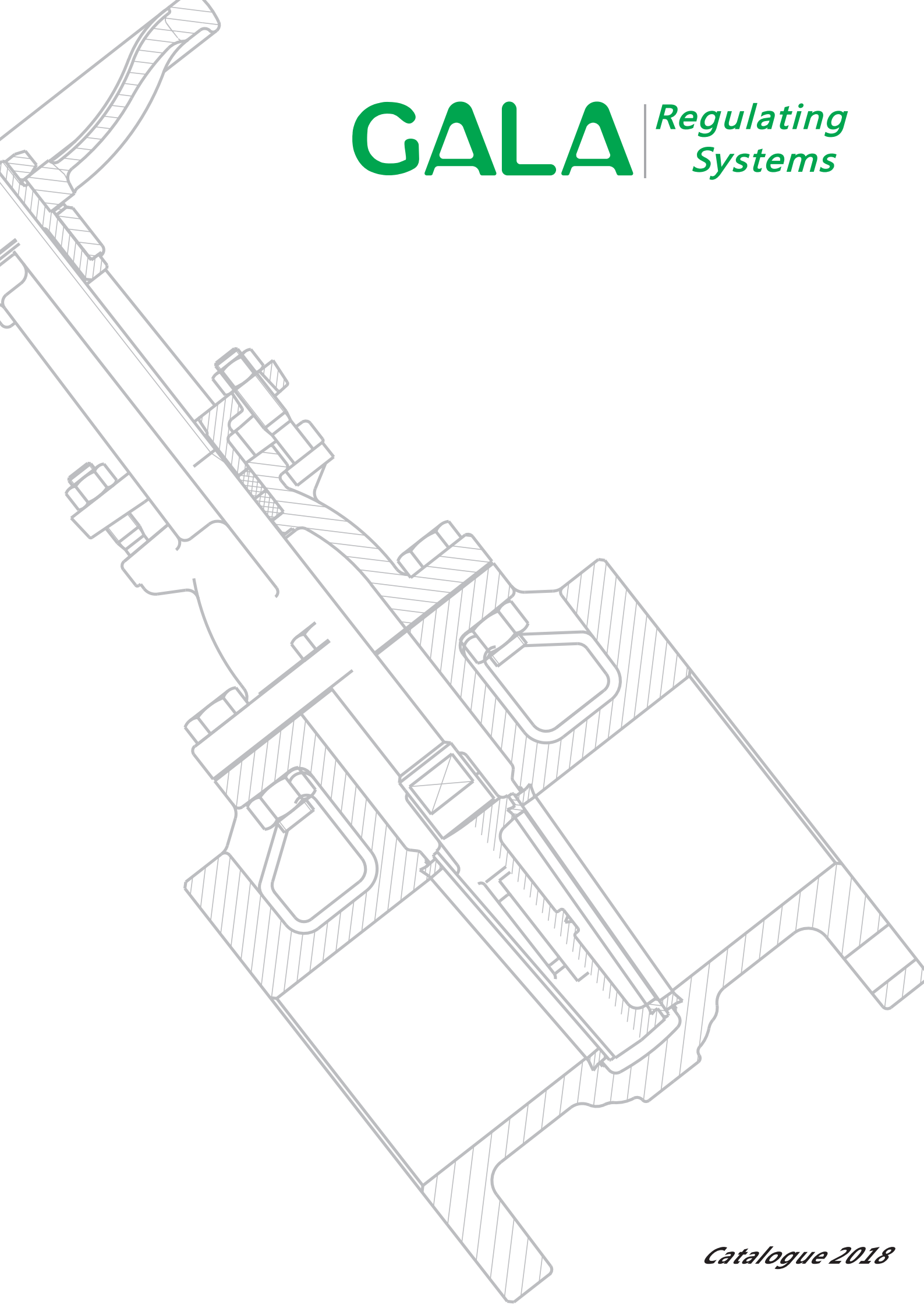


GALA | *Regulating Systems*



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Company Profile

GALA - Extends Business on a Global Perspective.

GALA company offers a wide range of products and systems in the field of valves, piping, and seismic isolation for applications ranging from equipment for office buildings, fire fighting, heating, water works, sewerage, marine, industrial to top fluid control. Our aim is meaningful contribution to society by providing comfort and safety through our products, technical skills and services!

GALA - Professional Manufacturer of Industrial Valves

GALA have variety products to meet customer demand of different valve. Designing, manufacture and sale of one-stop service is the company's core strengths.

GALA products cover the following industry area:

Water supply system, water treatment, food, chemical, cement, air-conditioning systems, industry engineering, nuclear power, papermaking, Petrochemical Industry, pharmaceutical, Powder Industry, steel industry, sugar refining, textiles and so on. GALA anti-pollution environmental protection industry is one of the major business. GALA provides various valve for wastewater processing and exhaust gas processing.

GALA have wide variety of industrial valves, including following main products:

- ◆ Fire Protection Valve
- ◆ Balancing Valve
- ◆ Butterfly Valve
- ◆ Gate Valve, Globe Valve, Check Valve, Ball Valve
- ◆ Strainer
- ◆ Flexible Rubber Joint
- ◆ Flexible Stainless Steel Hose, Expansion Joints

Other Valves and fittings are also available from GALA.

All products will be designed, manufactured and assembly by GALA.



CLASS 125/ CLASS 250/
PN16/PN25/JIS 10K/JIS 16K

Wafer Butterfly Valve

Fig. 2302



Valve Standard :

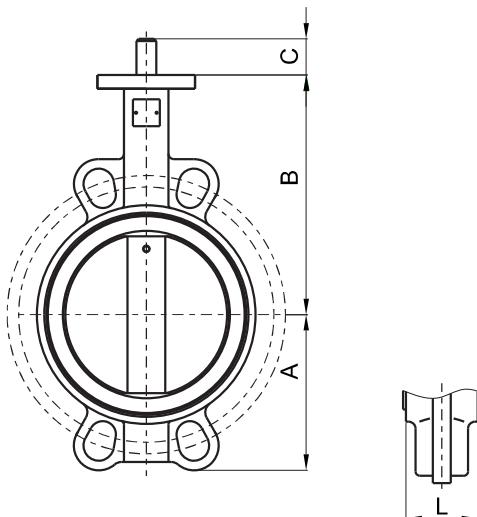
Comply with ISO 5752/BS 5155/
BS EN 593/MSS SP-67/API 609

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM Seat
	-10°C to 80°C NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 Gr. 65-45-12
Disc	Ductile Iron	A536 Gr. 65-45-12
	Bronze	B148 C95400
	Stainless Steel	A351 CF-8
	Stainless steel	A351 CF-8M
Shaft	Stainless Steel	A276 S 410 00
	Stainless Steel	A276 S 431 00
Seat Ring	EPDM / NBR / Viton / PTFE	
O-Ring	EPDM / NBR	
Bushing	PTFE	
	Bronze	B62 C83600



Dimensions

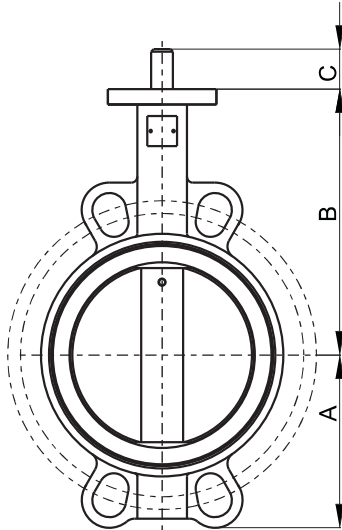
DN	mm	40	50	65	80	100	125	150	200	250	300	350	400
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16
A		66	68.6	76	98.6	118.7	129.4	142	176	208.8	248.5	267	316
B		130	141.2	150.4	156.4	167.9	186.5	205.7	230.6	269.9	327.8	368	400
C		15	15	19	19	19	19	19	25	32	32	40	52
L		33	42	44.5	44.5	51	54.5	54.5	59.6	67	75.5	76	102

DN	mm	450	500	550	600	650	700	750	800	900	1000	1200	-
	inch	18	20	22	24	26	28	30	32	36	40	48	-
A		334	370	433	468	484	530	565	602	661	724	869	-
B		422	480	533	562	540	626	660	666	722	806	938	-
C		52	64	70	70	70	95	95	95	130	130	150	-
L		114	127	151	151	172	165	167	188	203	216	276	-

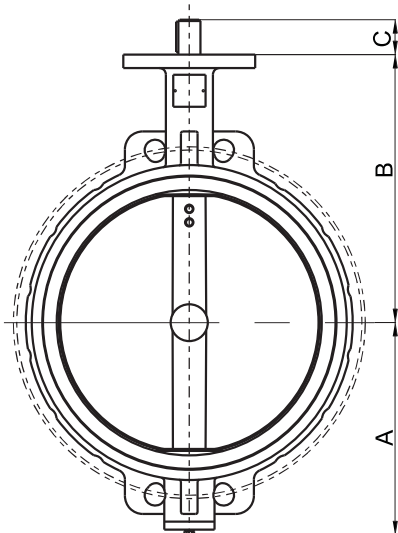
CLASS 125/ CLASS 250/
PN 16/PN25/JIS 10K/JIS 16K

Wafer Butterfly Valve

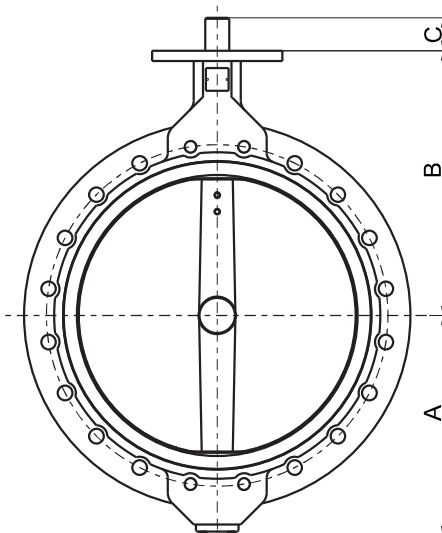
Appearance



Fit DN40-DN350 Wafer Butterfly valves



Fit DN400-DN500 Wafer Butterfly valves



Fit DN550-DN1200 Wafer Butterfly valves

CLASS 125/ CLASS 250/
PN 16/PN25/JIS 10K/JIS 16K

Lug Butterfly Valve

Fig. 2502



Valve Standard :

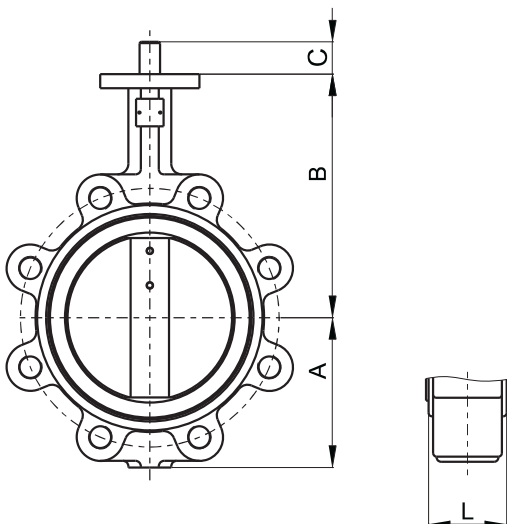
Comply with ISO 5752/BS 5155/
BS EN 593/MSS SP-67/API 609

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM Seat
	-10°C to 80°C NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM
Body	Ductile Iron	A536 Gr. 65-45-12
Disc	Ductile Iron	A536 Gr. 65-45-12
	Bronze	B148 C95400
	Stainless Steel	A351 CF-8
	Stainless steel	A351 CF-8M
Shaft	Stainless Steel	A276 S 410 00
	Stainless Steel	A276 S 431 00
Seat Ring	EPDM / NBR / Viton / PTFE	
O-Ring	EPDM / NBR	
Bushing	PTFE	
	Bronze	B62 C83600



Dimensions

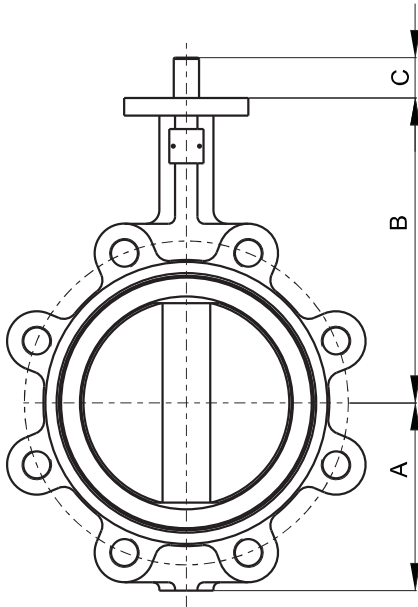
DN	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
	A	66	68.6	76	98.6	118.7	129.4	142	176	208.8	248.5
	B	130	141.2	150.4	156.4	167.9	186.5	205.7	230.6	269.9	327.8
	C	15	15	19	19	19	19	19	25	32	32
	L	33	42	44.5	44.5	51	54.5	54.5	59.6	67	75.5

DN	mm	350	400	450	500	550	600	650	700	800	1000
	inch	14	16	18	20	22	24	26	28	32	40
	A	267	316	334	370	433	468	484	530	675	810
	B	368	400	422	480	533	562	540	626	602	724
	C	40	52	52	64	70	70	70	95	95	130
	L	76	102	114	127	151	151	172	165	190	216

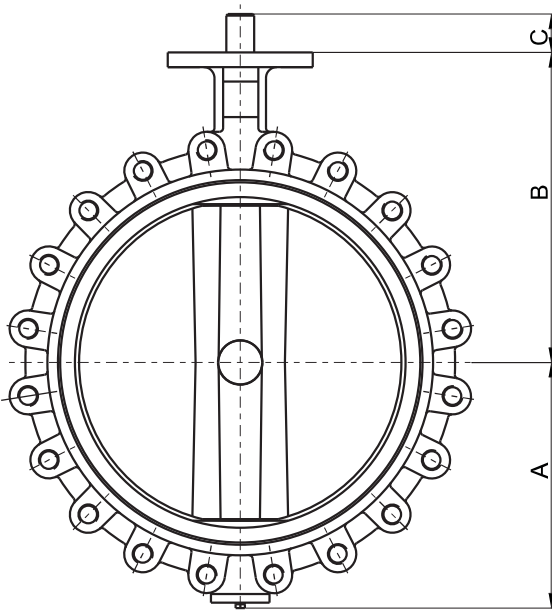
CLASS 125/ CLASS 250/
PN 16/PN25/JIS 10K/JIS 16K

Lug Butterfly Valve

Appearance

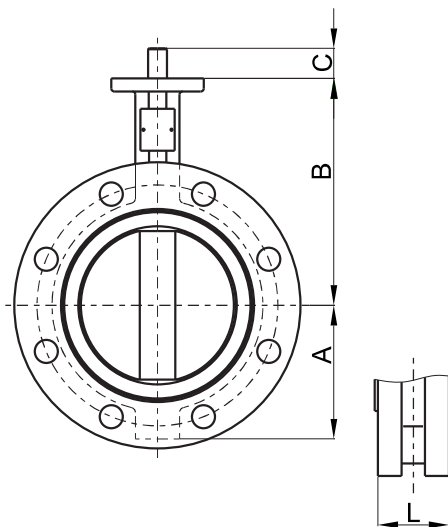


Fit DN40-DN350 Lug Butterfly valves



Fit DN400-DN1000 Lug Butterfly Valves

Fig. 2122



Valve Standard :

Comply with ISO 5752/BS 5155/
BS EN 593/MSS SP-67/API 609

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM Seat -10°C to 80°C NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS 1050
Disc	Ductile Iron	EN-JS 1050
	Bronze	EN 1982 CC491K
	Stainless Steel	BS970 304 C 15 BS970 316 C 16
Shaft	Stainless Steel	BS970 410 S 21
	Stainless Steel	BS970 431 S 29
Seat Ring	EPDM / NBR / Viton / PTFE	
O-Ring	EPDM / NBR	
Bushing	Bronze	EN 1982 CC491K

