



WORLD VALVE CO., LTD.



General Brochure For Marine Valves

Butterfly Valves (Wafer & Flange)
Double Eccentric/Triple Eccentric/Concentric
Operation: Manual, Electric, Hydraulic, & Pneumatic

Dual Plate Check Valves

Various Other Valves (Gate Valves, Ball Valves, Etc.)



Proudly Japanese



Butterfly Valves / Dual Plate Check Valves

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General Valves for Marine Use

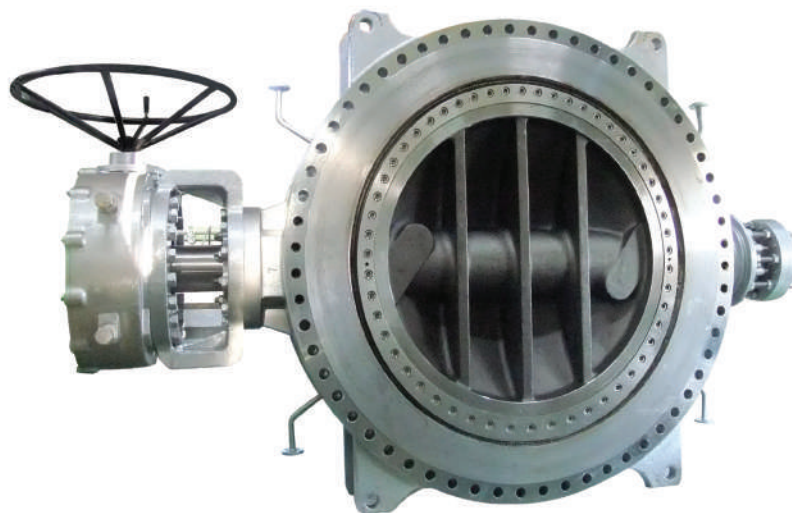
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Triple Offset Butterfly Valve

Model # WVT0BV



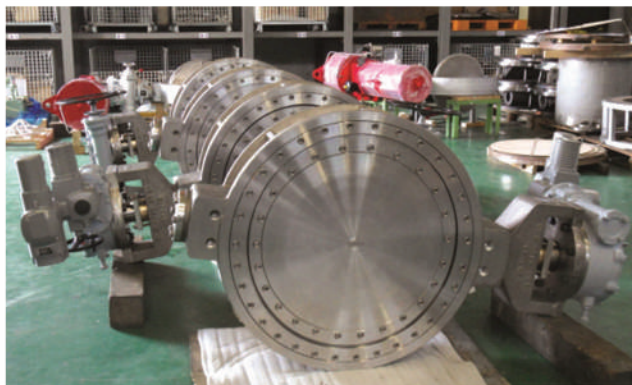
TRIPLE OFFSET 1800A (72")

Range		Application
Size		3"(80A) ~ 120"(3000A)
Fluid		Water, Air, Steam, Gas
Rating		JIS 10K, 20K, 30K, 40K, 63K
		ANSI 150#, 300#, 600#, 900#
		PN10, 16, 25, 40
End Connection		
Temp. Range		-50 ~ 650 °C
Materials	Body	Cast Steel, Stainless Steel
		(Ni) Al Bronze, (Super) Duplex S.S etc
	Disc	Stainless Steel, (Ni) Al Bronze
		(Super) Duplex S.S etc
	Seat	Metal (Laminated) with Graphite
	Stem	Stainless Steel, (Super) Duplex S.S, Monel



Triple Offset Butterfly Valve

Model # WVTOBV

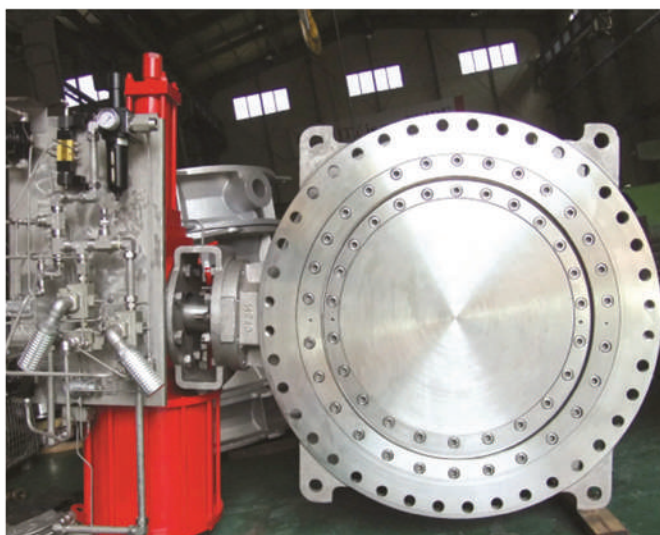


150# 900A (36")



150# 700A (28") & 500A (20")

Model # WVTOBV-L



150# 1100A (44")

Model # WVTOBV-F



600# 350A (14")

Triple Offset Butterfly Valve

Model # WVT0BV

Operational Principles

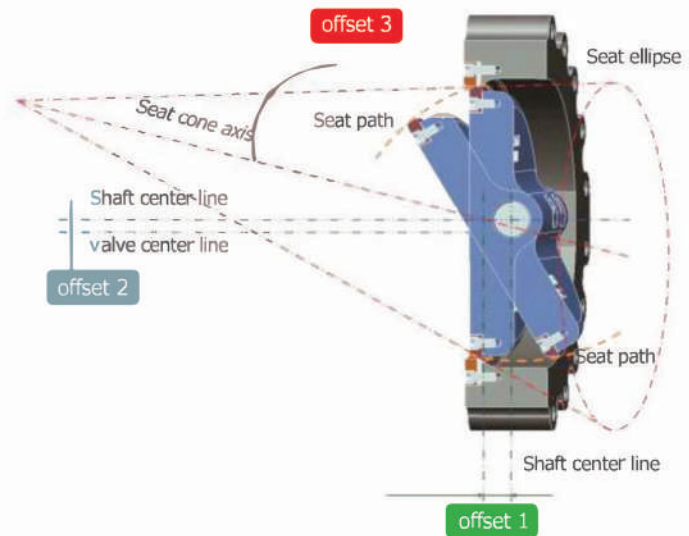
This geometry ensures that disc seat contracts the body seat only at the final shut-off position without rubbing or galling, providing a torque generated resilient seal with sufficient "wedging" to ensure a uniform seal contact

THE TRIPLE OFFSET GEOMETRY

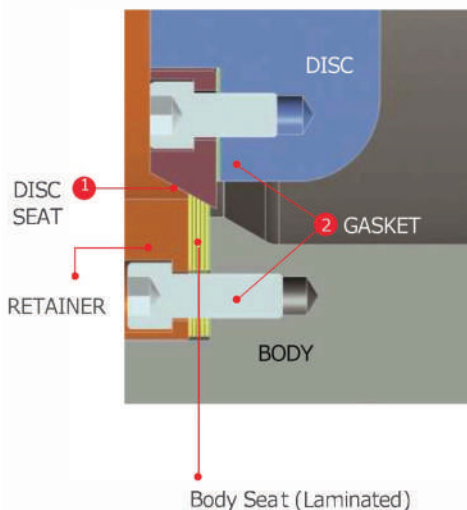
offset 2 The shaft is offset behind the seat axis to allow complete sealing contact around the entire seat.

offset 2 The shaft centerline is offset from the pipe and valve which provides interference free opening and to achieve uniform compressive sealing around the entire seat.

offset 2 The seat cone axis is offset from the shaft centerline to eliminate friction during closing and opening and to achieve uniform compressive sealing around the entire seat.



FRICTION FREE SEALING FOR LONG CYCLE LIFE



THE LAMINATED DISC SEAL

Seating forces are generated by the torque during closing uniformly around the entire circumference. The resilient seal flexes and energizes the shape of the seat. The compression forces equally distributed around the perimeter provide a tight bidirectional shut off. The resiliency of the seal allows the valve body and disc to contact or expand, without the risk of jamming due to temperature fluctuations. It is self-adjusting.

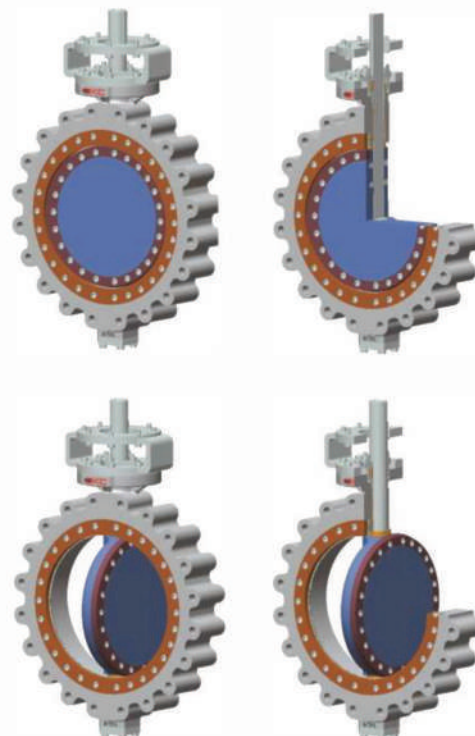
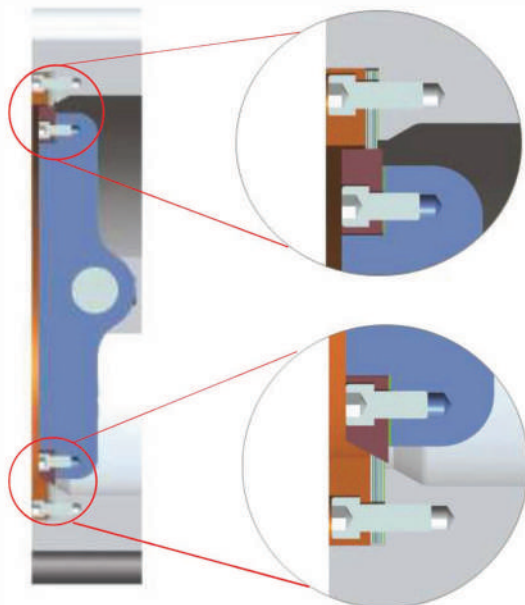
An extra rigid retaining ring with bolting, resulting from ASME stress calculations is to be provided

- ① Seat is hardfaced with Stellite as an option.
- ② The gasket is spiral wound SS/Graphite for zero leakage.

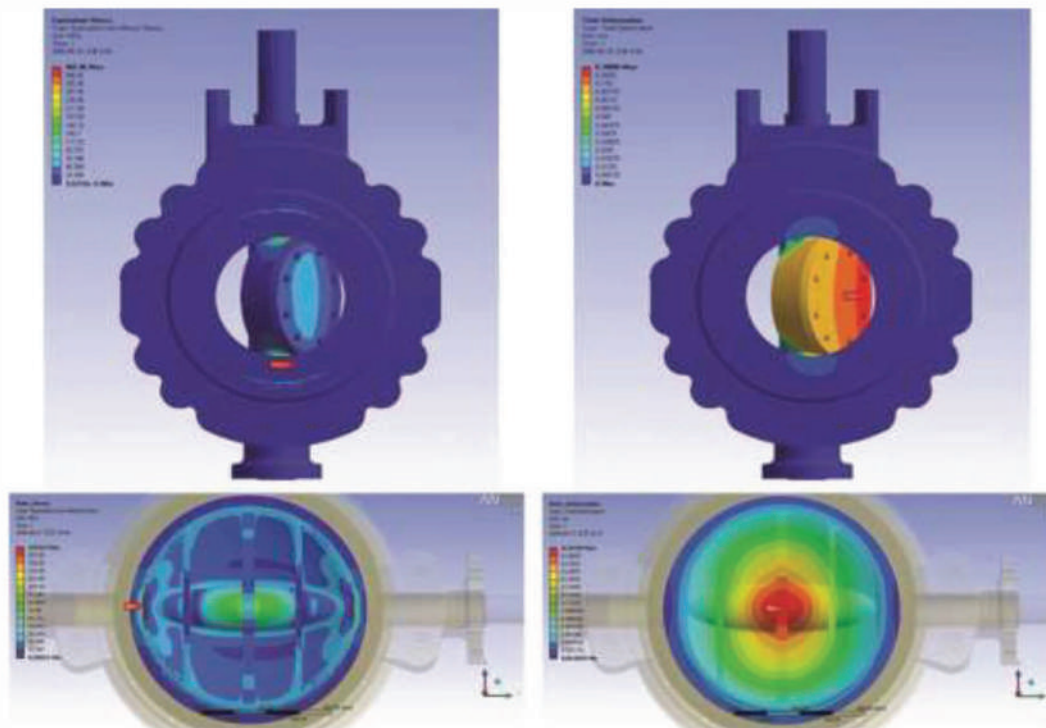
Triple Offset Butterfly Valve

Model # WVT0BV

Technical Design



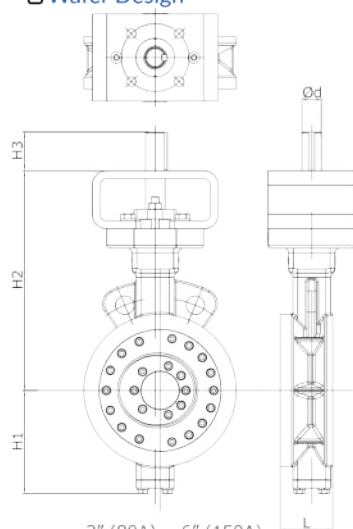
Analysis



Dimension Table For Triple Offset Butterfly Valve

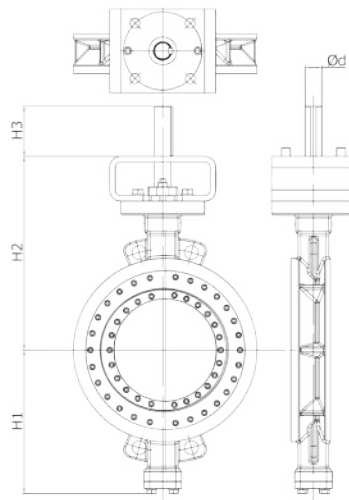
Model # WVTOBV

□ Wafer Design



3" (80A) ~ 6" (150A)

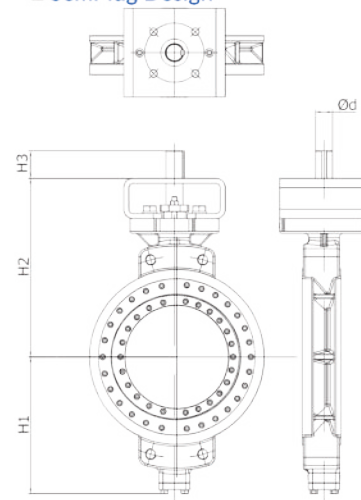
Max. Size : 3000A (120")



8" (200A) ~ 10" (250A)

Model # WVTOBV-S

□ Semi-lug Design



12" (300A) ~ 24" (600A)

Unit : mm

CLASS 150 WAFER TYPE							
VALVE SIZE		H1	H2	H3	L	TOP FLANGE	WEIGHT (kg)
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	ISO 5211	
80	3	127	207	40	48	F-07	20
100	4	107	227	40	54	F-07	20
150	6	135	253	55	57	F-07	20
200	8	223	292	70	64	F-10	45
250	10	257	347	90	71	F-14	57
300	12	298	393	90	81	F-14	85
350	14	323	438	95	92	F-16	133
400	16	360	463	104	102	F-16	186
450	18	380	483	110	114	F-16	213
500	20	412	600	120	127	F-25	334
600	24	478	583	120	154	F-25	455

CLASS 300 WAFER TYPE							
VALVE SIZE		H1	H2	H3	L	TOP FLANGE	WEIGHT (kg)
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	ISO 5211	
80	3	150	217	55	48	F-07	20
100	4	172	240	55	54	F-07	20
150	6	213	283	70	59	F-10	36
200	8	247	328	80	73	F-12	51
250	10	290	412	90	83	F-14	100
300	12	328	450	110	92	F-16	134
350	14	361	483	110	117	F-16	196
400	16	395	520	120	133	F-25	232
450	18	430	560	120	149	F-25	360
500	20	470	600	150	159	F-30	457
600	24	536	728	170	181	F-30	670

CLASS 600 WAFER TYPE							
VALVE SIZE		H1	H2	H3	L	TOP FLANGE	WEIGHT (kg)
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	ISO 5211	
80	-	-	-	-	-	-	-
100	4	181	243	70	64	F-10	28
150	6	221	285	80	78	F-14	65
200	8	293	405	85	102	F-16	92
250	10	340	455	85	117	F-16	134
300	12	365	480	110	140	F-25	224
350	14	365	528	120	155	F-25	285
400	16	410	575	120	178	F-25	455
450	18	445	620	155	200	F-30	555
500	20	485	665	155	216	F-30	694
600	24	555	740	165	232	F-35	1093

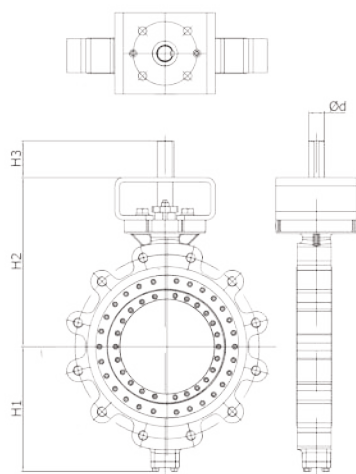
CLASS 900 WAFER TYPE							
VALVE SIZE		H1	H2	H3	L	TOP FLANGE	WEIGHT (kg)
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	ISO 5211	
80	-	-	-	-	-	-	-
100	4	181	240	64	80	F-10	39
150	6	238	315	79	104	F-14	89
200	8	281	360	79	112	F-16	134
250	10	358	412	109	135	F-16	224
300	12	383	475	109	170	F-25	298
350	14	419	512	128	173	F-25	376
400	16	455	610	129	210	F-25	570
450	18	503	660	178	228	F-30	691
500	20	550	685	178	250	F-30	905
600	24	656	790	199	275	F-35	1317

L : Face to Face Dimension
* Please contact sales office for other sizes

Dimension Table For Triple Offset Butterfly Valve

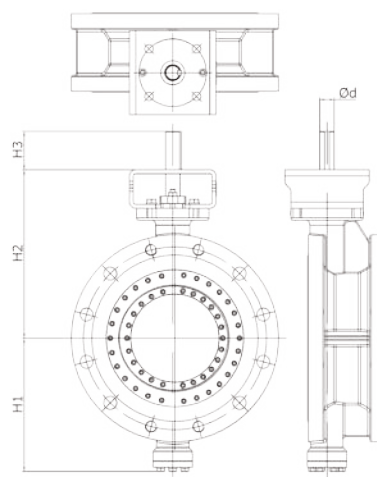
Model # WVTOBV-FL

□ Full Lug Design



Model # WVTOBV-F

□ Flange Design



Max. Size : 3000A (120")

Unit : mm

CLASS 150 LUG AND FLANGE TYPE									
VALVE SIZE		H1.	H2.	H3.	L		TOP FLANGE	WEIGHT (kg)	
mm	inch				LUG	FLANGE		LUG	FLANGE
80	3	130	207	40	48	114	F-07	21	32
100	4	150	227	40	54	127	F-07	21	37
150	6	175	253	55	57	140	F-07	22	48
200	8	223	292	70	64	152	F-10	47	89
250	10	257	347	90	71	165	F-14	61	112
300	12	298	393	90	81	178	F-14	91	161
350	14	323	438	95	92	190	F-16	142	228
400	16	360	463	104	102	216	F-16	199	303
450	18	380	483	110	114	222	F-16	229	364
500	20	412	600	120	127	229	F-25	364	499
600	24	478	583	120	154	267	F-25	492	699

CLASS 600 LUG AND FLANGE TYPE									
VALVE SIZE		H1.	H2.	H3.	L		TOP FLANGE	WEIGHT (kg)	
mm	inch				LUG	FLANGE		LUG	FLANGE
100	4	181	243	70	64	190	F-10	30	69
150	6	221	285	80	78	210	F-14	72	135
200	8	293	405	85	102	230	F-16	102	162
250	10	340	455	85	117	250	F-16	187	268
300	12	365	480	110	140	270	F-25	259	364
350	14	365	528	120	155	290	F-25	329	369
400	16	410	575	120	178	310	F-25	520	632
450	18	445	620	155	200	330	F-30	635	739
500	20	485	665	155	216	350	F-30	804	879
600	24	555	740	165	232	390	F-35	1243	1423

CLASS 300 LUG AND FLANGE TYPE									
VALVE SIZE		H1.	H2.	H3.	L		TOP FLANGE	WEIGHT (kg)	
mm	inch				LUG	FLANGE		LUG	FLANGE
80	3	150	217	55	48	114	F-07	21	36
100	4	172	240	55	54	127	F-07	21	46
150	6	213	283	70	59	140	F-10	39	76
200	8	247	328	80	73	152	F-12	56	93
250	10	290	412	90	83	165	F-14	112	164
300	12	328	450	110	92	178	F-16	150	222
350	14	361	483	110	117	190	F-16	229	298
400	16	395	520	120	133	216	F-25	277	357
450	18	430	560	120	149	222	F-25	433	499
500	20	470	600	150	159	229	F-30	549	621
600	24	536	728	170	181	267	F-30	805	916

CLASS 900 LUG AND FLANGE TYPE									
VALVE SIZE		H1.	H2.	H3.	L		TOP FLANGE	WEIGHT (kg)	
mm	inch				LUG	FLANGE		LUG	FLANGE
100	4	181	240	64	80	235	F-10	43	93
150	6	238	315	79	104	250	F-14	100	184
200	8	281	360	79	112	310	F-16	151	256
250	10	358	412	109	135	350	F-16	256	425
300	12	383	475	109	170	380	F-25	352	496
350	14	419	512	128	173	400	F-25	440	656
400	16	455	610	129	210	430	F-25	663	834
450	18	503	660	178	228	460	F-30	824	1044
500	20	550	685	178	250	490	F-30	1069	1273
600	24	656	790	199	275	530	F-35	1704	2506

L : Face to Face Dimension * Please contact sales office for other sizes

Double Eccentric Butterfly Valve (High Performance Type)

Model # WVDEBV



Range		Application
Size		2"(50A) ~ 80"(2000A)
Fluid		Water, Air, Steam, Gas
Rating		JIS 10K, 20K, PN10, 16, 25 ANSI 150#, 300#
End Connection		Wafer, Lugged, Flanged
Temp. Range		- 0 ~ 230 °C
Materials	Body	Ductile Iron, Cast Steel, Stainless Steel, (Ni) A Bronze, (Super) Duplex S.S etc.
	Disc	Cast Steel, Stainless Steel, (Ni) Al Bronze, (Super) Duplex S.S etc.
	Seat	PTFE, RTFE (with Metal for Fire Safety)

Double Eccentric Butterfly Valve (High Performance Type)

Model # WVDEBV

□ Full Lug Design



150# 500A (20")



150# 150A (6")

□ Semi-Lug Design

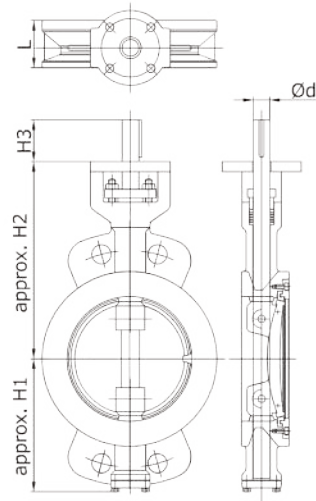


150# 450A (18")

Dimension Table For Double Eccentric Butterfly Valve

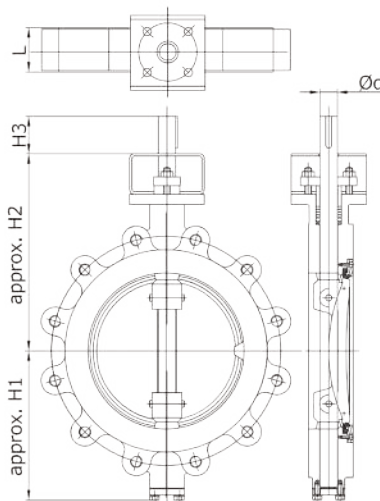
Model # WVDEBV-S

□ Semi-Lug Design



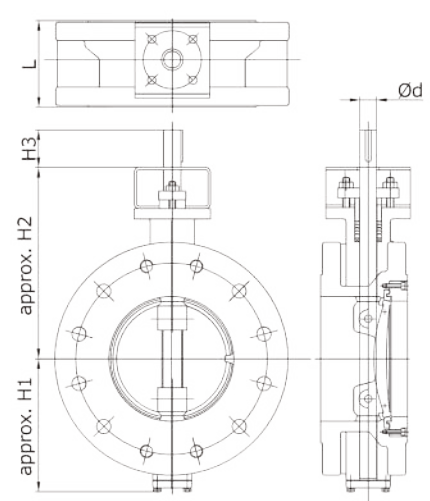
Model # WVDEBV-FL

□ Full Lug Design



Model # WVDEBV-F

□ Semi-Lug Design



Max. Size : 2000A (80")

Unit : mm

VALVE SIZE		H1	H2	H3	L			ØD	TOP	WEIGHT (kg)		
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	LUGGED	FLANGE		FLANGE	WAFER	LUGGED	FLANGE
50	2	66	155	50	43	43	108	14	F07	4	5	9
65	2 1/2	75	167	50	46	46	112	14	F07	5	7	12
80	3	85	177	50	48	48	114	16	F07	5.5	8	14
100	4	95	193	50	54	54	127	16	F07	6	10	17
125	5	110	218	50	57	57	140	20	F07	10	14	23
150	6	126	237	75	57	57	140	20	F07	13	18	29
200	8	197	295	75	64	64	152	25	F10	19	24	40
250	10	237	337	75	71	71	165	28	F10	33	42	58
300	12	264	360	75	81	81	178	32	F10	42	56	74
350	14	305	430	75	92	92	190	40	F14	61	90	98
400	16	346	460	75	102	102	216	45	F14	90	125	145
450	18	372	505	80	114	114	222	50	F14	144	180	205
500	20	415	565	90	127	127	229	55	F16	160	226	280
600	24	471	635	100	154	154	267	65	F20	284	310	430
700	28	554	750	120	165	165	292	75	F20	385	440	560
800	32	614	795	120	190	190	318	90	F25	605	690	880
900	36	670	840	130	203	203	330	95	F30	860	1100	1250
1000	40	735	960	130	216	216	410	105	F30	1180	1450	1600
1100	44	766	1050	150	240	240	410	120	F35	1460	1690	1970
1200	48	798	1120	150	254	254	470	135	F35	1800	2100	2450

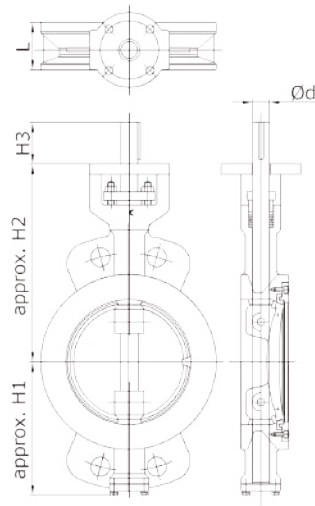
L : Face to Face Dimension

* Please contact the sales office for other sizes.

