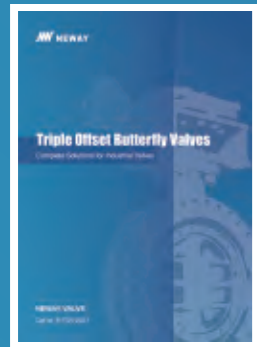
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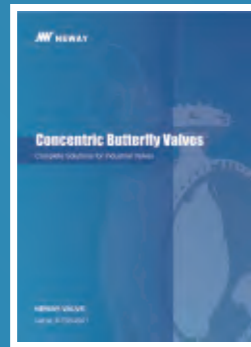
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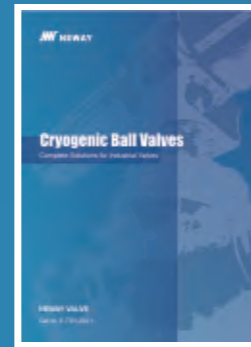
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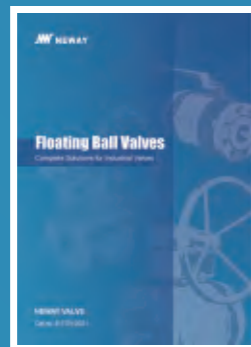
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Cat.no.:E-TMBV



Cat.no.:E-MSBV

# Concentric Butterfly Valves

Complete Solutions for Industrial Valves



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Complete Solutions for Industrial Valves

As a global leader of valve manufacturing, Neway (SSE:603699) is dedicated to the production, research, and development of industrial valves. Neway is committed to providing complete valve solutions to all industries through advanced engineering and innovation.

Neway's product line includes Ball, Butterfly, Gate, Globe, Check, Nuclear, Control, Subsea, Safety valves. Our high quality standards and innovative ability are recognized by many global end users and EPCs. Neway valves are utilized in a wide variety of industries and working conditions such as Refining, Chemical, Coal Chemical, Offshore(including subsea), Air Separation, LNG, Nuclear Power, Power Generation, and Pipeline Transmission applications.

Facilities & Service

Neway has developed a sophisticated multi-plant management system operating one valve assembly plant, one API6A valve plant, three foundries, and one R&D center. Our largest assembly plant was expanded in 2013, and it now covers 35,000 square meters.

Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) is applied here at Neway for the Research & Development of products. We use SAP to control the traceability and status of all products during the manufacturing process. In order to ensure the safety, eco-friendliness, and reliability of our products, we use the most advanced fire-safe, cryogenic, high pressure, and fugitive emission test equipment.

As part of Neway's global strategy, to provide better service to our customers, we have established our overseas subsidiaries in USA, Netherlands, Italy, Singapore, and Dubai along with over 80 agents and distributors worldwide.

Quality Assurance

Neway is dedicated to the pursuit of "Zero Defect". We maintain a quality management system that encompasses our entire operation from order entry, to final inspection. Through Neway's continuous efforts, our products have successfully achieved industrial certificates including ISO 9001, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals.



NORSOK



ISO9001



CE/PED



Fire Safe Test Certificate



TA Luft



ABS



API 6D



AD2000

Neway recognizes the importance of valve quality for the safety and protection of personnel health and property. It is our quality commitment to focus our resources to provide our customers with first class products at a competitive price, designed, manufactured, inspected and tested in accordance with our customers specifications and complying with all international standards.

Current industrial standards do not always take into consideration the likelihood and consequences of possible deterioration in service, related to specific service fluids or the external environments in which they operate. Therefore we request that our customers communicate with our engineering department. Our valve optimization program continuously strives to provide valves that withstand deterioration in service, and ensure safety over the valves expected lifetime.



Neway figure numbers are designed to cover essential features.

When ordering, please show figure number to avoid misunderstanding of your requirements.

However a detailed description must accompany with any special orders.

