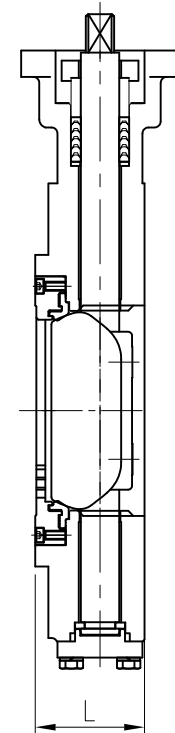
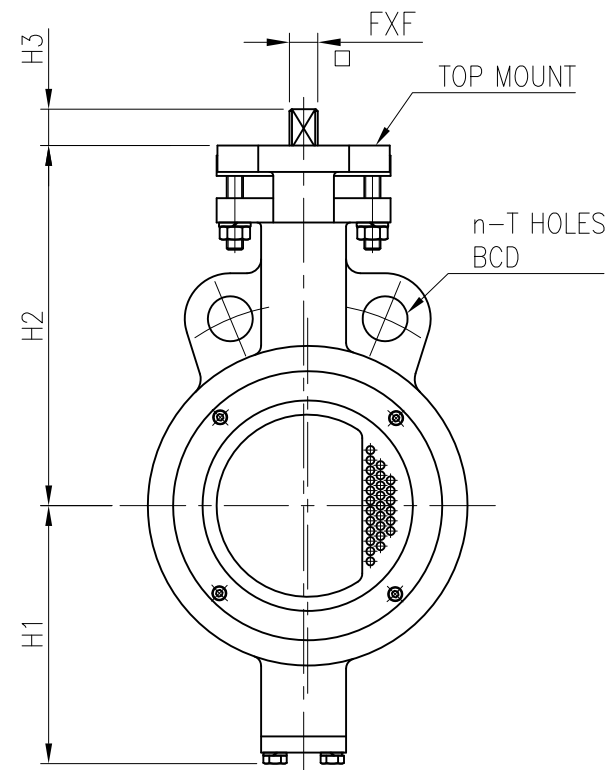
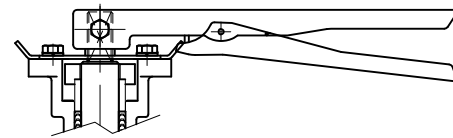
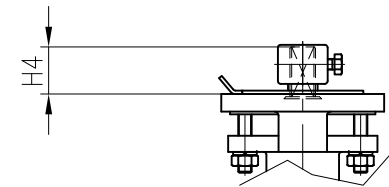
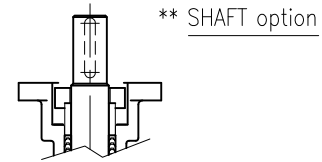
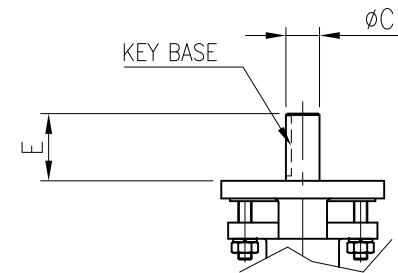




No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	



C60 - Dimension / ASME B16.5 Class300 / Wafer type [unit : mm]

Size	L	n	BCD	T	H1	H2	H3 (STD. Stem)	H4 (Long Stem)	Fx F	E	C	KEY BASE	TOP MOUNT
2"	43	2	∅127.0	∅19.1	96	125	13	35	11x11				ISO 5211-F07
2.5"	48	2	∅149.2	∅22.2	102	149	13	35	11x11				ISO 5211-F07
3"	48	2	∅168.3	∅22.2	117	160	13	35	11x11	40	∅16	5x5	ISO 5211-F07
4"	54	2	∅200.0	∅22.2	128	178	18	35	14x14	42	∅19	6x6	ISO 5211-F07
5"	57	2	∅235.0	∅22.2	146	193	18	35	14x14	42	∅19	6x6	ISO 5211-F07