Dimension Table For Double Eccentric Butterfly Valve

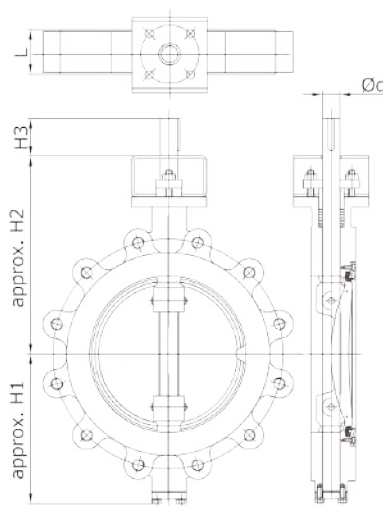
Model # WVDEBV-S

 Semi-Lug Design



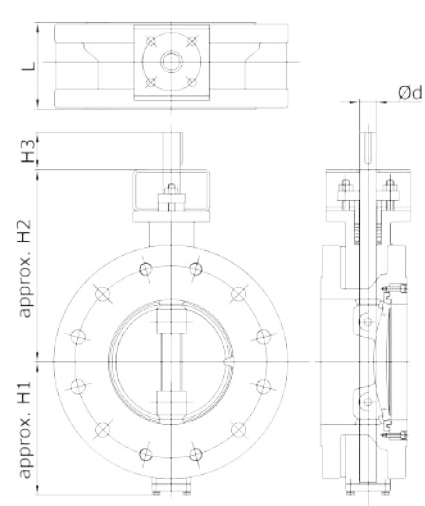
Model # WVDEBV-FL

 Full Lug Design



Model # WVDEBV-F

 Flange Design



Max. Size : 2000A (80")

Unit : mm

VALVE SIZE		H1	H2	H3	L			ØD	TOP	WEIGHT (kg)		
mm	inch	APPROX.	APPROX.	APPROX.	WAFER	LUGGED	FLANGE		FLANGE	WAFER	LUGGED	FLANGE
80	3	87	202	65	48	48	114	18	F07	7	11	16
100	4	150	215	65	54	54	127	20	F07	9	14	20
125	5	158	242	65	57	57	140	25	F07	14	21	27
150	6	172	245	65	59	59	140	25	F07	18	26	34
200	8	202	335	75	73	73	152	30	F10	25	36	45
250	10	230	385	75	83	83	165	40	F10	42	61	65
300	12	304	425	75	92	92	178	45	F10	53	78	83
350	14	310	502	85	117	117	190	50	F14	77	100	115
400	16	340	510	85	133	133	216	55	F14	112	145	165
450	18	404	560	85	149	149	222	65	F14	160	190	230
500	20	441	605	100	159	159	229	75	F16	185	210	320
600	24	515	640	120	181	181	267	75	F20	290	330	480
700	28	560	670	125	-	-	292	90	F20	-	-	630
800	32	645	740	125	-	-	318	90	F25	-	-	980
900	36	710	508	150	-	-	330	95	F30	-	-	1400
1000	40	770	870	150	-	-	410	105	F30	-	-	1800
1100	44	835	930	150	-	-	410	120	F35	-	-	2200
1200	48	895	995	150	-	-	470	135	F35	-	-	2750

L : Face to Face Dimension

* Please contact sales office for other sizes.

Single Eccentric Butterfly Valve (Water Works)

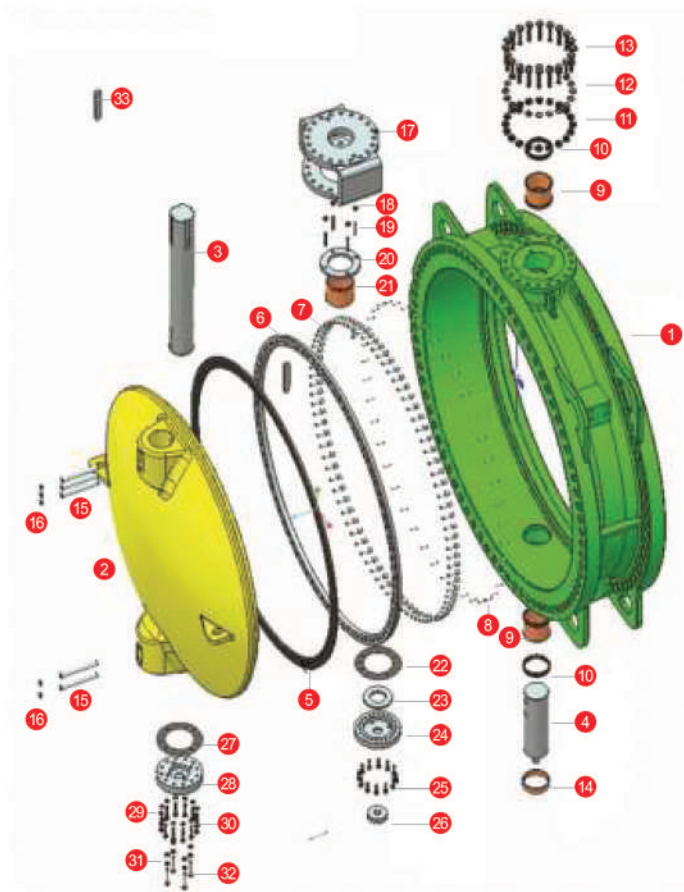
Model # WVSEBV



AWWA C 207 Class E PN16 3000A (120")

Range	Application	
Size	8"(200A) ~ 160"(4000A)	
Fluid	Water, Air, Steam, Gas	
Rating	JIS 10K, PN 10, ANSI 150# AWWA C 207	
End Connection	Wafer, Lugged, Flanged	
Temp. Range	-20 ~ 165 °C	
Materials	Body	Cast Iron, Ductile Iron, Cast Steel, Stainless Steel, (Ni) Al Bronze, (Super) Duplex S.S etc. (Rubber Lining)
	Disc	Cast Iron, Ductile Iron, Cast Steel, Stainless Steel, (Ni) Al Bronze, (Super) Duplex S.S etc. (Rubber Lining)
	Seat	Rubber (EPDM, NBR, SILICON etc.)

3D Drawing of Single Eccentric (Water Works) Butterfly Valve

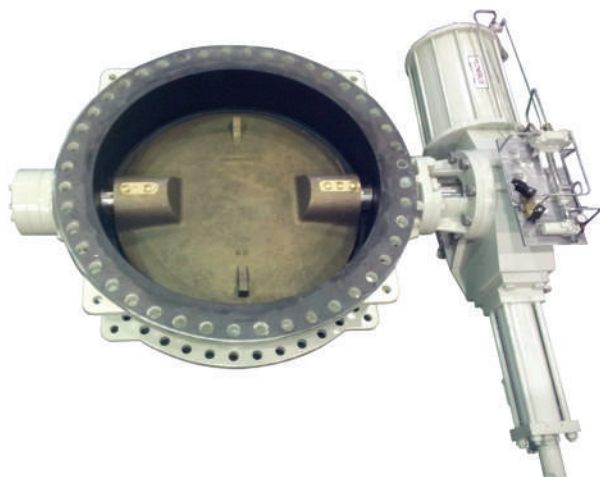


Parts List

No.	Part Name
1	BODY
2	DISC
3	MAIN SHAFT
4	STUB SHAFT
5	DISC SEAT
6	RETAINER
7	SOCKET HEAD BOLT
8	SET SCREW
9	BUSH
10	PACKING
11	HEX NUT
12	SPRING WASHER
13	HEX HEAD BOLT
14	GRAND BUSH
15	SHAFT PIN
16	SHAFT PIN CAP
17	BRACKET
18	HEX NUT
19	STUD BOLT
20	GRAND FLANGE
21	GRAND BUSH
22	END COVER GASKET
23	GLAND FLANGE
24	END COVER
25	SOCKET HEAD BOLT
26	THRUST BEARING
27	END COVER CAP GASKET
28	END COVER CAP
29	SPRING WASHER
30	HEX HEAD BOLT
31	PLANE WASHER
32	HEX HEAD BOLT
33	KEY

Single Eccentric Butterfly Valve (Water Works)

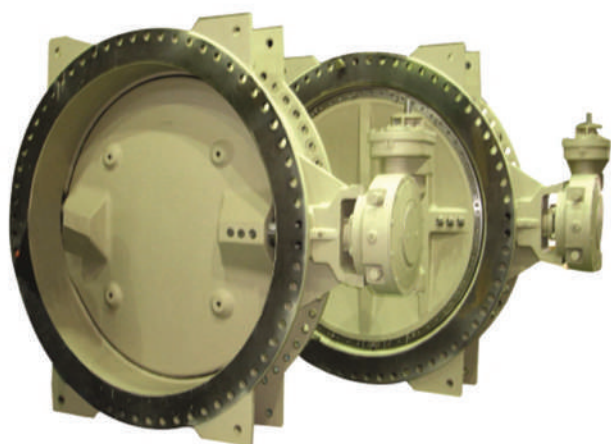
Model # WVSEBV



150# 1300A (52")



AWWA C207 CLASS.D 1800A (72")



150# 2100A (84")

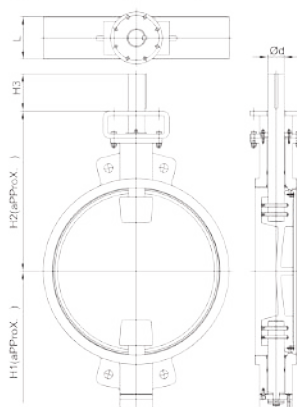


150# 1800A (72")

Dimension Table For Single Eccentric Butterfly Valve

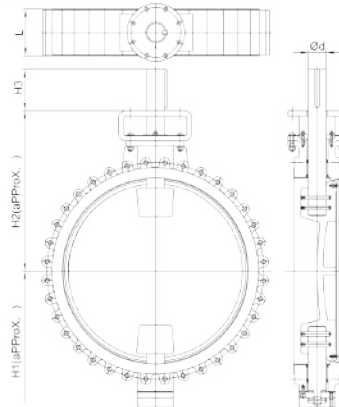
Model # WVSEBV-S

□ Semi-Lug Design



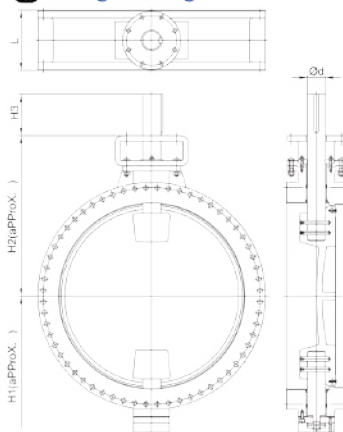
Model # WVSEBV-FL

□ Full Lug Design



Model # WVSEBV-FL

□ Flanged Design



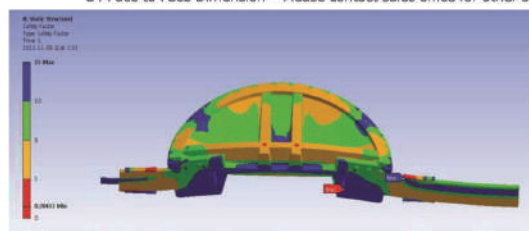
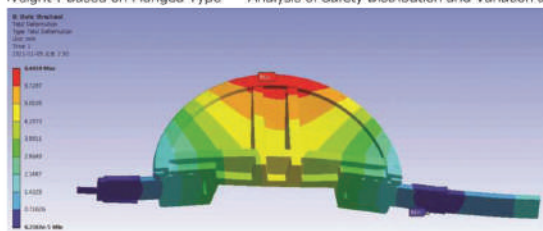
Max. Size : 4000A (160")

Unit : mm

VALVE SIZE		H1	H2	H3	L			Ød	TOP	WEIGHT(kg)
mm	inch	(Upto 150: Flange)	(Upto 150: Flange)		WAFER	LUGGED	FLANGE		FLANGE	APPROX.
40	1.5	70	155	35			40	14	F10	35
50	2	77.5	165	35	43	43	43	14	F10	50
65	2.5	87.5	175	35	46	46	46	14	F10	80
80	3	92.5	180	35	48	48	60	14	F10	100
100	4	105	200	35	54	54	60	16	F10	150
125	5	125	230	35	57	57	100	19	F10	250
150	6	140	245	35	57	57	100	19	F10	300
200	8	251	316	60	64	64	152	30	F10	35
250	10	271	336	60	71	71	165	35	F10	50
300	12	321	411	70	81	81	178	38	F14	80
350	14	347	477	70	92	92	190	45	F14	100
400	16	398	508	70	102	102	216	50	F14	150
450	18	418	528	85	114	114	222	55	F14	250
500	20	449	559	85	127	127	229	60	F14	300
550	22	475	645	85	154	154	229	65	F16	350
600	24	506	676	85	154	154	267	70	F16	450
650	26	535	705	85	165	165	229	75	F16	500
700	28	614	814	105	165	165	292	85	F25	600
750	30	642	842	105	165	165	305	90	F25	800
800	32	680	880	105	190	190	318	95	F25	1000
900	36	734	934	120	203	203	330	110	F30	1300
1000	40	845	995	130	216	216	410	110	F30	1550
1100	44	902	1087	150	240	240	410	120	F35	1700
1200	48	956	1141	150	254	254	470	130	F35	2000
1300	52	1013	1198	160			470	140	F35	2600
1350	54	1041	1226	180			530	150	F40	3000

Weight : Based on Flanged Type Analysis of Safety Distribution and Variation at Disc

L : Face to Face Dimension * Please contact sales office for other sizes.



Concentric Butterfly Valve (Rubber Seat) (COB Series)

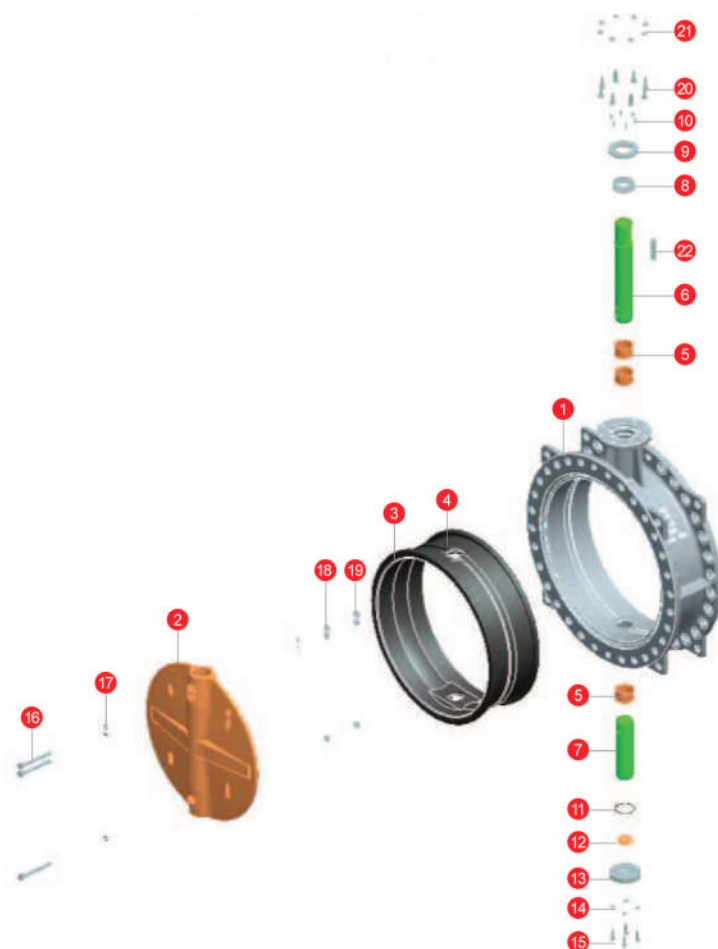
Model # WVDCSL, WVDCSG, WVDCFL, WVDCFG, WVLCSL, WVLCSG



150# / 700A (28")

Range		Application
Size		1-1/2"(40A) ~ 72"(1800A)
Fluid		Water
Rating		JIS 10K, ANSI 150# PN10
End Connection		Wafer, Lugged, Flanged
Temp. Range		EPDM -20 ~ 120°C NBR -20 ~ 80°C VITON -20 ~ 165°C
Materials	Body	Cast Iron, Ductile Iron, Cast Steel, Stainless Steel, (Ni) Al Bronze, (Super) Duplex S.S etc.
	Disc	Stainless Steel, (Ni) Al Bronze, (Super) Duplex S.S etc.
	Seat	Rubber (EPDM, NBR, VITON etc.)

3D Drawing of Concentric Butterfly Valve (Rubber Seat) (COB Series)



Parts List

No.	Part Name
1	BODY
2	DISC
3	SEAT
4	BACK RING
5	BUSH
6	UPPER SHAFT
7	LOWER SHAFT
8	GLAND BUSH
9	PACKING GLAND
10	GLAND BOLT
11	THRUST PLATE
12	END COVER O-RING
13	END COVER
14	SPRING WASHER
15	HEX BOLT_END COVER
16	DISC PIN
17	DISC PIN O-RING
18	DISC PIN WASHER
19	DISC PIN HEX NUT
20	BRACKET HEX BOLT
21	BRACKET HEX NUT
22	KEY

Concentric Butterfly Valve (Rubber Seat) (COB Series)



150# 1100A (44")

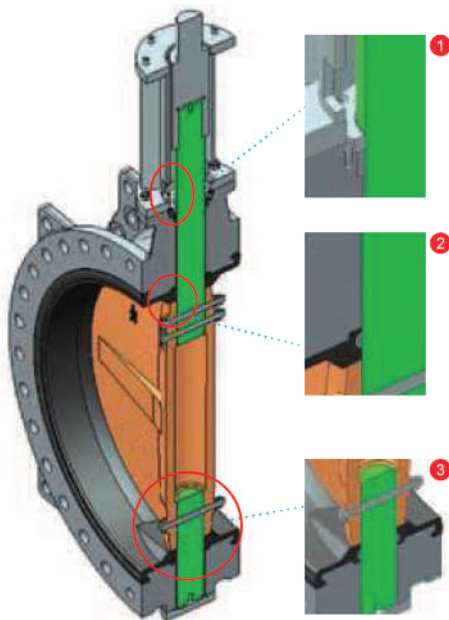


150# / 500A (20")



150# 500A (20")

Concentric Butterfly Valve (COB Series)

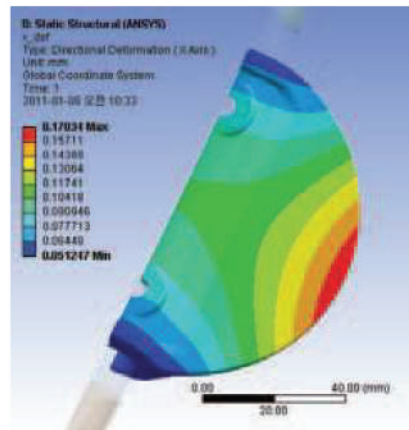
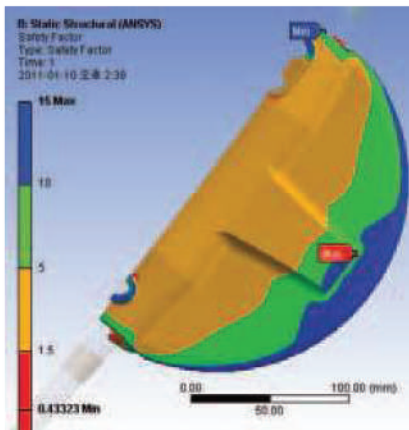


1 Different way for pressing the packing
Using packing gland as one set,
it would be possible to protect from leakage.

2 Insert Ring
Reinforcing Steel Plate is set into Rubber Seat to
keep Rubber Seat stable without deformation.

3 Pin Bolt & Nut Assembling
Pneumatic Op' Valve with bolt connection
occurs to break the bolt head which is going to
result in damage in the pipe line or valve.
DKC uses the Pin Bolt & Nut instead of bolt to
prevent from damaging.

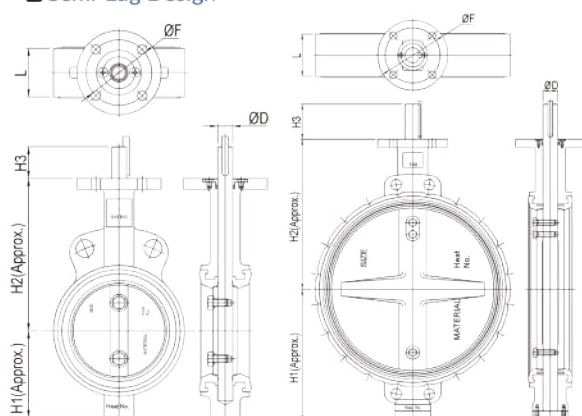
Analysis of Safety Distribution and Deformation at Disc



Dimension Table For Concentric Butterfly Valve 150LB (COB Series)

Model # WVDCSL, WVLCSL, WVDCSG, WVLCSG, WVDCSL-FL, WVLCSL-FL, WVDCSG-FL, WVLCSG-FL

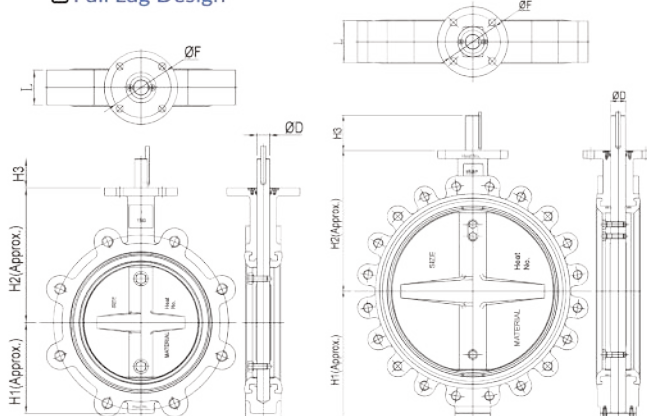
□ Semi-Lug Design



2" (50A) ~ 8" (200A)

10" (250A) ~ 48" (1200A)

□ Full Lug Design



2" (50A) ~ 8" (200A)

10" (250A) ~ 48" (1200A)

Max. Size : 1800A (72")

Unit : mm

VALVE SIZE		L	H1	H2	H3	ØD	ØF	WEIGHT (kg)
inch	mm							
2	50	43	58	130	29	Ø14	F07	6.5
2 1/2	65	46	65	142	29	Ø14	F07	7
3	80	46	78	150	29	Ø16	F07	7.5
4	100	52	93	163	29	Ø16	F07	8.5
5	125	56	116	176	29	Ø20	F07	10.5
6	150	56	128	185	29	Ø20	F07	11.5
8	200	60	155	230	45	Ø22	F10	15.5
10	250	68	231	267	36	Ø25	F10	31
12	300	78	267	310	36	Ø28	F10	42
14	350	78	297	338	45	Ø32	F10	50
16	400	102	332	375	45	Ø35	F14	93
18	450	114	350	390	45	Ø40	F14	110
20	500	127	394	422	55	Ø45	F16	165
22	550	154	430	460	55	Ø50	F16	230
24	600	154	455	495	65	Ø55	F16	300
26	650	165	475	536	65	Ø60	F16	348
28	700	165	540	590	70	Ø70	F16	395
30	750	165	721	600	70	Ø75	F16	455
32	800	190	581	640	70	Ø80	F25	543
34	850	210	600	665	70	Ø90	F25	615
36	900	203	625	695	70	Ø90	F25	652
38	950	203	660	730	70	Ø95	F25	692
40	1000	200	704	770	75	Ø100	F30	700
42	1050	251	733	803	75	Ø100	F30	740
44	1100	240	766	840	75	Ø100.5	F30	780
46	1150	240	788	858	80	Ø110	F30	890
48	1200	276	820	885	80	Ø120	F30	1015

Max. Size : 1800A (72")

Unit : mm

VALVE SIZE		L	H1	H2	H3	ØD	ØF	WEIGHT (kg)
inch	mm							
2	50	43	58	130	29	Ø14	F07	7.5
2 1/2	65	46	65	142	29	Ø14	F07	8.5
3	80	46	78	150	29	Ø16	F07	10
4	100	52	93	163	29	Ø16	F07	14
5	125	56	116	176	29	Ø20	F07	16
6	150	56	128	185	29	Ø20	F07	18
8	200	60	155	230	45	Ø22	F10	23
10	250	68	231	267	36	Ø25	F10	41
12	300	78	267	310	36	Ø28	F10	54
14	350	78	297	338	45	Ø32	F10	62
16	400	102	332	375	45	Ø35	F14	115
18	450	114	350	390	45	Ø40	F14	140
20	500	127	394	422	55	Ø45	F16	205
22	550	154	430	460	55	Ø50	F16	290
24	600	154	455	495	65	Ø55	F16	390
26	650	165	475	536	65	Ø60	F16	425
28	700	165	517	555	70	Ø70	F16	470
30	750	165	721	600	70	Ø75	F16	550
32	800	190	581	640	70	Ø80	F25	650
34	850	210	600	665	70	Ø90	F25	740
36	900	203	625	695	70	Ø90	F25	790
38	950	203	660	730	70	Ø95	F25	830
40	1000	200	704	770	75	Ø100	F30	900
42	1050	251	733	803	75	Ø100	F30	950
44	1100	240	766	840	75	Ø100.5	F30	1030
46	1150	240	788	858	80	Ø110	F30	1180
48	1200	276	820	885	80	Ø120	F30	1250

L : Face to Face Dimension

* Please contact sales office for other sizes.

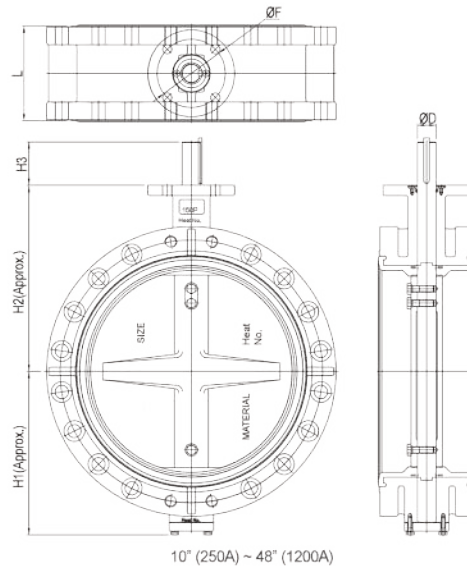
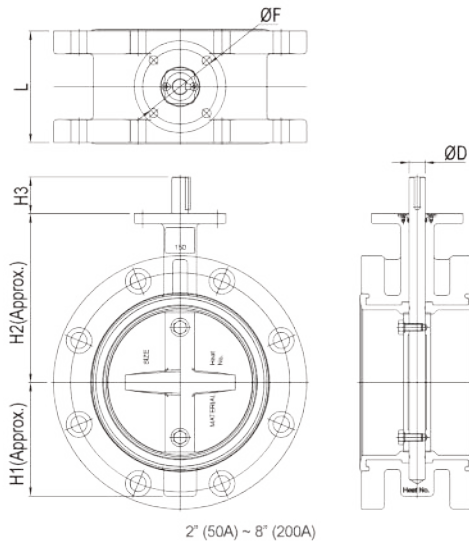


Dimension Table For Concentric Butterfly Valve 150LB (COB Series)

Model # WVDCFL

Model # WVDCFG

□ Flange Design



Max. Size : 1800A (72")

Unit : mm

VALVE SIZE		L	H1	H2	H3	ØD	ØF	WEIGHT (kg)
inch	mm							
2	50	108	58	130	29	Ø14	F07	13
2 1/2	65	112	65	142	29	Ø14	F07	15
3	80	114	78	150	29	Ø16	F07	17
4	100	127	93	163	29	Ø16	F07	20
5	125	140	116	176	29	Ø20	F07	23
6	150	140	128	185	29	Ø20	F07	27
8	200	152	155	230	45	Ø22	F10	31
10	250	165	231	267	36	Ø25	F10	50
12	300	178	267	310	36	Ø28	F10	68
14	350	190	297	338	45	Ø32	F10	85
16	400	216	332	375	45	Ø35	F14	135
18	450	222	350	390	45	Ø40	F14	159
20	500	229	394	422	55	Ø45	F16	240
22	550	229	415	463	55	Ø50	F16	320
24	600	267	455	496	65	Ø55	F16	410
26	650	292	475	523	65	Ø60	F16	440
28	700	292	503	550	70	Ø70	F16	490
30	750	318	540	590	70	Ø75	F16	590
32	800	318	581	640	70	Ø80	F25	695
34	850	330	600	665	70	Ø90	F25	790
36	900	330	625	695	70	Ø90	F25	840
38	950	410	660	730	70	Ø95	F25	890
40	1000	410	704	770	75	Ø100	F30	1050
42	1050	410	733	803	75	Ø100	F30	1260
44	1100	410	766	840	75	Ø100.5	F30	1512
46	1150	470	788	858	80	Ø110	F30	1815
48	1200	470	820	885	80	Ø120	F30	2178

L : Face to Face Dimension

* Please contact sales office for other sizes.