Dimensions

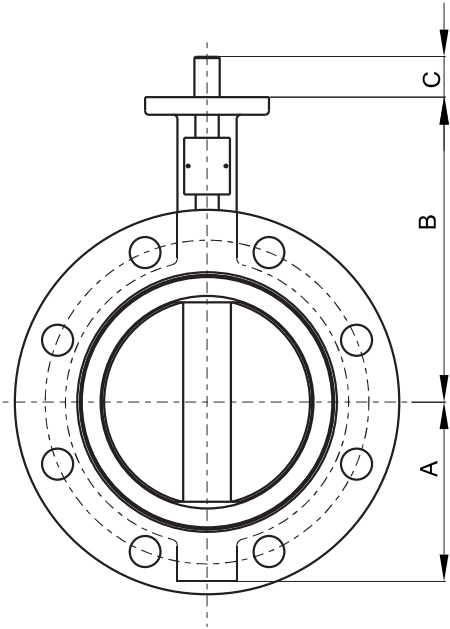
DN	mm	150	200	225	250	300	350	375	400	450	500	550
	inch	6	8	9	10	12	14	15	16	18	20	22
	A	133	175	190	201	242	267	320	316	344	380	432
	B	226	260	275	292	337	368	375	400	422	480	533
	C	30	34	34	34	34	40	52	52	52	64	70
	L	55	60	67	67	76	76	102	102	114	127	151

DN	mm	600	650	700	750	800	900	1000	1050	1100	1200	-
	inch	24	26	28	30	32	36	40	42	44	48	
	A	468	484	530	564	602	661	724	784	804	869	-
	B	562	540	626	660	666	722	806	865	820	938	-
	C	70	70	95	95	95	130	130	150	150	150	-
	L	151	172	165	167	188	203	216	251	253	276	-

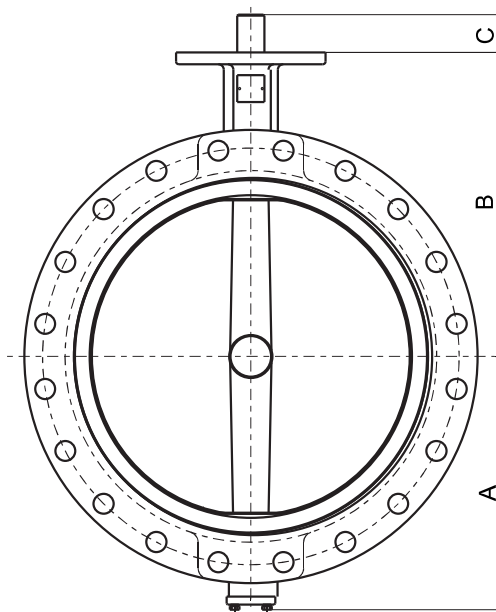
CLASS 125/PN 16/JIS 10K

U-Type Butterfly Valve

Appearance



Fit DN40-DN350 U-Type Butterfly Valves



Fit DN400-DN1200 U-Type Butterfly valves

CLASS 150

AWWA C504 Double Flanged Butterfly Valve

Fig. 2102



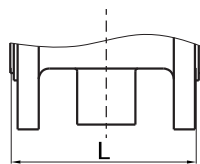
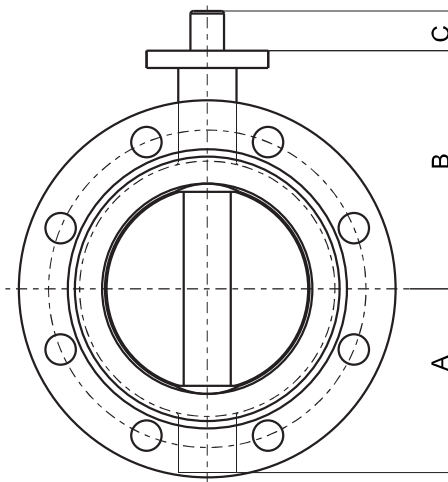
Valve Standard :
Comply with AWWA C504

Pressure Temperature Ratings

Working pressure	150psi
Testing Pressure	Shell:300psi Seal:165psi
Working Temperature	-4°F to 230°F EPDM Seat 14°F to 176°F NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM
Body	Ductile Iron	A536 Gr. 65-45-12
Disc	Ductile Iron	A536 Gr. 65-45-12
	Bronze	B148 C95400
	Stainless Steel	A351 CF-8
	Stainless steel	A351 CF-8M
Shaft	Stainless Steel	A276 S 410 00
	Stainless Steel	A276 S 410 00
Seat Ring	EPDM / NBR	
O-Ring	EPDM / NBR	
Bushing	Bronze	B62 C83600

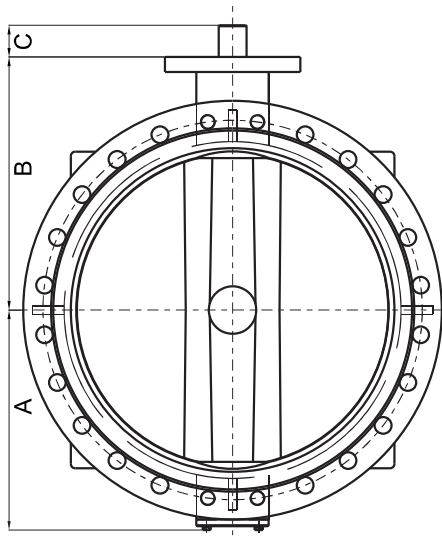


Dimensions

DN	mm	80	100	150	200	250	300	350	400	450
	inch	3	4	6	8	10	12	14	16	18
A		3.82	4.69	6.14	7.36	8.2	9.86	11.42	12.63	13.52
B		5.16	5.91	7.09	8.27	9.67	10.83	12.91	14.8	16.01
C		1.18	1.18	1.26	1.57	1.97	1.97	1.97	2.76	3.35
L		5	5	5	6	8	8	8	8	8

DN	mm	500	600	750	900	1050	1150	1200	1350	1500
	inch	20	24	30	36	42	46	48	54	60
A		16.08	18.78	20.33	24.21	28.74	41.2	39.4	45.7	50.1
B		17.64	20.39	24.02	27.24	34.06	41.8	34.8	39.2	41.8
C		3.74	4.33	3.74	5	5.12	5.91	5.91	7.87	7.87
L		8	8	12	12	12	15	15	15	15

Fig. 2123



Valve Standard :

Comply with ISO 5752/BS 5155/BS EN 593

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM Seat -10°C to 80°C NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS 1050
Disc	Ductile Iron	EN-JS 1050
	Bronze	EN 1982 CC491K
	Stainless Steel 304	BS970 304 C 15
	Stainless steel 316	BS970 316 C 16
Shaft	Stainless Steel 410	BS970 410 S 21
	Stainless Steel 431	BS970 431 S 29
Seat Ring	EPDM / NBR	
O-Ring	EPDM / NBR	
Bushing	Bronze	EN 1982 CC491K

Dimensions

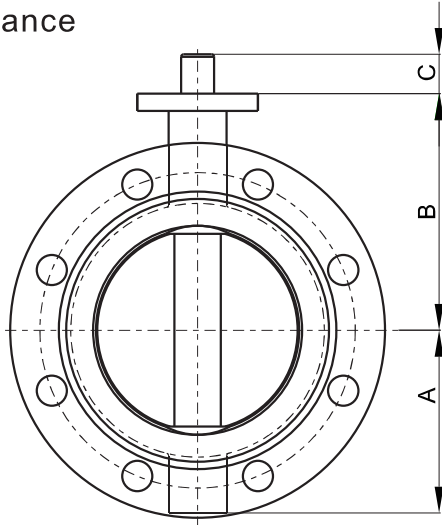
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	30
A		80	80	95	114	114	139	175	203	242	250	317	341	367	432	488	517
B		110	134	131	150	170	180	210	245	276	328	376	407	433	508	560	610
C		30	30	30	30	30	30	34	34	34	40	52	52	64	70	95	95
L		108	112	114	127	140	140	152	165	178	190	216	222	229	267	292	305

DN	mm	800	900	1000	1200	1300	1350	1400	1500	1600	1800	2000	2200	2400	2600	2800	3000
	inch	32	36	40	48	52	54	56	60	64	72	80	88	96	104	112	120
A		544	615	669	794	968	1062	1066	950	1054	1164	1363	1445	1610	1795	1900	2040
B		620	692	735	917	990	1046	1000	1050	1150	1200	1360	1500	1650	1780	1900	2070
C		95	130	130	150	200	200	200	200	200	200	200	300	300	300	300	350
L		318	330	410	470	490	490	530	570	600	670	760	636/800	850	900	950	1000

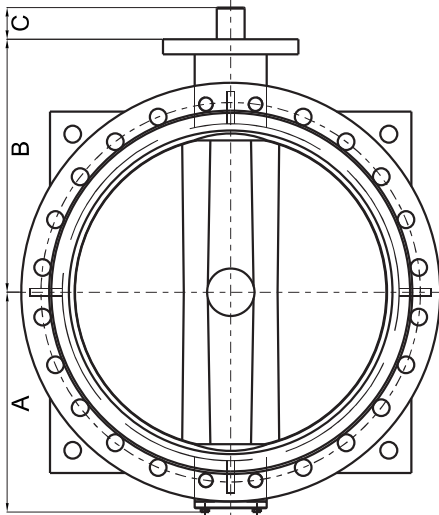
CLASS 125/PN16/JIS 10K

Double Flanged Butterfly Valve

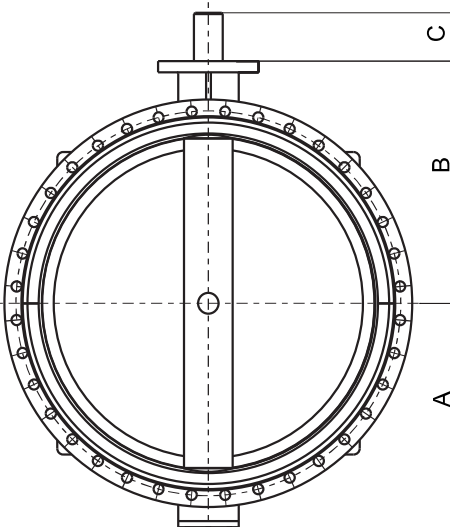
Appearance



Fit DN50-DN350 Double Flanged Butterfly valves



Fit DN400-DN1200 Double Flanged Butterfly valves



Fit DN1300-DN3000 Double Flanged Butterfly valves

AWWA Double Eccentric Butterfly Valve

Fig. 2630



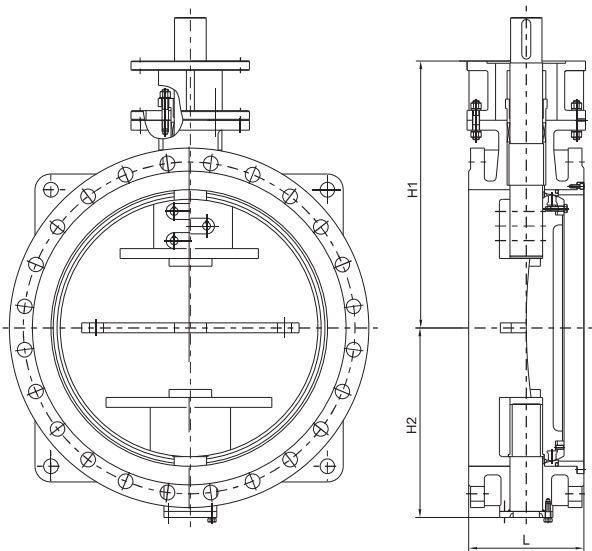
Valve Standard :
Comply with AWWAC504

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar
	Seal:17.6bar
Working Temperature	-4°F to 230°F EPDM Seat
	14°F to 176°F NBR Seat
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM
Body	Ductile Iron	A536 Gr.65-45-12
Disc	Ductile Iron	A536 Gr.65-45-12
Body Seat Ring	Ductile Iron	A536 Gr.65-45-12
	SS304	A351 CF8
Disc Seat Ring	EPDM / NBR	
	PTFE	
Shaft	SS410	A276 S410
	SS431	A276 S431
O-Ring	EPDM / NBR	
Bushing	Bronze	



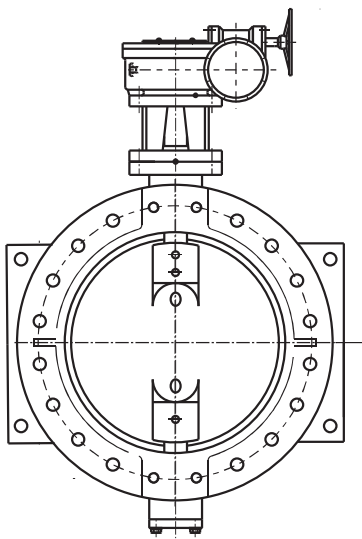
Dimensions

DN	mm	200	250	300	350	400	450	500	600	700	750	800	900	1000	1200
	inch	8	10	12	14	16	18	20	24	28	30	32	36	40	48
L		152	203	203	203	203	203	203	203	305	305	305	305	305	381
H1		284	349	386	412	447	491	541	602	655	698	740	805	916	1043
H2		185	217.5	257	284	316	336	373	428	485	515	552	607	672	782

PN10/PN16/PN25

Double Eccentric Butterfly Valve

Fig. 2688



Valve Standard :

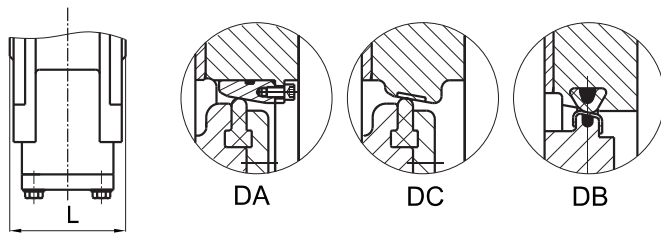
Comply with ISO 5752/BS5155/BS EN593

Pressure Temperature Ratings

Working pressure	10bar/16bar/25bar
Testing Pressure	Shell:15bar/24bar/37.5bar Seal:11bar/17.6bar/27.5bar
Working Temperature	-10°C to 120°C
Suitable Media	Water,Oil&Gas

Material Specification

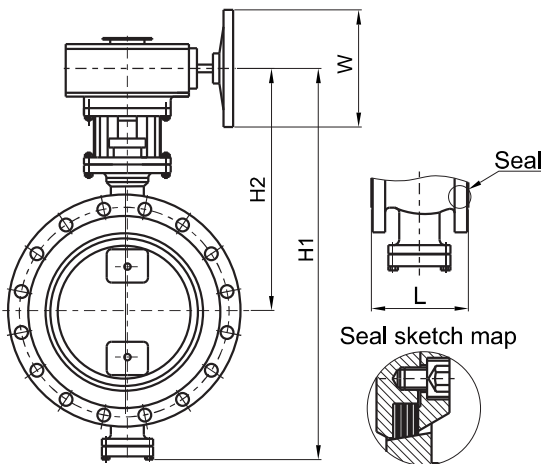
Part	Material	EN Spec.
Body	Ductile Iron	EN-JS 1050
Disc	Ductile Iron	EN-JS 1050
Shaft	Stainless Steel	BS970 431 S 29
Packing	Flexible Graphite	Non-Asbestos
Seat Ring	Stainless Steel	BS970 304 S 15
Rubber Seals	EPDM / NBR	



Dimensions

DN	mm	100	150	200	250	300	350	400	450	500	600
	inch	4	6	8	10	12	14	16	18	20	24
L(Long)		190	210	230	250	270	290	310	330	350	390
L(Middle)		127	140	152	165	178	190	216	222	229	267
L(Short)		-	-	89	114	114	127	140	152	152	178
DN	mm	700	800	900	1000	1200	1400	1600	1800	2000	-
	inch	28	32	36	40	48	56	64	72	80	
L(Long)		430	470	510	550	630	710	790	870	950	-
L(Middle)		292	318	330	410	470	530	600	670	760	-
L(Short)		229	241	241	300	350	390	440	190	540	-