Following descriptions provide a basic guideline in valve specification:

**① Valve Size**

in	2	2-1/2	3	4	5	6	8	10	12	14
mm	50	65	80	100	125	150	200	250	300	350
in	16	18	20	24	28	30	32	36	40	48
mm	400	450	500	600	700	750	800	900	1000	1200

**② Valve Series Number**

Symbol	Valve type
D	Butterfly Valve

**③ Operator**

3	Gear operator
9	Electric actuator
6	Pneumatic actuator
7	Hydraumatic actuator

**④ End Connection**

7	Wafer
3	Lug
4	Double-Flange

**⑤ Valve Code**

Symbol	
1	Concentric Butterfly Valve

**⑥ Seat Material**

Symbol	
X	Rubber

**⑦ ANSI Class**

Code	Class(MPa)
6	0.6
10	1
16	1.6
25	2.5

**⑧ Body Material**

Material	ASTM Ref.
Z04	ASTM A395
C00	ASTM A216 WCB
L20	ASTM A352 LCB
L21	ASTM A352 LCC
S01	ASTM A351 CF8M
S00	ASTM A351 CF8
S03	ASTM A351 CF3M
S02	ASTM A351 CF3
D01	ASTM A890 4A

**⑨ Trim Code**

Concentric	First Number		Second Number		Third Number	
	Stem		Disc		Seat	
	Code	Material	Code	Material	Code	Material
Butterfly Valve	1	F416	2	CF8	1	EPDM
	2	F304	3	CF8M	2	NBR
	3	F316	4	M30-C	3	VITON
	4	MONEL K500	5	ZQAL9-4	A	EPDM-1
	5	17-4PH	8	C95500		
	6	1Cr13	A	ZQAL9-2		
	7	F316L	C	CF3M		
	8	F304L	J	904L-ZZ		
	9	F51	K	A890 4A		
	C	3Cr13	E	A890 6A		
L	1Cr17Ni8	N	C95800			

Note: other materials upon request



Neway figure numbers are designed to cover essential features. When ordering, please show figure number to avoid misunderstanding of your requirements. However a detailed description must accompany with any special orders.

Following descriptions provide a basic guideline in valve specification:

**① Valve Size**

in	2	2 - 1/2	3	4	5	6	8	10	12	14
mm	50	65	80	100	125	150	200	250	300	350
in	16	18	20	24	28	30	32	36	40	48
mm	400	450	500	600	700	750	800	900	1000	1200

**② Valve Series Number**

Symbol	Valve type
T	Butterfly Valve

**③ ANSI Class**

Code	1	3
Class(LB)	150	300

**④ End Connection**

W	Wafer
L	Lug
R	Double-Flange

**⑤ Operator**

	Lever
G	Gear operator
P	Pneumatic actuator
H	Hydraumatic actuator
M	Electric actuator

**⑥ Body Material**

Material	ASTM Ref.
Z04	ASTM A395
C00	ASTM A216 WCB
L20	ASTM A352 LCB
L21	ASTM A352 LCC
S01	ASTM A351 CF8M
S00	ASTM A351 CF8
S03	ASTM A351 CF3M
S02	ASTM A351 CF3
D01	ASTM A890 4A

**⑦ Trim Code**

Concentric	First Number		Second Number		Third Number	
	Code	Material	Code	Material	Code	Material
Concentric butterfly valve	1	F416	2	CF8	1	EPDM
	2	F304	3	CF8M	2	NBR
	3	F316	4	M30-C	3	VITON
	4	MONEL K500	5	ZQAL9-4	A	EPDM-1
	5	17-4PH	8	C95500		
	6	1Cr13	A	ZQAL9-2		
	7	F316L	C	CF3M		
	8	F304L	J	904L-ZZ		
	9	F51	K	A890 4A		
	C	3Cr13	E	A890 6A		
	L	1Cr17Ni8	N	C95800		

Note: other materials upon request

Concentric Butterfly Product Introduction

Soft seat butterfly widely apply to all kinds of industrial on-off control system. Compared to normal globe valve and ball valve, it has many advantages, like light weight, low cost. With rapidly development of rubber material industry, soft seat butterfly not only is used to all kinds of water draining system, but also replaced to some flow control system by steps.