Dual Plate Check Valve (DC Series)

Model # WVDPCV



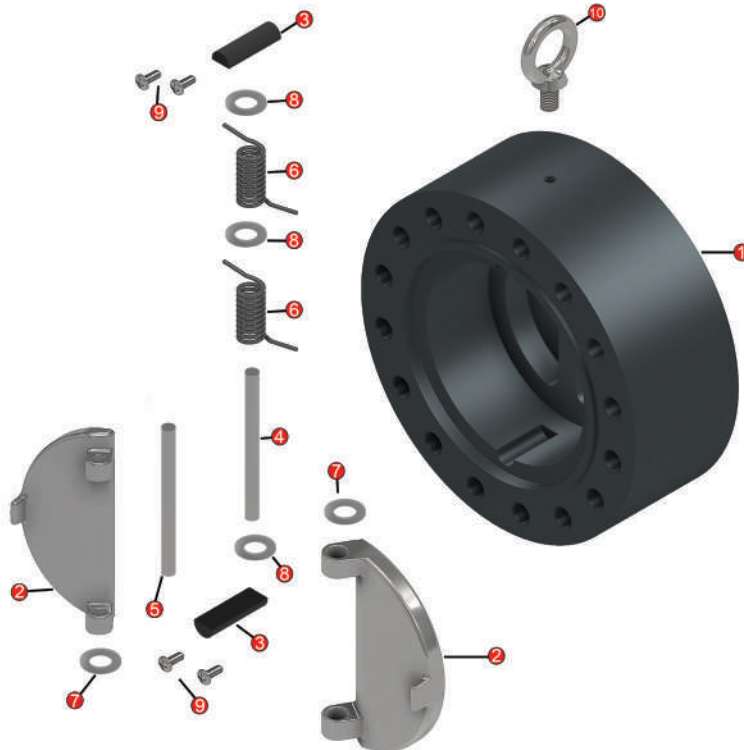
150# / 1350A (54")



Cryogenic Dual Check Valve

Range	Application
Size	1 1/2"(40A) ~ 84"(2100A)
Fluid	Water, Air, Steam, Gas, Sea Water
Rating	JIS 10K, 20K, 30K ANSI 150#, 300#, 600#, 900#, 1500#, 2500# PN10, 16, 20, 40 AWWA C 207
End Connection	Wafer, Lugged, Flanged
Temp. Range	-196 °C ~ 600 °C
Materials	Body
	Disc
	Seat
	Spring

3D Drawing of World Valve Dual Plate Check Valve



Parts List

No.	Part Name
1	BODY
2	DISC
3	GUIDE
4	HINGE PIN
5	STOP PIN
6	SPRING
7	WASHER
8	SPACER
9	SET SCREW
10	EYE BOLT

Dual Plate Check Valve (DC Series)

Model # WVDPCV



CRYOGENIC DUAL PLATE CHECK VALVE

CONTRACTOR	POGC IN IRAN
PROJECT	SOUTH PARS PJT
END CUSTOMER	NIOC IN IRAN



600# 800A (32")

CONTRACTOR	PIDEC
PROJECT	3 rd AMMONIA & UREA PLANTS(OIL REFINERY PLANT)
END CUSTOMER	PIDMCO IN IRAN



150# 500A (20")

CONTRACTOR	PETRO MIDDLE EAST
PROJECT	
END CUSTOMER	GASCO IN UAE



150# 1350A (54")

CONTRACTOR	POSCO E&C
PROJECT	POHANG 13 OXYGEN FACTORY PJT
END CUSTOMER	POSCO IN KOREA

Dual Plate Check Valve Types (Standard Design) (DC Series)

Model # WVDPCV

WAFFER
RETAINERLESS



Retainerless design supplied as standard

- **ANSI B16.5**
- Flange dims to ANSI B16.5 (MSS SP44>24")
- Face to face dims to API 594
- **API 605**
- Flange dims to API 605
- Face to face dims to API 594

FLANGED
RETAINERLESS



- Flange dims to ANSI B16.5 (MSS SP44>24")
- Face to face dims to API 594
- **API 6A**
- Flange dims to API 6A
- Face to face dims to API 6A
- **API 6D**
- Flange dims to ANSI B16.5
- Face to face dims to API 6D

SOLID LUG
RETAINERLESS



- Flange dims to ANSI B16.5 (MSS SP44>24")
- Face to face dims to API 594
- * Threaded lug type also available
- **JIS 2210 & KS B1511**
- **EXTENDED BODY**
- Flange dims to ANSI B16.5

□ Nominal Size Range

ASME 150 lb. 2" to 60"
ASME 300 lb. 2" to 40"
ASME 600 lb. 2" to 36"
ASME 900 lb. 2" to 36"
ASME 1500 lb. 2" to 24"

Larger diameter valves for the respective pressure classes can be designed and manufactured on request.

□ Retainerless Design

DKC dual plate check valves are supplied retainerless as standard. Our patented design does not have any threaded plugs in the pressure boundary and totally eliminates the potential leakpath to atmosphere. This design meets fugitive emission control.

□ Seat

The seat is designed equal pressure at the plate with the state of stationary hour. The shape of rubber seat could not be changed even in many operation because of having its most hardness satisfaction. The metal to metal seated valve is tested to API 598.

□ Disc (Plate)

The two semicircle plate responsiveness of opening and closing is quick and it is strong against corrosion also has a strong durability.

□ Spring

The springs have been designed to endure stresses and also ensure operating without failure for much cycles.

□ Rubber Lined

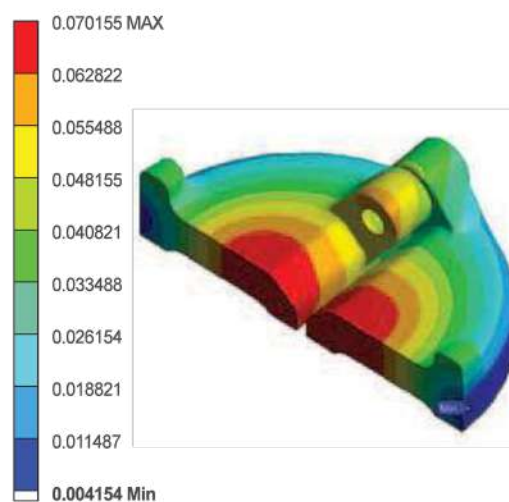
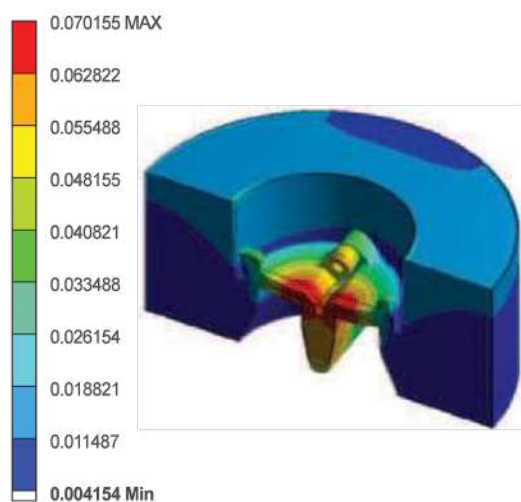
Fully Rubber Lined Valves to avoid corrosion inside are available.



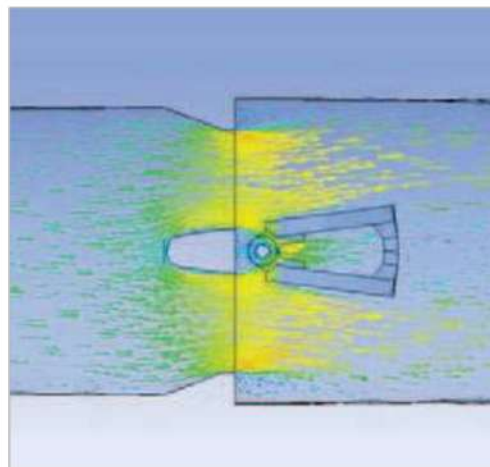
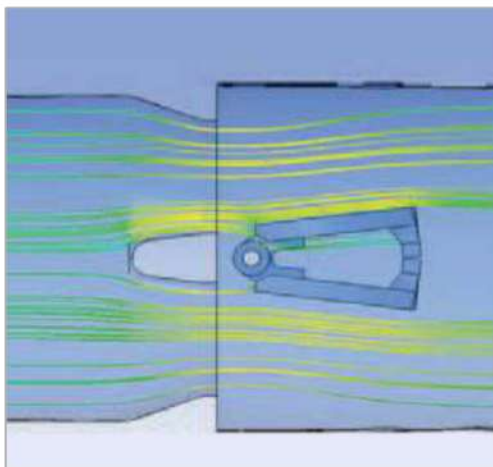
Analysis of Dual Plate Check Valve (DC Series)

Model # WVDPCV

□ Analysis of Stress and Deformation for Body & Disc



□ Valve Internal Flow Analysis through the CFD



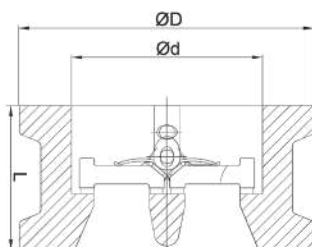
Dimension Table For Dual Plate Check Valve (DC Series)

Model # WVDPCV-S

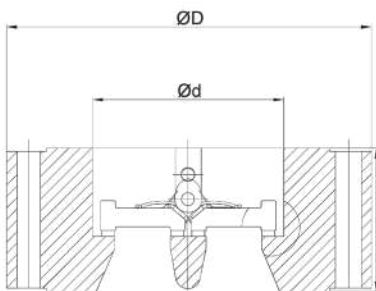
Model # WVDPCV-FL

Model # WVDPCV-F

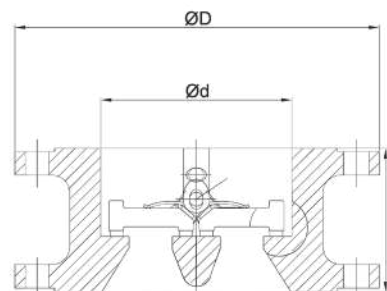
□ Semi-Lug Design



□ Full Lug Design



□ Flange Design



MAX. SIZE : 2100A (84")

ANSI B 16.5 CLASS 150

Unit : mm

SIZE	CLASS	BODY		OD (Ød)			FLANGE			WEIGHT (kg)		
		L	Ød	WAFER	FLANGE	LUG	PCD (ØC)	HOLE NO.	HOLE DIA.	WAFER	LUG	FLANGE
2	150	60	60	102	-	150	120.7	4	19	2.5	7	-
3	150	73	87	133	-	190	152.4	4	19	5	13	-
4	150	73	113	171	-	230	190.5	8	19	8	19	-
6	150	98	166	219	-	280	241.3	8	22.5	15	32	-
8	150	127	207	276	345	345	298.5	8	22.5	30	65	49
10	150	146	260	337	405	405	362	12	25.5	48	93	82
12	150	181	300	406	485	485	431.8	12	25.5	85	170	125
14	150	184	339	448	535	535	476.3	12	28.5	105	210	154
16	150	191	387	511	595	595	539.8	16	28.5	135	270	186
18	150	203	438	546	635	635	577.9	16	32	170	333	224
20	150	219	487	603	700	700	635	20	32	215	450	270
24	150	222	580	714	815	815	749.3	20	35	300	796	410

ANSI B 16.5 CLASS 300

Unit : mm

SIZE	CLASS	BODY		OD (Ød)			FLANGE			WEIGHT (kg)		
		L	Ød	WAFER	FLANGE	LUG	PCD (ØC)	HOLE NO.	HOLE DIA.	WAFER	LUG	FLANGE
2	300	60	60	108	-	165	127	8	19	3	8	-
3	300	73	87	146	-	210	168.3	8	22.5	7	15	-
4	300	73	113	178	-	255	200	8	22.5	9	23	-
6	300	98	166	248	-	320	269.9	12	22.5	21	45	-
8	300	127	207	305	-	380	330.2	12	25.5	40	82	-
10	300	146	260	359	-	445	387.4	16	28.5	60	140	-
12	300	181	300	419	520	520	450.8	16	32	100	242	153
14	300	222	339	483	585	585	514.4	20	32	180	313	207
16	300	232	387	537	650	650	571.5	20	35	205	489	301
18	300	264	438	594	710	710	628.6	24	35	300	558	392
20	300	292	487	651	775	775	685.8	24	35	360	766	489
24	300	318	580	772	915	915	812.8	24	41.5	522	1190	756

L : Face to Face Dimension

* Please contact sales office for other sizes.

Dimension Table For Dual Plate Check Valve (DC Series)

Model # WVDPCV-S

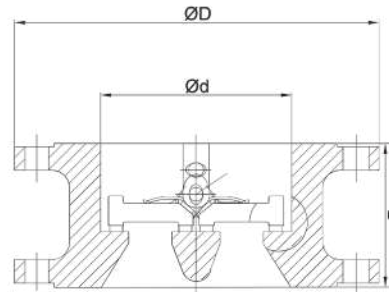
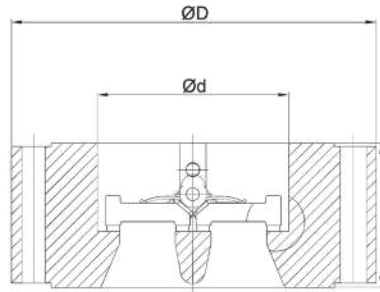
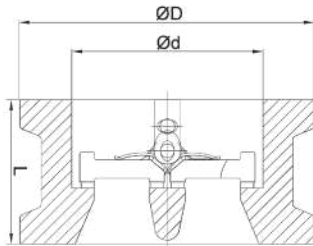
Model # WVDPCV-FL

Model # WVDPCV-F

☐ Semi-Lug Design

☐ Full Lug Design

☐ Flange Design



MAX. SIZE : 2100A (84")

ANSI B 16.5 CLASS 600

Unit : mm

SIZE	CLASS	BODY		OD (Ød)			FLANGE			WEIGHT (kg)		
		L	Ød	WAFER	FLANGE	LUG	PCD (ØC)	HOLE NO.	HOLE DIA.	WAFER	LUG	FLANGE
2	600	60	60	108	-	165	127	8	19	3	8	-
3	600	73	87	146	-	210	168.3	8	22.5	7	15	-
4	600	79	113	191	-	275	215.9	8	25.5	13	30	-
6	600	136	166	264	-	355	292.1	12	28.5	36	81	-
8	600	165	207	317	-	420	349.2	12	32	72	134	-
10	600	213	260	397	510	510	431.8	16	35	118	234	183
12	600	229	300	454	560	560	489	20	35	164	304	239
14	600	273	339	489	605	605	527	20	38	186	440	378
16	600	305	387	562	685	685	603.2	20	41.5	331	660	451
18	600	362	438	610	745	745	654	20	44.5	394	995	560
20	600	368	487	679	815	815	723.9	24	44.5	544	1078	762
24	600	438	580	787	940	940	838.2	24	51	819	1520	1150

ANSI B 16.5 CLASS 900

Unit : mm

SIZE	CLASS	BODY		OD (Ød)			FLANGE			WEIGHT (kg)		
		L	Ød	WAFER	FLANGE	LUG	PCD (ØC)	HOLE NO.	HOLE DIA.	WAFER	LUG	FLANGE
2	900	70	60	140	-	215	165.1	8	25.5	8	16	-
3	900	83	87	165	-	240	190.5	8	25.5	12	25	-
4	900	102	113	203	-	290	235	8	32	19	45	-
6	900	159	166	286	-	380	317.5	12	32	54	115	-
8	900	206	207	356	-	470	393.7	12	38	122	217	-
10	900	241	260	432	545	545	469.9	16	38	196	330	203
12	900	292	300	495	610	610	533.4	20	38	293	509	347
14	900	356	339	518	640	640	558.8	20	41.5	396	775	470
16	900	384	387	571	705	705	616	20	45	532	850	610
18	900	451	438	635	785	785	685.8	20	51	611	1450	843
20	900	451	487	695	855	855	749.3	20	54	637	1960	1582
24	900	495	580	835	1040	1040	901.7	20	67	1230	2351	1750

ANSI B 16.5 CLASS 1500

Unit : mm

SIZE	CLASS	BODY		OD (Ød)			FLANGE			WEIGHT (kg)		
		L	Ød	WAFER	FLANGE	LUG	PCD (ØC)	HOLE NO.	HOLE DIA.	WAFER	LUG	FLANGE
2	1500	70	60	140	-	215	165.1	8	25.5	8	16	-
3	1500	83	87	171	-	265	203.2	8	32	13	29	-
4	1500	102	113	206	-	310	241.3	8	35	21	51	-
6	1500	159	166	279	-	395	317.5	12	38	52	119	-
8	1500	206	207	349	-	485	393.7	12	44.5	116	230	-
10	1500	248	260	432	585	585	482.6	12	51	203	378	-
12	1500	305	300	518	675	675	571.5	16	54	373	650	-
14	1500	356	339	575	750	750	635	16	60.5	484	905	-
16	1500	384	387	638	825	825	704.8	16	66.5	587	1120	-
18	1500	468	438	702	915	915	774.7	16	73	791	1775	-
20	1500	533	487	752	985	985	831.8	16	79.5	1275	2200	-
24	1500	559	580	899	1170	1170	990.6	16	92	2713	3325	-

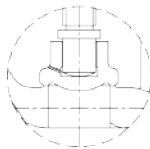
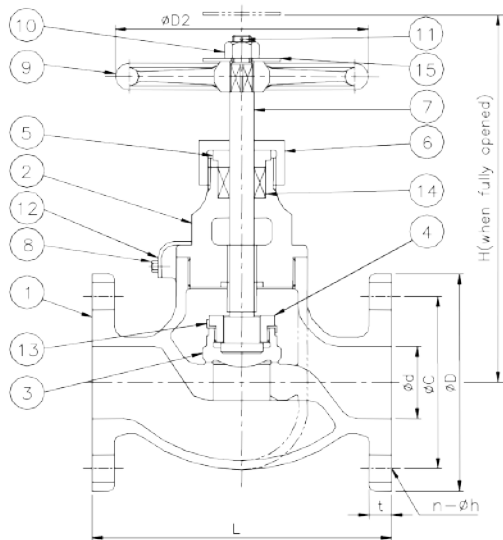
L : Face to Face Dimension * Please contact sales office for other sizes.

General Valves for Marine Use



Cast Bronze Glove Valve

5K & 16K



Screw-down check valve

MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Disc	CAC406 or C3771BD or BE
4	Disc Nut	CAC406 or C3771BD or C3604BD
5	Packing Gland	CAC406 or C3771BD or C3604BD
6	Gland Nut	CAC406 or C3771BD or C3604BD
7	Stem	C3771BD or BE
8	Set Screw	C2700W
9	Handwheel	FC200
10	Hexagon Nut	C3604BD
11	Split Pin	C2600W
12	Lock Plate	C2600P
13	Disc Lock Washer	C2600P
14	Packing	Non-Asbestos
15	Name Plate (※)	C2801P

※ Option

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Steam of 205°C or less	0.5	1.6
Air, Gas, Oil and Pulsation water	0.5	1.6
Non-shock water of 120°C or less	0.7	2.2

DIMENTIONAL TABLE

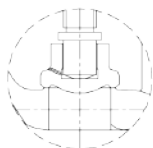
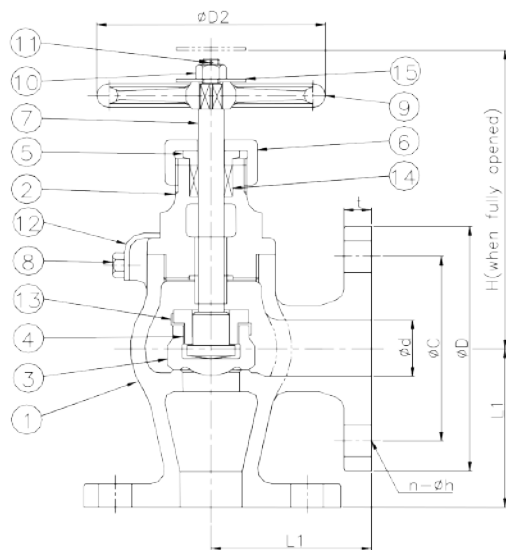
Model No	WVBCFG05 / WVBCFNG05								
Standard	Refer to JIS F7427 (F7301 / F7351)								
Flange	JIS 5K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	100	80	60	4-12	9	130/130	80	2.02/1.96
20A	20	110	85	65	4-12	10	140/140	100	2.86/2.77
25A	25	120	95	75	4-12	10	160/155	125	3.54/3.41
32A	32	140	115	90	4-15	12	170/165	125	5.00/4.86
40A	40	160	120	95	4-15	12	190/185	140	6.48/6.30
50A	50	210	130	105	4-15	14	235/-	140	11.7/-
65A	65	250	155	130	4-15	14	260/-	160	17.0/-

Model No	WVBCFG16 / WVBCFNG16								
Standard	Refer to JIS F7427 (F7303 / F7409)								
Flange	JIS 16K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	110	95	70	4-15	12	130/130	80	2.76/2.70
20A	20	120	100	75	4-15	14	140/140	100	3.72/3.63
25A	25	130	125	90	4-19	14	160/155	125	5.20/5.09
32A	32	160	135	100	4-19	16	170/165	125	6.91/6.77
40A	40	180	140	105	4-19	16	190/185	140	8.43/8.25



Cast Bronze Angle Valve

5K & 16K



Screw-down check valve

MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Disc	CAC406 or C3771BD or BE
4	Disc Nut	CAC406 or C3771BD or C3604BD
5	Packing Gland	CAC406 or C3771BD or C3604BD
6	Gland Nut	CAC406 or C3771BD or C3604BD
7	Stem	C3771BD or BE
8	Set Screw	C2700W
9	Handwheel	FC200
10	Hexagon Nut	C3604BD
11	Split Pin	C2600W
12	Lock Plate	C2600P
13	Disc Lock Washer	C2600P
14	Packing	Non-Asbestos
15	Name Plate (※)	C2801P

※ Option

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Steam of 205°C or less	0.5	1.6
Air, Gas, Oil and Pulsation water	0.5	1.6
Non-shock water of 120°C or less	0.7	2.2

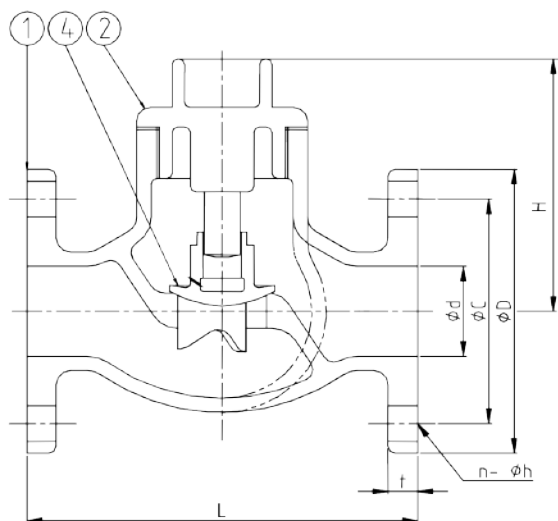
DIMENTIONAL TABLE

Model No	WVBCFL05 / WVBCFNL05								
Standard	Refer to JIS F7427 (F7302 / F7352)								
Flange	JIS 5K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
15A	15	55	80	60	4-12	9	120/120	80	1.98/1.92
20A	20	60	85	65	4-12	10	130/125	100	2.73/2.64
25A	25	65	95	75	4-12	10	145/140	125	3.44/3.30
32A	32	80	115	90	4-15	12	150/145	125	4.77/4.63
40A	40	85	120	95	4-15	12	165/160	140	5.99/5.81
50A	50	100	130	105	4-15	14	200/-	140	10.1/-
65A	65	115	155	130	4-15	14	220/-	160	15.6/-

Model No	WVBCFL16 / WVBCFNL16								
Standard	Refer to F7427 (F7304 / F7410)								
Flange	JIS 16K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
15A	15	70	95	70	4-15	12	120/120	80	2.73/2.67
20A	20	75	100	75	4-15	14	130/125	100	3.65/3.56
25A	25	85	125	90	4-19	14	145/140	125	5.16/5.02
32A	32	95	135	100	4-19	16	150/145	125	6.72/6.58
40A	40	100	140	105	4-19	16	165/160	140	8.13/7.95

Cast Bronze Lift Check Valve

5K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
4	Disc	CAC406 or C3771BD or BE

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77~0.40

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427
Fluid Condition	Maximum working pressure Mpa
Oil and Pulsation water	0.5
Non-shock water of 120°C or less	0.7

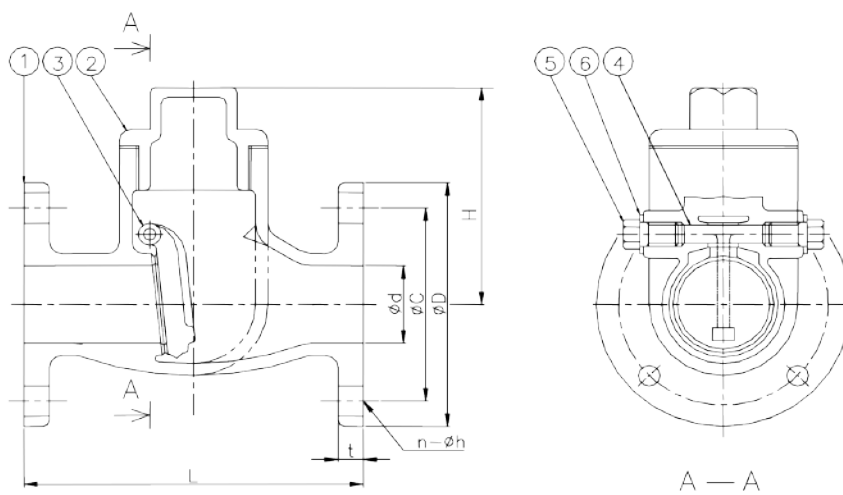
DIMENTIONAL TABLE

Model No	WVBCFLN05							
Standard	Refer to JIS F7427 (F7356)							
Flange	JIS 5K FF							
Item	LIFT CHECK GLOBE VALVE / LIFT CHECK ANGLE VALVE							
Size	d	L/L1	D	C	n-h	t	H	Weight [kg]
15A	15	100/55	80	60	4-12	9	62/52	1.47/1.43
20A	20	110/60	85	65	4-12	10	71/58	1.92/1.79
25A	25	120/65	95	75	4-12	10	77/62	2.41/2.30
32A	32	140/80	115	90	4-15	12	81/61	3.85/3.62
40A	40	160/85	120	95	4-15	12	91/67	5.00/4.50



Cast Bronze Swing Check Valve

5K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406
3	Disc	CAC406
4	Pin	C3771BD or BE
5	Plug	C3771BD
6	Gasket	Non-Asbestos

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77~0.40

PRESSURE RATING

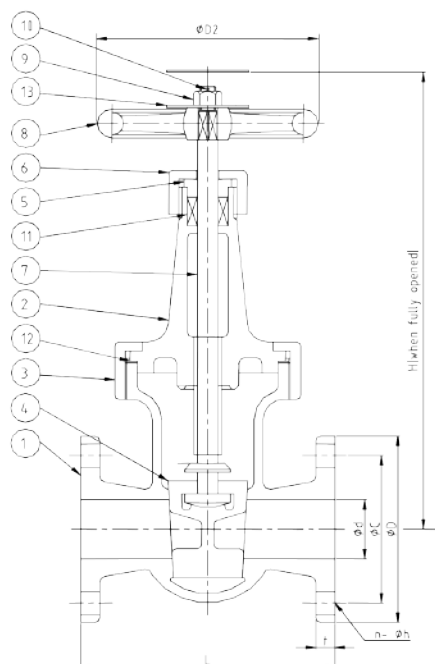
Applicable Standard No.	Reffer to JIS F7427
Fluid Condition	Maximum working pressure Mpa
Oil and Pulsation water	0.5
Non-shock water of 120°C or less	0.7

DIMENTIONAL TABLE

Model No	WVBCFSN05							
Standard	Refer to JIS F7427 (F7371)							
Flange	JIS 5K FF							
Item	SWING CHECK VALVE							
Size	d	L	D	C	n-h	t	H	Weight [kg]
25A	25	110	95	75	4-12	10	69	2.24
32A	32	130	115	90	4-15	12	79	3.07
40A	40	140	120	95	4-15	12	93	4.34

Cast Bronze Stem Type Gate Valve

5K & 10K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406
3	Bonnet Nut	CAC406
4	Disc	CAC406
5	Packing Gland	CAC406 or C3771BD or C3604BD
6	Gland Nut	CAC406 or C3771BD or C3604BD
7	Stem	C3771BD or BE
8	Handwheel	FC200
9	Hexagon Nut	C3771BD
10	Split Pin	C2600W
11	Packing	Non-Asbestos
12	Gasket	Non-Asbestos
13	Name Plate (※)	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77
10K	2.1	1.54

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Oil and Pulsation water	0.5	1.0
Saturated steam	0.2	0.2
Non-shock water of 120°C or less	0.7	1.4

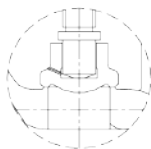
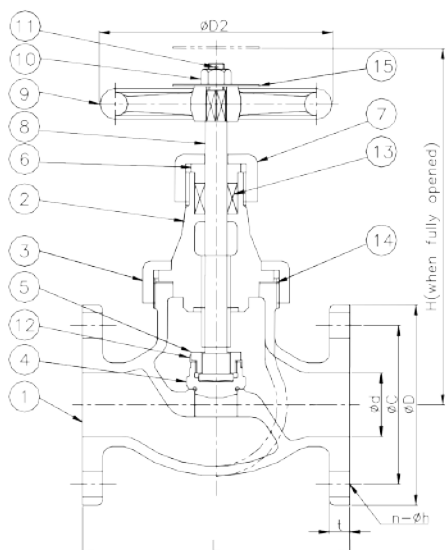
DIMENTIONAL TABLE

Model No	WVBCFSJ05								
Standard	Reffer to JIS F7427 (F7367)								
Flange	JIS 5K FF								
Item	RISING STEM TYPE GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	90	80	60	4-12	9	175	80	2.29
20A	20	100	85	65	4-12	10	200	80	2.98
25A	25	110	95	75	4-12	10	220	100	4.10
32A	32	130	115	90	4-15	12	250	100	5.79
40A	40	140	120	95	4-15	12	290	125	7.78