Fig. 2986



Valve Standard :

Comply with ISO 5752/BS5155/BS EN 593

Pressure Temperature Ratings

Working pressure	10/16/25/40/63bar
Testing Pressure	Shell:15/24/37.5/60/94.5bar
	Seal:11/17.6/27.5/44/69.3bar
Working Temperature	-196°C to 550°C
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM
Body	Carbon Steel	ASTM A216 WCB
	Stainless Steel	ASTM A351 CF8
	Alloy Steel	ASTM A217 WC6
	Low Temperature Steel	ASTM A352 LCB
Disc	Carbon Steel	ASTM A216 WCB
	Stainless Steel	ASTM A351 CF8
	Alloy Steel	ASTM A217 WC6
	Low Temperature Steel	ASTM A352 LCB
Shaft	Stainless Steel 304	ASTM A276 S30400
	Stainless Steel 431	ASTM A276 S43100
Packing	Flexible Graphite	
Disc Seals	Graphite+SS304	

Dimensions

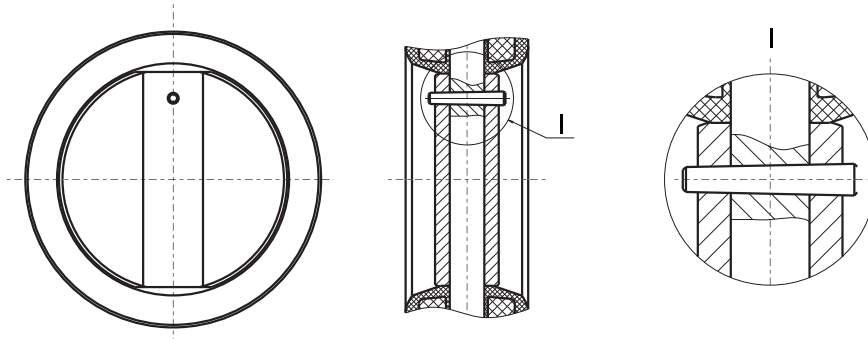
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20
H1		293	313	333	345	370	425	488	575	642	731	786	844	945
H2		218	228	238	255	270	305	362	410	444	492	522	552	606
W		160	160	180	180	200	200	350	350	400	400	600	600	600
L		108	112	114	127	140	140	152	165	178	190	216	222	229

DN	mm	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800
	inch	28	32	36	40	48	56	64	72	80	88	96	104	112
H1		1222	1340	1391	1596	1861	2066	2397	2674	2901	3119	3324	3780	3933
H2		726	862	915	1020	1075	1235	1355	1600	1725	1970	2080	2351	2425
W		800	400	400	400	400	600	600	600	600	800	800	800	800
L		292	318	330	410	470	530	600	670	950	1000	1110	1190	1270

BFV Design of Construction

One Shaft Type

Type 1
c/w Pin

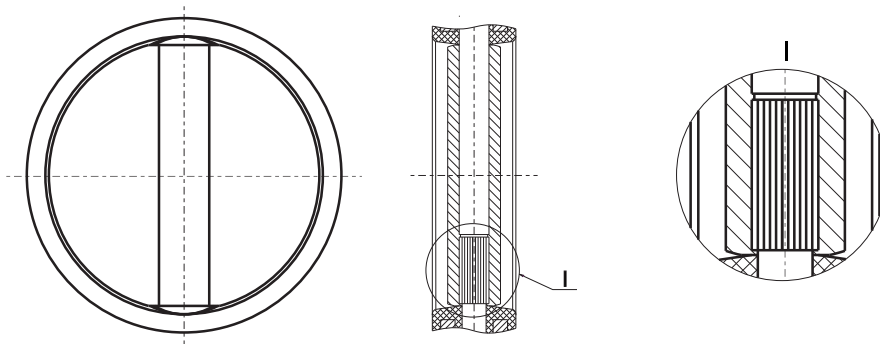


Note:
Size from DN25-3000

BFV Design of Construction

One Shaft Type

Type 2
Spline Type Pinless

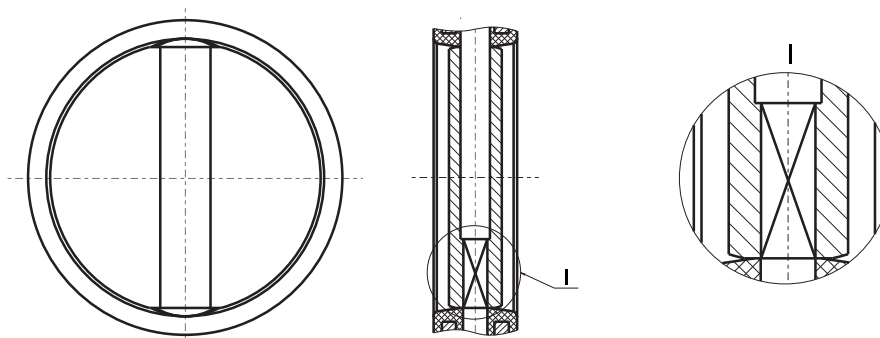


Note:
Size from DN40-400

BFV Design of Construction

One Shaft Type

Type 3
Square Type Pinless

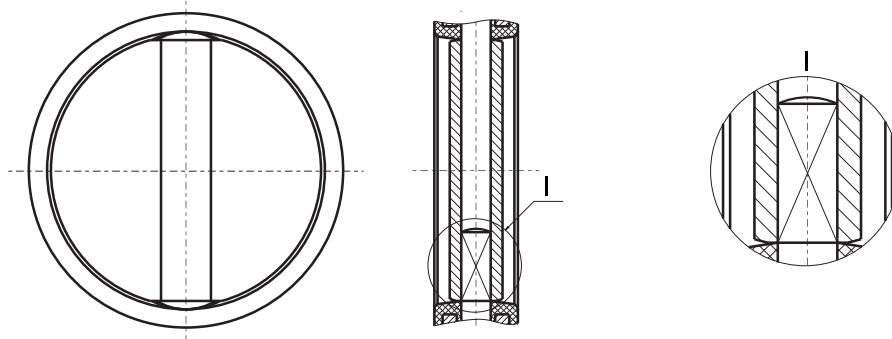


Note:
Size from DN40-400

BFV Design of Construction

One Shaft Type

Type 4
Flat Type Pinless

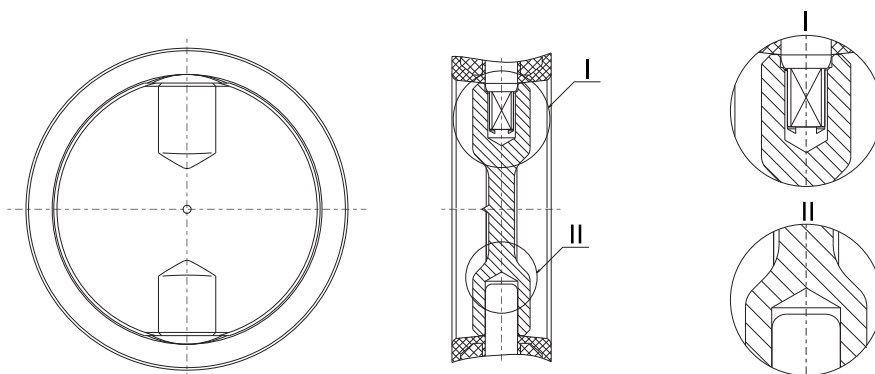


Note:
Size from DN40-400

BFV Design of Construction

Two Shaft Type

Type 5
Square Type Pinless

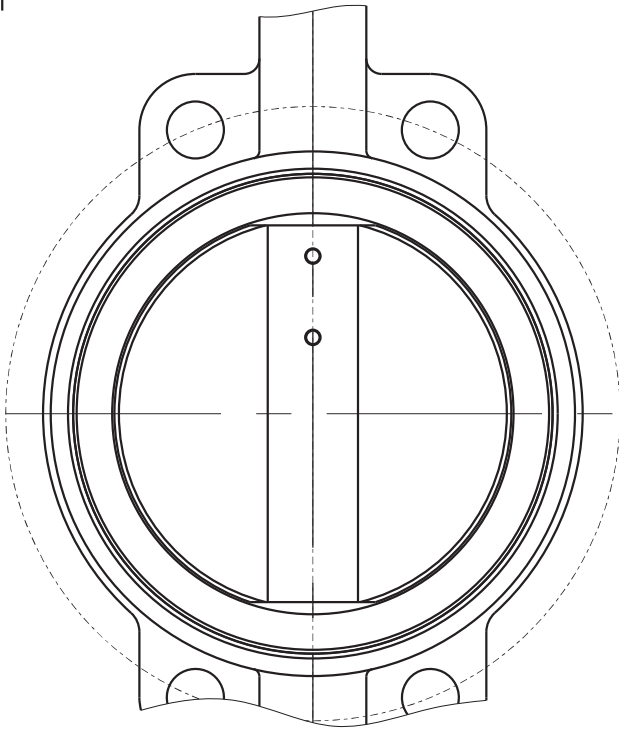


Note:
Size from DN40-3000

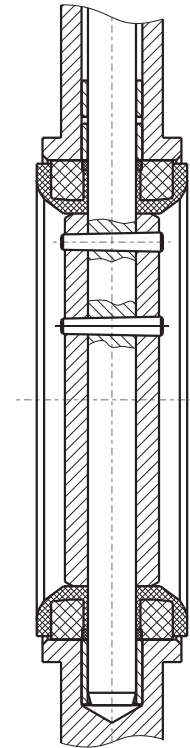
BFV Design of Seat

With Backing, Replaceable

Type 1



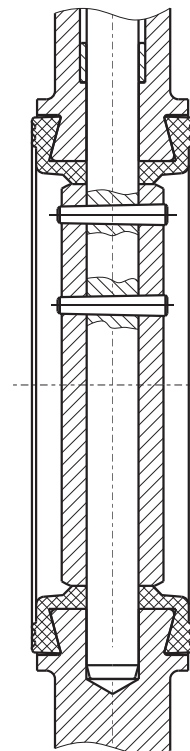
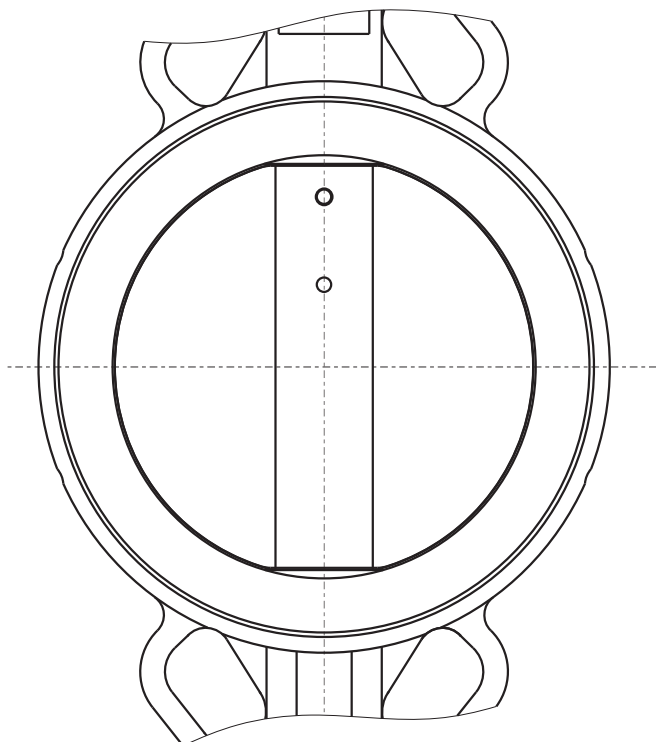
Note: Backing is Phenolic resin or Aluminum



BFV Design of Seat

Without Backing, Replaceable

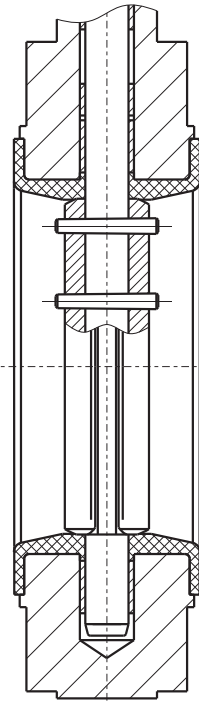
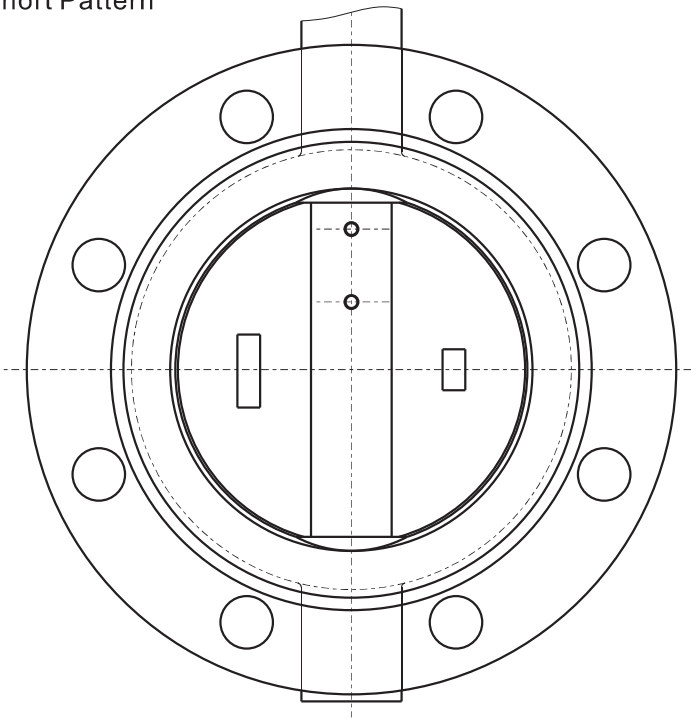
Type 2



BFV Design of Seat

Without Backing, un-replaceable

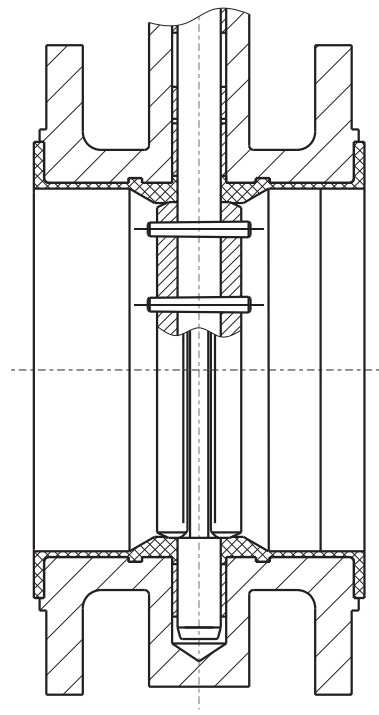
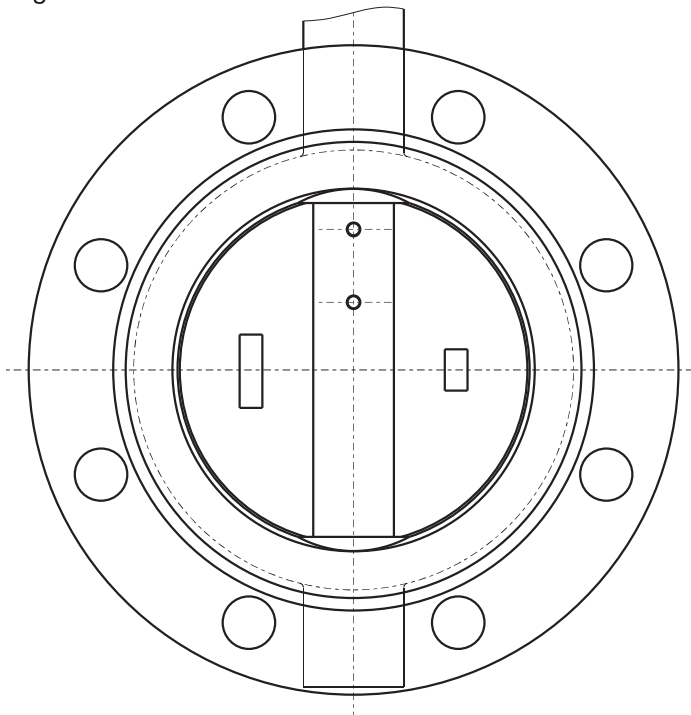
Type 3A
Short Pattern