Product Range

Size	2"-72"(DN50-DN1800)
Rating	ANSI125-150;PN6-16
Temperature Range	*-35°C~+200°C
Body Material	Cast Iron, Steel, Stainless Steel
Rubber Material	EDPM, NBR, viton
End Connection	Wafer, Lug, Double-Flange

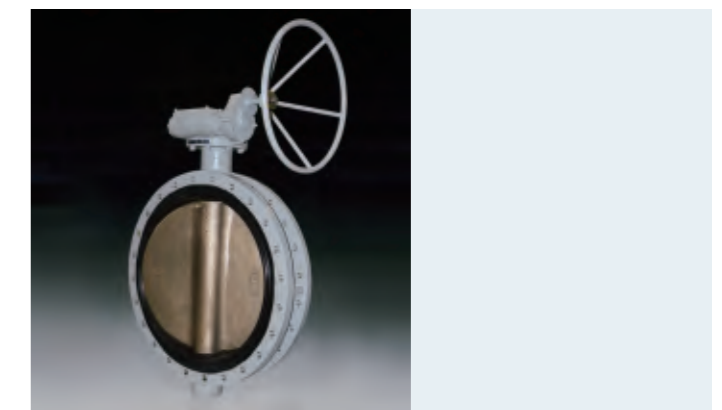
Rubber Seat Temperature Range

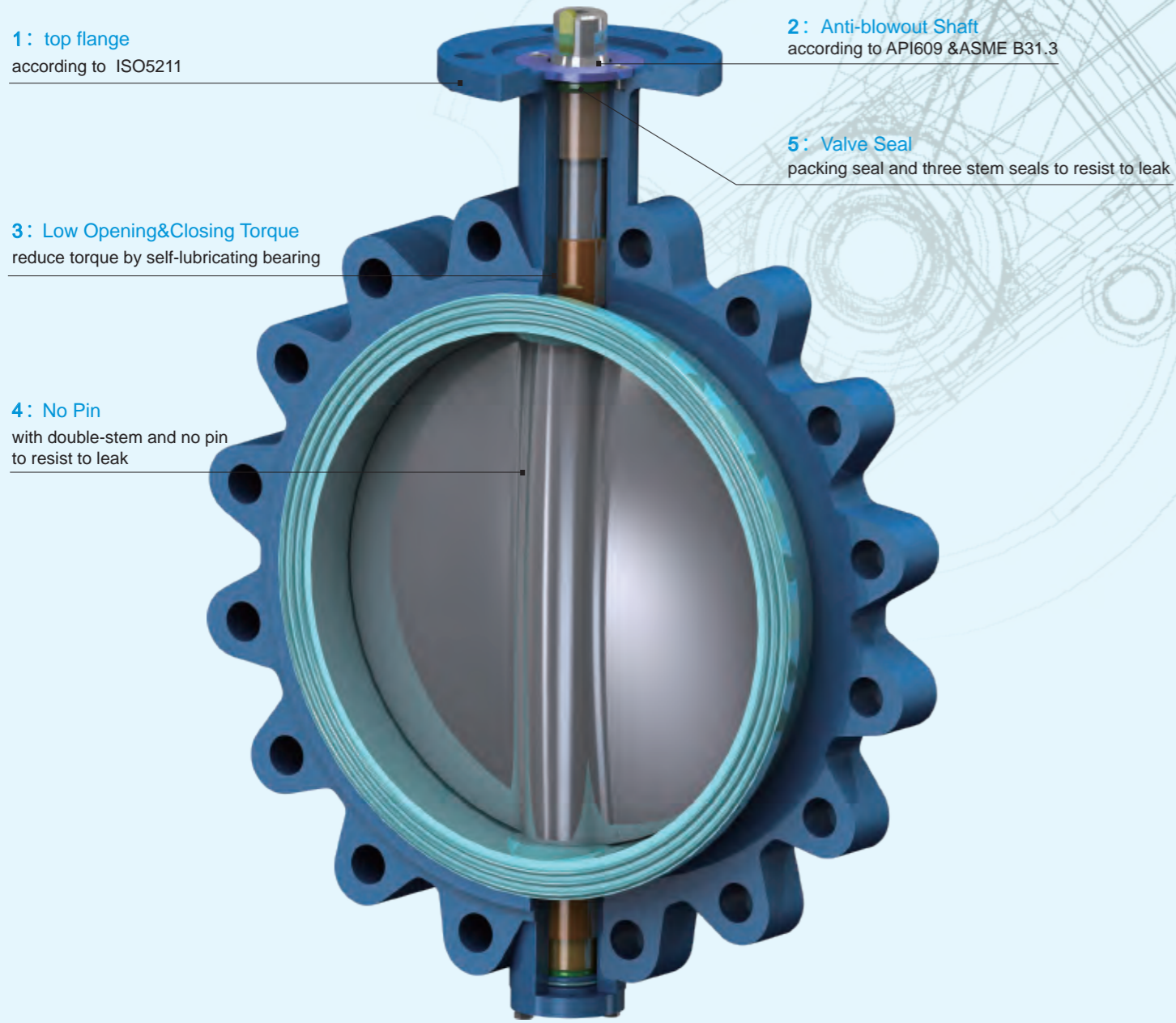
Material	Temperature Range
NBR	'-20°C~+100°C
EPDM	'-35°C~+135°C
VITON	'-20°C~+200°C