Model No	WVBCFSJ10								
Standard	Reffer to JIS F7427 (F7368)								
Flange	JIS 10K FF								
Item	RISING STEM TYPE GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	100	95	70	4-15	12	175	80	2.96
20A	20	110	100	75	4-15	14	200	80	3.89
25A	25	120	125	90	4-19	14	220	100	5.82
32A	32	140	135	100	4-19	16	250	100	7.52
40A	40	150	140	105	4-19	16	290	125	9.71

Cast Bronze UB-Type Glove Valve

5K & 16K



Screw-down check valve

MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Bonnet Nut	CAC406 or C3771BD or BE
4	Disc	CAC406 or C3771BD or BE
5	Disc Nut	CAC406 or C3771BD or C3604BD
6	Packing Gland	CAC406 or C3771BD or C3604BD
7	Gland Nut	CAC406 or C3771BD or C3604BD
8	Stem	C3771BD or BE
9	Handwheel	FC200
10	Hexagon Nut	C3604BD
11	Split Pin	C2600W
12	Disc Lock Washer	C2600P
13	Packing	Non-Asbestos
14	Gasket	Non-Asbestos
15	Name Plate (※)	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Steam of 205°C or less	0.5	1.6
Air, Gas, Oil and Pulsation water	0.5	1.6
Non-shock water of 120°C or less	0.7	2.2

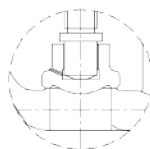
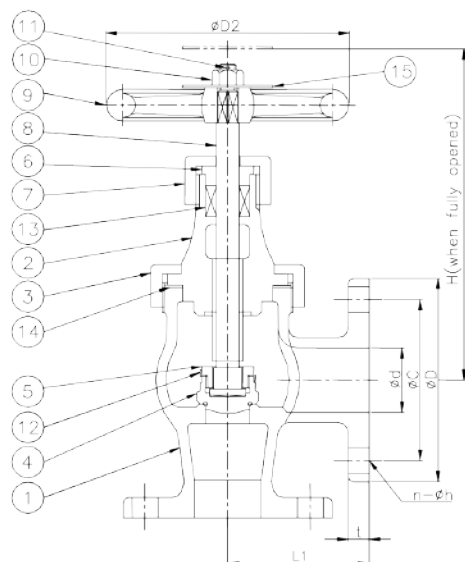
DIMENTIONAL TABLE

Model No	WVBCFGU05 / WVBCFNUG05								
Standard	Refer to JIS F7427 (F7346 / F7411)								
Flange	JIS 5K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	100	80	60	4-12	9	155/150	80	2.21/2.12
20A	20	110	85	65	4-12	10	165/160	100	3.04/2.91
25A	25	120	95	75	4-12	10	185/185	125	3.97/3.82
32A	32	140	115	90	4-15	12	195/190	125	5.23/5.09
40A	40	160	120	95	4-15	12	210/205	140	6.94/6.71

Model No	WVBCFGU16 / WVBCFNUG16								
Standard	Refer to JIS F7427 (F7348 / F7413)								
Flange	JIS 16K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	110/100	95	70	4-15	12	155/150	80	2.96/2.87
20A	20	120/120	100	75	4-15	14	165/160	100	3.92/3.79
25A	25	130/130	125	90	4-19	14	185/185	125	5.65/5.44
32A	32	160/160	135	100	4-19	16	195/190	125	7.24/7.04
40A	40	180/180	140	105	4-19	16	210/205	140	9.12/8.89

Cast Bronze UB-Type Angle Valve

5K & 16K



Screw-down check valve

MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Bonnet Nut	CAC406 or C3771BD or BE
4	Disc	CAC406 or C3771BD or BE
5	Disc Nut	CAC406 or C3771BD or C3604BD
6	Packing Gland	CAC406 or C3771BD or C3604BD
7	Gland Nut	CAC406 or C3771BD or C3604BD
8	Stem	C3771BD or BE
9	Handwheel	FC200
10	Hexagon Nut	C3604BD
11	Split Pin	C2600W
12	Disc Lock Washer	C2600P
13	Packing	Non-Asbestos
14	Gasket	Non-Asbestos
15	Name Plate (※)	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Steam of 205°C or less	0.5	1.6
Air, Gas, Oil and Pulsation water	0.5	1.6
Non-shock water of 120°C or less	0.7	2.2

DIMENTIONAL TABLE

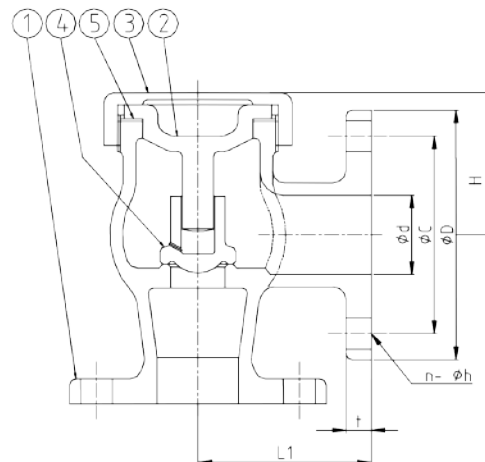
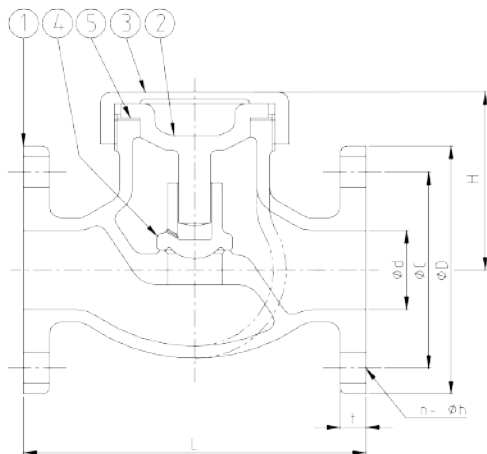
Model No	WVBCFLU05 / WVBCFNUL05								
Standard	Refer to JIS F7427 (F7347 / F7412)								
Flange	JIS 5K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
15A	15	55	80	60	4-12	9	145/140	80	2.15/2.07
20A	20	60	85	65	4-12	10	155/150	100	2.94/2.81
25A	25	65	95	75	4-12	10	175/175	125	3.82/3.67
32A	32	80	115	90	4-15	12	175/170	125	4.99/4.85
40A	40	85	120	95	4-15	12	190/180	140	6.40/6.17

Model No	WVBCFLU16 / WVBCFNUL16								
Standard	Reffer to JIS F7427 (F7349 / F7414)								
Flange	JIS 16K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
15A	15	70	95	70	4-15	12	145/140	80	2.94/2.86
20A	20	75	100	75	4-15	14	155/150	100	3.88/3.75
25A	25	85	125	90	4-19	14	175/175	125	5.53/5.38
32A	32	95	135	100	4-19	16	175/170	125	6.98/6.84
40A	40	100	140	105	4-19	16	190/180	140	8.57/8.34



Cast Bronze UB-Type Check Valve

5K & 16K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Disc Guide	CAC406 or C3771BD or BE
3	Cover Nut	CAC406 or C3771BD or BE
4	Disc	CAC406 or C3771BD or BE
5	Gasket	Non-Asbestos

HYDRAULIC INSPECTION

Rating	Hydraulic Inspection Mpa	
	Body	Seat
5K	1.05	0.77~0.40
16K	3.3	2.42~0.40

PRESSURE RATING

Applicable Standard No.	Reffer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
Oil and Pulsation water	0.5	1.6
Non-shock water of 120°C or less	0.7	2.2

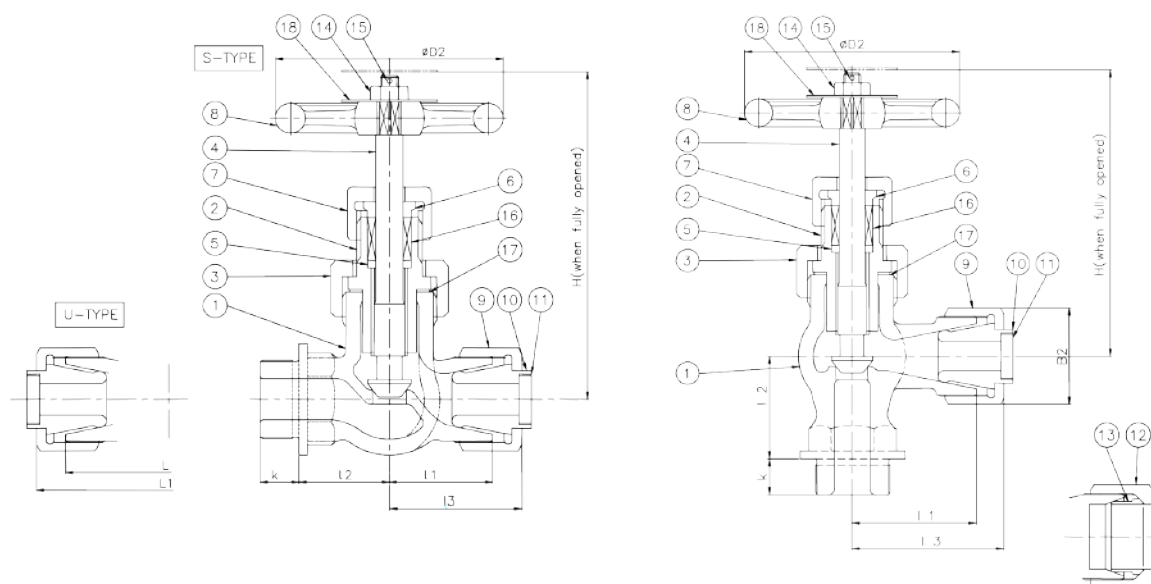
DIMENTIONAL TABLE

Model No	WVBCFLNUG05 / WVBCFLNUL05							
Standard	Refer to JIS F7427 (F7415 / F7416)							
Flange	JIS 5K FF							
Item	LIFT CHECK GLOBE VALVE / LIFT CHECK ANGLE VALVE							
Size	d	L/L1	D	C	n-h	t	H	Weight [kg]
15A	15	100/55	80	60	4-12	9	66/56	1.62/1.57
20A	20	110/60	85	65	4-12	10	71/59	2.17/2.07
25A	25	120/65	95	75	4-12	10	81/67	2.80/2.65
32A	32	140/80	115	90	4-15	12	83/65	3.92/3.68
40A	40	160/85	120	95	4-15	12	91/69	5.49/4.95

Model No	WVBCFLNUG16 / WVBCFLNUL16							
Standard	Refer to JIS F7427 (F7417 / F7418)							
Flange	JIS 16K FF							
Item	LIFT CHECK GLOBE VALVE / LIFT CHECK ANGLE VALVE							
Size	d	L/L1	D	C	n-h	t	H	Weight [kg]
15A	15	110/70	95	70	4-15	12	66/56	2.37/2.36
20A	20	120/75	100	75	4-15	14	71/59	3.05/3.01
25A	25	130/85	125	90	4-19	14	81/67	4.42/4.36
32A	32	160/95	135	100	4-19	16	83/65	5.87/5.67
40A	40	180/100	140	105	4-19	16	91/69	7.67/7.12

Cast Bronze Glove Valve

20K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE or C3604BD
3	Bonnet Nut	CAC406 or C3771BD or BE or C3604BD
4	Stem	C3771BD or C3771BE
5	Packing Bush	CAC406 or C3771BD or C3604BD
6	Packing Gland	CAC406 or C3771BD or C3604BD
7	Gland Nut	CAC406 or C3771BD or C3604BD
8	Handwheel	FC200
9	Union Nut	CAC406 or C3771BD
10	Nipple for Copper Pipe	CAC201 or C1100BD
11	Nipple for Steel Pipe	S15C
12	Union Nut	C3604BD
13	Sleeve	C3604BD
14	Hexagon Nut	C3604BD
15	Split Pin	C2600W
16	Packing	Non-Asbestos
17	Gasket	Non-Asbestos
18	Name Plate(※)	C2801P

(※) Option

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
U	Both side union nut

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
4.2	3.08

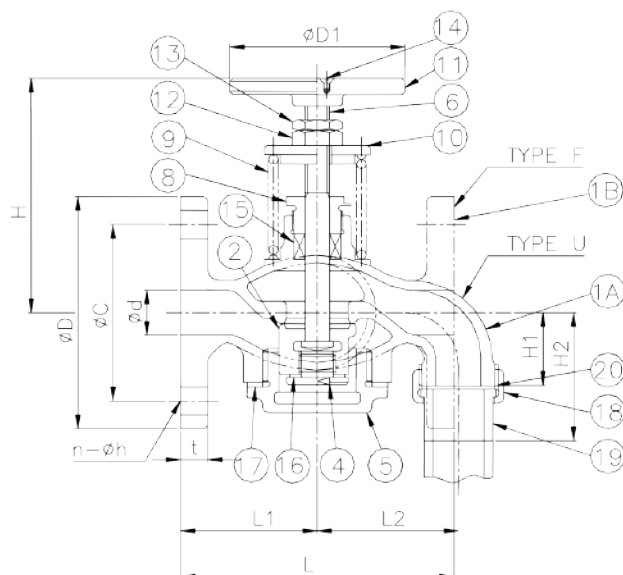
PRESSURE RATING

Applicable Standard No.	Refer to JIS F7427
Fluid Condition	Maximum working pressure Mpa
Steam of 205°C or less	1.6
Air, Gas, Oil and Pulsation water	2.0
Non-shock water of 120°C or less	2.8

DIMENTIONAL TABLE

Model No	WVBCFGT20 / WVBCFLT20												
Standard	Refer to JIS F7427 (F7388 / F7389)												
Rating	JIS 20K												
Item	GLOBE VALVE / ANGLE VALVE												
Size	Type	d	L	L1	I1	I2	I3	k	D	H	D2	B2	Weight [kg]
6A	Globe S	6	—	—	32	32	41	12	28	100	63	30	0.81
10A	Globe S	10	—	—	36	35	48	16	34	115	80	41	1.22
6A	Globe U	6	64	82	—	—	—	—	—	100	63	30	0.85
10A	Globe U	10	72	96	—	—	—	—	—	115	80	41	1.37
6A	Angle S	6	—	—	32	32	41	12	28	95	63	30	0.83
10A	Angle S	10	—	—	39	35	51	16	34	105	80	41	1.19

Cast Bronze Fuel Oil Tank Self-Closing Drain Valve



MATERIAL

No	Name of part	Material
1A	Body(Type U)	CAC406
1B	Body(Type F)	CAC406
2	Disc	C3771BE
4	Plug	C3771BD
5	Bonnet	S25C
6	Stem	C3771BE
8	Packing Gland	C3771BD
9	Spring	SWP-A
10	Spring Support	SS400
11	Handle	SS400
12	Hexagon Nut	C3604BD
13	Hexagon Nut	C3604BD
14	Set Screw	C2700W
15	Packing	NON-ASBESTOS
16	Gasket	NON-ASBESTOS
17	Gasket	NON-ASBESTOS
18	Union Nut	SS400
19	Nipple	SS400
20	Gasket	NON-ASBESTOS

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
0.15	0.11

PRESSURE RATING

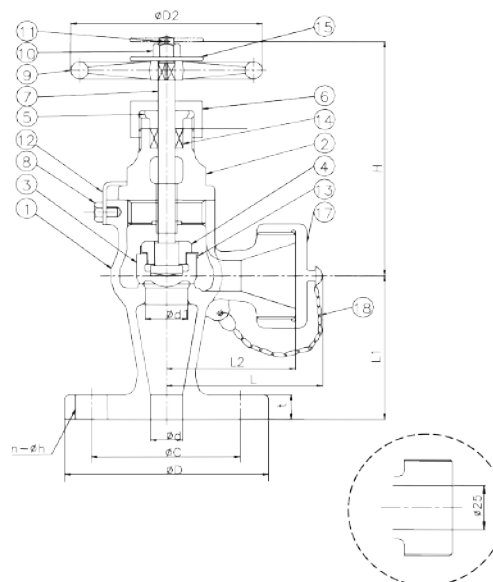
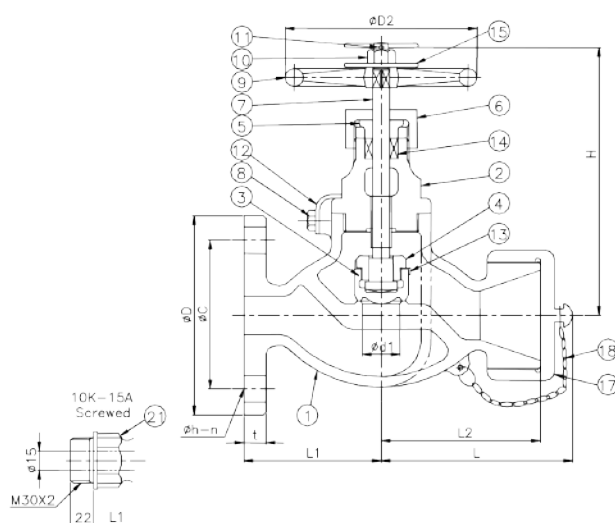
Applicable Standard No.	Reffer to JIS F7398
Fluid condition	Maximum working pressure Mpa
Oil	0.098

DIMENTIONAL TABLE

Model No	WVBCFSD05 / WVBCFSD10													
Standard	Refer to JIS F7398													
Flange	JIS 5K FF / JIS 10K FF													
Item	FUEL OIL TANK SELF-CLOSING DRAIN VALVE													
Size	d	L	L1	L2	D	C	n-h	t	H	H1	H2	D1	Weight[kg]U	Weight[kg]F
25A	25	130	65	65	95/125	75/90	4-12/4-19	14	130	40	67	70	3.87	4.7
40A	40	180	90	100	120/140	95/104	4-15/4-19	16	165	60	96	80	7.43	8.1

Cast Bronze Hose Valve

5K & 10K



Nominal Dia. 25A

MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Disc	CAC406 or C3771BD or BE
4	Disc Nut	CAC406 or C3771BD or BE
5	Packing Gland	CAC406 or C3771BD or BE
6	Gland Nut	CAC406 or C3771BD or BE
7	Stem	C3771BD or C3771BE
8	Set Screw	C2700W
9	Handwheel	FC200
10	Hexagon Nut	C3604BD
11	Split Pin	C2600W
12	Lock Plate	C2600P
13	Disc Lock Washer	C2600P
14	Packing	Non-Asbestos
15	Name Plate (※)	C2801P
17	Cap	CAC406
18	Chain	C2600W

(※) Option

HYDRAULIC INSPECTION

Rating	Test pressure Mpa		
	Body	Seat	Connection
5K	1.03	0.75	0.77
10K	2.06	1.51	1.54

PRESSURE RATING

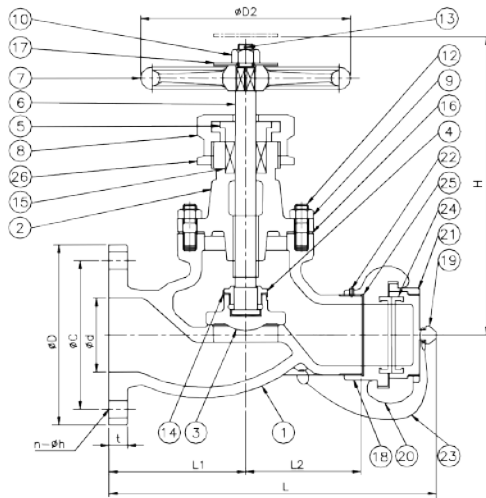
Applicable Standard No.	Refer to JIS F7427			
Fluid Condition	Maximum working pressure Mpa			
	Rating 5K		Rating 10K	
	15A	25A	15A	25A
Steam of 205°C or less	0.5	—	1.0	—
Air	0.5	—	1.0	—
Pulsation water	0.5	0.5	1.0	1.0
Non-shock water of 120°C or less	0.7	0.7	1.4	1.4

DIMENSIONAL TABLE

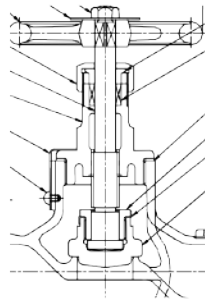
Model No	WCBCFHG05 / WVBCFHG10 / WVBCFHL05 / WVBCFHL10											
Standard	Refer to JIS F7427 (F7334)											
Flange	JIS 5K FF / JIS 10K FF											
Item	HOSE GLOBE VALVE / HOSE ANGLE VALVE											
Size	Type	d	L	L1	L2	D	C	n-h	t	H	D2	Weight[kg]
5K 15A	Globe	15	73	50	60	80	60	4-12	9	130	80	2.51
5K 25A	Globe	25	78	60	65	95	75	4-12	10	160	125	3.55
5K 15A	Angle	15	68	55	55	80	60	4-12	9	120	80	2.41
5K 25A	Angle	25	98	65	65	95	75	4-12	10	145	125	3.44
10K 15A	Globe	15	73	55	60	95	70	4-15	12	130	80	2.76
10K 25A	Globe	25	83	65	70	125	90	4-19	14	160	125	4.15
10K 15A	Angle	15	73	70	60	95	70	4-15	12	120	80	2.72
10K 25A	Angle	25	83	85	70	125	90	4-19	14	145	125	4.04

Cast Bronze Hose Valve

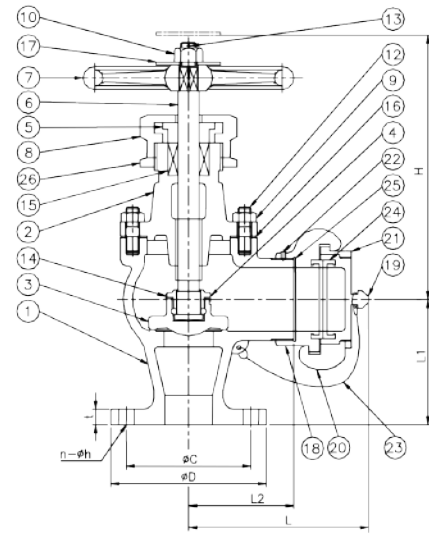
5K & 10K



Dia. 50A and 65A



Dia. 40A



Dia. 50A and 65A

HYDRAULIC INSPECTION

Rating	Test pressure Mpa		
	Body	Seat	Connection
5K	1.03	0.75	0.77
10K	2.06	1.51	1.54

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7427	
Fluid Condition	Maximum working pressure Mpa	
	Rating 5K	Rating 10K
Pulsation water	0.5	1.0
Non-shock water of 120°C or less	0.7	1.4

COUPLINGS

Kind of Couplings	
Nakajima	Storz
Machino	BS336
ANSI B181.1	Nor

DIMENSIONAL TABLE

Model No	WBCFHHG05 / WVBCFHHG10 / WVBCFHL05 / WVBCFHL10												
Standard	Refer to JIS F7427 (F7334)												
Flange	JIS 5K FF / JIS 10K FF												
Item	HOSE GLOBE VALVE / HOSE ANGLE VALVE												
Size	Type	d	L	L1	L2	D	C	n-h	t	H	D2	Weight[kg]	
5K 40A	Globe	40	208.5	80	80	120	95	4-15	12	190	140	6.26	
5K 40A	Angle	40	123.5	85	75	120	95	4-15	12	165	140	5.91	
10K 40A	Globe	40	223.5	90	85	140	105	4-19	16	190	140	8.43	
10K 50A	Globe	50	280	87	85	155	120	4-19	16	185	160	12.3	
10K 65A	Globe	65	320	99	101	175	140	4-19	18	215	180	22.2	
10K 40A	Angle	40	123.5	100	75	140	105	4-19	16	165	140	8.19	
10K 50A	Angle	50	188	75	80	155	120	4-19	16	280	140	10.5	
10K 65A	Angle	65	215	90	95	175	140	4-19	18	310	160	15.1	

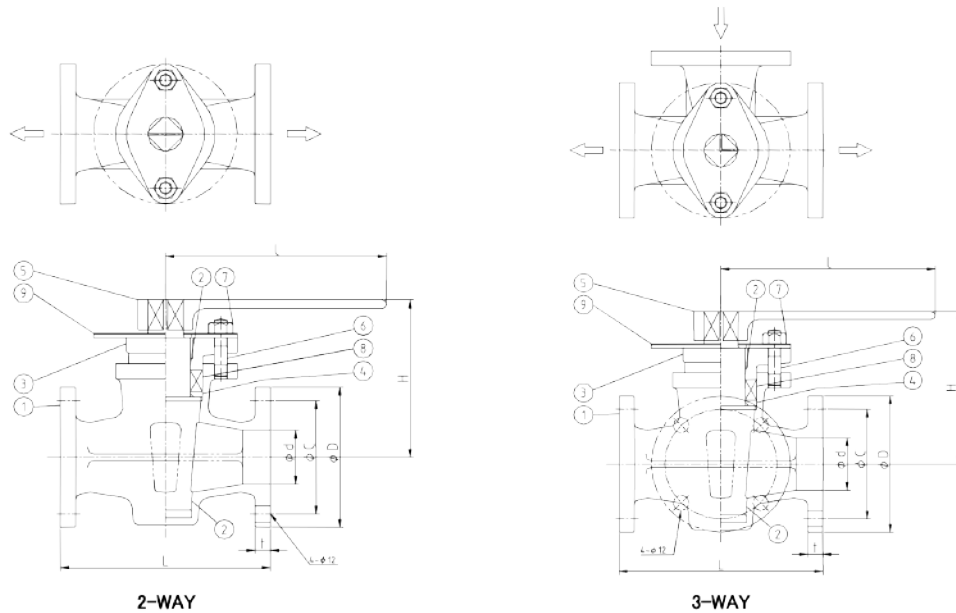
MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Bonnet	CAC406 or C3771BD or BE
3	Disc	CAC406 or C3771BD or BE
4	Disc Nut	CAC406 or C3771BD or BE
5	Packing Gland	CAC406 or C3771BD or BE
6	Stem	C3771BD or C3771BE
7	Handwheel	FC200
8	Gland Nut	CAC406 or C3771BD or BE
9	Hexagon Nut	
10	Hexagon Nut	C3604BD
12	Stud Bolt	
13	Split Pin	C2600W
14	Disc Lock Washer	C2600P
15	Packing	Non-Asbestos
16	Gasket	Non-Asbestos
17	Name Plate (※)	C2801P
18	Coupling	CAC406
26	Lock Nut	BsBFD2

(※) Option

Cast Bronze 2way / 3way Flanged Cock

5K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2	Plug	CAC406
3	Packing gland	CAC406 or C3771BD
4	Bush	CAC406 or C3771BD
5	Lever	S25C
6	Stud Bolt	C3771BD
7	Hexagon Nut	C3771BD
8	Packing	Non-Asbestos
9	Name Plate	C2801P

CLASSIFICATION

Type	Direction of Cock
2WAY	Straight
3WAY	L-Port
3WAY	T-Port

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Plug
0.75	0.55

PRESSURE RATING

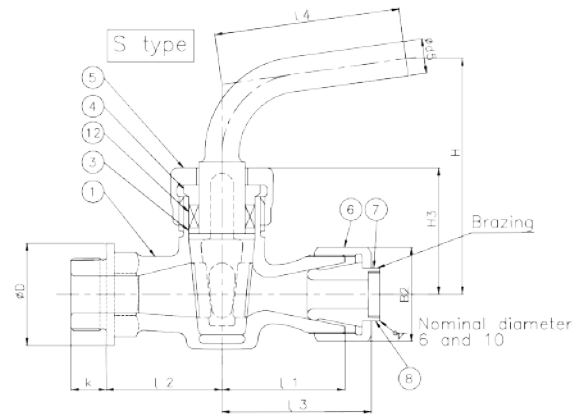
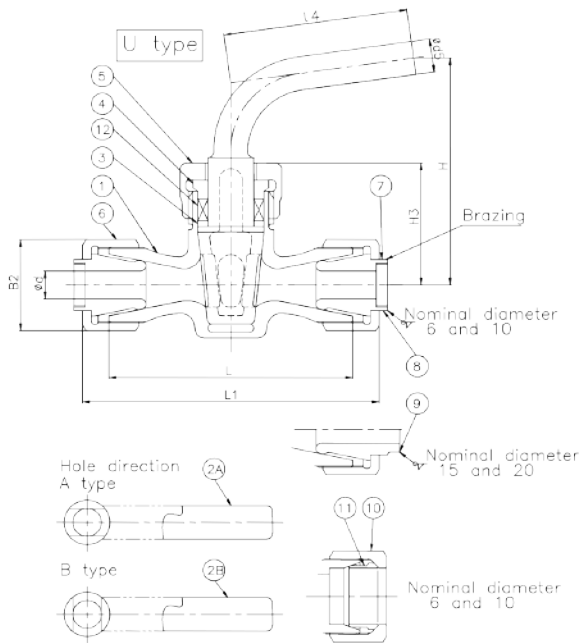
Applicable Standard No.	Refer to JIS F7381
Fluid Condition	Maximum working pressure Mpa
Water and Oil	0.49