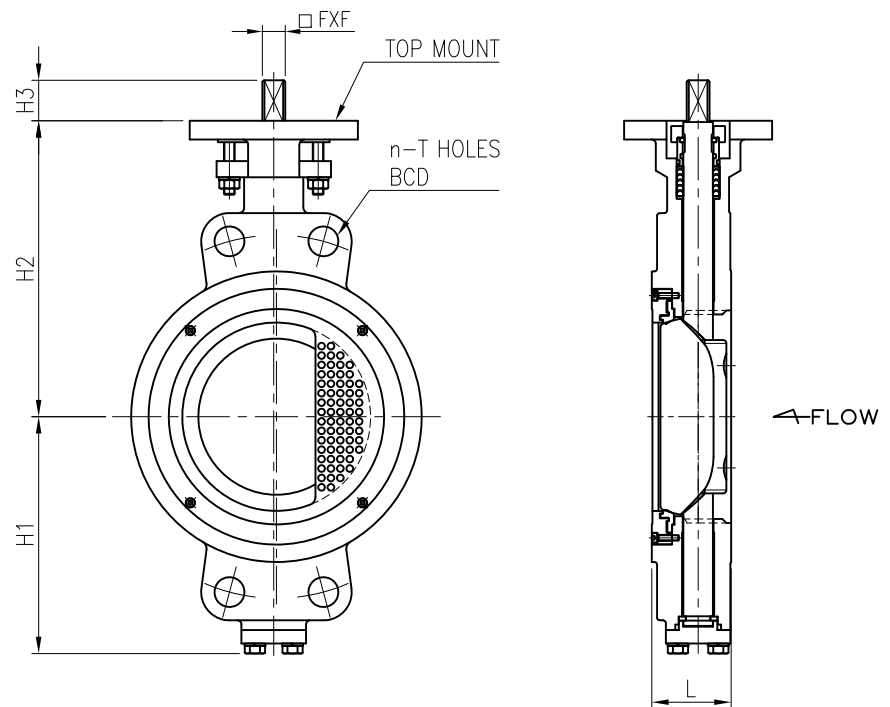
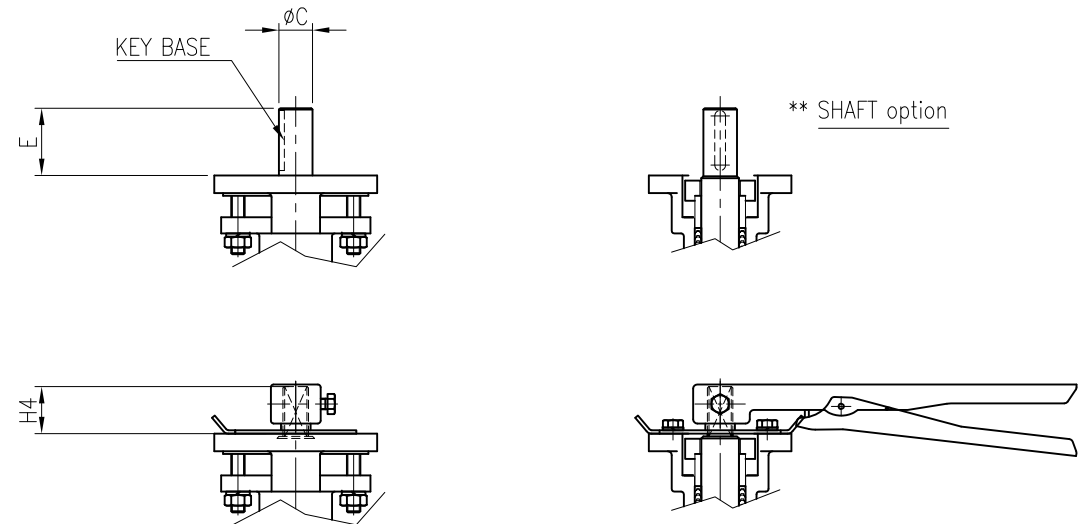
NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

					DESCRIPTION	DWG. No.	C60- 2- 5- 30WB- 010	SCALE	N/A	
					H/P BUTTERFLY VALVE	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT	
					2" TO 5" C60 WAFER				kgf/cm ²	kgf/cm ²
					CLASS 300 CONTROL			AIR	kgf/cm ²	kgf/cm ²
Rev. No.	DATE	DESCRIPTION	DRN.	APP.						
0	21.12.01	FOR REFERENCE	DJ,LEE	JH,YU						



No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	



C60 - Dimension / ASME B16.5 Class300 / Wafer type [unit : mm]

Size	L	n	BCD	T	H1	H2	H3 (STD. Stem)	H4 (Long Stem)	FxF	E	C	KEY BASE	TOP MOUNT
6"	59	4	ø269.9	ø25.4	176	220	22	35	17X17	42	ø20	6x6	ISO 5211-F10
8"	73	4	ø330.2	ø28.4	215	260	32	35	22x22	52	ø30	10x8	ISO 5211-F12