Normal Application

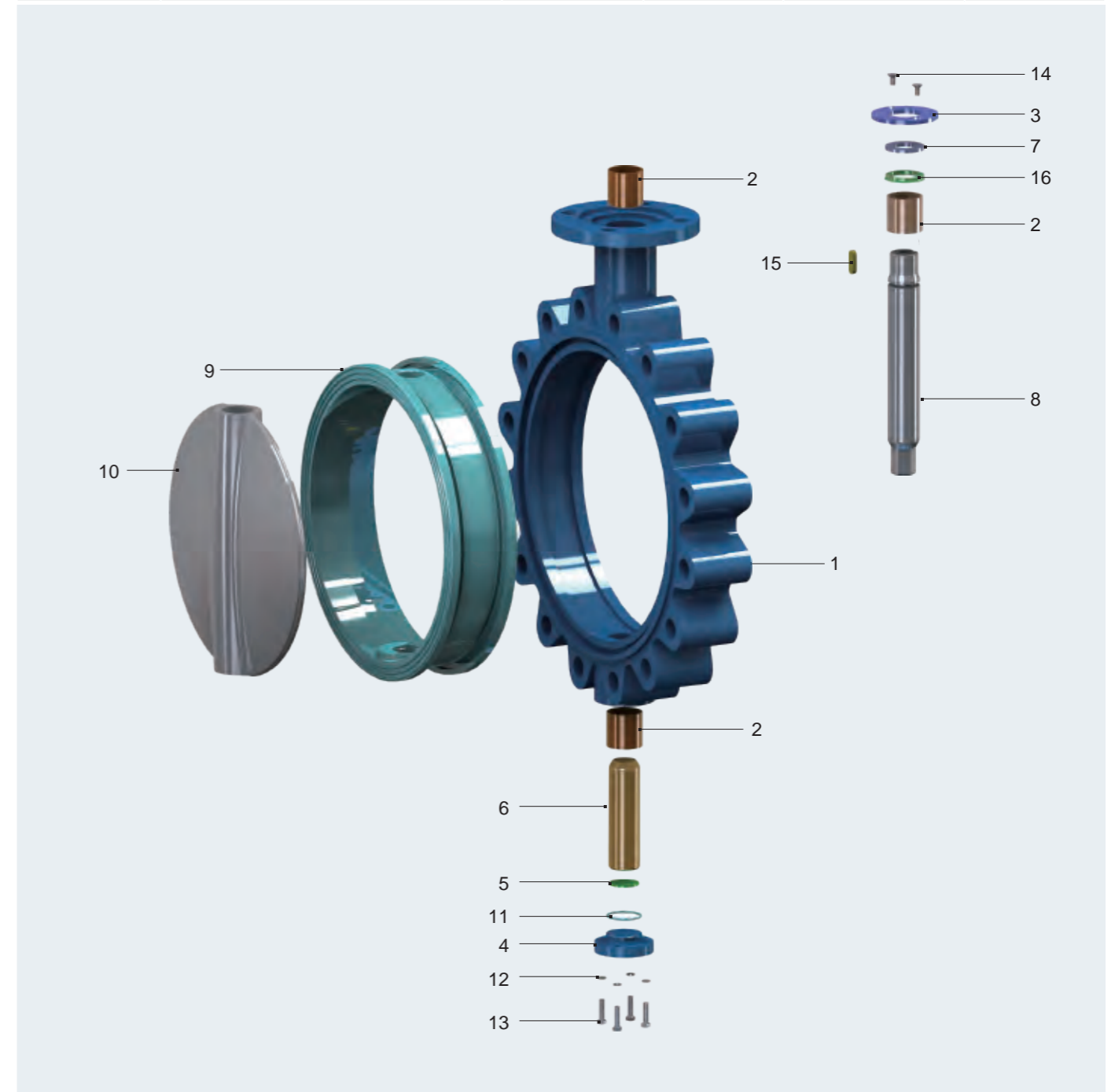
- Water Pipeine
- Refinery
- Power Plant
- Ship Building Industry
- Petrochemical
- Paper Industry

Concentric butterfly valve series are safety and low cost products in Neway corporation. For the passage install rubber seat, it can apply to most of corrosive medium. So no medium contact with body and the material of it is steel or cast iron. It is one of most economic valve under low and medium pressure.