DIMENTIONAL TABLE

Model No	WVBCFC05										
Standard	Refer to JIS F7381										
Rating	JIS 5K										
Item	GLOBE VALVE										
Size	d	L	L1	D	C	n-h	t	H	I	2WAY Weight [kg]	3WAY Weight [kg]
25A	25	130	65	95	75	4-12	10	105	160	3.13	3.81
32A	32	160	80	115	90	4-12	12	125	180	5.02	6.13
40A	40	170	85	120	95	4-15	12	135	190	6.66	7.93
50A	50	190	95	130	105	4-15	14	163	200	10.0	11.8
65A	65	220	110	155	130	4-15	14	201	250	16.7	19.0

Cast Bronze Cock

16K



MATERIAL

No	Name of part	Material
1	Body	CAC406
2A	Plug A	CAC406
2B	Plug B	CAC406
3	Packing Bush	BC6 or C3771BD
4	Packing Gland	BC6 or C3771BD
5	Gland Nut	BC6 or C3771BD
6	Union Nut	BC6 or C3771BD
7	Nipple for Copper Pipe	CAC201 or C1100BD
8	Nipple for Steel Pipe	S15C
9	Nipple for Steel Pipe	S15C
10	Union Nut	C3604BD
11	Sleeve	C3604BD
12	Packing	Non-Asbestos

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
U	Both side union nut

HYDRAULIC INSPECTION

Nominal dia	Hydraulic Inspection Mpa	
	Body	Plug
6 and 10	2.94	2.16
15 and 20	2.36	1.73

PRESSURE RATING

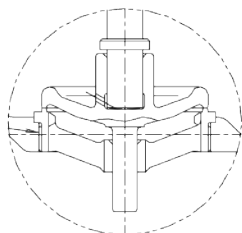
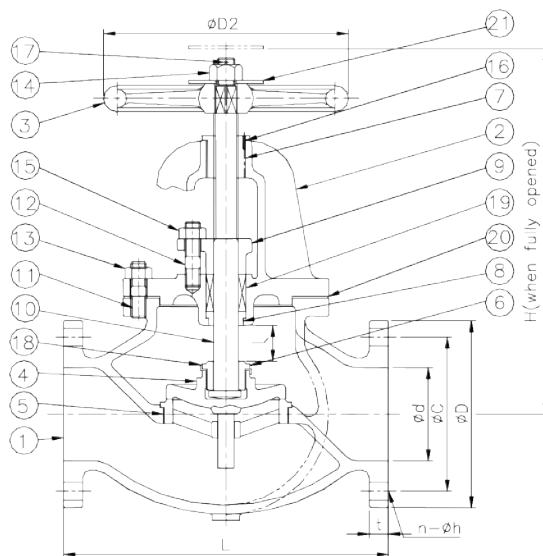
Applicable standard No.	Refer to JIS F7387	
Fluid Condition	Maximum working pressure Mpa	
	6A and 10A	15A and 20A
Saturated steam	0.98	0.49
Oil and Pulsation Water	1.57	1.27
Non-shock water of 120°C or less	1.96	1.57

DIMENTIONAL TABLE

Model No	WVBCFCS16											
Standard	Refer to JIS F7387											
Rating	JIS 16K											
Item	COCKS											
Size	Type	d	I1	I2	I3	k	H	I4	H3	d5	B2	Weight [kg]
6A	S	6	28	28	37	12	65	55	36	10	30	0.46
10A	S	10	40	35	52	16	73	65	44	12	41	0.85
15A	S	15	45	45	58	22	92	75	56	16	46	1.46
20A	S	20	50	50	65	24	104	85	62	17	50	2.09
Size	Type	d	L	L1	-	-	H	I4	H3	d5	B2	Weight [kg]
6A	U	6	56	74	-	-	65	55	36	10	30	0.50
10A	U	10	80	104	-	-	73	65	44	12	41	1.00

Ductile Iron Globe Valve

5K, 10K, 16K



Screw-down check valve

MATERIAL

No	Name of part	Material	
		Class B	Class S
1	Body	FCD400	FCD400
2	Bonnet	FCD400	FCD400
3	Hand Wheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	CAC406	SCS2
6	Disc Nut	CAC406	SUS420J2
7	Screwed Bonnet Bush	CAC406	CAC406
8	Packing Bush	CAC406	SUS420J2
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD or BE	SUS403
11	Stud Bolt	SS400	SS400
12	Stud Bolt	C3771BD	C3771BD
13	Hexagon Nut	SS400	SS400
14	Hexagon Nut	C3604BD	C3604BD
15	Hexagon Nut	C3604BD	C3604BD
16	Lock Pin	SS400	SS400
17	Split Pin	C2600W	C2600W
18	Disc Lock Washer	C2600P	SUS304
19	Packing	Non-Asbestos	Non-Asbestos
20	Gasket	Non-Asbestos	Non-Asbestos
21	Name Plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
5K	1.05	0.77
10K	2.1	1.54
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7505					
	Maximum working pressure Mpa [kgf/cm ²]					
	Rating 5K		Rating 10K		Rating 16K	
	Class B	Class S	Class B	Class S	Class B	Class S
Steam of 220°C or less	—	0.5	—	1.0	—	1.6
Steam of 205°C or less	0.5	0.5	1.0	1.0	1.6	1.6
Air, Gas, Oil and Pulsation water	0.5	0.5	1.0	1.0	1.6	1.6
Non-shock water of 120°C or less	0.7	0.7	1.4	1.4	2.2	2.2



Cast Iron Globe Valve

5K, 10K, 16K

DIMENSIONAL TABLE

Model No	WVFCDFG05 / WVFCDFNG05								
Standard	Refer to JIS F7505 (F7305※ / F7353※)								
Flange	JIS 5K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	210	130	105	4-15	16	270/270	160	14.7/14.8
65A	65	250	155	130	4-15	18	300/290	180	21.3/21.3
80A	80	280	180	145	4-19	18	310/300	180	27.7/27.6
100A	100	340	200	165	8-19	20	360/350	224	40.8/40.4
125A	125	410	235	200	8-19	20	390/380	250	57.6/57.9
150A	150	480	265	230	8-19	22	445/430	280	80.3/80.9
200A	200	570	320	280	8-23	24	530/505	315	139/139
250A	250	740	385	345	12-23	26	650/620	335	246/243
300A	300	840	430	390	12-23	28	740/715	400	377/377

※ Dimension : Refer to F7305/F7353

Model No	WVFCDFG10 / WVFCDFNG10								
Standard	Refer to JIS F7505 (F7307※ / F7375※)								
Flange	JIS 10K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	4-19	20	285/285	160	19.9/19.9
65A	65	270	175	140	4-19	22	310/305	200	28.7/28.6
80A	80	300	185	150	8-19	22	320/315	200	32.4/32.5
100A	100	350	210	175	8-19	24	370/360	250	48.7/48.7
125A	125	420	250	210	8-23	24	420/410	280	73.1/73
150A	150	490	280	240	8-23	26	470/455	315	104/104
200A	200	570	330	290	12-23	26	555/530	355	162/161
250A	250	740	400	355	12-25	30	680/-	450	304/-
300A	300	840	445	400	16-25	32	770/-	500	458/-

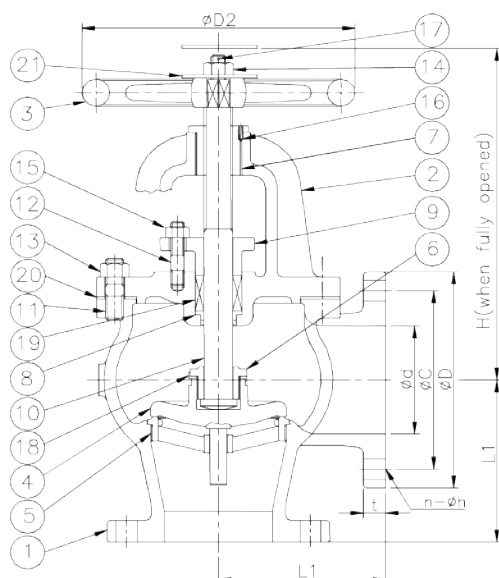
※ Dimension : Refer to F7307/F7375

Model No	WVFCDFG16 / WVFCDFNG16								
Standard	Refer to JIS F7505 (F7309※ / F7377※)								
Flange	JIS 16K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	8-19	20	285/285	160	19.6/19.6
65A	65	270	175	140	8-19	22	310/305	200	28.3/28.2
80A	80	300	200	160	8-23	24	340/335	224	40.4/40.5
100A	100	350	225	185	8-23	26	385/375	250	56.9/56.9
125A	125	430	270	225	8-25	26	455/440	315	89.5/89.5
150A	150	500	305	260	12-25	28	510/500	355	123/123
200A	200	570	350	305	12-25	30	630/-	450	188/-

※ Dimension : Refer to F7309/F7377

Ductile Iron Angle Valve

5K, 10K, 16K



Screw-down check valve

MATERIAL

No	Name of part	Material	
		Class B	Class S
1	Body	FCD400	FCD400
2	Bonnet	FCD400	FCD400
3	Hand Wheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	CAC406	SCS2
6	Disc Nut	CAC406	SUS420J2
7	Screwed Bonnet Bush	CAC406	CAC406
8	Packing Bush	CAC406	SUS420J2
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD or BE	SUS403
11	Stud Bolt	SS400	SS400
12	Stud Bolt	C3771BD	C3771BD
13	Hexagon Nut	SS400	SS400
14	Hexagon Nut	C3604BD	C3604BD
15	Hexagon Nut	C3604BD	C3604BD
16	Lock Pin	SS400	SS400
17	Split Pin	C2600W	C2600W
18	Disc Lock Washer	C2600P	SUS304
19	Packing	Non-Asbestos	Non-Asbestos
20	Gasket	Non-Asbestos	Non-Asbestos
21	Name Plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
5K	1.05	0.77
10K	2.1	1.54
16K	3.3	2.42

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7505					
Fluid Condition	Maximum working pressure Mpa [kgf/cm ²]					
	Rating 5K		Rating 10K		Rating 16K	
	Class B	Class S	Class B	Class S	Class B	Class S
Steam of 220°C or less	—	0.5	—	1.0	—	1.6
Steam of 205°C or less	0.5	0.5	1.0	1.0	1.6	1.6
Air, Gas, Oil and Pulsation water	0.5	0.5	1.0	1.0	1.6	1.6
Non-shock water of 120°C or less	0.7	0.7	1.4	1.4	2.2	2.2



Cast Iron Angle Valve

5K, 10K, 16K

DIMENSIONAL TABLE

Model No	WVFCDFL05 / WVFCDFNL05								
Standard	Refer to JIS F7505 (F7306※ / F7354※)								
Flange	JIS 5K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	100	130	105	4-15	16	240/240	160	12.9/13.0
65A	65	115	155	130	4-15	18	255/245	180	18.2/18.2
80A	80	130	180	145	4-19	18	265/255	180	23.4/23.3
100A	100	150	200	165	8-19	20	310/300	224	33.7/33.5
125A	125	170	235	200	8-19	20	330/320	250	46.2/46.5
150A	150	190	265	230	8-19	22	380/365	280	63.4/64
200A	200	220	320	280	8-23	24	450/425	315	105/104
250A	250	275	385	345	12-23	26	540/510	335	176/175
300A	300	310	430	390	12-23	28	610/585	400	243/243

※ Dimension : Refer to F7306/F7354

Model No	WVFCDFL10 / WVFCDFNL10								
Standard	Refer to JIS F7505 (F7308※ / F7376※)								
Flange	JIS 10K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	4-19	20	255/255	160	18.2/18.2
65A	65	130	175	140	4-19	22	270/260	200	25.4/25.3
80A	80	140	185	150	8-19	22	275/270	200	27.4/27.5
100A	100	160	210	175	8-19	24	315/305	250	40.6/40.6
125A	125	180	250	210	8-23	24	360/350	280	69.9/69.8
150A	150	205	280	240	8-23	26	405/390	315	81.0/81.2
200A	200	230	330	290	12-23	26	475/450	355	125/124
250A	250	290	400	355	12-25	30	570/-	450	211/-
300A	300	320	445	400	16-25	32	645/-	500	293/-

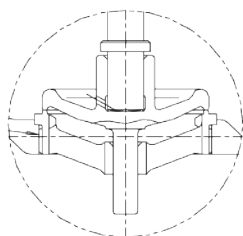
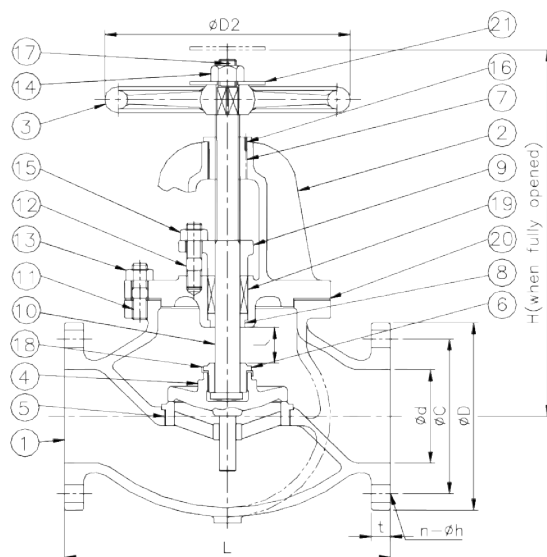
※ Dimension : Refer to F7308/F7376

Model No	WVFCDFL16 / WVFCDFNL16								
Standard	Refer to JIS F7505 (F7310※ / F7378※)								
Flange	JIS 16K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	8-19	20	255/255	160	18.0/18.0
65A	65	130	175	140	8-19	22	270/260	200	25.0/24.9
80A	80	150	200	160	8-23	24	295/290	224	35.7/35.8
100A	100	170	225	185	8-23	26	330/320	250	49.2/49.2
125A	125	200	270	225	8-25	26	390/375	315	76.1/76.1
150A	150	225	305	260	12-25	28	435/425	355	103/103
200A	200	250	350	305	12-25	30	540/-	450	155/-

※ Dimension : Refer to F7310/F7378

Cast Iron Globe Valve

5K, 10K, 16K



Screw-down check valve

MATERIAL

No	Name of part	Material	
		Class B	Class S
1	Body	FC200	FC200
2	Bonnet	FC200	FC200
3	Hand Wheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	CAC406	SCS2
6	Disc Nut	CAC406	SUS420J2
7	Screwed Bonnet Bush	CAC406	CAC406
8	Packing Bush	CAC406	SUS420J2
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD or BE	SUS403
11	Stud Bolt	SS400	SS400
12	Stud Bolt	C3771BD	C3771BD
13	Hexagon Nut	SS400	SS400
14	Hexagon Nut	C3604BD	C3604BD
15	Hexagon Nut	C3604BD	C3604BD
16	Lock Pin	SS400	SS400
17	Split Pin	C2600W	C2600W
18	Disc Lock Washer	C2600P	SUS304
19	Packing	Non-Asbestos	Non-Asbestos
20	Gasket	Non-Asbestos	Non-Asbestos
21	Name Plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Nominal dia	Test pressure Mpa	
		Body	Seat
5K	300 or less	1.03	0.76
	350 & 400	0.88	0.65
10K	200 or less	2.06	1.51
	250 & more	1.47	1.08
16K	50 to 200	3.24	2.38

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7425									
Fluid Condition	Maximum working pressure Mpa [kgf/cm ²]									
	Rating 5K				Rating 10K				Rating 16K	
	200A or less		250A & 300A	350A & 400A	200A or less		250A or more		50A to 200A	
	Class B	Class S	Class B	Class B	Class B	Class S	Class B	Class S	Class B	Class S
Steam of 230°C or less	—	0.49	—	—	—	0.98	—	—	—	1.57
Steam of 205°C or less	0.49	0.49	—	—	0.98	0.98	—	—	1.57	1.57
Saturated steam	0.49	0.49	—	—	0.98	0.98	0.49	0.49	1.57	1.57
Air and Gas	0.49	0.49	0.49	—	0.98	0.98	—	—	1.57	1.57
Oil and Pulsation water	0.49	0.49	0.49	0.49	0.98	0.98	0.98	0.98	1.57	1.57
Non-shock water of 120°C or less	0.69	0.69	0.69	0.59	1.37	1.37	0.98	0.98	2.16	2.16

Cast Iron Globe Valve

5K, 10K, 16K

DIMENSIONAL TABLE

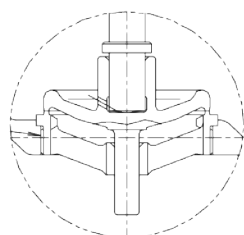
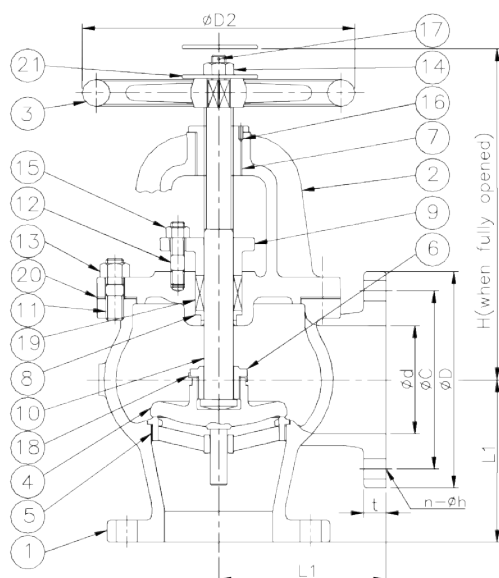
Model No	WVFCFG05 / WVFCFNG05								
Standard	Refer to JIS F7425 (F7305 / F7353)								
Flange	JIS 5K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	210	130	105	4-15	16	270/270	160	14.7/14.8
65A	65	250	155	130	4-15	18	300/290	180	21.3/21.3
80A	80	280	180	145	4-19	18	310/300	180	27.7/27.6
100A	100	340	200	165	8-19	20	360/350	224	40.8/40.4
125A	125	410	235	200	8-19	20	390/380	250	57.6/57.9
150A	150	480	265	230	8-19	22	445/430	280	80.3/80.9
200A	200	570	320	280	8-23	24	530/505	315	139/139
250A	250	740	385	345	12-23	26	650/620	335	246/243
300A	300	840	430	390	12-23	28	740/715	400	377/377
350A	335	940	480	435	12-25	30	840/815	500	462/463
400A	380	1050	540	495	16-25	30	940/905	560	647/643

Model No	WVFCFG10 / WVFCFNG10								
Standard	Refer to JIS F7425 (F7307 / F7375)								
Flange	JIS 10K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	4-19	20	285/285	160	19.9/19.9
65A	65	270	175	140	4-19	22	310/305	200	28.7/28.6
80A	80	300	185	150	8-19	22	320/315	200	32.4/32.5
100A	100	350	210	175	8-19	24	370/360	250	48.7/48.7
125A	125	420	250	210	8-23	24	420/410	280	73.1/73
150A	150	490	280	240	8-23	26	470/455	315	104/104
200A	200	570	330	290	12-23	26	555/530	355	162/161
250A	250	740	400	355	12-25	30	680/-	450	304/-
300A	300	840	445	400	16-25	32	770/-	500	458/-

Model No	WVFCFG16 / WVFCFNG16								
Standard	Refer to JIS F7425 (F7309 / F7377)								
Flange	JIS 16K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	8-19	20	285/285	160	19.6/19.6
65A	65	270	175	140	8-19	22	310/305	200	28.3/28.2
80A	80	300	200	160	8-23	24	340/335	224	40.4/40.5
100A	100	350	225	185	8-23	26	385/375	250	56.9/56.9
125A	125	430	270	225	8-25	26	455/440	315	89.5/89.5
150A	150	500	305	260	12-25	28	510/500	355	123/123
200A	200	570	350	305	12-25	30	630/-	450	188/-

Cast Iron Angle Valve

5K, 10K, 16K



Screw-down check valve

MATERIAL

No	Name of part	Material	
		Class B	Class S
1	Body	FC200	FC200
2	Bonnet	FC200	FC200
3	Hand Wheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	CAC406	SCS2
6	Disc Nut	CAC406	SUS420J2
7	Screwed Bonnet Bush	CAC406	CAC406
8	Packing Bush	CAC406	SUS420J2
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD or BE	SUS403
11	Stud Bolt	SS400	SS400
12	Stud Bolt	C3771BD	C3771BD
13	Hexagon Nut	SS400	SS400
14	Hexagon Nut	C3604BD	C3604BD
15	Hexagon Nut	C3604BD	C3604BD
16	Lock Pin	SS400	SS400
17	Split Pin	C2600W	C2600W
18	Disc Lock Washer	C2600P	SUS304
19	Packing	Non-Asbestos	Non-Asbestos
20	Gasket	Non-Asbestos	Non-Asbestos
21	Name Plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Nominal dia	Test pressure Mpa	
		Body	Seat
5K	300 or less	1.03	0.76
	350 & 400	0.88	0.65
10K	200 or less	2.06	1.51
	250 & more	1.47	1.08
16K	50 to 200	3.24	2.38

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7425									
Fluid Condition	Maximum working pressure Mpa [kgf/cm ²]									
	Rating 5K				Rating 10K				Rating 16K	
	200A or less		250A & 300A	350A & 400A	200A or less		250A or more		50A to 200A	
	Class B	Class S	Class B	Class B	Class B	Class S	Class B	Class S	Class B	Class S
Steam of 230°C or less	—	0.49	—	—	—	0.98	—	—	—	1.57
Steam of 205°C or less	0.49	0.49	—	—	0.98	0.98	—	—	1.57	1.57
Saturated steam	0.49	0.49	—	—	0.98	0.98	0.49	0.49	1.57	1.57
Air and Gas	0.49	0.49	0.49	—	0.98	0.98	—	—	1.57	1.57
Oil and Pulsation water	0.49	0.49	0.49	0.49	0.98	0.98	0.98	0.98	1.57	1.57
Non-shock water of 120°C or less	0.69	0.69	0.69	0.59	1.37	1.37	0.98	0.98	2.16	2.16

Cast Iron Angle Valve

5K, 10K, 16K

DIMENSIONAL TABLE

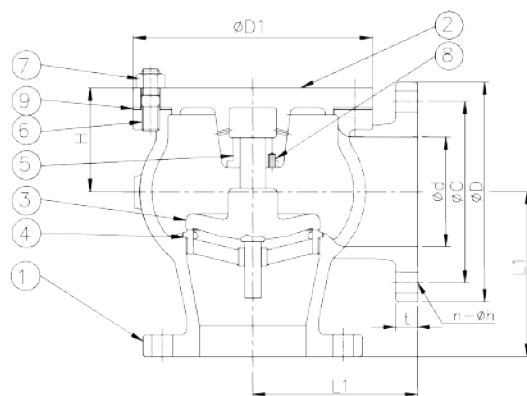
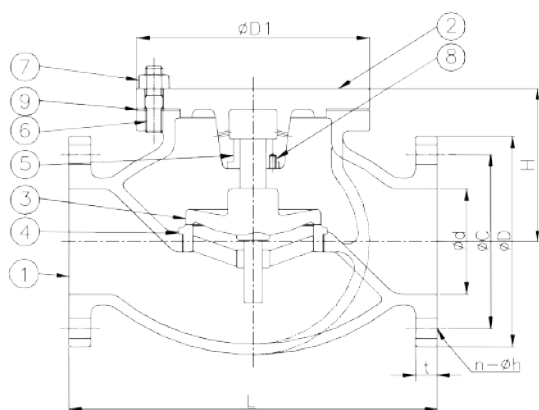
Model No	WVFCFL05 / WVFCFNL05								
Standard	Refer to JIS F7425 (F7306 / F7354)								
Flange	JIS 5K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	100	130	105	4-15	16	240/240	160	12.9/13.0
65A	65	115	155	130	4-15	18	255/245	180	18.2/18.2
80A	80	130	180	145	4-19	18	265/255	180	23.4/23.3
100A	100	150	200	185	8-19	20	310/300	224	33.7/33.5
125A	125	170	235	200	8-19	20	330/320	250	46.2/46.5
150A	150	190	265	230	8-19	22	380/365	280	63.4/64
200A	200	220	320	280	8-23	24	450/425	315	105/104
250A	250	275	385	345	12-23	26	540/510	335	176/175
300A	300	310	430	390	12-23	28	610/585	400	243/243
350A	335	360	480	435	12-25	30	690/660	500	335/336
400A	380	395	540	495	16-25	30	770/730	560	459/455
450A	430	440	605	555	16-25	30	-/835	630	-/618
500A	480	485	655	605	20-25	32	-/915	710	-/800
550A	530	530	720	665	20-27	32	-/985	800	-/1161

Model No	WVFCFL10 / WVFCFNL10								
Standard	Refer to JIS F7425 (F7308 / F7376)								
Flange	JIS 10K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	4-19	20	255/255	160	18.2/18.2
65A	65	130	175	140	4-19	22	270/260	200	25.4/25.3
80A	80	140	185	150	8-19	22	275/270	200	27.4/27.5
100A	100	160	210	175	8-19	24	315/305	250	40.6/40.6
125A	125	180	250	210	8-23	24	360/350	280	69.9/69.8
150A	150	205	280	240	8-23	26	405/390	315	81.0/81.2
200A	200	230	330	290	12-23	26	475/450	355	125/124
250A	250	290	400	355	12-25	30	570/-	450	211/-
300A	300	320	445	400	16-25	32	645/-	500	293/-
350A	335	360	490	445	16-25	34	710/-	560	386/-
400A	380	420	560	510	16-27	36	790/-	630	544/-

Model No	WVFCFL16 / WVFCFNL16								
Standard	Refer to JIS F7425 (F7310 / F7378)								
Flange	JIS 16K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	8-19	20	255/255	160	18.0/18.0
65A	65	130	175	140	8-19	22	270/260	200	25.0/24.9
80A	80	150	200	160	8-23	24	295/290	224	35.7/35.8
100A	100	170	225	185	8-23	26	330/320	250	49.2/49.2
125A	125	200	270	225	8-25	26	390/375	315	76.1/76.1
150A	150	225	305	260	12-25	28	435/425	355	103/103
200A	200	250	350	305	12-25	30	540/-	450	155/-

Cast Iron Lift Check Valve

5K



MATERIAL

No	Name of part	Material
1	Body	FC200
2	Bonnet	FC200
3	Disc	CAC406
4	Valve Seat	CAC406
5	Bush	CAC406
6	Stud Bolt	SS400
7	Hexagon Nut	SS400
8	Set Screw	SS400
9	Gasket	Non-Asbestos

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
1.04	0.76~0.39

PRESSURE RATING

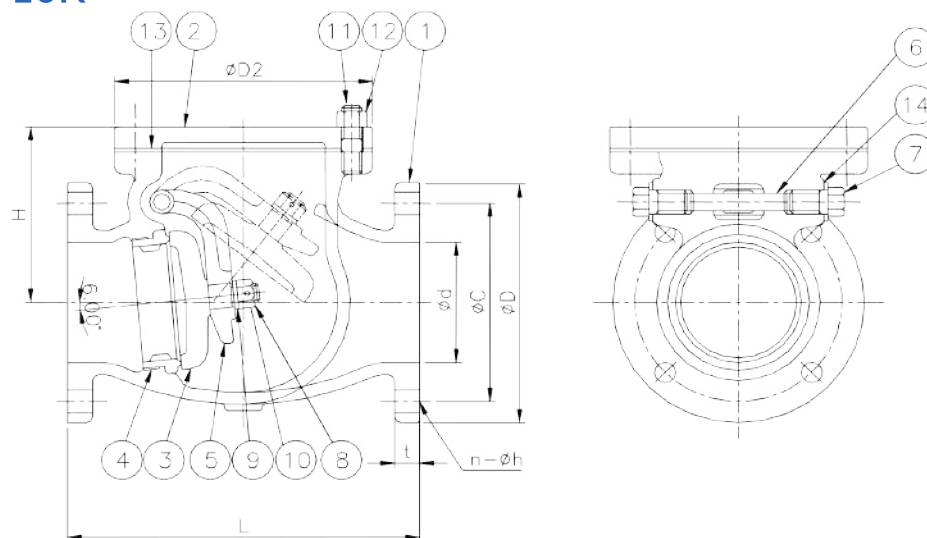
Applicable Standard No.	Reffer to JIS F7425
Fluid condition	Maximum working pressure Mpa
Oil and Pulsation water	0.49
Non-shock water of 120°C or less	0.69