BFV Design of Seat

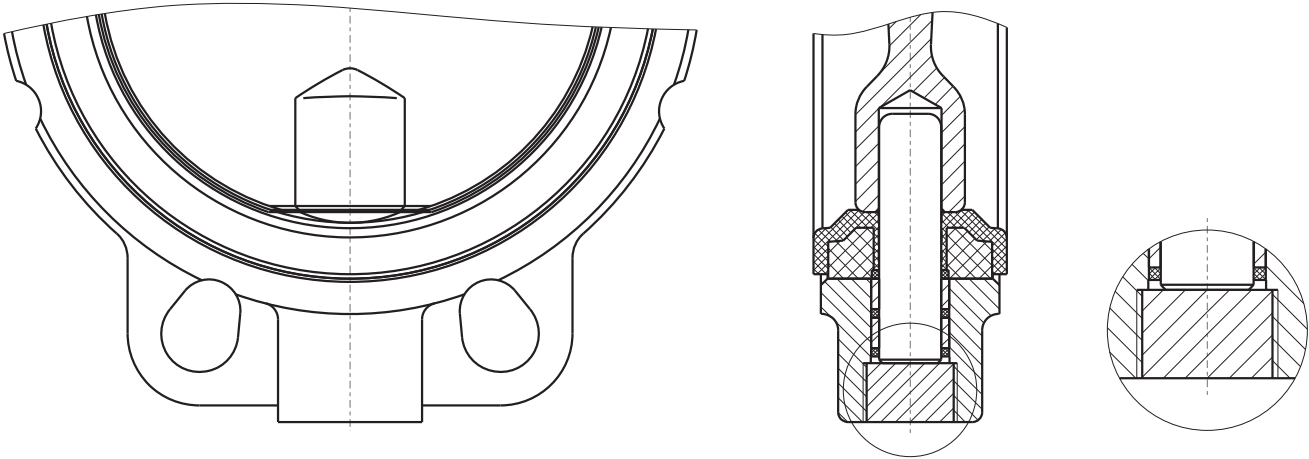
Without Backing, un-replaceable

Type 3B
Long Pattern



BFV Construction of Two Shaft Type

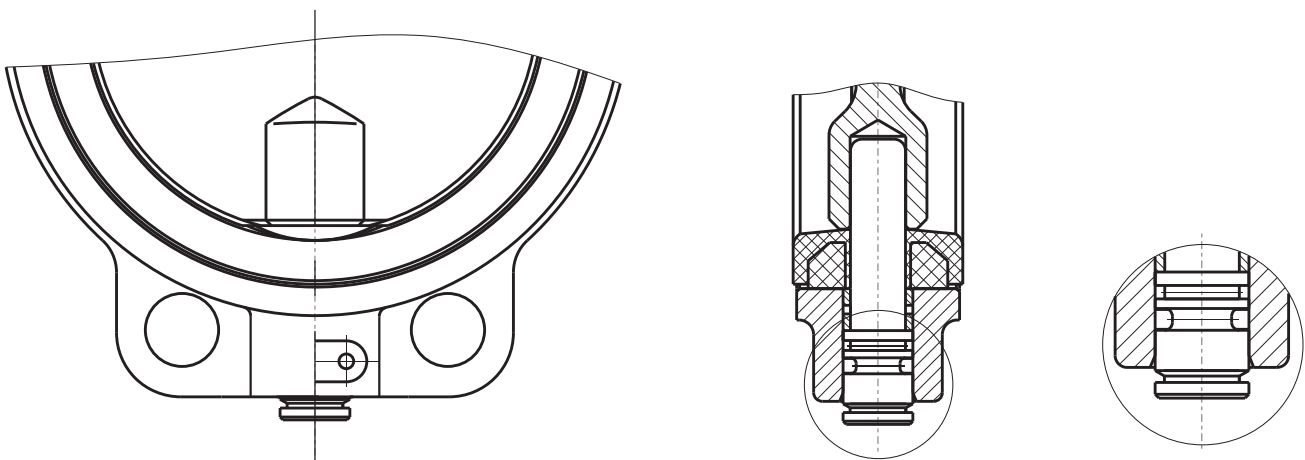
Type 4A
Lower Shaft Inside (Fixed by Plug)



Note:
Size from DN40-3000

BFV Construction of Two Shaft Type

Type 4B
Lower Shaft Outside (Fixed by Pin)

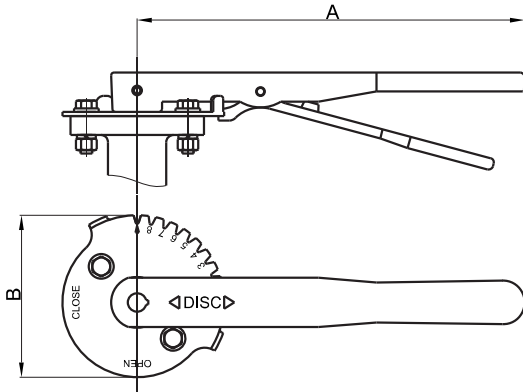


Note:
Size from DN40-400

Lever Operator

Malleable Iron Lever

Type 1



Material Specification

Part	Material
Lever	Malleable Iron
Top Plate	Carbon Steel
	Stainless Steel 304
	Stainless Steel 316



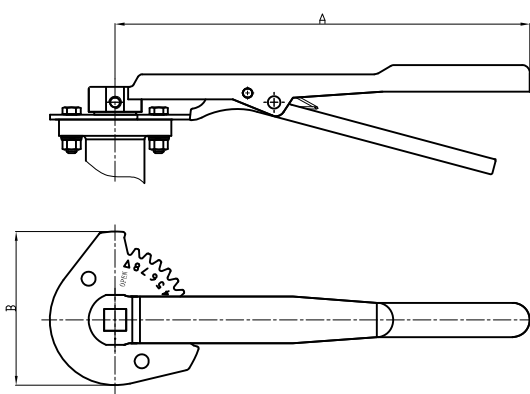
Dimensions

DN	mm	40	50-150	200-300
	inch	1-1/2	2-6	8-12
A		165	266	357
B		110	110	163

Lever Operator

Malleable Iron Lever

Type 2



Material Specification

Part	Material
Lever	Malleable Iron
Top Plate	SS304



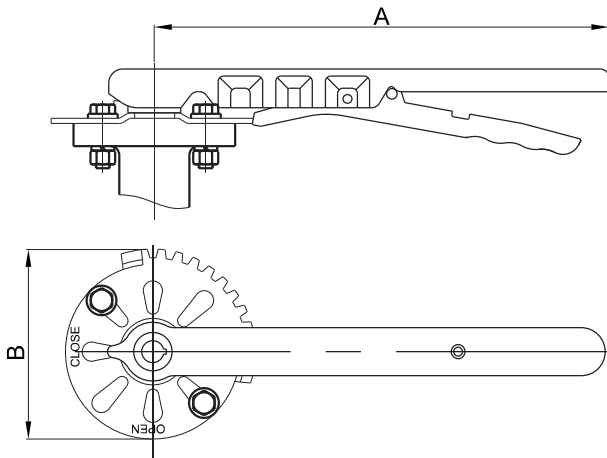
Dimensions

DN	mm	25~40	50~80	100	150	200~250	300
	inch	1~1-1/2	2~3	4	6	8~10	14
A		195	266	266	328	386	391
B		95	95	109	109	164	164

Lever Operator

Steel Lever

Type 3



Material Specification

Part	Material
Lever	Stainless Steel 304
	Stainless Steel 316
Top Plate	Stainless Steel 304
	Stainless Steel 316



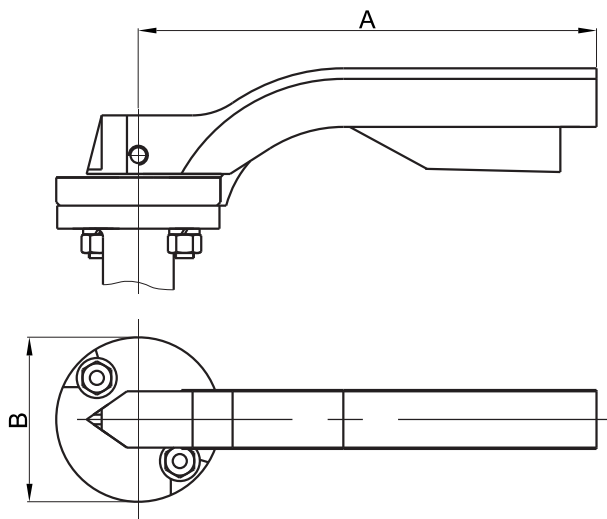
Dimensions

DN	mm	50-150	200-300
	inch	2-6	8-12
A		259	373
B		109	163

Lever Operator

Aluminum Lever

Type 4



Material Specification

Part	Material
Lever	Aluminum
Top Plate	Aluminum

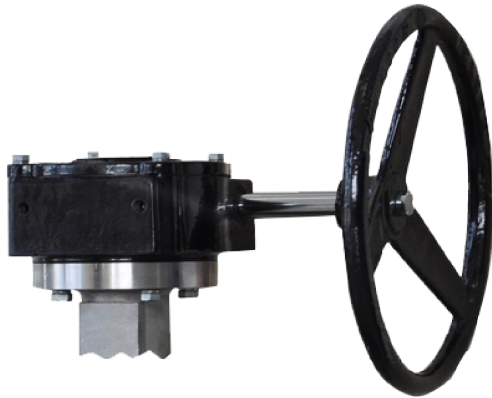


Dimensions

DN	mm	50-80	100-150
	inch	2-3	4-6
A		195	276
B		70	95

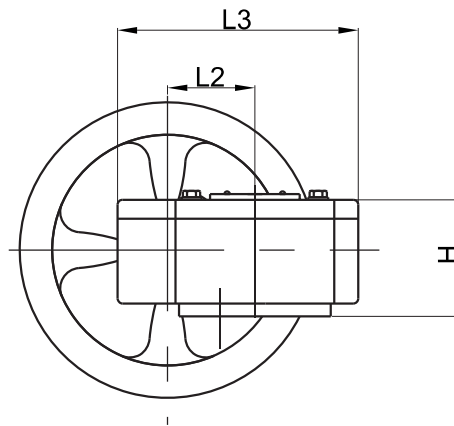
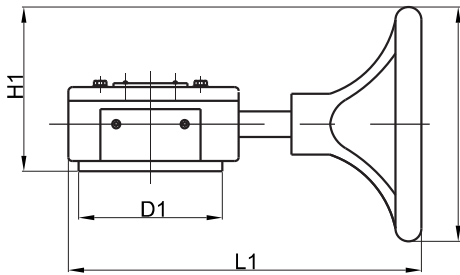
Gear Box

1-Stage Transmission



Material Specification

Part	Material
Housing	Cast Iron
Cover	Cast Iron
Worm	Carbon Steel
Worm Gear	Ductile Iron
Shaft	Carbon Steel
Handwheel	Cast Iron

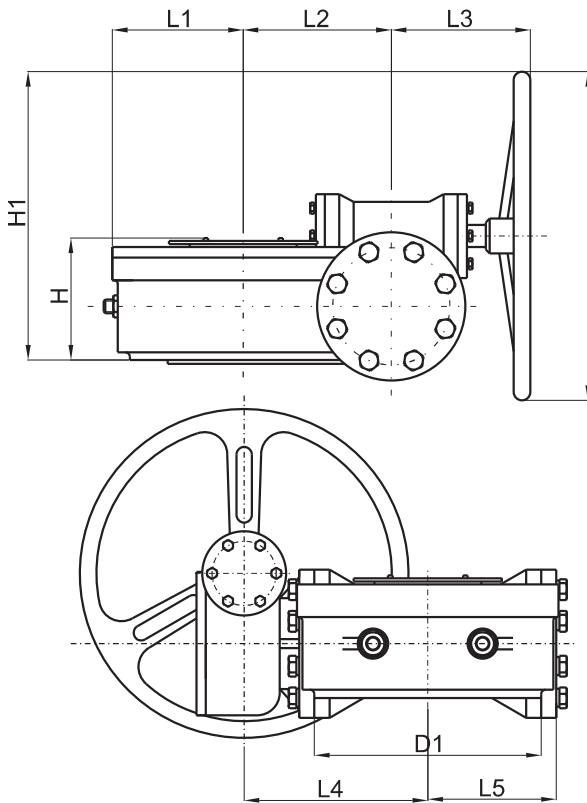


Dimensions

Model	Concentric Valve		Eccentric Valve		D1	Ø	H	H1	L1	L2	L3	Output Torque (N. M)	Rate
	Size inch mm	Size inch mm	Size inch mm	Size inch mm									
3D-15	2-6	2-5	2-5	2-5	108	145	65	113	212	45	129	200	24:1
	50-150	50-125	50-125	50-125									
3D-50	8-10	6-8	6-8	6-8	146	285	70	182	305	62	171	500	30:1
	200-250	150-200	150-200	150-200									
3D-120	12-14	10-12	10-12	10-12	165	285	77	182	300	85	198	1200	50:1
	300-350	250-300	250-300	250-300									
XJ80	16-18	14-16	14-16	14-16	234	385	103	247	423	120	280	2500	80:1
	400-450	350-400	350-400	350-400									
XJ300	20-24	18-20	18-20	18-20	276	385	143	270	490	122	316	4000	293.5:1
	500-600	450-500	450-500	450-500									

Gearbox

2-Stage/3-Stage Transmission



Material Specification

Part	Material
Housing	Cast Iron
Cover	Cast Iron
Worm	Carbon Steel
Worm Gear	Ductile Iron
Shaft	Carbon Steel
Handwheel	Cast Iron

Dimensions

Model	Concentric Valve Eccentric Valve		D1	Ø	H	H1	L1	L2	L3	L4	L5	Output torque (N. M)	Rate
	Size inch mm	Size inch mm											
3DE-30/250	16-18 400-450	16 400	197	285	125	271	107	100	156	168	107	2500	560:1
3DE1-30/250	20 500	16 450	197	285	124	276	107	100	160	175	107	2500	560:1
3DE1-30/400	24 600	20 500	276	385	136	330	131	125	160	193	131	4000	560:1
3D-60/800	28-30 700-750	24 600	300	425	158	373	173	162	197	244.5	173	8000	704:1
3DE-60/800	32-36 800-900	28-30 700-750	300	425	149	378	146	140	197	230	146	8000	704:1
3D-120/1500	40-44 1000-1100	32-36 800-900	300	425	185	409	201	196	203	279	201	15000	680:1
3D-120/2500	48 1200	40-44 1000-1100	350	425	216	423	185	240	203	311	255	25000	850:1
3D-200/4000	56 1400	48 1200	415	510	267	553	208	345	258	435	355	40000	1440:1
3D-200/6300	64 1600	56 1400	470	510	312	562	316	410	237	450	425	63000	1728:1
3D-200/8550	72 1800	64 1600	560	510	326	570	360	460	237	466	475	80000	1920:1
3D-600/12000	80 2000	72 1800	650	600	48	240	410	602	265	725	630	120000	1875:1
3D-30/600/18000	88-96 2200-2400	80-88 2000-2200	800	600	570	240	442	696	364	742	726	180000	3750:1
3D-30/600/68000	104-120 2600-3000	96-112 2400-2800	800	600	520	240	438	768	364	742	726	680000	4000:1

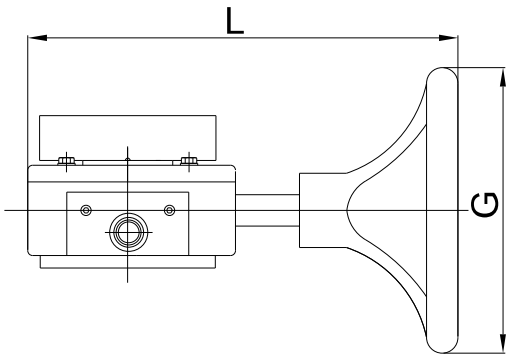
Signal Gearbox



Note:
Specification of BFV with limit Switch

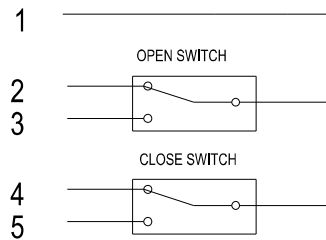
1. Indicator light is bright when valve is open fully; Control room give an alarm and indicator light 24V is put out when valve is close to 20° direction.