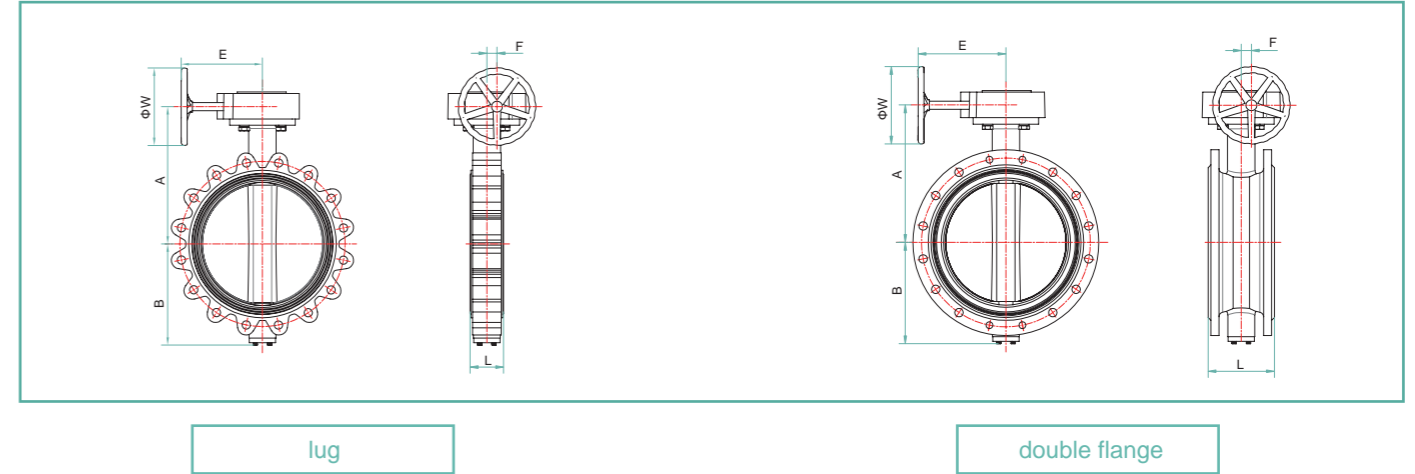
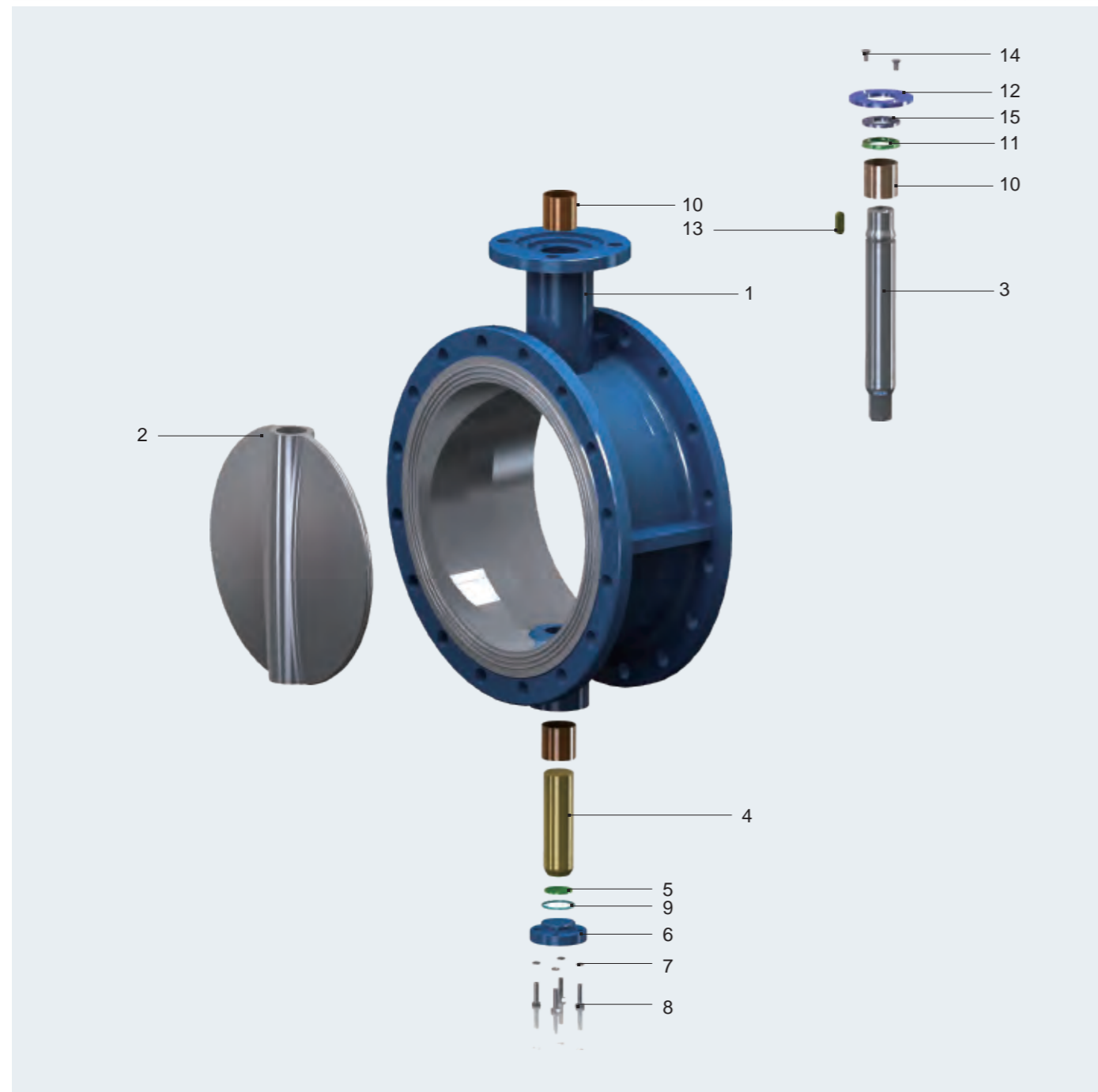