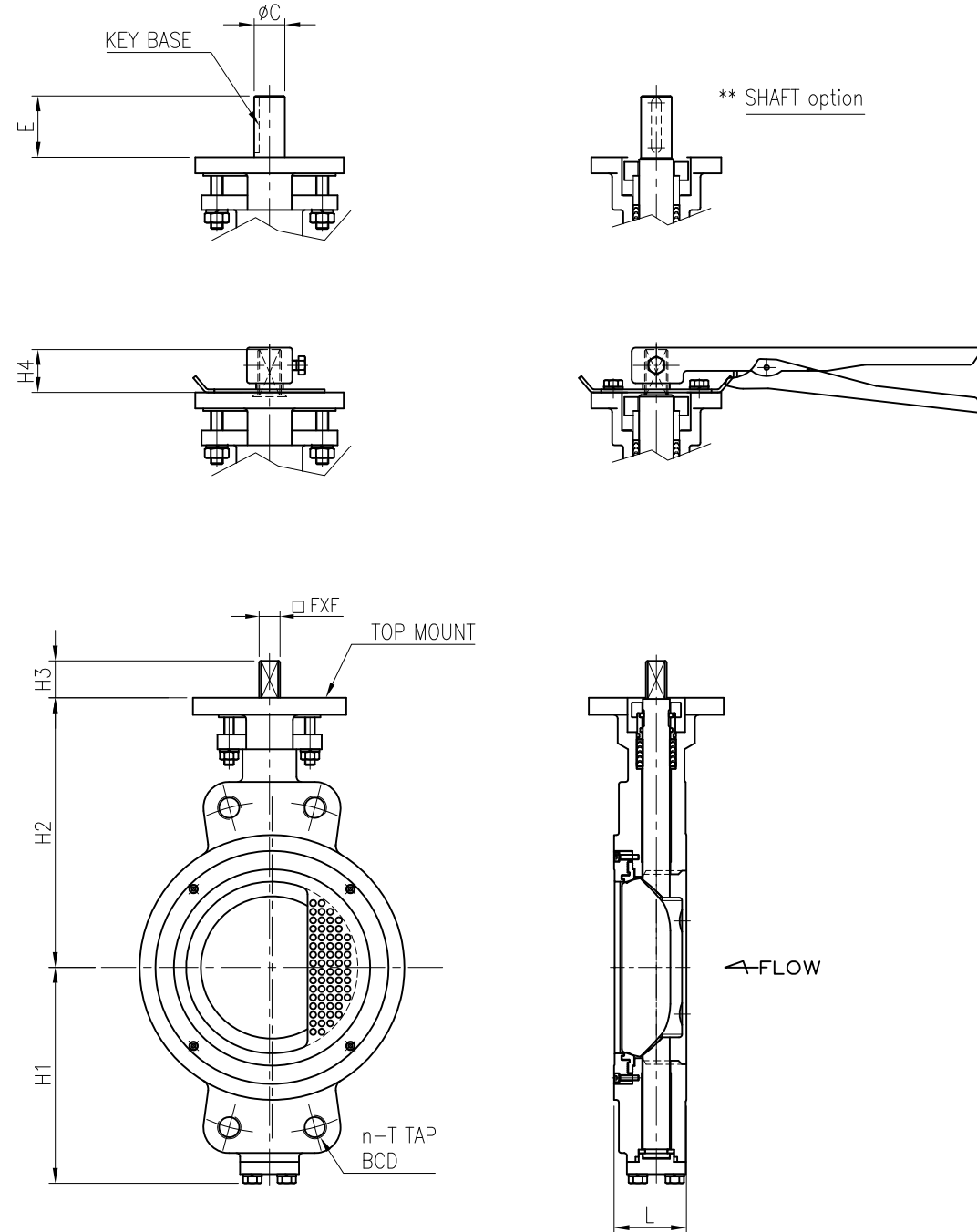
NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	C60- 6- 8- 30WB- 010	SCALE	N/A
0	21.11.30	FOR REFERENCE	DJ,LEE	JH,YU	H/P BUTTERFLY VALVE 6" TO 8" C60 WAFER CLASS 300 CONTROL	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
								kgf/cm ²	kgf/cm ²
								AIR	kgf/cm ²



No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	



C60 - Dimension / ASME B16.5 Class300 / Wafer type

[unit : mm]

Size	L	n	BCD	T	H1	H2	H3 (STD. Stem)	H4 (Long Stem)	FxF	E	C	KEY BASE	TOP MOUNT
10"	83	4	ø387.4	ø28.4	269	290	35	35	22x22	65	ø32	10x8	ISO 5211-F12
12"	92	4	ø450.8	ø31.8	295	325	35	35	27x27	65	ø40	12x8	ISO 5211-F12