2. There are two switch in gear box ,one controls indicator light and the other connects to control room.

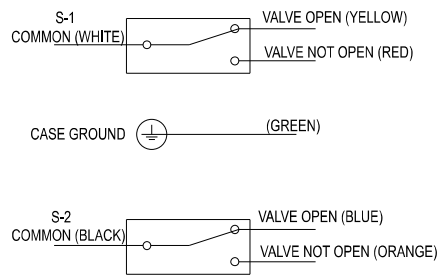


SWITCH WIRE

OPTION 1



OPTION 2

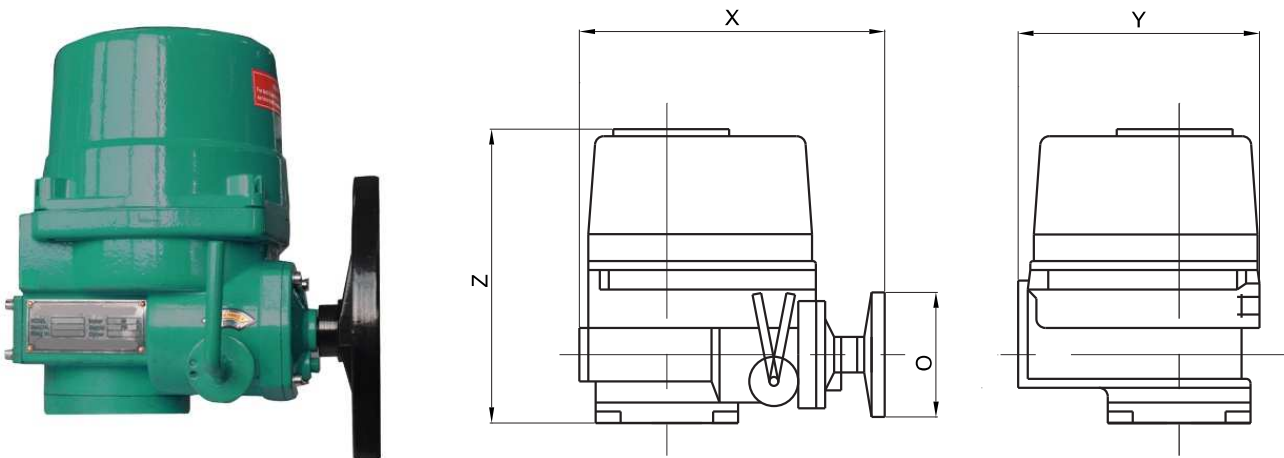


Dimensions

Size	L	G
50	210	145
65	210	145
80	210	145
100	210	145
125	210	145
150	210	145
200	300	285
250	300	285
300	300	285

Electric Actuator

1-Stage Quarter-Turn Transmission



Base features

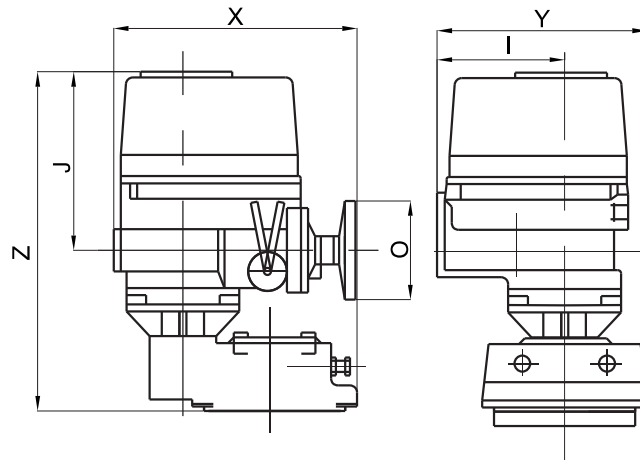
- The case is processed by means of aluminum die-casting technology and precision machining technique.
- Light weight and small size, outer surface is treated through flame plating technique to give an excellent appearance.
- Easy to adjust the end position of stroke control and set torque switch and reliable on control.
- High accuracy of driving medium, ball bearings are fitted at all rotating positions, high efficiency of whole machine and negligible noise.
- Driving of the output shaft is carried out through worm gear and can be self-locked at any position.
- There is an mechanical adjustable stop for valve and position control.
- The manual/electric declutch is of semi-automation and electric-priority to ensure safe and reliable operation
- Possessing ideal outdoor performance
- Various flange connection modes, there is a valve stem adapter in the inner of output shaft, easy to mount and dismount.
- Selected Function
- 4-20mA DC valve position feedback signal
- Increasing electric block with automatic adjusting function
- Increasing limit switch to give passive control contacts
- Performing integral control, possessing local/remote-control shifting function and opening, closing and stop at local control functions
- Fitted with heat protection element for electric motor.
- Fitted with space heater in the inner of electric control cave.
- Turn angle of output shaft is more or less than 90°
- Other special function requirement.

Dimensions

Type	QT03	QT04	QT06	QT09	QT15	QT19	QT28	QT38	QT50	QT60	QT80	QT100
Flange	F05	F05	F07	F07	F07	F07	F10	F10	F10	F10 F12	F05 F12	F10 F12
ISO5211	F07	F07			F10	F10	F12	F12	F12	F14	F14	F14
X	241	241	241	241	272	272	290	290	290	331	331	331
O	200	200	200	200	250	250	350	350	350	350	350	350
Z	256	256	256	256	263	263	298	298	298	342	342	342
Y	208	208	208	208	239	239	274	274	274	306	306	306
Output Torque(N*m)	30	40	60	90	150	190	280	380	500	600	800	1000
Output Speed(r/min)	0.9	0.9	0.9	0.9	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5
Reference power(kw)	0.01	0.01	0.02	0.03	0.04	0.04	0.04	0.06	0.09	0.09	0.18	0.2
Rated current(A)	0.2	0.2	0.25	0.3	0.8	0.8	0.8	1.2	1.6	1.6	3.2	3.6

Electric Actuator

2-Stage Quarter-Turn Transmission



Base features

The case is processed by means of aluminum die-casting technology and precision machining technique.

Light weight and small size, outer surface is treated through flame plating technique to give an excellent appearance.

Easy to adjust the end position of stroke control and set torque switch and reliable on control.

High accuracy of driving medium, ball bearings are fitted at all rotating positions, high efficiency of whole machine and negligible noise.

Driving of the output shaft is carried out through worm gear and can be self-locked at any position.

There is an mechanical adjustable stop for valve and position control.

The manual/electric declutch is of semi-automation and electric-priority to ensure safe and reliable operation

Possessing ideal outdoor performance

Various flange connection modes, there is a valve stem adapter in the inner of output shaft, easy to mount and dismount.

Selected Function

4-20mA DC valve position feedback signal

Increasing electric block with automatic adjusting function

Increasing limit switch to give passive control contacts

Performing integral control, possessing local/remote-control shifting function and opening, closing and stop at local control functions

Fitted with heat protection element for electric motor.

Fitted with space heater in the inner of electric control cave.

Turn angle of output shaft is more or less than 90°

Other special function requirement.

Dimensions

Type	QT150	QT200	QT250
Flange	F16	F16	F16
ISO5211	F14	F14	F14
Z	505	505	505
J	264	264	264
H	241	241	241
X	357	357	357
O	350	350	350
T	132	132	132
Y	323	323	323
Output Torque(N*m)	1500	2000	2500
Output Speed(r/min)	0.2	0.2	0.17

Electric Actuator

Multi-Turn Transmission



SMC actuators can be controlled individually or collectively. Not only local operating, but also remote control are provided.

In addition to Basic Model SMC, there are other models of SMC such as Explosion-proof (Explosion-proof Grade dIIBT4); Integral; Integral Explosion-proof; Radiation-proof; Auto-Regulation; Two-Wired; Two-Speed etc. Various actuators of different protection, such as Water-Resistant, Marine Type, Fire-Proof, are available on the request of customers. With so many kinds of SMC actuators, we are able to meet various requirements.

Working conditions for Basic Modes SMC:

Ambient Temperature: -20~55°C

Relative Humidity: no more than 90% (25°C)

Sea level Height: no more than 1000m

Working Circumstance: without flammable, explosive, corrosive medium

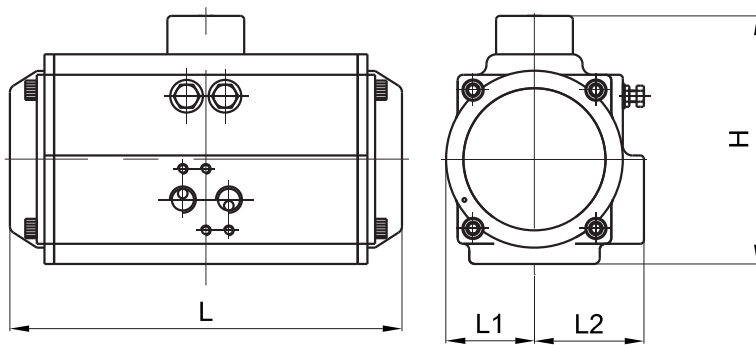
Protection Grade: IP65~IP67

Power Supply: 380V, 50Hz

Dimensions

Item Model	Output Torque (N*m)	Thrust Allowed (kN)	Valve Stem Diameter Allowed (mm)	Output Speed (r/min)	Motor (kw)
SMC-04	110	35	24	20	0.2
				35	0.3
SMC-03	270	45	36	18	0.4
				27	0.6
SMC-00	500	90	50	24	1.1
				42	1.5
SMC-0	970	150	65	18	1.5
				31	2.2
SMC-1	1800	250	76	12	2.2
				18	3
SMC-2	2700	300	89	10	3
				18	4
SMC-3	5800	600	127	12	5.5
				18	7.5
SMC-4	10000	1000	127	10	7.5
				18	13
SMC-5	27000	-	159	6	17

Pneumatic Actuator



Dimensions

Model	L	H	L1	L2	Valve Connection	Air Connection
NK-032	110	65	22.5	22.5	□ 9	F03 - 1/8"
NK-052	137	94	30	41	□ 11	F05 F03 1/8"or1/4"(std.)
NK-063	158	108	36	45	□ 14	F07 F05 1/8"or1/4"(std.)
NK-075	168	120	42	50	□ 14	F07 F05 1/8"or1/4"(std.)
NK-083	192	129	46	52.5	□ 17	F07 F05 1/8"or1/4"(std.)
NK-092	249	140	50.5	56	□ 17	F07 F05 1/8"or1/4"(std.)
NK-105	262	153	57.5	64	□ 22	F10 F07 1/4"
NK-125	313	175	67.5	70	□ 22	F10 F07 1/4"
NK-140	380	192	75	76	□ 27	F12 F10 1/4"
NK-160	434	217	86.5	87.5	□ 27	F12 F10 1/4"
NK-190	491	260	102	102	□ 36	F14 - 1/4"
NK-210	548	285	113	113	□ 36	F14 - 1/4"
NK-240	626	320	130	130	□ 46	F16 - 1/4"(std.)or3/8"
NK-270	698	355	147	147	□ 46	F16 - 1/4"(std.)or1/2"

Base Features:

1. Indicator

A position indicator with Namur mounting is standard on all pneumatic actuators for mounting accessories.

2. Pinion

The hardened alloy steel pinion is precision ground and Nickel plated (over 25um) in order to reduce friction, provide maximum wear resistance. Full conformance with the newest standards of ISO5211, DIN3337. The dimension can be customized and as options, stainless steel and aluminium are also available.

3. Actuator Body

The aluminium extrusion is hard anodized (over 30um) to protect against wear and corrosion while reducing piston friction to the absolute minimum. Other options such as Nickel plating, PTFE and powder polyester painting are available.

4. End Caps

Epoxy coated (over 200um) die cast aluminium end caps provide maximum resistance against potentially corrosive elements.

5. Pistons

The precisely-balanced and hard anodized (over 30um) die cast aluminium pistons are fitted with high quality rings and guides. The twin rack and position design creates a constant torque output on all actuators.

6. Travel Adjustment

The standard adjustment is $\pm 5^\circ$ in both the open and closed positions through easily accessible external adjustment bolts.

7. High Performance Springs

The high tensile steel springs are coated with zinc phosphate for corrosion resistance and longer service. The pre-loaded springs can be safely & rapidly disassembled.

8. Bearings & Guides

The highly durable compound material provides high trust stability with minimum friction and long life.

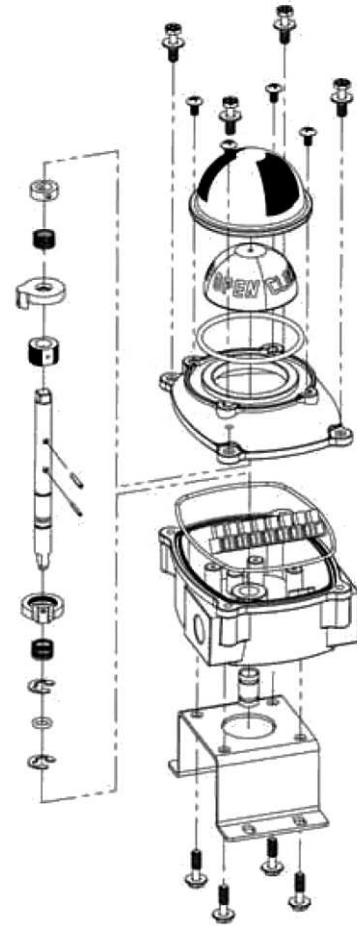
9. O-Rings

NBR O-Rings provide trouble-free operation at standard temperature ranges. Viton and Silicone O-rings are available for high or low temperature applications.

Position Monitoring Switchbox



The position monitoring switch box is a rotary position indication device and is designed to integrate with valve or NAMUR rotary pneumatic actuator with a variety of mounting options, internal switches, sensors and configurations.