NO.	Part	Num	NO.	Part	Num
1	Body	1	9	Seat	1
2	Bearing	3	10	Disc	1
3	Blowout Proof Block	1	11	O-rings	1
4	Lower Gland Flange	1	12	Gasket	4
5	Thrust Gasket	1	13	Screw	4
6	Hub Shaft	1	14	Screw	2
7	Retainer Ring	1	15	Key	1
8	Stem	1	16	Seal Ring	1

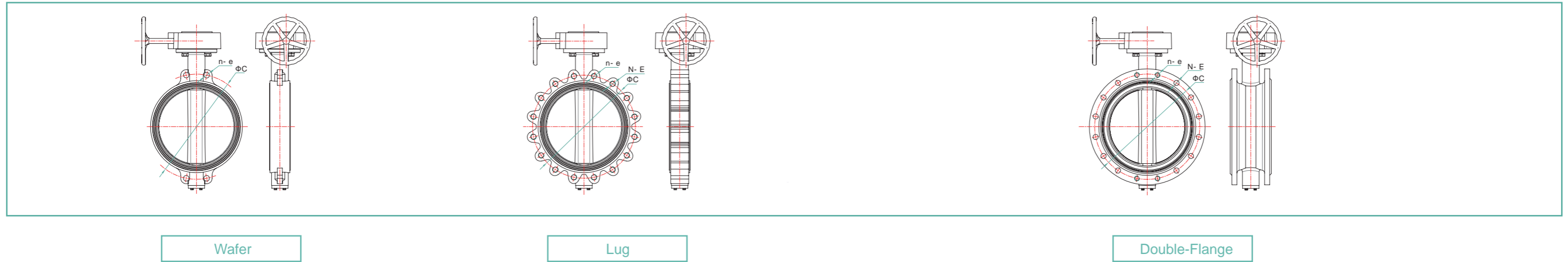


NO.	Part	Num	NO.	Part	Num
1	Body	1	9	O-rings	1
2	Disc	1	10	Bearing	3
3	Stem	1	11	Retainer Ring	1
4	Hub Shaft	1	12	Blowout Proof Block	1
5	Thrust Gasket	1	13	Key	1
6	Lower Gland Flange	1	14	Screw	2
7	Gasket	4	15	Seal Ring	1
8	Screw	4			