DIMENTIONAL TABLE

Model No	WVFCFLNG05 / WVFCFLNL05								
Standard	Refer to JIS F7425 (F7358 / F7359)								
Flange	JIS 5K FF								
Item	LIFT CHECK GLOBE VALVE / LIFT CHECK ANGLE VALVE								
Size	d	L/L1	D	C	n-h	t	H	D1	Weight [kg]
50A	50	210/100	130	105	4-15	16	107/77	140	11.3/9.5
65A	65	250/115	155	130	4-15	18	124/81	160	16.8/13.8
80A	80	280/130	180	145	4-19	18	129/84	190	23.2/18.9
100A	100	340/150	200	165	8-19	20	146/96	215	32.5/25.6
125A	125	410/170	235	200	8-19	20	166/108	245	48.1/36.7
150A	150	480/190	265	230	8-19	22	188/125	270	67.9/50.9
200A	200	~ / 220	320	280	8-23	24	~ / 157	335	~ / 95

Cast Iron Swing Check Valve

5K & 10K



MATERIAL

No	Name of part	Material
1	Body	FC200
2	Bonnet	FC200
3	Disc	CAC406
4	Valve Seat	CAC406
5	Arm	CAC406
6	Pin	C3771BD
7	Plug	C3604BD
8	Hexagon Nut	C3604BD
9	Washer	C2801P—O
10	Split Pin	C2600W
11	Stud Bolt	SS400
12	Hexagon Nut	SS400
13	Gasket	Non-Asbestos
14	Gasket	Non-Asbestos

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
1.03	0.76~0.39
2.06	1.51~0.39

PRESSURE RATING

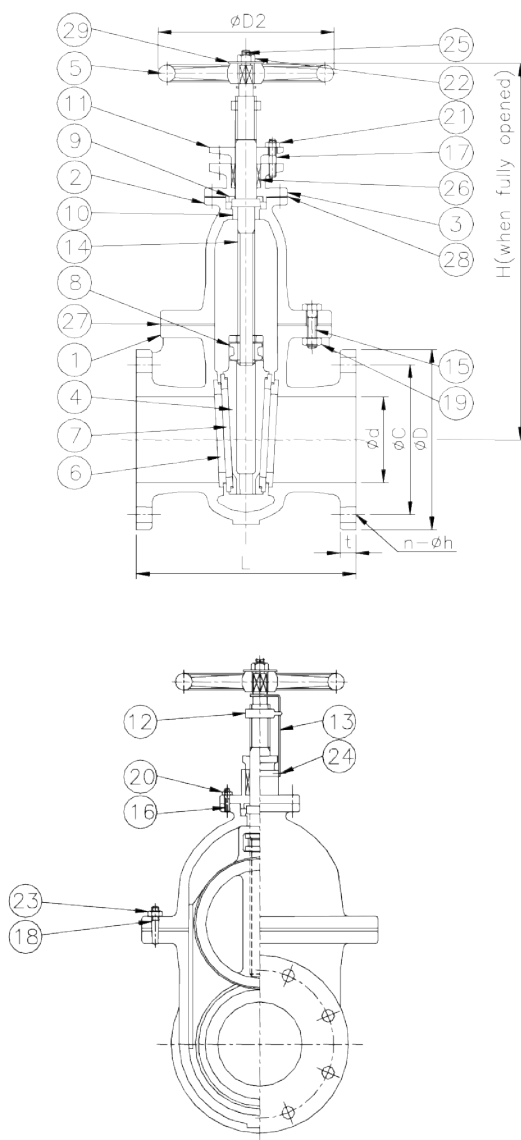
Applicable Standard No.	Refer to JIS F7425	
Fluid condition	Maximum working pressure Mpa	
Oil and Pulsation water	0.49	0.98
Non-shock water of 120°C or less	0.69	1.37

DIMENTIONAL TABLE

Model No	WVFCFSN05 / WVFCFSN10								
Standard	Refer to JIS F7425 (F7372 / F7373)								
Flange	JIS 5K FF/JIS 10K FF								
Item	SWING CHECK VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	190/210	130/155	105/120	4-15/4-19	16/20	97/109	135/150	9.06/13.6
65A	65	220/240	155/175	130/140	4-15/4-19	18/22	119/126	155/170	13.9/19.6
80A	80	250/270	180/185	145/150	4-19/8-19	18/22	129/136	185/185	19.1/22.6
100A	100	280/300	200/210	165/175	8-19	20/24	146/153	205/205	27.1/30.9
125A	125	330/350	235/250	200/210	8-19/8-23	20/24	171/180	235/250	39.0/49.2
150A	150	380/400	265/280	230/240	8-19/8-23	22/26	198/205	265/275	53.7/64.9
200A	200	460/480	320/330	280/290	8-23/12-23	24/26	235/242	300/330	94.4/103
250A(5K)	250	550	385	345	12-23	26	290	390	150

Cast Iron Gate Valve

5K, 10K, 16K



MATERIAL

No	Name of part	Material	
		CLASS B	CLASS S
1	Body	FC200	FC200
2	Bonnet	FC200	FC200
3	Stuffing Box	FC200	FC200
4	Disc	FC200	FC200
5	Handwheel	FC200	FC200
6	Valve Seat of Body	CAC406	SUS420J1 or J2
7	Valve Seat of Disc	CAC406	SUS420J1 or J2
8	Screwed Piece	CAC406	CAC406
9	Guide Bush	CAC406	CAC406
10	Guide Bush	CAC406	CAC406
11	Packing Gland	CAC406	CAC406
12	Indicator	CAC406	CAC406
13	Indicator Plate	C2801P	C2801P
14	Stem	C3771BD	SUS403
15	Stud Bolt	SS400	SS400
	Hexagon Bolt	SS400	SS400
16	Stud Bolt	SS400	SS400
17	Stud Bolt	C3771BD	C3771BD
18	Taper Pin with Thread	SUS403	SUS403
19	Hexagon Nut	SS400	SS400
20	Hexagon Nut	SS400	SS400
21	Hexagon Nut	C3604BD	C3604BD
22	Hexagon Nut	C3604BD	C3604BD
23	Hexagon Nut	C3604BD	C3604BD
24	Set Screw	C2700W	C2700W
25	Split pin	C2600W	C2600W
26	Packing	Non-Abestos	Non-Abestos
27	Gasket	Non-Abestos	Non-Abestos
28	Gasket	Non-Abestos	Non-Abestos
29	Name plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Rating	Nominal dia	Test pressure Mpa	
		Body	Seat
5K	400 or less	1.03	0.76
	450 to 600	0.74	0.54
10K	400 or less	2.06	1.57
	450 to 600	1.77	1.29
16K	50 to 400	2.40	1.80

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7425						
Fluid condition	Maximum working pressure Mpa						
	200A or less	250A to 400A	450A to 600A	200A or less	250A to 400A	450A to 600A	50A to 400A
Saturated steam	0.29	0.29	0.29	0.49	0.29	0.29	—
Oil and Pulsation water	0.49	0.49	0.49	0.98	0.98	0.98	1.57
Non-shock water of 120°C or less	0.69	0.69	0.49	1.37	1.37	1.18	—

Cast Iron Gate Valve

5K, 10K, 16K

DIMENSIONAL TABLE

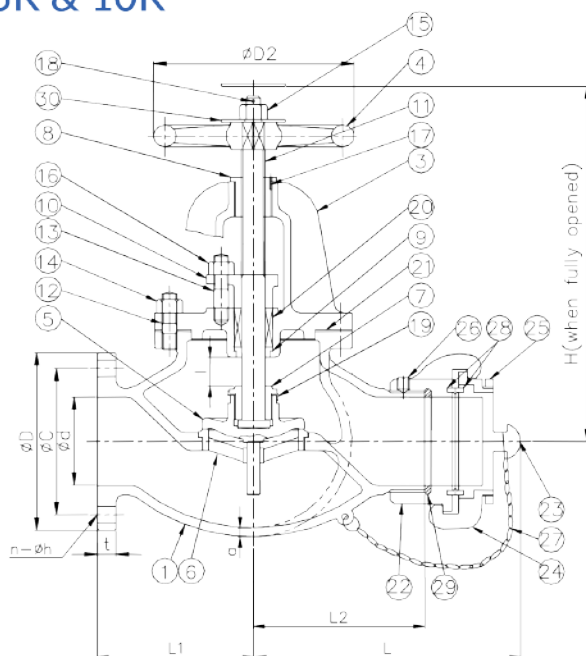
Model No	WVFCFS05								
Standard	Refer to JIS F7425 (F7363)								
Flange	JIS 5K FF								
Item	GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	180	130	105	4-15	16	285	125	13.5
65A	65	190	155	130	4-15	18	330	140	19.0
80A	80	200	180	145	4-19	18	380	160	24.2
100A	100	230	200	165	8-19	20	430	180	35.3
125A	125	250	235	200	8-19	20	495	200	48.1
150A	150	270	265	230	8-19	22	560	224	65.3
200A	200	290	320	280	8-23	24	680	280	103
250A	250	330	385	345	12-23	26	800	355	164
300A	300	370	430	390	12-23	28	920	400	236
350A	335	410	480	435	12-25	30	1000	450	307
400A	380	470	540	495	16-25	30	1100	500	405
450A	430	500	605	555	16-25	30	1420	560	556
500A	480	550	655	605	20-25	32	1500	560	700
550A	530	600	720	665	20-27	32	1650	630	878
600A	580	660	770	715	20-27	32	1680	710	1120

Model No	WVFCFS10								
Standard	Refer to JIS F7425 (F7364)								
Flange	JIS 10K FF								
Item	GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	200	155	120	4-19	20	300	140	19.4
65A	65	220	175	140	4-19	22	350	160	27.6
80A	80	230	185	150	8-19	22	400	180	33.0
100A	100	250	210	175	8-19	24	450	200	45.8
125A	125	270	250	210	8-23	24	520	224	65.9
150A	150	290	280	240	8-23	26	580	250	86.0
200A	200	320	330	290	12-23	26	700	315	136
250A	250	380	400	355	12-25	30	840	400	230
300A	300	440	445	400	16-25	32	960	450	331
350A	335	500	490	445	16-25	34	1050	500	433
400A	380	590	560	510	16-27	36	1150	560	597
450A	430	640	620	565	20-27	38	—	—	704
500A	480	710	675	620	20-27	40	—	—	901
550A	530	780	745	680	20-33	42	—	—	1192
600A	580	850	795	730	24-33	44	—	—	1490

Model No	WVFCFS16								
Standard	Refer to JIS F7425 (F7369)								
Flange	JIS 16K FF								
Item	GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	210	155	120	8-19	20	300	140	22.5
65A	65	240	175	140	8-19	22	350	160	25.0
80A	80	260	200	160	8-23	24	400	180	33.0
100A	100	290	225	185	8-23	26	450	200	52.0
125A	125	310	270	225	8-25	26	520	224	72.0
150A	150	330	305	260	12-25	28	580	250	95.0
200A	200	370	350	305	12-25	30	700	315	143
250A	250	430	430	380	12-27	34	840	400	203
300A	300	490	480	430	16-27	36	1006	450	430
350A	335	540	540	480	16-33	38	1073	500	580
400A	380	610	605	540	16-33	42	1185	560	780

Cast Iron Hose Globe Valve

5K & 10K



HYDRAULIC INSPECTION

Rating	Test pressure Mpa		
	Body	Seat	Connection
5K	1.03	0.76	0.69
10K	2.06	1.51	1.37

PRESSURE RATING

Applicable Standard No.	JIS F7425	
Fluid condition	Maximum working pressure Mpa	
	Rating 5K	Rating 10K
Pulsation water	0.49	0.98
Non-shock water of 120°C or less	0.69	1.37

MATERIAL

No	Name of part	Material
1	Body	FC200
3	Bonnet	FC200
4	Handwheel	FC200
5	Disc	CAC406
6	Valve Seat	CAC406
7	Disc Nut	CAC406 or C3771BD
8	Screwed Bonnet Bush	CAC406
9	Packing Bush	CAC406
10	Packing Gland	CAC406
11	Stem	C3771BD or C3771BE
12	Stud Bolt	SS400
13	Stud Bolt	C3771BD or C3771BE
14	Hexagon Nut	SS400
15	Hexagon Nut	C3604BD
16	Hexagon Nut	C3604BD
17	Lock Pin	SS400
18	Split pin	— C2600W
19	Disc Lock Washer	C2600P
20	Packing	Non-Asbestos
21	Gasket	Non-Asbestos
22	Hose Base Connection	CAC406
23	Cap	CAC406
24	Coupling Ring	CAC406
25	Set Ring	CAC406
26	Set Screw	C3771BD or C3771BE
27	Chain	C2600W
28	Gasket	Rubber
29	Gasket	Non-Asbestos
30	Name plate (※)	C2801P

(※) Option

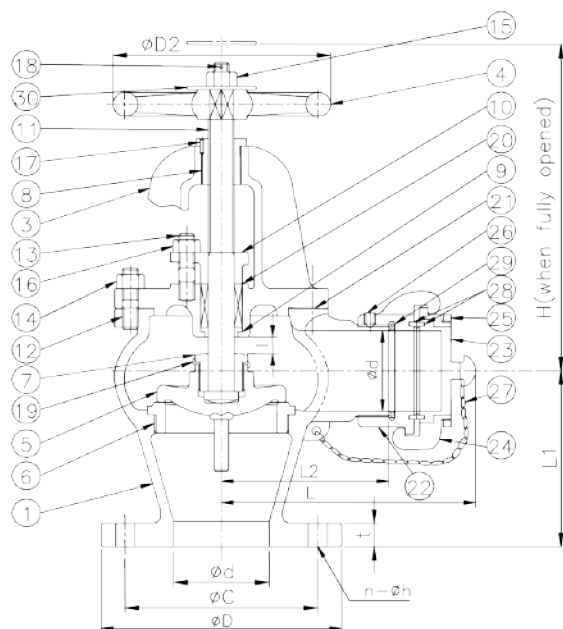
DIMENSIONAL TABLE

Model No	WVFCFHG05 / WVFCFHG10											
Standard	Refer to JIS F7425 (F7333)											
Flange	JIS 5K FF / JIS 10K FF											
Item	HOSE GLOBE VALVE											
Size	d	L	L1	L2	D	C	n-h	t	H	D2	Weight[kg]	
5K 50A	50	165	105	110	130	105	4-15	16	270	160	14.7	
10K 50A	50	170	110	115	155	120	4-19	20	285	160	18.9	
10K 65A	65	200	135	140	175	140	4-19	22	310	200	28.2	



Cast Iron Hose Angle Valve

5K & 10K



HYDRAULIC INSPECTION

Rating	Test pressure Mpa		
	Body	Seat	Connection
5K	1.03	0.76	0.69
10K	2.06	1.51	1.37

PRESSURE RATING

Applicable Standard No.		JIS F7425	
Fluid condition		Maximum working pressure Mpa	
		Rating 5K	Rating 10K
Pulsation water		0.49	0.98
Non-shock water of 120°C or less		0.69	1.37

MATERIAL

No	Name of part	Material
1	Body	FC200
3	Bonnet	FC200
4	Handwheel	FC200
5	Disc	CAC406
6	Valve Seat	CAC406
7	Disc Nut	CAC406 or C3771BD
8	Screwed Bonnet Bush	CAC406
9	Packing Bush	CAC406
10	Packing Gland	CAC406
11	Stem	C3771BD or C3771BE
12	Stud Bolt	SS400
13	Stud Bolt	C3771BD or C3771BE
14	Hexagon Nut	SS400
15	Hexagon Nut	C3604BD
16	Hexagon Nut	C3604BD
17	Lock Pin	SS400
18	Split pin	C2600W
19	Disc Lock Washer	C2600P
20	Packing	Non-Asbestos
21	Gasket	Non-Asbestos
22	Hose Base Connection	CAC406
23	Cap	CAC406
24	Coupling Ring	CAC406
25	Set Ring	CAC406
26	Set Screw	C3771BD or C3771BE
27	Chain	C2600W
28	Gasket	Rubber
29	Gasket	Non-Asbestos
30	Name plate (※)	C2801P

(※) Option

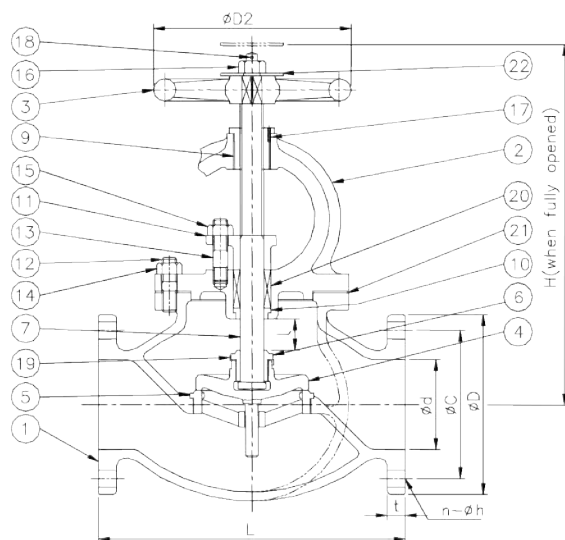
DIMENTIONAL TABLE

Model No	WVFCFHL05 / WVFCFHL10										
Standard	Refer to JIS F7425 (F7333)										
Flange	JIS 5K FF / JIS 10K FF										
Item	HOSE ANGLE VALVE										
Size	d	L	L1	L2	D	C	n-h	t	H	D2	Weight[kg]
5K 50A	50	155	100	100	130	105	4-15	16	240	160	12.8
10K 50A	50	170	120	115	155	120	4-19	20	255	160	18.9
10K 65A	65	185	130	125	175	140	4-19	22	270	200	17.0

Cast Steel Globe Valve

5K, 10K, 20K

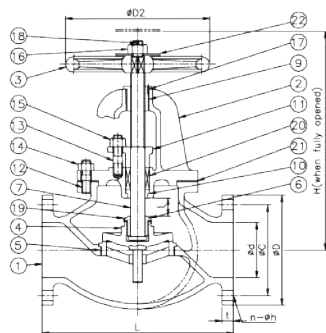
MATERIAL



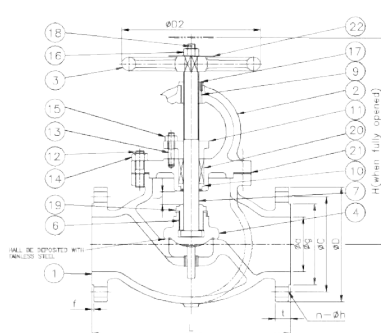
10K Type

No	Name of part	Material	
		5K/10k	20K
1	Body	SC480	SC480
2	Bonnet	SC480	SC480
3	Hand Wheel	FC200	FC200
4	Disc	SCS2	SCS2 or SUS420J2
5	Valve Seat	SCS2	-
6	Disc Nut	SUS420J1	SUS420J1
7	Stem	SUS403	SUS403
9	Screwed Bonnet Bush	C6782BD	C6782BD
10	Packing Bush	SUS420J1	SUS420J1
11	Packing Gland	CAC406	CAC406
12	Stud Bolt	SS490	SS490
13	Stud Bolt	SS490	S35C
14	Hexagon Nut	SS400	S25C
15	Hexagon Nut	C3771BD	SS400
16	Hexagon Nut	C3771BD	C3604BD
17	Lock Pin	SS400	SS400
18	Split Pin	C2600W	C2600W
19	Disc Lock Washer	SUS304	SUS304
20	Packing	Non-Asbestos	Non-Asbestos
21	Gasket	Non-Asbestos	Non-Asbestos
22	Name Plate (※)	C2801P	C2801P
23	Punding Receiver	S35C	S35C
24	Hexagon Bolt	SS400	SS400
25	Handwheel Cover	SS400	SS400

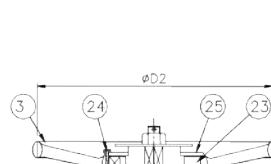
(※) Option



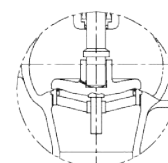
5K Type



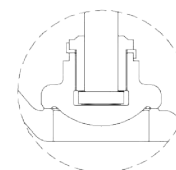
20K Type



20K Dia. 150A and more



Screw-down check valve



20K Nominal Dia. 32A to 100A

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7426		
	Maximum working pressure Mpa		
	Rating 5K	Rating 10K	Rating 20K
Fluid Condition			
Steam of 400°C	-	-	2.26
Steam of 350°C	-	-	2.55
Steam of 300°C	-	0.98	2.84
Steam of 220°C or less	-	1.18	3.04
Air and Gas	-	1.18	3.04
Oil and Pulsation water	0.49	1.18	3.04
Non-shock water of 120°C or less	0.69	1.37	3.33

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
5K	1.04	0.76
10K	2.06	1.51
20K	5.00	3.67

Cast Steel Globe Valve

5K, 10K, 20K

DIMENSIONAL TABLE

Model No	WVSCFG05 WVSCFNG05								
Standard	Refer to JIS F7426 (F7305※ / F7311)								
Flange	JIS 5K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	210	130	105	4-15	14	270	160	14.7
65A	65	250	155	130	4-15	14	300	180	21.3
80A	80	280	180	145	4-19	14	310	180	27.7
100A	100	340	200	165	8-19	16	360	224	40.8
125A	125	410	235	200	8-19	16	390	250	57.6
150A	150	480	265	230	8-19	18	445	280	80.3
200A	200	570	320	280	8-23	20	530	315	139
250A	250	740	385	345	12-23	22	795	355	230
300A	300	840	430	390	12-23	22	930	400	309
350A	335	940	480	435	12-25	24	—	500	600
400A	380	1050	540	495	16-25	24	—	580	701

※ Dimensional Standard for 50A~200A

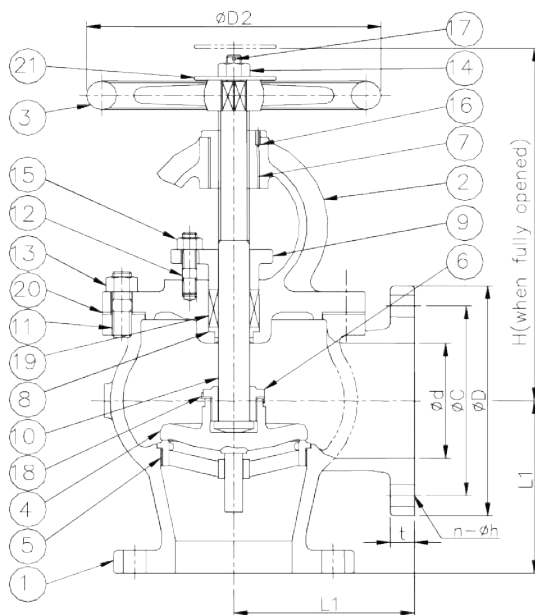
Model No	WVSCFG10 / WVSCFNG10								
Standard	Refer to JIS F7426 (F7313 / F7471)								
Flange	JIS 10K FF								
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	4-19	16	270/265	160	17.9/17.9
65A	65	270	175	140	4-19	18	300/295	200	26.0/26.1
80A	80	300	185	150	8-19	18	310/300	200	29.8/29.8
100A	100	350	210	175	8-19	18	355/345	250	44.7/44.8
125A	125	420	250	210	8-23	20	415/405	280	70.3/69.8
150A	150	490	280	240	8-23	22	470/455	315	96.4/96.3
200A	200	570	330	290	12-23	22	565/545	355	159/158
250A	250	740	400	355	12-25	24	645/—	400	257/257
300A	300	840	445	400	16-25	24	735/—	450	370/370

Model No	WVSCFG20 / WVSCFNG20										
Standard	Refer to JIS F7426 (F7313 / F7473)										
Flange	JIS 20K RF										
Item	GLOBE VALVE / SCREW-DOWN CHECK GLOBE VALVE										
Size	d	L	D	C	g	n-h	t	f	H	D2	Weight [kg]
32A	32	190	135	100	76	4-19	18	2	270/265	160	14.4/14.4
40A	40	200	140	105	81	4-19	18	2	290/280	160	16.0/16.0
50A	50	230	155	120	96	8-19	18	2	305/295	200	21.6/21.6
65A	65	270	175	140	116	8-19	20	2	345/330	224	30.4/30.1
80A	80	300	200	160	132	8-23	22	2	385/370	250	43.5/43.5
100A	100	350	225	185	160	8-23	24	2	440/420	280	62.3/62.1
125A	125	430	270	225	195	8-25	26	2	500/475	315	95.7/97
150A	150	500	305	260	230	12-25	28	2	550/525	355	133.3/136
200A	200	580	350	305	275	12-25	30	2	630/605	450	296.1/212
250A	250	680	430	380	345	12-27	34	2	725/700	560	339.1/349

Cast Steel Angle Valve

5K, 10K, 20K

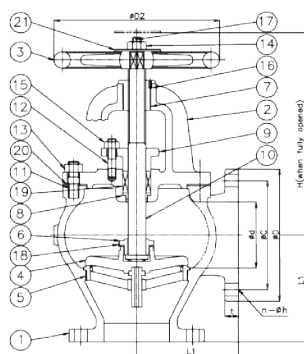
MATERIAL



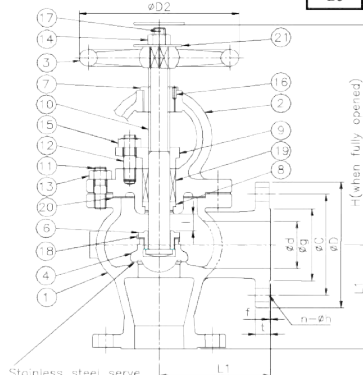
10K Type

No	Name of part	Material	
		5K/10k	20K
1	Body	SC480	SC480
2	Bonnet	SC480	SC480
3	Hand Wheel	FC200	FC200
4	Disc	SCS2	SCS2 or SUS420J2
5	Valve Seat	SCS2	-
6	Disc Nut	SUS420J1	SUS420J1
7	Screwed Bonnet Bush	C6782BD	C6782BD
8	Packing Bush	SUS420J1	SUS420J1
9	Packing Gland	CAC406	CAC406
10	Stem	SUS403	SUS403
11	Stud Bolt	SS490	S35C
12	Stud Bolt	SS400	SS490
13	Hexagon Nut	SS400	S25C
14	Hexagon Nut	C3771BD	C3604BD
15	Hexagon Nut	C3771BD	SS400
16	Lock Pin	SS400	SS400
17	Split Pin	C2600W	C2600W
18	Disc Lock Washer	SUS304	SUS304
19	Packing	Non-Asbestos	Non-Asbestos
20	Gasket	Non-Asbestos	Non-Asbestos
21	Name Plate (※)	C2801P	C2801P
23	Punding Receiver	S35C	S35C
24	Hexagon Nut	SS400	SS400
25	Handwheel Cover	SS400	SS400

(※) Option

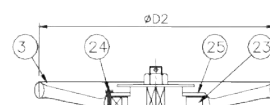


5K Type

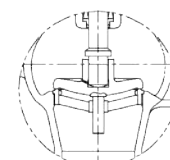


20K Type

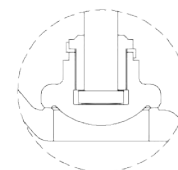
Stainless steel serve



20K Dia. 150A and more



Screw-down check valve



20K Nominal Dia. 32A to 100A

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7426		
Fluid Condition	Maximum working pressure Mpa		
	Rating 5K	Rating 10K	Rating 20K
Steam of 400°C	-	-	2.26
Steam of 350°C	-	-	2.55
Steam of 300°C	-	0.98	2.84
Steam of 220°C or less	-	1.18	3.04
Air and Gas	-	1.18	3.04
Oil and Pulsation water	0.49	1.18	3.04
Non-shock water of 120°C or less	0.69	1.37	3.33

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
5K	1.04	0.76
10K	2.06	1.51
20K	5.00	3.67

Cast Steel Angle Valve

5K, 10K, 20K

DIMENSIONAL TABLE

Model No	WVSCFL05 / WVSCFNL05								
Standard	Refer to JIS F7426 (F7306※ / F7312)								
Flange	JIS 5K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
50A	50	100	130	105	4-15	14	240	160	12.9
65A	65	115	155	130	4-15	14	250	180	18.2
80A	80	130	180	145	4-19	14	265	180	23.4
100A	100	150	200	165	8-19	16	310	224	33.7
125A	125	170	235	200	8-19	16	330	250	46.2
150A	150	190	265	230	8-19	18	380	280	63.4
200A	200	220	320	280	8-23	20	450	315	105
250A	250	275	385	345	12-23	22	645	355	178
300A	300	310	430	390	12-23	22	750	400	275
350A	335	360	480	435	12-25	30	690	500	327
400A	380	395	540	495	16-25	30	770	630	459