Specification	Standard	Optional
Enclosure	Weather-proof, IP67 (NEMA 4 & 4X)	
Outside Coating	Polyester powder coating	
Ambient Temp	-20°C to +80 °C (-4°F to 176°F)	
Cable Entries	2-1/2"NPT	2-PF1/2", PT1/2", M20&PG13.5
Terminal Block	8 nos of terminal strips	
Position Indicator	0°-90°, Dome type	
Mounting Bracket	Stainless steel acc. To VDI/VDE 3845, NAMUR standard	
Switches(Sensors)	2-SPDT mechanical switches (form c) as standard	Proximity Sensors

Fig. 3113



Valve Standard :

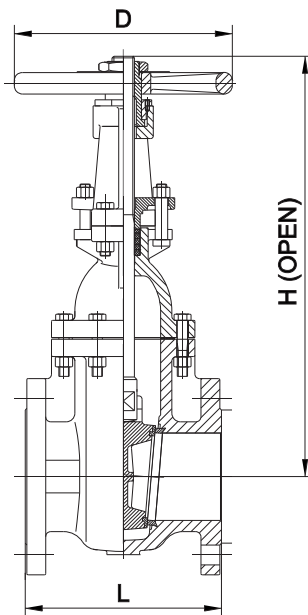
Comply with EN 1171 (BS 5150) & MSS SP-70

Pressure Temperature Ratings

Working pressure	25bar / 125LB
Testing Pressure	Shell:37.5bar / 24.1bar(2"~12")
	18.3bar(14"~24")
	Seal:27.5bar / 13.8bar(2"~12")
	10.3bar(14"~24")
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	ASTM
Body	Cast Iron	A126 Class B
Bonnet	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Bronze	B62 C83600
Stem	Brass	B16 C36000
	Stainless Steel	AISI 420
Packing	Graphite	Non-Asbestos
Hand	Cast Iron	A126 Class B



Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L		178	190	203	229	254	267	292	330	356	381	406	432	457	508
H		375	422	475	606	683	828	1003	1211	1421	1641	1828	2047	2246	2632
D		178	178	200	254	300	300	348	400	457	560	560	610	610	765

Fig. 3115



Valve Standard :

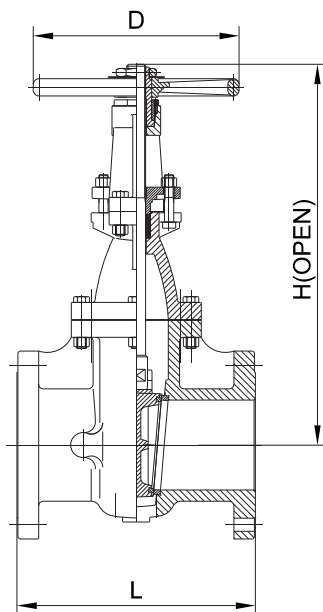
Comply with EN 1171 (BS 5150) & MSS SP-70

Pressure Temperature Ratings

Working pressure	16bar / 250LB
Testing Pressure	Shell:24bar / 60.3bar
	Seal:17.6bar / 34.5bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	ASTM
Body	Cast Iron	A126 Class B
Bonnet	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Bronze	B62 C83600
Stem	Brass	B16 C36000
	Stainless Steel	AISI 420
Packing	Graphite	Non-Asbestos
Hand	Cast Iron	A126 Class B



Dimensions

DN	mm	50	65	80	100	125	150	200	250	300
	inch	2	2-1/2	3	4	5	6	8	10	12
L		216	241	283	305	381	403	419	457	502
H		384	436	492	610	715	812	1024	1211	1386
D		175	200	254	300	300	348	400	457	457

Fig. 3123



Valve Standard :

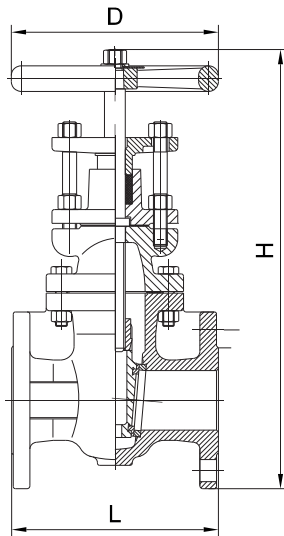
Comply with EN 1171 (BS 5150) & MSS SP-70

Pressure Temperature Ratings

Working pressure	16bar / 125LB
Testing Pressure	Shell:24bar / 24.1bar(2"~12")
	18.3bar(14"~24")
	Seal:17.6bar / 13.8bar(2"~12")
	10.3bar(14"~24")
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	ASTM
Body	Cast Iron	A126 Class B
Bonnet	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Bronze	B62 C83600
Stem	Brass	B16 C36000
	Stainless Steel	AISI 420
Packing	Graphite	Non-Asbestos
Hand	Cast Iron	A126 Class B



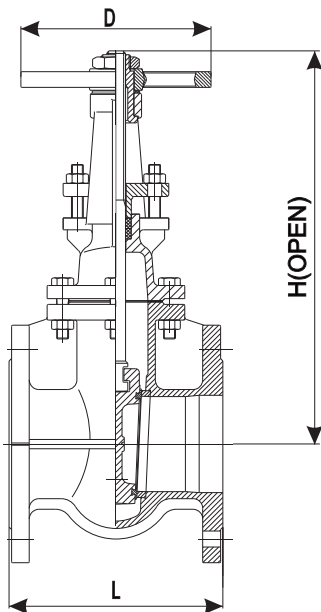
Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L		178	190	203	229	254	267	292	330	356	381	406	432	457	508
H		302	332	335	423	485	545	644	769	860	987	1044	1148	1257	1418
D		178	178	200	254	300	300	348	400	457	560	560	610	610	765

PN10/PN16

OS & Y Metal Seated Gate Valve

Fig. 3213



Valve Standard :

Comply with DIN 3352 F4

Pressure Temperature Ratings

Working pressure	10bar/16bar
Testing Pressure	Shell:15bar/24bar Seal:11bar/17.6bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Bonnet	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Disc	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Seat Ring	Brass	EN 12165 W603N
Stem	Stainless Steel	BS970 420S37
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	EN-JL1040

Note :

DI Body For PN16

Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		140	150	170	180	190	200	210	230	250	270
H		295	315	371	424	500	598	711	901	1093	1273
D		160	160	160	160	200	200	250	250	320	320

PN10/JIS 10K

NRS Metal Seated Gate Valve

Fig. 3129



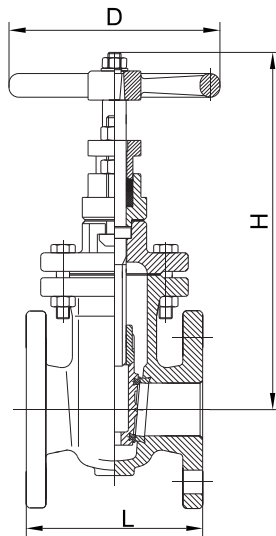
Valve Standard :
Comply with BS 3464

Pressure Temperature Ratings

Working pressure	10bar
Testing Pressure	Shell:15bar Seal:11bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL1040
Bonnet	Cast Iron	EN-JL1040
Disc	Cast Iron	EN-JL1040
Seat Ring	Bronze	EN1982 CC491K
Stem	Brass Stainless Steel	EN 12165 W603N BS970 420S37
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	EN-JL1040



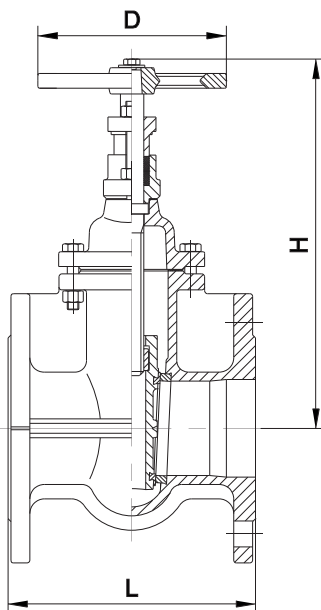
Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		140	146	159	165	171	190	210	241	273	305
H		270	292	324	360	380	454	490	578	711	767
D		160	160	160	160	200	250	250	250	320	320

PN10/PN16

NRS Metal Seated Gate Valve

Fig. 3125



Valve Standard :

Comply with DIN 3352 (F4)

Pressure Temperature Ratings

Working pressure	10bar/16bar
Testing Pressure	Shell:15bar/24bar
	Seal:11bar/17.6bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Bonnet	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Disc	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Seat Ring	Brass	EN 12165 W603N
Stem	Brass	EN 12165 W603N
	Stainless Steel	BS970 420S37
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	EN-JL1040

Note :

DI Body For PN16

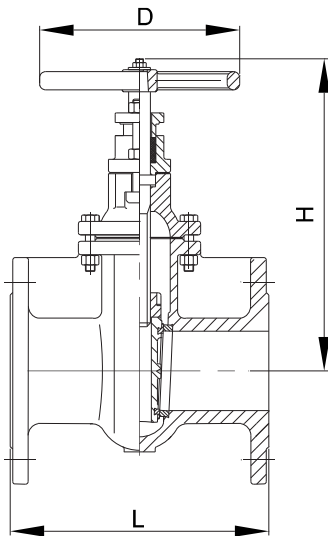
Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		140	150	170	180	190	200	210	230	250	270
H		245	255	277	303	340	387	454	538	629	730
D		130	130	130	150	185	185	195	225	245	285

PN10/PN16

NRS Metal Seated Gate Valve

Fig. 3126 (DIN F4)
3127 (DIN F5)



Valve Standard :

Comply with DIN 3352 (F4) / (F5)

Pressure Temperature Ratings

Working pressure	10/bar/16bar
Testing Pressure	Shell:15bar/24bar
	Seal:11bar/17.6bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL1040
Bonnet	Cast Iron	EN-JL1040
Disc	Cast Iron	EN-JL1040
Seat Ring	Brass	EN 12165 W603N
Stem	Stainless Steel	17440X20Cr13 BS970 420S37
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	EN-JL1040

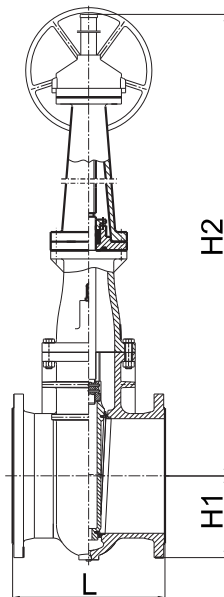
Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300	350	400
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16
L	(F4)	140	150	170	180	190	200	210	230	250	270	290	310
	(F5)	240	250	270	280	300	325	350	400	450	500	550	600
H		271	291	321	360	378	451	489	573	708	764	970	940
D		160	160	160	160	200	250	250	250	320	320	400	400

PN16

OS&Y Metal Seated Gate Valve

Fig. 3141



Valve Standard :
Comply with BS 5163

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	≤100°C

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-GJS500-7
Bonnet	Ductile Iron	EN-GJS500-7
Disc	Ductile Iron	EN-GJS500-7
Body Seat Ring	Bronze	
Gate Seat Ring	Bronze	
Stem	Stainless Steel	SS420
Packing	EPDM	
Drain Plug	Stainless Steel	SS304

Dimensions

DN	mm	350	400	450	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
	inch	12	16	180	20	24	28	32	36	40	44	48	52	56	60	64	72	80
H1		270	300	330	370	430	495	540	645	680	720	825	820	870	940	1000	1130	1200
H2		1717	1908	1981	2235	2610	3082	3435	3820	4384	4660	4950	5360	5665	6180	6570	7200	8460
L		381	406	432	457	508	610	660	711	811	811	960	850	960	1140	1140	1050	1200

Fig. 3143



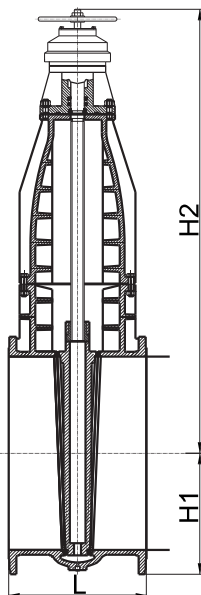
Valve Standard :
Comply with BS 5163

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	≤80°C

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-GJS500-7
Bonnet	Ductile Iron	EN-GJS500-7
Disc	Ductile Iron	EN-GJS500-7
Body Seat Ring	Bronze	
Gate Seat Ring	Bronze	
Stem	Stainless Steel	SS420
Packing	EPDM	
Drain Plug	Stainless Steel	SS304



Dimensions

DN	mm	350	400	450	500	600	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
	inch	12	16	180	20	24	28	30	32	36	40	44	48	52	56	60	64	72	80
H1		270	300	330	370	430	495	520	540	645	680	720	825	820	870	940	1000	1130	1200
H2		976	1068	1180	1259	1428	1792	1865	1941	2120	2380	2545	2670	2845	3110	3292	3480	3800	4100
L		381	406	432	457	508	610	660	660	711	811	811	960	850	960	1140	1140	1050	1200

CLASS125

AWWA C509 NRS Resilient Seat Gate Valve

Fig. 3226



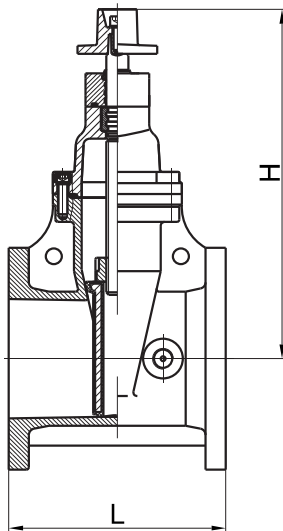
Valve Standard :
Comply with AWWA C509

Pressure Temperature Ratings

Working pressure	200psi
Testing Pressure	Shell:300psi
	Seal:220psi
Working Temperature	-4°F to 230°F EPDM
	14°F to 176°F NBR

Material Specification

Part	Material	ASTM
Body	Ductile Iron	A536 Gr. 65-45-12
Bonnet	Ductile Iron	A536 Gr. 65-45-12
Disc	EPDM Coated DI	A536 Gr. 65-45-12
Stem	Stainless Steel	AISI 420
O-Ring	EPDM / NBR	Commercial
Wrench Nut	Ductile Iron	A536 Gr. 65-45-12



Dimensions

DN	inch	2	2-1/2	3	4	5	6	8	10	12
L		7.0	7.5	8.0	9.0	10.0	10.5	11.5	13.0	14.0
H		10.8	11.7	12.7	14.1	16.3	17.6	21.0	24.3	27.8

PN16/PN25

OS&Y Resilient Seat Gate Valve

Fig. 3233



Valve Standard :
Comply with BS5163 / AWWA C509

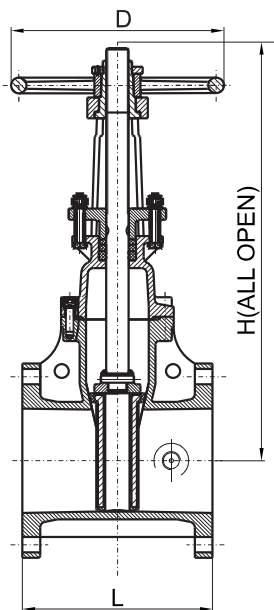
Pressure Temperature Ratings

Working pressure	16bar/25bar DN50~DN300
	16bar DN350~DN400
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Bonnet	Ductile Iron	EN-JS1050
Disc	EPDM Coated DI	EN-JS1050
Stem	Stainless Stee 420	BS970 420S37
	Stainless Stee 431	BS970 431S29
O-Ring	EPDM / NBR	Commercial
Wrench Nut	Ductile Iron	EN-JS1050
Hand Wheel	Ductile Iron	EN-JS1050

NOTE :
ONLY DN50-DN300 BS5163 VALVES
ARE WRAS APPROVED.



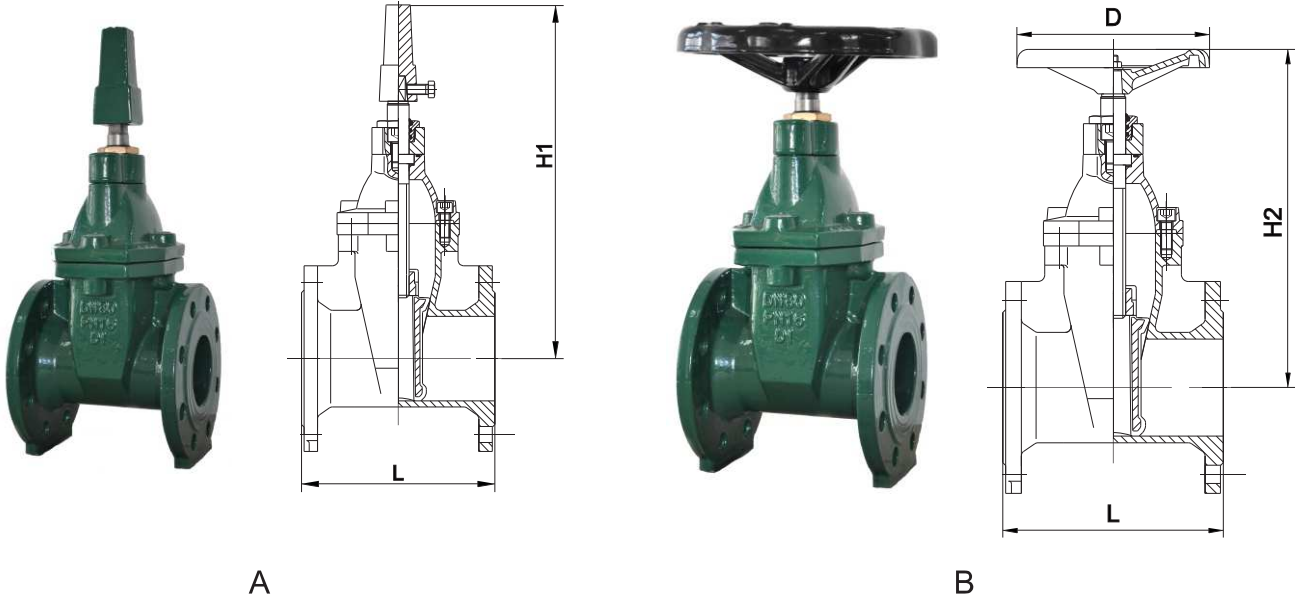
Dimensions

DN inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L	178	190	203	229	254	267	292	330	356	381	406	432	457	508
H	210	237	274	300	364	404	497	590	667	882	956	1027	1106	1258
D	160	200	200	200	250	250	320	370	370	450	450	640	640	640

PN16/PN25

NRS Resilient Seat Gate Valve

Fig. 3243



Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Bonnet	Ductile Iron	EN-JS1050
Disc	EPDM Coated DI	EN-JS1050
Stem	Stainless Stee 420	BS970 420S37
	Stainless Stee 431	BS970 431S29
O-Ring	EPDM/NBR	Commercial
Wrench Nut	Ductile Iron	EN-JS1050
Hand Wheel	Ductile Iron	EN-JS1050

Valve Standard :

Comply with BS 5163 Type A&B

Pressure Temperature Ratings

Working pressure	16bar/25bar DN50~DN300
	16bar DN350~DN600
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR

NOTE :

ONLY DN50-DN300 TYPE B ARE WRAS APPROVED.

Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L		178	190	203	229	254	267	292	330	356	381	406	432	457	508
H1		291	318	355	381	445	485	572	656	773	947	1022	1092	1171	1313
H2		210	237	274	300	364	404	497	590	667	882	956	1027	1106	1258
D		160	200	200	200	250	250	320	370	370	450	450	640	640	640

PN16

NRS Resilient Seat Gate Valve

Fig. 3246 (DIN F4)
3247 (DIN F5)



Valve Standard :

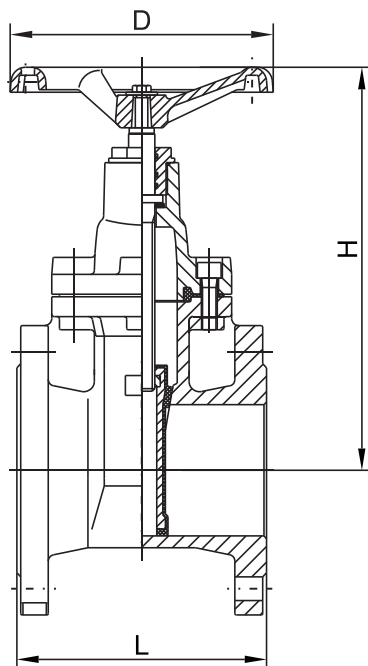
Comply with DIN 3352 (F4) / (F5)

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar
	Seal:17.6bar
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR

Material Specification

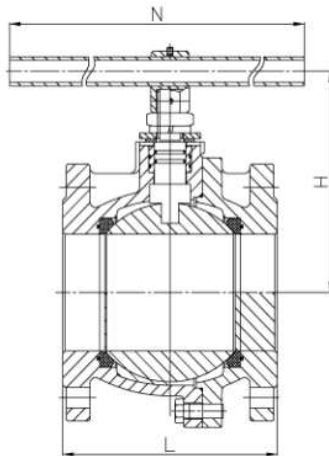
Part	Material	EN Spec.
Body	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Bonnet	Cast Iron	EN-JL1040
	Ductile Iron	EN-JS1050
Disc	EPDM Coated DI	EN-JS1050
Stem	Stainless Steel	BS970 420S37
Gasket	NBR	Commercial
Hand Wheel	Ductile Iron	EN-JS1050



Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L / F4		140	150	170	180	190	200	210	230	250	270	290	310	330	350	390
L / F5			240	250	270	280	300	320	350	450	500	550	600	650	700	800
H		184	195	222	251	282	340	379	461	559	639	762	836	957	1036	1188
D		160	160	200	200	200	250	250	320	370	370	450	450	640	640	640

Fig. 4102



Valve Standard :

Comply with MSS SP-72
 Face-to-face Dimension Conforms to
 BS EN558-1 Series 14 (DIN 3202 F4) for DN50-DN100
 BS EN558-1 Series 15 (DIN 3202 F5) for DN125-DN200

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Working Temperature	-10°C to 120°C

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	EN-JL1040
Bonnet	Cast Iron	EN-JL1040
Ball	Stainless Steel 304	BS970 304S15
Seat	PTFE	Commercial
Shaft	Stainless Steel 420	BS970 420S37
Handle	Carbon Steel	Mild Steel

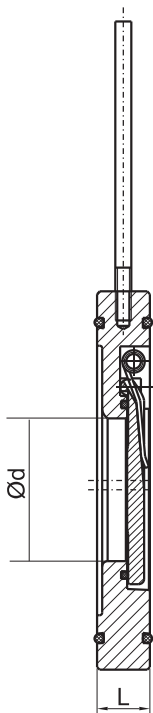
Dimensions

DN	mm	50	65	80	100	125	150	200
	inch	2	2-1/2	3	4	5	6	8
L		150	170	180	190	325	350	400
H		115	130	140	155	195	240	325
N		220	284	284	500	600	800	1000

CLASS 125/PN 16/JIS 10K

Wafer Type Single Door Check Valve

Fig. 5315



Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Working Temperature	-20°C to 110°C EPDM -10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Carbon Steel	A216 WCB
Disc	Ductile Iron	A536 65-45-12
	Carbon Steel	A216 WCB
Stem	Stainless Steel	AISI 316
Seat-Ring	EPDM / NBR	Commercial
Spring	Stainless Steel	AISI 316
	Stainless Steel	AISI 304

Dimensions

DN	mm	32	40	50	65	80	100	125	150	200	250	300
	inch	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		14	14	18	20	20	20	22	22	22	26	32
Ød		20	22	32	40	54	70	92	112	154	192	227

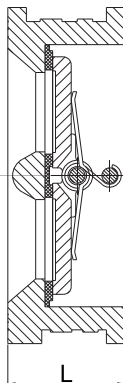
CLASS 125/CLASS250/
PN 16/PN25/JIS 10K/JIS16K

Wafer Type Double Door Check Valve

Fig. 5306 (DIN3202)
5307 (API 594)



Valve Standard :
Comply with DIN 3202/API 594



Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM -10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
	Stainless Steel	A351 CF8
	Stainless Steel	A351 CF8M
Disc	Carbon Steel	A216 WCB
	Ductile Iron	A536 65-45-12
	Aluminum Bronze	B584 C95400
	Stainless Steel	A351 CF8
Stem	Stainless Steel	A351 CF8M
	Stainless Steel	AISI 316
Seat-Ring	EPDM / NBR	Commercial
Spring	Stainless Steel	AISI 316
	Stainless Steel	AISI 304

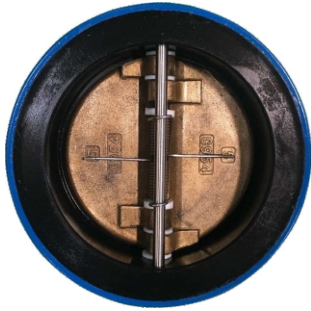
Dimensions

DN	mm	40	50	65	80	100	125	150	200	250
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10
L (DIN3202)		43	43	46	64	64	70	76	89	114
L (API594)		-	54	60	67	67	83	95	127	140

DN	mm	300	350	400	450	500	600	700	800	900
	inch	12	14	16	18	20	24	28	32	36
L (DIN3202)		114	127	140	152	152	178	229	241	241
L (API594)		181	184	191	203	213	222	305	305	368

Full RubberLined Wafer Type Double Door Check Valve

Fig. 5316



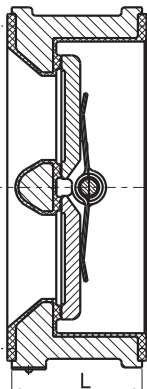
Valve Standard :
Comply with DIN 3202

Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Ductile Iron	A536 65-45-12
	Stainless Steel	A351 CF8
Disc	Stainless Steel	A351 CF8M
	Bronze	B148 C95400
	Bronze	B148 C95800
	Bronze	BS1400 AB2
Stem	Stainless Steel Monel	
	Stainless Steel Inconel	
Seat	EPDM / NBR	



NOTE :
There is a Screw Eye for DN200 and above size

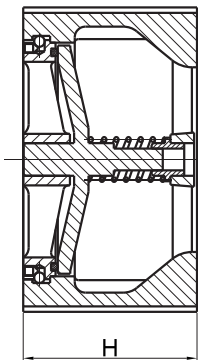
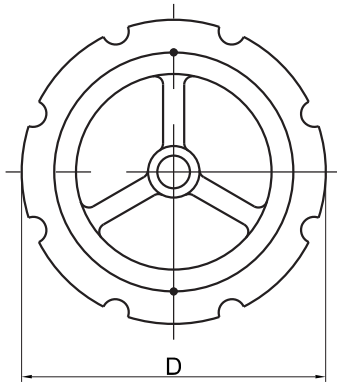
Dimensions

DN	mm	50	65	80	100	125	150	200	250
	inch	2	2-1/2	3	4	5	6	8	10
L		43	46	64	64	70	76	89	114
DN	mm	300	350	400	450	500	600	700	-
	inch	12	14	16	18	20	24	28	-
L		114	127	140	152	152	178	229	-

CLASS 125/CLASS250/
PN 16/PN25/JIS 10K/JIS16K

Wafer Type Silent Check Valve

Fig. 5312



Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification-20°C

Part	Material	ASTM Spec.
Body	Ductile Iron	A536 65-45-12
Disc	Stainless Steel	A351 CF8
	Bronze	B62 C83600
Seat	Stainless Steel	A351 CF8
	Bronze	B62 C83600
Seat Ring	EPDM / NBR	Commercial
Bushing	Bronze	B62 C83600
Spring	Stainless Steel	AISI 304

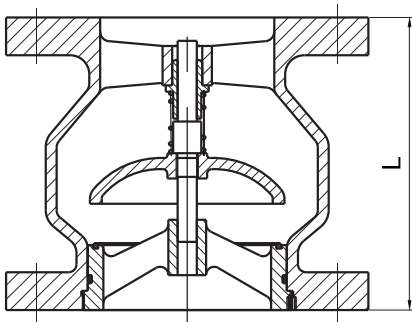
Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350
	inch	2	2-1/2	3	4	5	6	8	10	12	14
D		110	136	152	178	221	248	340	404	415	484
H		67	73	80	102	118	140	165	210	286	350

CLASS 125/CLASS250/
PN 16/PN25/JIS 10K/JIS16K

Globe Type Silent Check Valve

Fig. 5104



Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar
	Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM
	-10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Disc	Stainless Steel	A351 CF8
	Bronze	B62 C83600
Seat	Stainless Steel	A351 CF8
	Bronze	B62 C83600
Seat Ring	EPDM / NBR	Commercial
Bushing	Bronze	B62 C83600
Spring	Stainless Steel	AISI 304

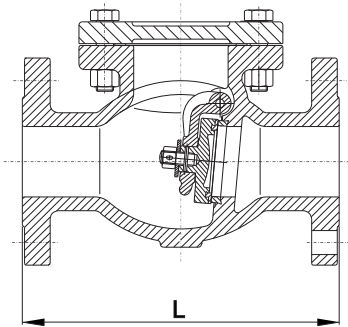
Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L		133	140	152	185	216	229	257	393	362	400	448	476	524	610

PN 16 / CLASS 125 / CLASS 250

Flange Type Swing Check Valve-BS/MSS Metal Seated

Fig. 5101(PN16/Class 125)
5102(Class 250)



Valve Standard :

Comply with EN 12334(BS 5153) & MSS SP-71

Pressure Temperature Ratings

Working pressure	16bar/125Lb/250Lb
Testing Pressure	Shell:24bar/51.7
	Seal:17.6bar/34.5
Working Temperature	-10°C to 120°C
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Bronze	B62 C83600
Disc Ring	Bronze	B62 C83600

Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L(PN16/Class125)		203	216	241	292	330	356	495	622	699	787	914	914	1016	1219
L(Class250)		267	292	318	356	400	444	533	622	711	-	-	-	-	-

PN 16

Flange Type Swing Check Valve-DIN Standard

Fig. 5201(Metal Seated)
5202(Resilient Seated)



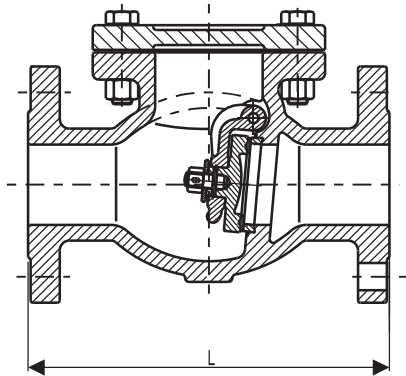
Valve Standard :
Comply with EN DIN3202 F6

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Working Temperature	-10°C to 120°C
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	Spec.
Body	Cast Iron	EN-GJL-250
Disc	Cast Iron	EN-GJL-250
Seat Ring	Bronze	
Disc Ring(5201)	Bronze	
Disc Ring(5202)	EPDM	



Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		180	200	240	260	300	350	400	500	600	700

PN 16

Flange Type Lifting Check Valve

Fig. 5203

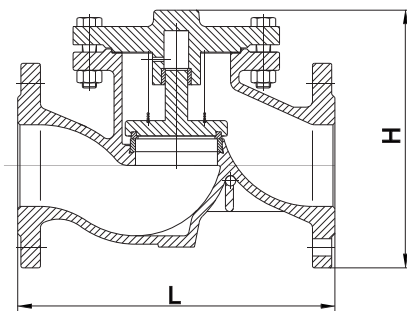


Valve Standard :

Face-to-face Dimension Conforms to DIN 3202 F1 series

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Working Temperature	-10°C to 120°C
Suitable Media	Water,Oil&Gas



Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL 1040
Bonnet	Cast Iron	EN-JL 1040
Disc/Stem	Stainless Steel	BS970 420S37
	Cast Iron	EN-JL1040
Disc Ring	Stainless Steel	BS970 420S37
Seat Ring	Stainless Steel	BS970 420S37
Gasket	Graphite	Non-Asbestos
Spring	Stainless Steel	BS970 304S15
Bushing	Brass	EN 12165 W603N

Dimensions

DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850
H		64	68	81	95	100	113	128	148	162	190	220	260	318	378

Fig. 5109



Pressure Temperature Ratings

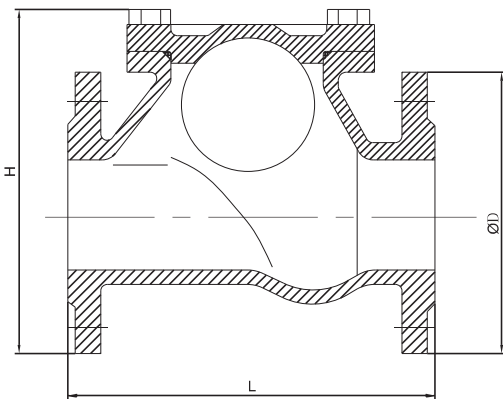
Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	DI	A536 60-40-18
Ball for DN50~DN100	AL+EPDM	
Ball for DN125~DN300	DI+EPDM	
Cover	DI	A536 60-40-18
Ring	EPDM	
Bolt	SS304	AISI304

Note:

Face to face according to EN558-1 basic series 48 except DN350



Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350
	inch	2	2-1/2	3	4	5	6	8	10	12	14
L		200	240	260	300	350	400	500	600	700	800
H (open)		186	211	245	282	333	380	660	582	721	820
D		165	185	200	220	250	285	340	400	455	505