Out-Dimension and Weight

SIZE		L			Height		Lever Length	Gear Dimension			Weight			Lever Type	Gear Type
Valve Size	Wafer	Lug	Double-Flange	A	B	D	E	F	W	Wafer	Lug	Double-Flange			
In	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	Kg	Kg			
2	50	43	108	226	93	195	*	*	*	3	4.5	8	FF11	*	
2-1/2	65	46	112	240	102	195	*	*	*	4	5	11	FF11	*	
3	80	46	114	246	108	195	*	*	*	5	6	14	FF11	*	
4	100	52	127	280	127	270	*	*	*	6	9	19	FF14	*	
5	125	56	140	293	139	270	*	*	*	8	12	24	FF14	*	
6	150	56	140	306	151	270	*	*	*	9	13	26	FF14	*	
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	*	238	81	300	48	64	102	*	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	185	*	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	900	640	*	560	138	700	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	



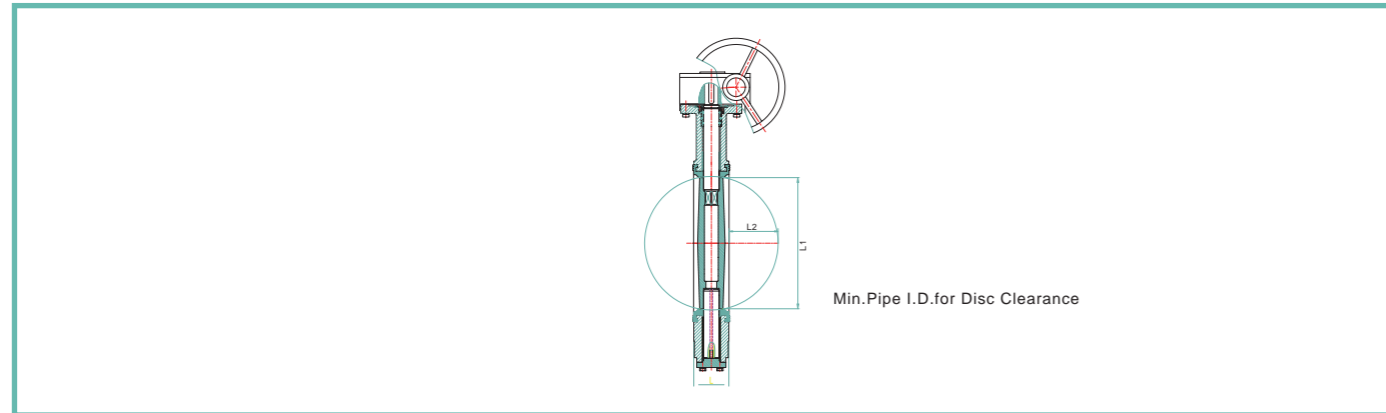
Wafer

Lug

Double-Flange

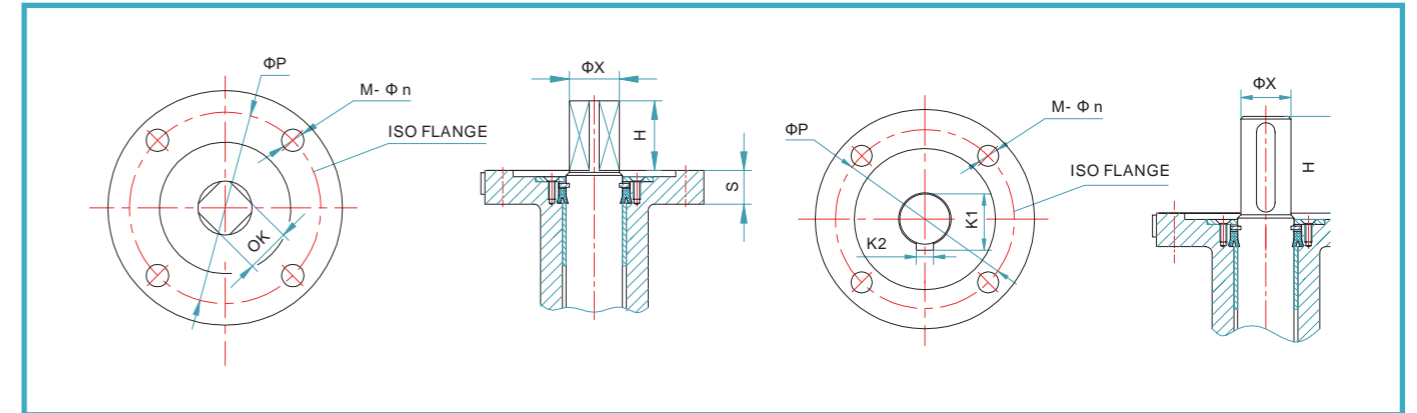
End Connection Dimensions

SIZE		ΦC				Wafer				Lug								Double-Flange							
						n-e				N-E				n-e				N-E				n-e			
In	mm	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB	PN6	PN10	PN16	150LB
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	8-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	16-1-1/8	*	*	*	*	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	863.4	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



Min. Pipe I.D. for Disc Clearance

SIZE		L1		L2	
		wafer	lug	wafer	lug
in	mm	mm	mm	mm	mm
2	50	30.3		4.8	
2-1/2	65	45.1		9.2	
3	80	64.1		16.5	
4	100	90.1		26.0	
5	125	110.5		34.0	
6	150	145.4		49.9	
8	200	194.2		71.7	
10	250	242.5		92.0	
12	300	292.7		112.5	
14	350	326.0		128.6	
16	400	377.5		144.5	
18	450	425.4		163.2	
20	500	474.9		182.3	
24	600	573.3		219.8	
28	700	646.4		255.3	
32	800	738.3		286.2	
36	900	829.2		326.5	
40	1000	940.5		374.5	
48	1200	1125.7		441.5	
56	1400	1354.6		552.0	



Dimensions Of Top Flange

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	F05	50	4-Φ6.6
2-1/2	65	24	15	11	*	*	14	F05	50	4-Φ6.6
3	80	24	15	11	*	*	14	F05	50	4-Φ6.6
4	100	24	15	14	*	*	18	F07	70	4-Φ9.5
5	125	24	15	14	*	*	18	F07	70	4-Φ9.5
6	150	24	15	14	*	*	20	F07	70	4-Φ9.5