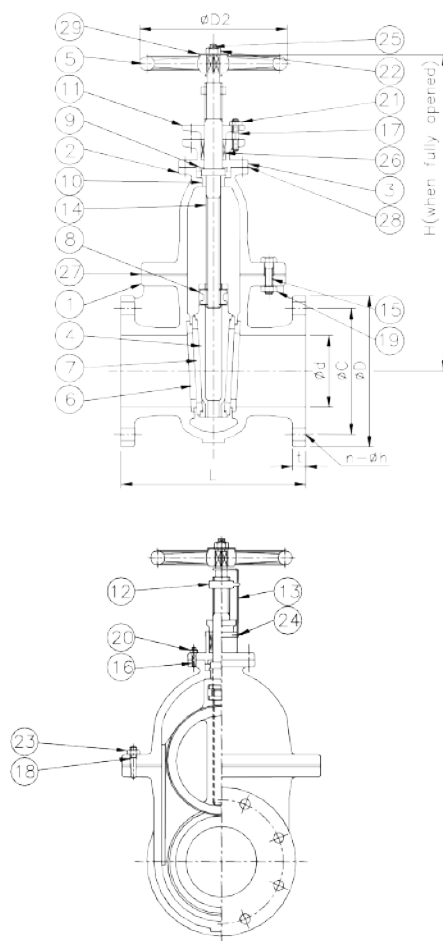
※ Dimensional Standard for 50A~200A

Model No	WVSCFL10 / WVSCFNL10								
Standard	Refer to JIS F7426 (F7320 / F7472)								
Flange	JIS 10K FF								
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE								
Size	d	L1	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	4-19	16	240/235	160	16.3/16.3
65A	65	130	175	140	4-19	18	260/250	200	23.0/23.1
80A	80	140	185	150	8-19	18	265/225	200	25.3/25.3
100A	100	160	210	175	8-19	18	300/290	250	37.0/37.0
125A	125	180	250	210	8-23	20	350/340	280	57.1/56.6
150A	150	205	280	240	8-23	22	400/385	315	77.2/77.1
200A	200	230	330	290	12-23	22	480/460	355	116/116
250A	250	290	400	355	12-25	24	535	450	188/188
300A	300	320	445	400	16-25	24	610	450	256/256

Model No	WVSCFL20 / WVSCFNL20										
Standard	Refer to JIS F7314 / F7474										
Flange	JIS 20K RF										
Item	ANGLE VALVE / SCREW-DOWN CHECK ANGLE VALVE										
Size	d	L1	D	C	g	n-h	t	f	H	D2	Weight [kg]
32A	32	100	135	100	76	4-19	18	2	250/240	160	13.0/13.0
40A	40	110	140	105	81	4-19	18	2	265/255	160	15.2/15.1
50A	50	125	155	120	96	8-19	18	2	275/270	200	20.0/19.9
65A	65	135	175	140	116	8-19	20	2	305/295	224	26.9/26.7
80A	80	150	200	160	132	8-23	22	2	340/325	250	38.9/38.8
100A	100	170	225	185	160	8-23	24	2	385/365	280	54.4/54.2
125A	125	200	270	225	195	8-25	26	2	440/415	315	80.7/83.0
150A	150	225	305	260	230	12-25	28	2	485/460	355	112.3/115
200A	200	280	350	305	275	12-25	30	2	540/520	450	183/189
250A	250	310	430	380	345	12-27	34	2	620/595	560	285.9/296

Cast Steel Gate Valve

10K



MATERIAL

No	Name of part	Material	
		CLASS B	CLASS S
1	Body	SC450	SC450
2	Bonnet	SC450	SC450
3	Stuffing Box	SC450	SC450
4	Disc	SC450	SC450
5	Handwheel	FC200	FC200
6	Valve Seat of Body	CAC406	SUS420J1 or J2
7	Valve Seat of Disc	CAC406	SUS420J1 or J2
8	Screwed Piece	CAC406	CAC406
9	Guide Bush	CAC406	CAC406
10	Guide Bush	CAC406	CAC406
11	Packing Gland	CAC406	CAC406
12	Indicator	CAC406	CAC406
13	Indicator Plate	C2801P	C2801P
14	Stem	C3771BD	SUS403
15	Stud Bolt	SS400	SS400
15	Hexagon Bolt	SS400	SS400
16	Stud Bolt	SS400	SS400
17	Stud Bolt	C3771BD	C3771BD
18	Taper Pin with Thread	SUS403	SUS403
19	Hexagon Nut	SS400	SS400
20	Hexagon Nut	SS400	SS400
21	Hexagon Nut	C3604BD	C3604BD
22	Hexagon Nut	C3604BD	C3604BD
23	Hexagon Nut	C3604BD	C3604BD
24	Set Screw	C2700W	C2700W
25	Split pin	C2600W	C2600W
26	Packing	Non-Aabestos	Non-Aabestos
27	Gasket	Non-Aabestos	Non-Aabestos
28	Gasket	Non-Aabestos	Non-Aabestos
29	Name plate (※)	C2801P	C2801P

(※) Option

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
2.06	1.51

PRESSURE RATING

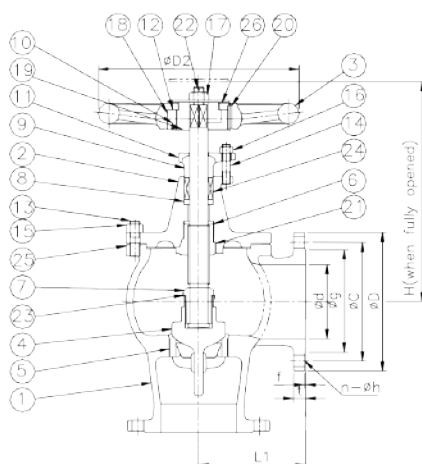
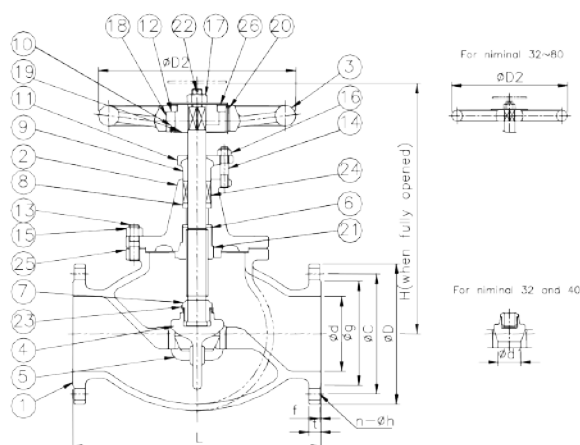
Applicable Standard No.	Refer to JIS F7426	
Fluid Condition	Maximum working pressure Mpa	
	200A or less	250A and over
Saturated steam	0.69	0.49
Oil and Pulsation water	0.98	0.98
Non-shock water of 120°C or less	1.37	1.37

DIMENSIONAL TABLE

Model No	WVSCFS10								
Standard	Refer to JIS F7426 (F7366)								
Flange	JIS 10K FF								
Item	GATE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	200	155	120	4-19	16	300	140	17.1
65A	65	220	175	140	4-19	18	350	160	26.5
80A	80	230	185	150	8-19	18	400	180	31.5
100A	100	250	210	175	8-19	18	450	200	44.9
125A	125	270	250	210	8-23	20	520	224	63.2
150A	150	290	280	240	8-23	22	580	250	82.3
200A	200	310	330	290	12-23	22	700	315	130
250A	250	340	400	355	12-25	24	840	400	203
300A	300	380	445	400	16-25	24	960	450	291
350A	335	420	490	445	16-26	26	1050	500	368
400A	380	480	560	510	16-27	28	1150	560	507

Cast Steel Air Valve

30K



MATERIAL

No	Name of part	Material
1	Body	SC450
2	Bonnet	SC450
3	Handwheel	FC200
4	Disc	C3782BD or BE, HBsC2
5	Valve Seat	C3782BD or HBsC2
6	Screwed Bonnet Bush	C3782BD or BE, HBsC2
7	Disc Nut	CAC406
8	Packing Bush	CAC406
9	Packing Gland Ring	CAC406
10	Stem	SUS403
11	Packing Gland	S25C
12	Punding Receiver	SS400
13	Stud Bolt	S35C
14	Stud Bolt	SS490
15	Hexagon Nut	S25C
16	Hexagon Nut	SS400
17	Hexagon Nut	C3771BD
18	Punding Piece	SS400
19	Punding Piece Cover	SS400
20	Straight Pin	S35C
21	Straight Pin	D3771BD
22	Split pin	C2600W
23	Disc Lock Washer	C2600P
24	Packing	Non-Aabestos
25	Gasket	Non-Aabestos
26	Name plate (※)	C2801P

(※) Option

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
6.76	4.96

PRESSURE RATING

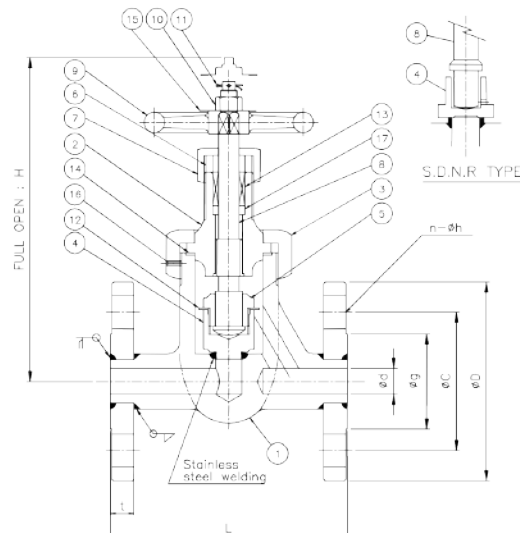
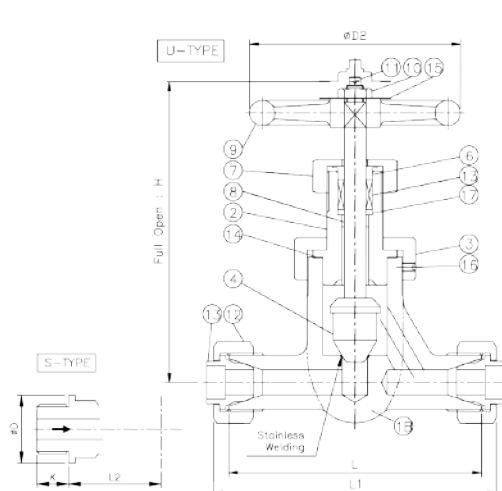
Applicable Standard No.	Refer to JIS F7426
Fluid Condition	Maximum working pressure Mpa
Air	4.51

DIMENTIONAL TABLE

Model No	WVSCFGA30 / WVSCFLA30											
Standard	Refer to JIS F7426 (F7340 / F7475))											
Flange	JIS 30K RF											
Item	AIR GLOBE VALVE / AIR ANGLE VALVE											
Size	d	L	L1	D	C	g	n-h	t	f	H	D2	Weight [kg]
32A	32	220	114	140	105	80	4-19	22	2	270/245	180	16.7/16.6
40A	40	240	121	160	120	90	4-23	22	2	280/255	180	21.1/20.3
50A	50	260	146	165	130	105	8-19	22	2	350/310	224	28.8/27.6
65A	65	310	165	200	160	130	8-23	26	2	390/340	250	48.7/46.6
80A	80	340	178	210	170	140	8-23	28	2	430/380	280	60.9/55.6
100A	100	390	205	240	195	160	8-25	32	2	480/435	315	86.0/80.9
125A	125	470	230	275	230	195	8-25	36	2	570/510	400	139/126
150A	150	540	250	325	275	235	12-27	38	2	655/585	450	199/177
200A	200	-	300	370	320	280	12-27	42	2	-/685	500	-/258

Forged Steel Globe Valve

20K



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	SUS420J1 or J2
5	Disc Nut	SUS420J2
6	Stem	SUS403
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	S45C
14	Bonnet Nut	SF440
15	Disc Lock Washer	SUS304
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S25C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate (※)	C2801P

(*) Option

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
U	Both side union nut
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
5.0	3.67

PRESSURE RATING

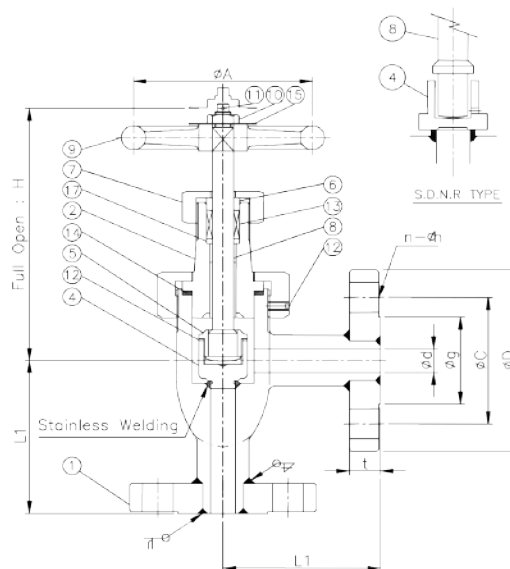
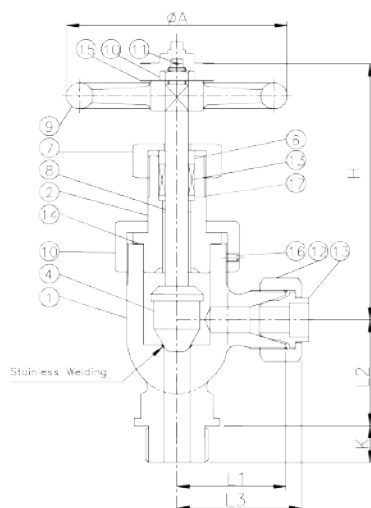
Applicable Standard No.	Refer to JIS F7421
Fluid Condition	Maximum working pressure Mpa
Steam of 400°C	2.16
Steam of 350°C	2.55
Steam of 300°C	2.84
Steam of 220°C or less	3.04
Air, Gas, Oil and Pulsation water	3.04
Non-shock water of 120°C or less	3.33

DIMENSION TABLE

Model No	WVSFFGU20													
Standard	Refer to JIS F7421													
Rating	JIS 20K RF													
Item	GLOBE VALVE													
Size	Type	d	L	L1	L2	k	H	D2	D	G	g	t	n-h	Weight [kg]
6A	S	6	—	45	40	12	130	80	—	—	—	—	—	1.23
10A	S	10	—	51	45	16	140	80	—	—	—	—	—	1.29
6A	U	6	97	119	—	—	130	80	—	—	—	—	—	1.26
10A	U	10	113	136	—	—	150	80	—	—	—	—	—	1.72
15A	F	15	140	—	—	—	188	100	95	70	55	18	4-15	3.90
20A	F	20	160	—	—	—	193	125	100	75	60	18	4-15	5.29
25A	F	25	180	—	—	—	230	140	125	90	52	20	4-19	7.49

Forged Steel Angle Valve

20K



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	SUS420J1 or J2
5	Disc Nut	SUS420J2
6	Stem	SUS403
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	S45C
14	Bonnet Nut	SF440
15	Disc Lock Washer	SUS304
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S25C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate (※)	C2801P

(※) Option

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
5.0	3.67

PRESSURE RATING

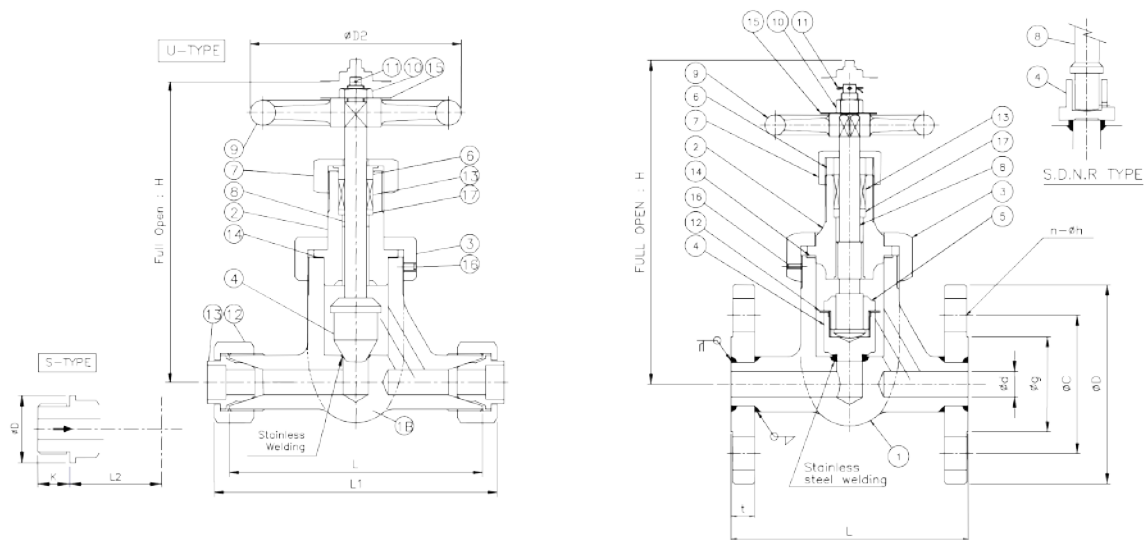
Applicable Standard No.	Refer to JIS F7422
Fluid Condition	Maximum working pressure Mpa
Steam of 400°C	2.16
Steam of 350°C	2.55
Steam of 300°C	2.84
Steam of 220°C or less	3.04
Air, Gas, Oil and Pulsation water	3.04
Non-shock water of 120°C or less	3.33

DIMENSIONAL TABLE

Model No	WVSFFLU20													
Standard	Refer to JIS F7422													
Rating	JIS 20K RF													
Item	ANGLE VALVE													
Size	Type	d	L1	L2	L3	k	H	D2	D	C	g	t	n-h	Weight [kg]
6A	S	6	45	38	51	12	115	80	-	-	-	-	-	1.20
10A	S	10	45	45	58	16	130	80	-	-	-	-	-	1.54
15A	F	15	75	-	-	-	205	100	95	70	55	18	4-15	3.80
20A	F	20	80	-	-	-	230	125	100	75	60	18	4-15	5.05
25A	F	25	95	-	-	-	255	140	125	90	52	20	4-19	7.16

Forged Steel Globe Valve

40K



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	SUS420J1 or J2
5	Disc Nut	SUS420J2
6	Stem	SUS403
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	S45C
14	Bonnet Nut	SF440
15	Disc Lock Washer	SUS304
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S25C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate	C2801P

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
U	Both side union nut
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
9.12	6.69

PRESSURE RATING

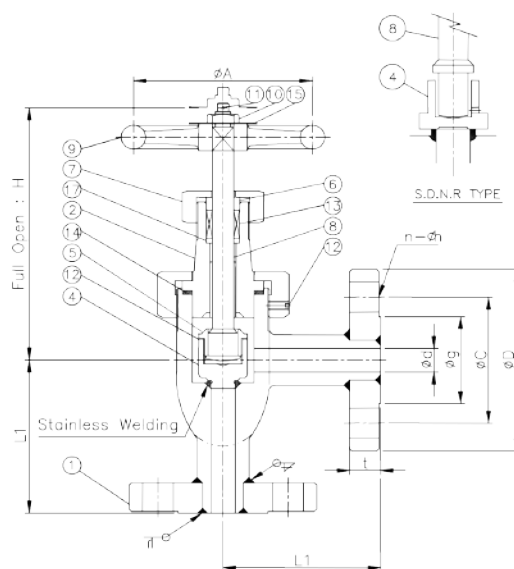
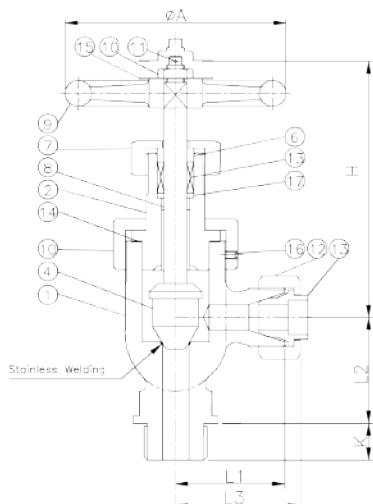
Applicable Standard No.	Refer to JIS F7329
Fluid Condition	Maximum working pressure Mpa
Steam of 425°C	3.92
Steam of 400°C	4.51
Steam of 350°C	5.10
Steam of 300°C or less	5.59
Air, Gas, Oil and Pulsation water	6.08

DIMENTIONAL TABLE

Model No	WVSFFGU40													
Standard	Refer to JIS F7329													
Rating	JIS 40K RF													
Item	GLOBE VALVE													
Size	Type	d	L	L1	L2	k	H	D2	D	C	g	t	n-h	Weight [kg]
6A	S	6	—	45	40	12	130	80	—	—	—	—	—	1.23
10A	S	10	—	51	45	16	150	100	—	—	—	—	—	1.29
6A	U	6	97	119	—	—	130	80	—	—	—	—	—	1.26
10A	U	10	113	136	—	—	150	80	—	—	—	—	—	1.72
15A	F	15	150	—	—	—	198	125	115	80	55	20	4-19	3.90
20A	F	20	170	—	—	—	203	125	120	85	60	20	4-19	5.29
25A	F	25	200	—	—	—	235	140	130	95	70	22	4-19	7.49

Forged Steel Angle Valve

40K



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	SUS420J1 or J2
5	Disc Nut	SUS420J2
6	Stem	SUS403
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	S45C
14	Bonnet Nut	SF440
15	Disc Lock Washer	SUS304
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S25C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate (※)	C2801P

(※) Option

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
9.12	6.69

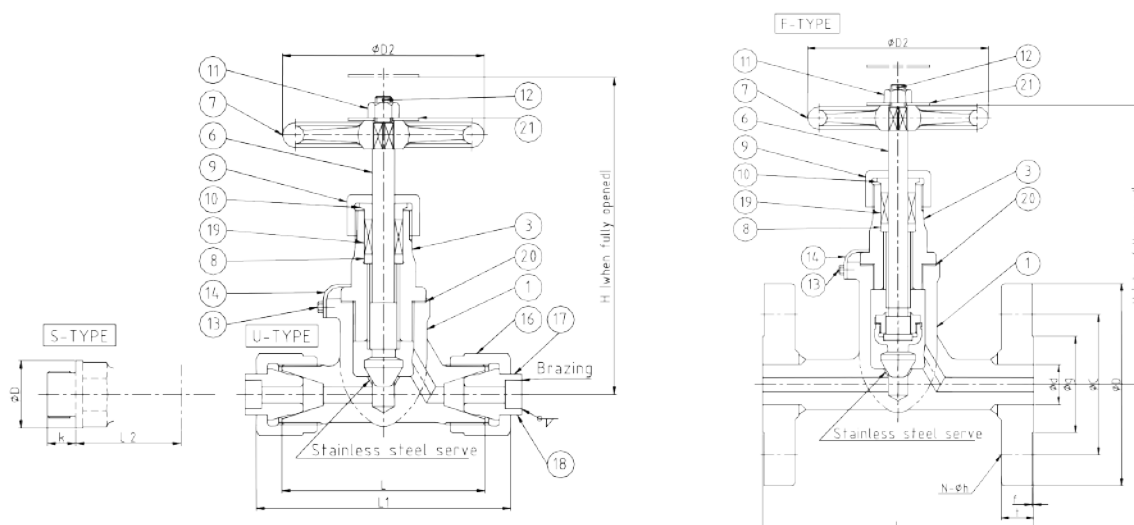
PRESSURE RATING

Applicable Standard No.	Refer to JIS F7330
Fluid Condition	Maximum working pressure Mpa
Steam of 425°C	3.92
Steam of 400°C	4.51
Steam of 350°C	5.10
Steam of 300°C or less	5.59
Air, Gas, Oil and Pulsation water	6.08

DIMENTIONAL TABLE

Model No	WVSFFLU40													
Standard	Refer to JIS F7330													
Rating	JIS 40K RF													
Item	ANGLE VALVE													
Size	Type	d	L1	L2	L3	k	H	D2	D	C	g	t	n-h	Weight [kg]
6A	S	6	45	38	51	12	115	80	—	—	—	—	—	1.20
10A	S	10	45	45	58	16	130	80	—	—	—	—	—	1.54
15A	F	15	75	—	—	—	205	100	115	80	55	20	4-19	3.80
20A	F	20	80	—	—	—	230	125	120	85	60	20	4-19	5.05
25A	F	25	95	—	—	—	255	140	130	95	70	22	4-19	7.16

Forged Steel Air Globe Valve



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	C6782 BD or C6782 BE
5	Disc Nut	C6782BD
6	Stem	C6782BD or C6782 BE
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	C2700W
14	Lock Plate	SUS304
15	Disc Lock Washer	C2600 P
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S15C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate (※)	C2801P

(※) Option

CLASSIFICATION

Type	Type of connection
S	Union nut and thread
U	Both side union nut
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
6.76	4.96

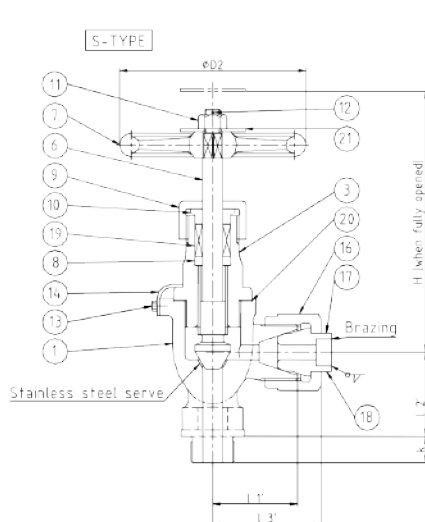
PRESSURE RATING

Applicable Standard No.	Refer to JIS F7336
Fluid Condition	Maximum working pressure Mpa
Air	4.51

DIMENTIONAL TABLE

Model No		WVSFFGA30														
Standard		Refer to JIS F7336														
Rating		JIS 30K														
Item		AIR GLOBE VALVE														
Size	Type	d	L1	L2	L3	k	H	D2	B2	D	C	g	t	f	n-h	Weight [kg]
6A	S	6	42	38	51	12	130	80	30	28	—	—	—	—	—	1.26
10A	S	10	51	45	63	16	150	100	41	34	—	—	—	—	—	1.80
6A	U	6	84	102	—	—	130	80	30	—	—	—	—	—	—	1.30
10A	U	10	102	126	—	—	150	100	41	—	—	—	—	—	—	1.94
15A	F	15	150	—	—	—	200	125	—	115	80	55	18	1	4-19	5.60
20A	F	20	170	—	—	—	220	140	—	120	85	60	18	1	4-19	7.09
25A	F	25	220	—	—	—	250	140	—	130	95	70	20	1	4-19	9.46

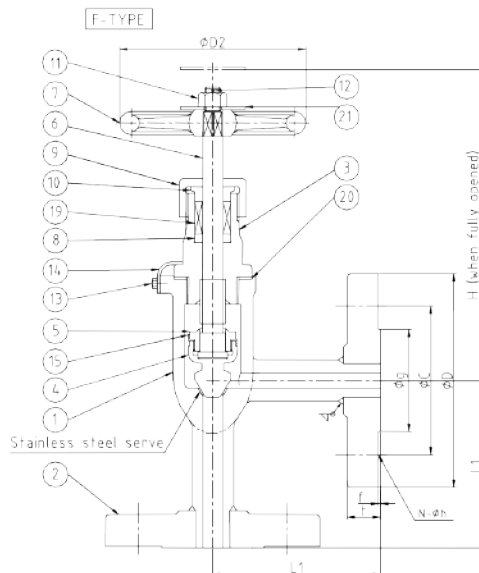
Forged Steel Air Globe Valve



MATERIAL

No	Name of part	Material
1	Body	SF440 or S25C
2	Flange	SF440 or S25C
3	Bonnet	SF440 or S25C
4	Disc	C6782 BD or C6782 BE
5	Disc Nut	C6782BD
6	Stem	C6782BD or C6782 BE
7	Handwheel	FC200
8	Packing Bush	C3771BD
9	Gland Nut	C3771BD
10	Packing Gland	C3771BD
11	Hexagon Nut	C3771BD
12	Split Pin	C2600W
13	Set Screw	C2700W
14	Lock Plate	SUS304
15	Disc Lock Washer	C2600 P
16	Union nut	S25C
17	Nipple for Copper Pipe	CAC201 or C1100 BD
18	Nipple for Steel Pipe	S15C
19	Packing	NON-ASBESTOS
20	Gasket	NON-ASBESTOS
21	Name Plate (※)	C2801P

(※) Option



CLASSIFICATION

Type	Type of connection
S	Union nut and thread
F	Flange

HYDRAULIC INSPECTION

Test pressure Mpa	
Body	Seat
6.76	4.96

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7337
Fluid Condition	Maximum working pressure Mpa
Air	4.51