CLASS 125/PN16

Swing-Flex Check Valve

Fig. 5121



Valve Standard :

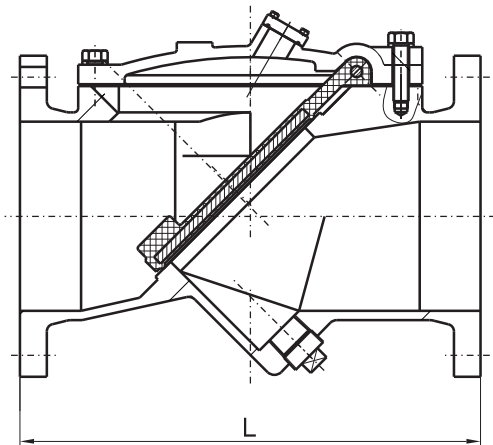
Comply with AWWAC508 (DN50~DN300)
EN558 series 10 (DN350-DN600)

Pressure Temperature Ratings

Working pressure (Bar)	250PSI/PN16
Testing Pressure	Shell: 375PSI/24Bar Seal: 275PSI/17.6Bar
Working Temperature (°C)	-10°C to +120°C
Suitable Media	Oil & Gas

Material Specification

Part	Material	Material Code
Body	Ductile Iron	A536 Gr.65-45-12
Disc	Ductile Iron + EPDM / NBR	A536 Gr.65-45-12
Gasket	EPDM / NBR	EN-JS 1050+EPDM
Plug	Ductile Iron	A536 Gr.65-45-12
Cover	Ductile Iron	A536 Gr.65-45-12



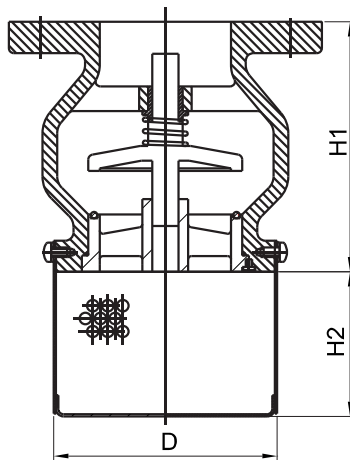
Dimensions

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
	inch	2"	2-1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L		203	216	241	292	356	495	622	699	787	914	965	978	1295

CLASS 125/ CLASS 250/
PN16/PN25/JIS 10K/JIS 16K

Foot Valve

Fig. 1120



Pressure Temperature Ratings

Working pressure	16bar/25bar
Testing Pressure	Shell:24bar/37.5bar Seal:17.6bar/27.5bar
Working Temperature	-20°C to 110°C EPDM -10°C to 80°C NBR
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Disc	Stainless Steel	A351 CF8
	Bronze	B62 C83600
	Ductile Iron	A536 65-45-12
Seat	Stainless Steel	A351 CF8
	Bronze	B62 C83600
Seat Ring	EPDM / NBR	Commercial
Bushing	Bronze	B62 C83600
Spring	Stainless Steel	AISI 304
Screen	Stainless Steel	AISI 304

Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
H1		133	140	152	185	216	229	257	393	362	400	448	476	524	610
H2		68	93	108	138	163	189	208	238	260	270	290	315	340	365
D		114	130	144	177	203	237	290	330	383	470	516	570	630	740

Fig. 6123



Valve Standard :

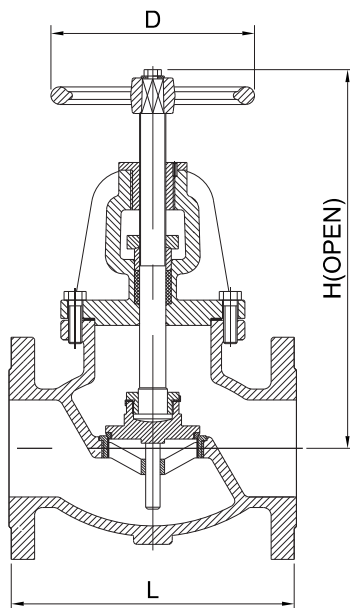
Comply with BS EN 13789 (BS 5152) /MSS SP-85

Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar
	Seal:17.6bar
Working Temperature	-20°C to 120°C
Suitable Media	Water,Oil&Gas

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
Bonnet	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Bronze	B62 C83600
Stem	Stainless Steel	AISI 420
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	A126 Class B



Dimensions

DN	mm	50	65	80	100	125	150	200	250	300
	inch	2	2-1/2	3	4	5	6	8	10	12
L		203	216	241	292	330	356	495	622	699
H (open)		295	336	345	389	425	511	580	720	859
D		178	178	200	254	300	300	348	400	457

Fig. 6125



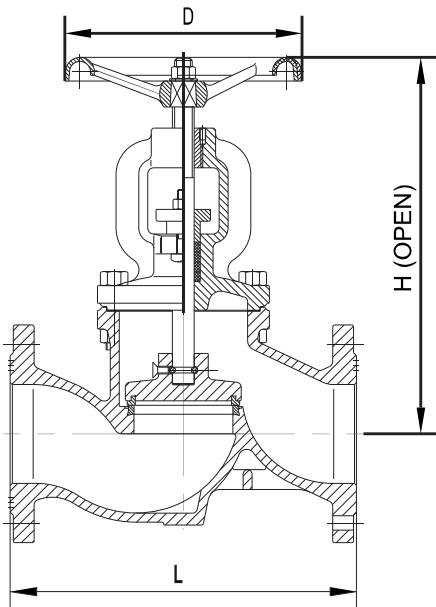
Valve Standard :
Comply with DIN 3356

Pressure Temperature Ratings

Working pressure	16bar DN15~150
	14bar DN200
	9bar DN250
	6bar DN300
Working Temperature	-20°C to 120°C
Suitable Media	Water, Oil&Gas

Material Specification

Part	Material	EN Spec.
Body	Cast Iron	EN-JL 1040
Bonnet	Cast Iron	EN-JL 1040
Disc	Stainless Steel 420 (15-50mm)	BS970 420S37
	Cast Iron (65-300mm)	EN-JL 1040
Disc Ring	Stainless Steel 420	BS970 420S37
Seat Ring	Stainless Steel 420	BS970 420S37
Stem	Stainless Steel 420	BS970 420S37
Packing	Graphite	Non-Asbestos
Hand Wheel	Cast Iron	EN-JL 1040



Dimensions

DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
	L	130	150	160	180	200	230	290	310	350	400	480	600	730	850
	H (open)	183	191	216	255	277	304	335	380	426	480	555	660	749	965
	D	100	100	120	120	140	140	200	200	240	280	315	360	400	400

CLASS 125/ CLASS 250/
PN16/PN25/JIS 10K/JIS 16K

Y-Type Strainer

Fig. 7101

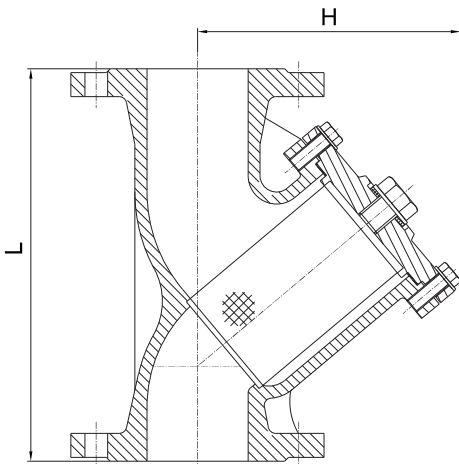


Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Cover	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Screen	Stainless Steel	AISI 304
Blow-Off Plug	Carbon Steel	

Working pressure:
16bar/25bar

Note:
CI Body For PN16&Class 125
DI Body For PN25&Class 250



Standard Screen

Size (mm)	Hole Dia. (mm)	Mesh
40~150	1.5	104
200~350	2.5	26
400~650	3.5	22

Dimensions

DN	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	26
L		200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250	1450	1550
H		150	160	180	215	235	275	305	390	540	680	740	845	838	908	1078	1100

PN16

EN Y-Type Strainer

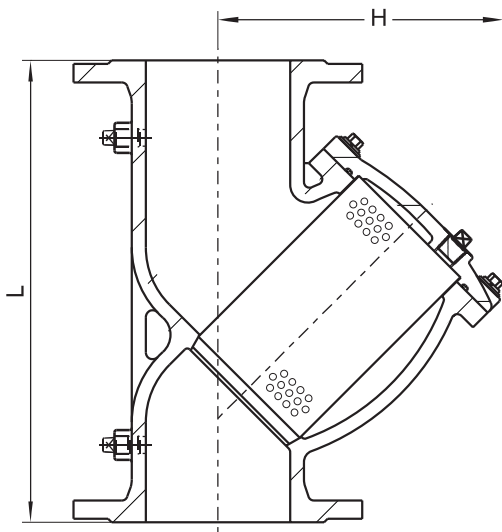
Fig. 7201



Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	1563 EN-GJS-400
Cover	Ductile Iron	1563 EN-GJS-400
Screen	Stainless Steel	10088 X5CrNi18-10
Drain Plug	Stainless Steel	10088 X5CrNi18-10

Working pressure:
16bar



Standard Screen

Size (mm)	Hole Dia. (mm)	Mesh
50~150	1.5	104
200~350	2.5	26
400	3.5	22

NOTE:
Plug is fitted only when required

Dimensions

DN	mm	50	65	80	100	150	125	200	250	300	350	400
	inch	2	2-1/2	3	4	6	5	8	10	12	14	16
L		230	290	310	350	480	400	600	730	850	980	1100
H		124	137	152	205	269	244	341	455	476	725	820

CLASS 125/ CLASS 250/
PN16/PN25/JIS 10K/JIS 16K

Basket Type Strainer

Fig. 7105



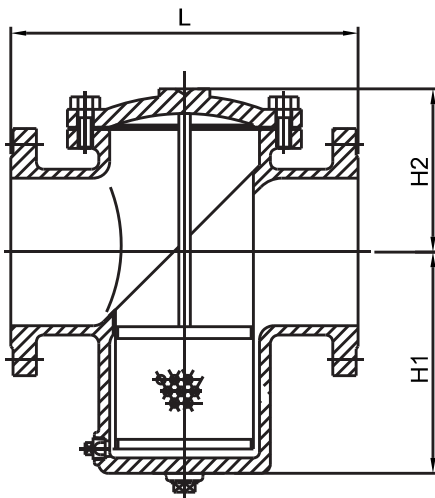
Material Specification

Part	Material	ASTM Spec.
Body	Ductile Iron	A536 65-45-12
	Cast Iron	A126 Class B
Cover	Ductile Iron	A536 65-45-12
	Cast Iron	A126 Class B
Screen	Stainless Steel	AISI 304
Blow-Off Plug	Carbon Steel	
Gasket	Graphite / Teflon	Commercial

Working pressure:
16bar/25bar

Note:

CI Body For PN16 & Class 125
DI Body For PN25 & Class 250



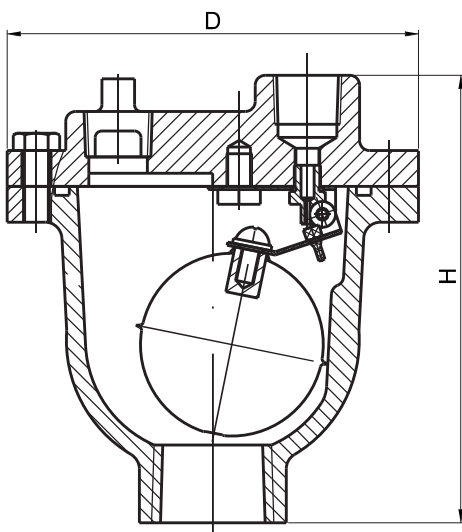
Standard Screen

Size (mm)	Hole Dia. (mm)	Mesh
50~80	1.5	104
100~400	3.0	40
450~600	5.0	12

Dimensions

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
L		207	210	251	292	334	378	472	511	680	769	842	842	842	1054
H1		135	155	190	205	219	235	295	335	405	585	590	590	600	1175
H2		90	95	105	117	146	165	215	325	355	345	390	420	510	515

Fig. 9701



Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar
	Seal:17.6bar
Working Temperature	-10°C to 100°C

Material Specification

Part	Material	ASTM Spec.
Body	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Cover	Cast Iron	A126 Class B
	Ductile Iron	A536 65-45-12
Level	Stainless Steel	AISI 304
Seat Ring	Stainless Steel	AISI 304
Float	Stainless Steel	AISI 304
Float Arm	Stainless Steel	AISI 304
Orifice Button	Viton	Commercial

Dimensions

DN		Inlet	Outle	Orifice	D	H
mm	inch					
15	1/2	15	15	1.6	125	137
20	3/4	20	15	1.6	125	137
25	1	25	15	1.6	125	137

CLASS 125 / PN16 / JIS 10K

Flanged Orifice Air Valve

Fig. 9101

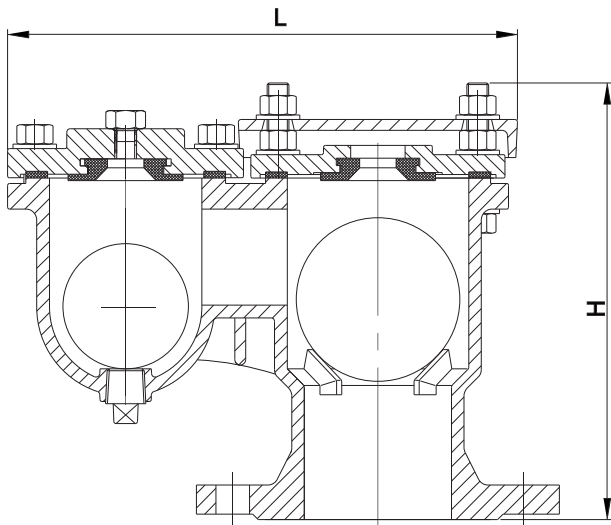


Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar
	Seal:17.6bar
Working Temperature	-10°C to 100°C

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Orifice Cover	Ductile Iron	EN-JS1050
Air Release Nipple	Brass	EN 12165 CW603N
Screw Plug	Brass	EN 12165 CW603N
Float Ball	ABS (ISO2580)	Commercial
Ball Seal Orifice	EPDM	Commercial



Note:
DN25 is only available by screw thread.

Dimensions

DN	mm	25	40	50	65	80	100	125	150	200	250
	inch	1	1-1/2	2	2-1/2	3	4	5	6	8	10
L		147	224	273	273	283	302	353	353	433	491
H		185	187	214	214	244	270	323	323	401	450

CLASS 125 / PN16 / JIS 10K

Flanged Double Orifice Air Valve

Fig. 9201

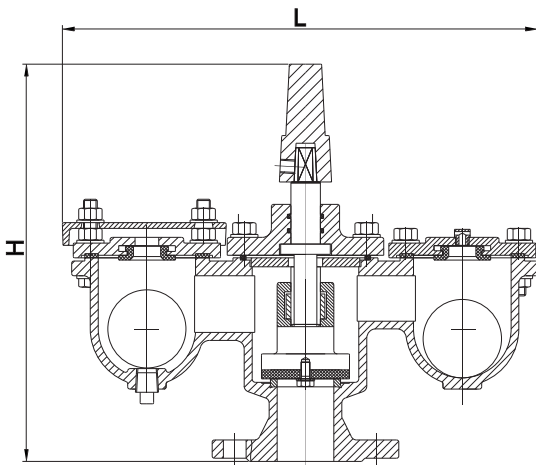


Pressure Temperature Ratings

Working pressure	16bar
Testing Pressure	Shell:24bar Seal:17.6bar
Working Temperature	-10°C to 100°C

Material Specification

Part	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Orifice Cover	Ductile Iron	EN-JS1050
Air Release Nipple	Brass	EN 12165 CW603N
Screw Plug	Brass	EN 12165 CW603N
Float Ball	ABS (ISO2580)	Commercial
Ball Seal Orifice	EPDM	Commercial



Dimensions

DN	mm	50	80	100	150	200
	inch	2	3	4	6	8
L		418	454	492	595	698
H		351	375	419	440	475