8	200	24	15	17	*	*	24	F10	102	4-Φ11.5
10	250	26	17	22	*	*	30	F10	102	4-Φ11.5
12	300	29	20	27	*	*	35	F12	125	4-Φ11.5
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	40	*	32	137	130	F35	356	8-Φ33



Valve 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

**note:**

- 1:the data calculate by normal design pressure
- 2:WET: lubricant liquid medium as water, sea-water, oil and temperature from -4.5°C to 93°C, internal valve have no sediment and chemical corrosion ,everyday the operation at least keep one time
- DRY: all kinds of dry gas
- 3:choose actuator by 1.2~1.4 times safety factor
- 4:the torque out of table,contact with manufacturer
- 5:if condition different from above,referring to correction factor
- ★ the operation number is less than one time                   x1.2
- ★ dry condition(wear-resisting particle,concrete)           x1.7

Flow Coefficient (CV value)

SIZE		Disc 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

## Neway Head Office

Covers area: 2,295 sqm  
Office area: 6,885 sqm

**Founded in 2014**



## Neway Manufacturing Base

Main Products: Ball Valve, Gate Valve, Globe Valve, Check Valve, Forged Steel Valve, Butterfly Valve

Covers area: 230,000 sqm  
Work shop: 140,061 sqm

**Expanded in 2013**



## Neway Foundry (Suzhou)

Main products: Sand Casting  
Covers area: 112,500 sqm  
Office area: 134,000 sqm

**Founded in 2008**



## Neway Foundry (Dafeng)

Main products: Lost wax investment casting  
Covers area: 46,000 sqm  
Office area: 12,000 sqm

**Founded in 2004**



## Neway Foundry (Dafeng)

Main products: Lost wax investment casting  
Covers area: 40,000 sqm  
Office area: 20,000 sqm

**Founded in 2008**



Seller will replace without charge or refund the purchase price of products provided by Seller which prove to be defective in material or workmanship, provided in each case that the product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair or replacement. The warranty stated in this paragraph is in lieu of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer's exclusive remedy and seller's exclusive liability.