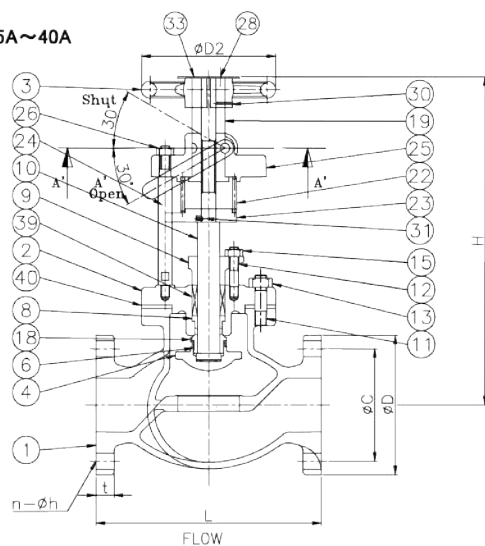
DIMENSIONAL TABLE

Model No	WVSFFLA30																
Standard	Refer to JIS F7337																
Rating	JIS 30K																
Item	AIR ANGLE VALVE																
Size	Type	d	L1	I1	I2	I3	k	H	D2	B2	D	C	g	t	f	n-h	Weight [kg]
6A	S	6	—	42	38	51	12	130	80	30	28	—	—	—	—	—	1.23
10A	S	10	—	46	45	58	16	150	100	41	34	—	—	—	—	—	1.75
15A	F	15	90	—	—	—	—	175	125	—	115	80	55	18	1	4-19	5.59
20A	F	20	95	—	—	—	—	185	140	—	120	85	60	18	1	4-19	7.00
25A	F	25	100	—	—	—	—	210	140	—	130	95	70	20	1	4-19	9.11

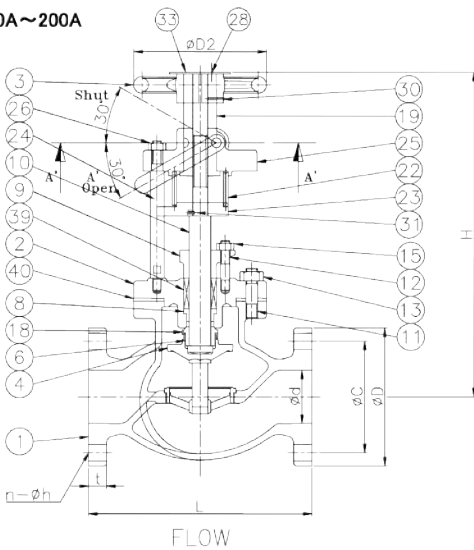
Cast Bronze & Cast Steel Emergency Shut-Off Valve

10K

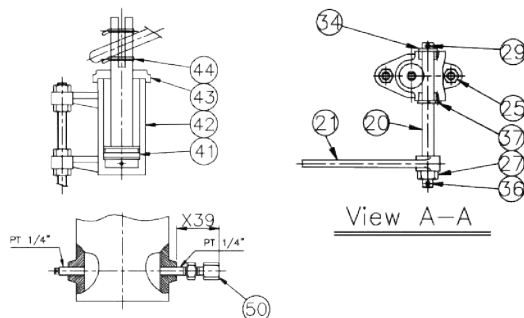
15A~40A



50A~200A



DETAIL OF ACTUATOR



MATERIAL

No	Name of part	Material	
		15A ~ 40A	50A ~ 200A
1	Body	CAC406	SC480
2	Bonnet	CAC406	SC480
3	Handwheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	-	SCS2
6	Disc Nut	CAC406 or C3771BD	SUS410
8	Packing Bush	CAC406 or C3771BD	CAC406 or C3771BD
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD	SUS410
11	Stud Bolt	SS400	SS400
12	Stud Bolt	SS400	SS400
13	Hexagon Nut	SS400	SS400
15	Hexagon Nut	C3771BD	C3771BD
18	Disc Lock Washer	C2600P	SUS304
19	Bush for Stem Lift	C3771BD	C3771BD
20	Operating Spindle	SUS403	SUS403
21	Lever	SS400	SS400
22	Spring	SWP-A	SUP4
23	Spring Support	SS400	SS400
24	Stay	SS400	SS400
25	Support Bush for Stem	CAC406	CAC406 or SC480
26	Hexagon Nut	SS400	SS400
27	Hexagon Nut	SS400	SS400
28	Machine Screw	C2700W	C2700W
29	Split Pin	SWRM10	SWRM10
30	Machine Screw	C2700W	C2700W
31	Lock Pin	SS400	SS400
32	Set Screw	-	SS400
33	Name plate (※)	C2801P	C2801P
34	Washer	SS400	SS400
35	Bush	-	C3771BD
36	Split Pin	SWRM10	SWRM10
37	Set Screw	SS400	SS400
39	Packing	Non-Aabestos	Non-Aabestos
40	Gasket	Non-Aabestos	Non-Aabestos
41	Piston	C3771BD	C3771BD
42	Cylinder	CAC406	CAC406
43	Cap	C3771BD	C3771BD
44	Pin	C3771BD	C3771BD
50	Nipple	C3771BD	C3771BD

(※) Option

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
10K	0.70	0.20

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7399
Fluid condition	Maximum working pressure Mpa
Oil	0.1

Cast Bronze & Cast Steel Emergency Shut-Off Valve

10K

DIMENTIONAL TABLE

Model No	WVBCESOG10 / WVBCESOG16								
Standard	Refer to JIS F7399								
Flange	JIS 10K FF / 16K FF								
Item	AIR OPERATED EMERGENCY SHUT-OFF GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
15A	15	110	95	70	4-15	12	253	120	7.8
20A	20	130	100	75	4-15	14	259	120	8.3
25A	25	130	125	90	4-19	14	265	120	9.8
32A	32	160	135	100	8-19	16	302	140	12.5
40A	40	170	140	105	8-19	16	310	140	14

Model No	WVSCESOG10								
Standard	Refer to JIS F7399								
Flange	JIS 10K FF								
Item	AIR OPERATED EMERGENCY SHUT-OFF GLOBE VALVE								
Size	d	L	D	C	n-h	t	H	D2	Weight [kg]
50A	50	220	155	120	4-19	16	335	160	23.3
65A	65	270	175	140	4-19	18	395	200	33.6
80A	80	300	185	150	8-19	18	420	200	39.0
100A	100	350	210	175	8-19	18	510	250	62.2
125A	125	420	250	210	8-23	20	570	280	91
150A	150	490	280	240	8-23	22	660	315	123
200A	200	570	330	290	12-23	22	780	335	220

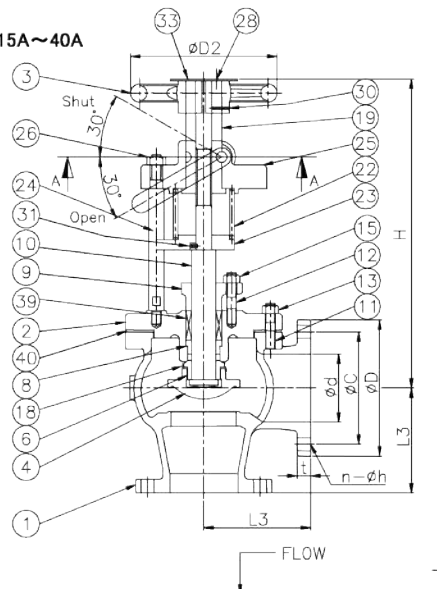
OPERATION

Type	Type of operation
A	Air Operated
W	Wire Operated

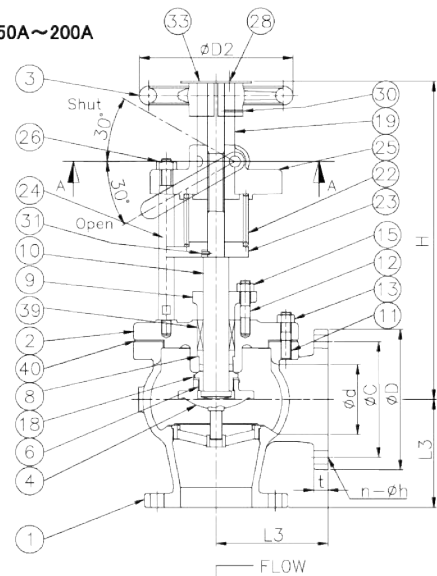
Cast Bronze & Cast Steel Emergency Shut-Off Valve

10K

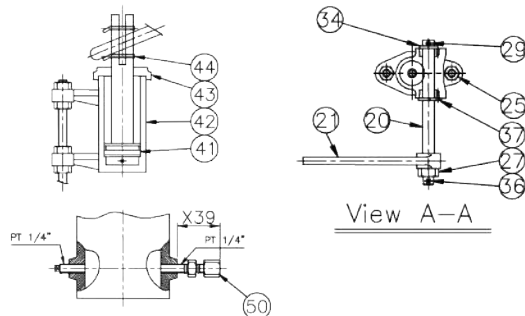
15A~40A



50A~200A



DETAIL OF ACTUATOR



MATERIAL

No	Name of part	Material	
		15A ~ 40A	50A ~ 200A
1	Body	CAC406	SC480
2	Bonnet	CAC406	SC480
3	Handwheel	FC200	FC200
4	Disc	CAC406	SCS2
5	Valve Seat	-	SCS2
6	Disc Nut	CAC406 or C3771BD	SUS410
8	Packing Bush	CAC406 or C3771BD	CAC406 or C3771BD
9	Packing Gland	CAC406	CAC406
10	Stem	C3771BD	SUS410
11	Stud Bolt	SS400	SS400
12	Stud Bolt	SS400	SS400
13	Hexagon Nut	SS400	SS400
15	Hexagon Nut	C3771BD	C3771BD
18	Disc Lock Washer	C2600P	SUS304
19	Bush for Stem Lift	C3771BD	C3771BD
20	Operating Spindle	SUS403	SUS403
21	Lever	SS400	SS400
22	Spring	SWP-A	SUP4
23	Spring Support	SS400	SS400
24	Stay	SS400	SS400
25	Support Bush for Stem	CAC406	CAC406 or SC480
26	Hexagon Nut	SS400	SS400
27	Hexagon Nut	SS400	SS400
28	Machine Screw	C2700W	C2700W
29	Split Pin	SWRM10	SWRM10
30	Machine Screw	C2700W	C2700W
31	Lock Pin	SS400	SS400
32	Set Screw	-	SS400
33	Name plate (※)	C2801P	C2801P
34	Washer	SS400	SS400
35	Bush	-	C3771BD
36	Split Pin	SWRM10	SWRM10
37	Set Screw	SS400	SS400
39	Packing	Non-Aabestos	Non-Aabestos
40	Gasket	Non-Aabestos	Non-Aabestos
41	Piston	C3771BD	C3771BD
42	Cylinder	CAC406	CAC406
43	Cap	C3771BD	C3771BD
44	Pin	C3771BD	C3771BD
50	Nipple	C3771BD	C3771BD

(※) Option

HYDRAULIC INSPECTION

Rating	Test pressure Mpa	
	Body	Seat
10K	0.70	0.20

PRESSURE RATING

Applicable Standard No.	Refer to JIS F7399
Fluid condition	Maximum working pressure Mpa
Oil	0.1

Cast Bronze & Cast Steel Emergency Shut-Off Valve

10K

DIMENSIONAL TABLE

Model No	WVBCESOL10 / WVBCESOL16								
Standard	Refer to JIS F7399								
Flange	JIS 10K FF / 16K FF								
Item	AIR OPERATED EMERGENCY SHUT-OFF ANGLE VALVE								
Size	d	L3	D	C	n-h	t	H	D2	Weight [kg]
15A	15	70	95	70	4-15	12	243	120	7.8
20A	20	75	100	75	4-15	14	246	120	8.2
25A	25	85	125	90	4-19	14	250	120	9.8
32A	32	95	135	100	8-19	16	282	140	12.3
40A	40	100	140	105	8-19	16	286	140	13.7

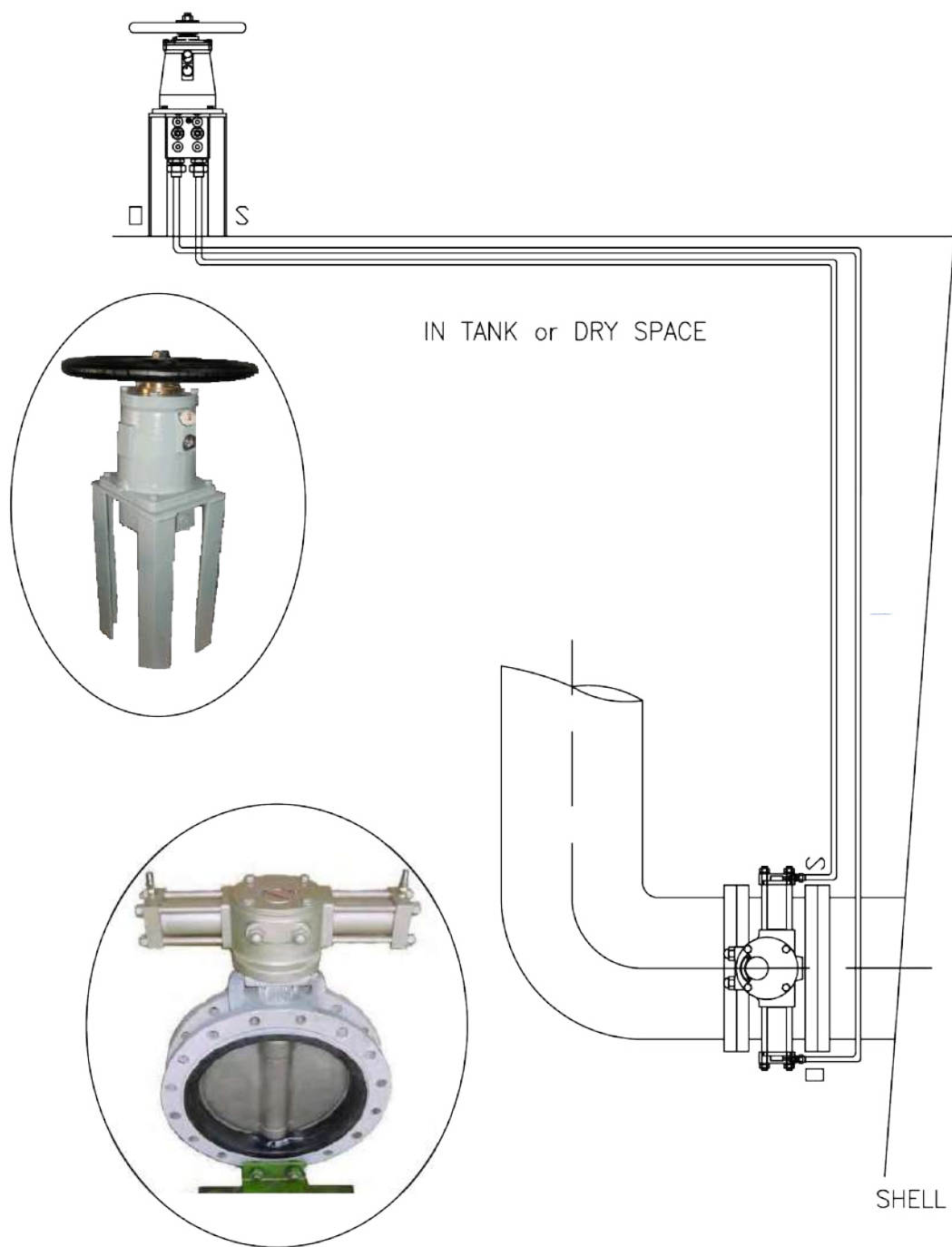
Model No	WVSCESOL10								
Standard	Refer to JIS F7399								
Flange	JIS 10K FF								
Item	AIR OPERATED EMERGENCY SHUT-OFF ANGLE VALVE								
Size	d	L3	D	C	n-h	t	H	D2	Weight [kg]
50A	50	120	155	120	4-19	16	335	160	22
65A	65	130	175	140	4-19	18	395	200	31
80A	80	140	185	150	8-19	18	420	200	26
100A	100	160	210	175	8-19	18	510	250	55
125A	125	180	250	210	8-23	20	570	280	78
150A	150	205	280	240	8-23	22	660	315	104
200A	200	230	330	290	12-23	22	780	335	147

OPERATION

Type	Type of operation
A	Air Operated
W	Wire Operated

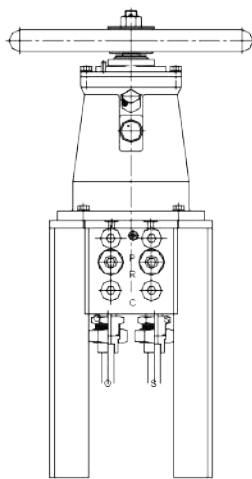
Manual Hydraulic Control System For Butterfly Valve

PIPING PLAN

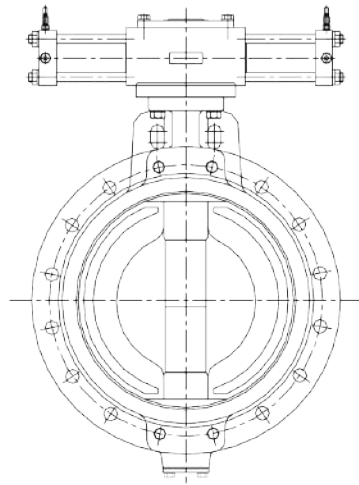


Manual Hydraulic Control System For Butterfly Valve

APPEARANCE



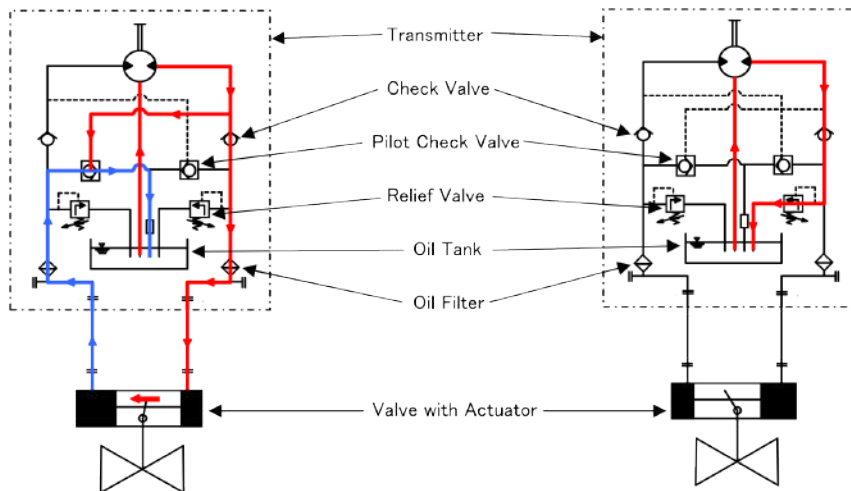
Hydraulic transmitter



Hydraulic Actuator with Butterfly valve

FLOW CHART

- 1) Oil flows towards the closed side of the valve. 2) In case a person continues handle operation after closing all the valve.



Following pressure caused by PILOT CHECK VALVE, the valve opens and oil flows to oil tank.

Operating the RELIEF VALVE when a person continues handle operation after closing all the valves, the oil flow to oil tank.

HYDRAULIC INSPECTION

Description	Model No	Test pressure Mpa
Transmitter	WVHTV	13.2
Actuator	WVHAV	13.2

HYDRAULIC PRESSURE RATING

Description	Model No	Setting pressure Mpa
Transmitter	WVHTV	8.8
Actuator	WVHAV	8.8

Remote Control Valve System



Data Sheet

1. Selection

Type	Allowable Operating Torque	Operation Torque Destruction	Apply Value
25A	147 Nm	196 Nm	10K-100A
32A	392 Nm	588 Nm	10K-100A

Torque Rod Operation (T) = Torque Valve Operation (T1) +Line Loss Torque

Ex. 1

25A Rod Globe Valve 10K-100A (39 Nm) Line Loss Torque (49 Nm)
 $T=T1+T2=39+49= 88 \text{ Nm} < 147 \text{ Nm}$ Good

Ex. 2 Use Gear Reducer

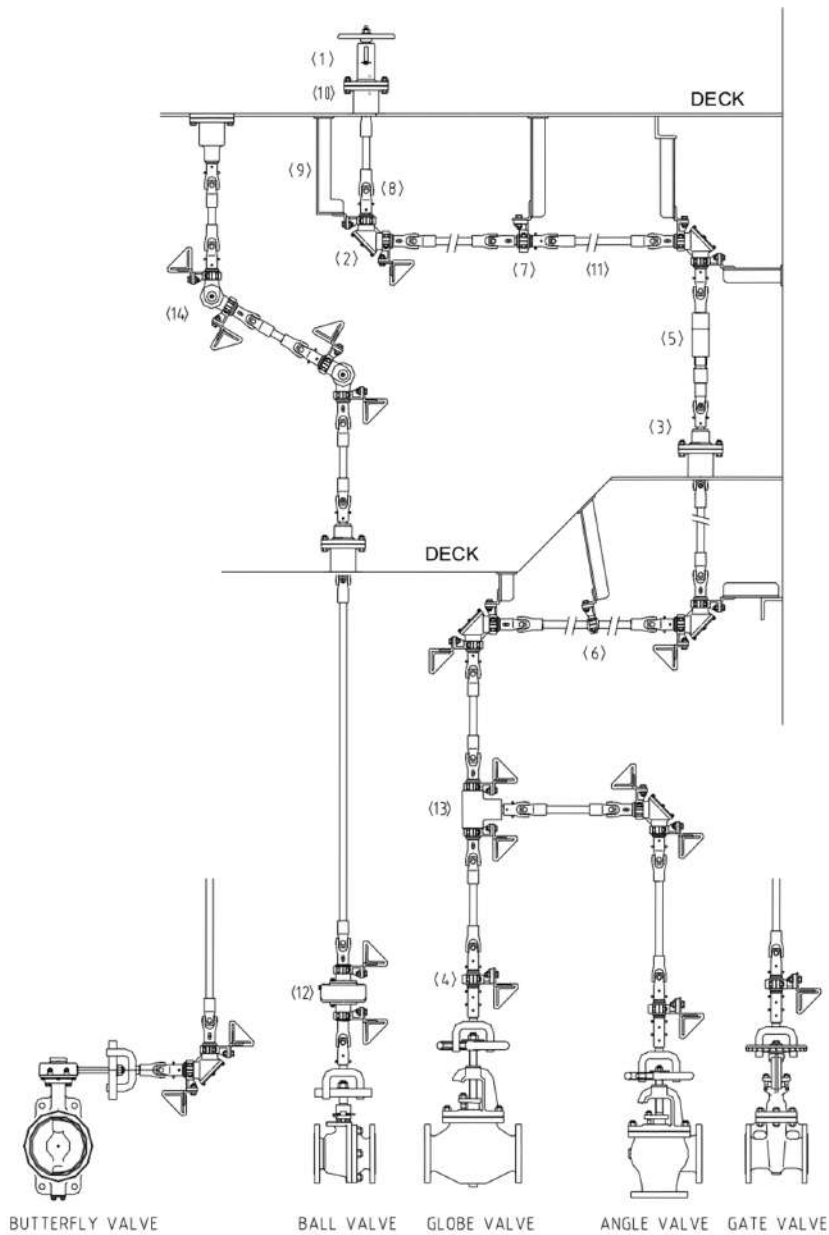
25A Rod Globe Valve 10K-200A (186 Nm) Line Loss Torque (49 Nm)
 Gear Reducer 3:1
 $T= T1\div3+T2=186\div3+49=111 \text{ Nm} < 147 \text{ Nm}$ Good

2. Parts Configuration

No.	Part Name	Material		Note
1	Deck Stand	Ductile Iron	FCD400/SUS304	
2	90° Gear Box	Ductile Iron	FCD400/SUS304	
3	Middle Bearing	Ductile Iron	FCD400/SUS304	
4	Valve Bearing	Mild Steel	SS400	
5	Expansion Joint	Stainless Steel	SUS304	
6	Ball Mounting Bracket	Ductile Iron	FCD400/C3771BD	
7	Center Bearing	Ductile Iron	FCD400/SUS316	
8	Universal Joint	Stainless Steel	SUS316	
9	Support	Mild Steel	SS400	
10	Mounting	Mild Steel	SS400/SGP	
11	Rod	Mild Steel	SGP	Various Selected
12	Gear Reducer	Ductile Iron	FCD400/SUS304	Non-Standard Product
13	2 Position Gear	Ductile Iron	FCD400/SUS304	Non-Standard Product
14	Displacement Gear	Ductile Iron	FCD400/SUS304	Non-Standard Product

Drawing Specification

REMOTE VALVE OPERATORS (ROD SYSTEM)



Parts List

Part Name: Bulkhead Penetration Hardware

Material: CAC406/SUS

Description: Hardware that transfers the transmission shaft to the deck or bulkhead that requires watertightness.



Part Name: Universal Joint Expansion Type

Material: SCS14/SUS

Description: The long hole mechanism makes it possible to adjust the position of the hardware/support even after installing it



Part Name: 90° Gearbox (Standard Product)

Material: CAC406/SUS

Description: The gearbox has a watertight construction. The transmission shaft in the gearbox is made of duplex stainless steel (SUS329J1) which has excellent strength, acid resistance, pitting corrosion resistance, and seawater resistance.



Part Name: Square Opening/Closing Handle

Material: CAC406

Description: For cases where the location of the opening and closing handle is local.



Parts List

Part Name: Support for Square Opening/Closing Handle

Material: SS400

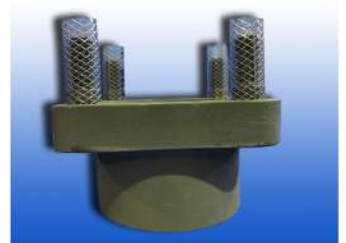
Description: Support piece for the square opening/closing handle.



Part Name: Mounting Plate for Square Hardware

Material: SS400

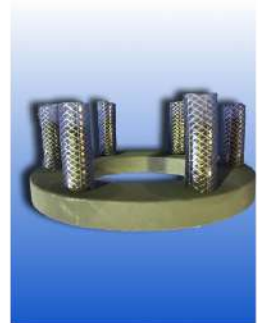
Description: Mounting plate for the square opening/closing handle for use on decks and walls.



Part Name: Mounting Plate for Open Chain Hardware (Wall Attachment)

Material: SS400

Description: Mounting plate for the open chain hardware for use on walls.



Part Name: Mounting Plate for Deck Hardware

Material: SS400

Description: Mounting plate for open chain and bulkhead penetrating hardware for deck and walls.

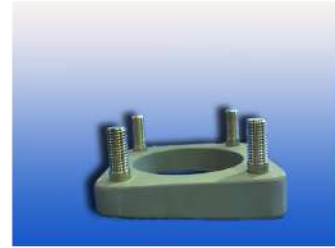


Parts List

Part Name: Diagonal seat plate for square open chained metal parts (4° incline)

Material: SS400

Description: Special item for mounting the square open chain to the wall.



Part Name: Intermediate ball type bearing

Material: CAC406/SUS

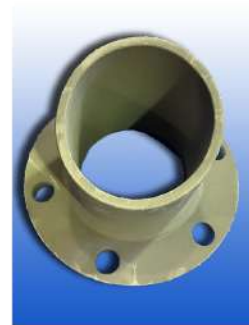
Description: This bearing allows for easy installation of other parts of the system.
(Less than 25° swing angle)



Part Name: Diagonal mounting plate for deck bulkhead hardware

Material: SS400

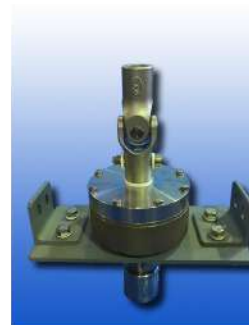
Description: A special bulkhead penetrating metal seat plate for decks



Part Name: Valve Connector with Gear Reducer

Material: CAC406/SUS

Description: This part is installed when the operation torque is required.



Parts List

Part Name: Swaying Ball Type Bearing

Material: CAC406

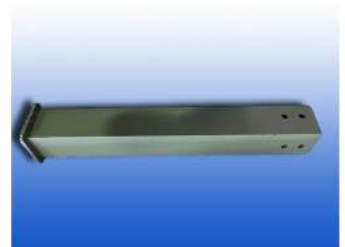
Description: This ball type bearing is used when the transmission shaft between the metal parts is long. The transmission shaft moves vertically and horizontally.



Part Name: Support Bar

Material: SS400

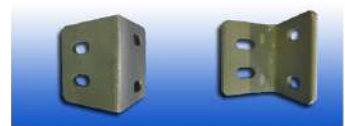
Description: Support bar for the entire system.



Part Name: Adjustment Angles

Material: SS400

Description: The long holes enable the position to be adjusted even after the hardware and support pieces are put in place.



Part Name: Hole Support
(for open chain and hardware)

Material: SS400

Description: Seat plate support for open chain pieces when used on walls.



Part Name: Long Mounting Seat Plate

Material: SS400

Description: Special item for mounting plate for all hardware when used on the deck or wall.





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