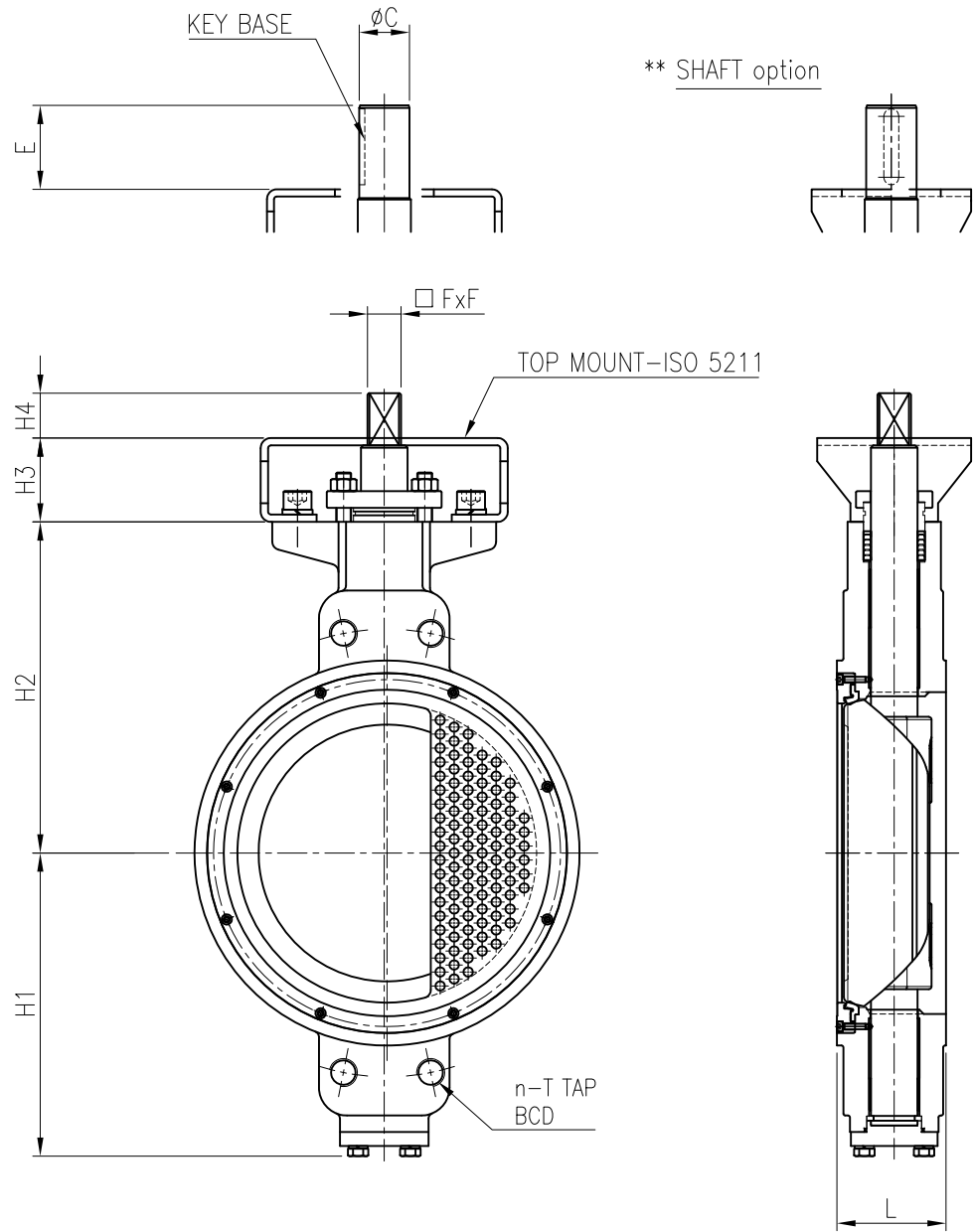
NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

						DESCRIPTION	DWG. No.	C60- 10- 12- 30WB- 010	SCALE	N/A
						H/P BUTTERFLY VALVE	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
						10" TO 12" C60 WAFER			kgf/cm ²	kgf/cm ²
						CLASS 300 CONTROL			AIR	kgf/cm ²
Rev. No.	DATE	DESCRIPTION	DRN.	APP.						
0	21.11.30	FOR REFERENCE	DJ,LEE	JH,YU						



No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	
10	BRACKET	Carbon steel		Carbon steel		Carbon steel	



C60 - Dimension (ASME B16.5 Class300, Wafer type)

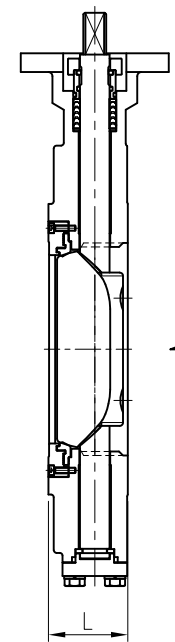
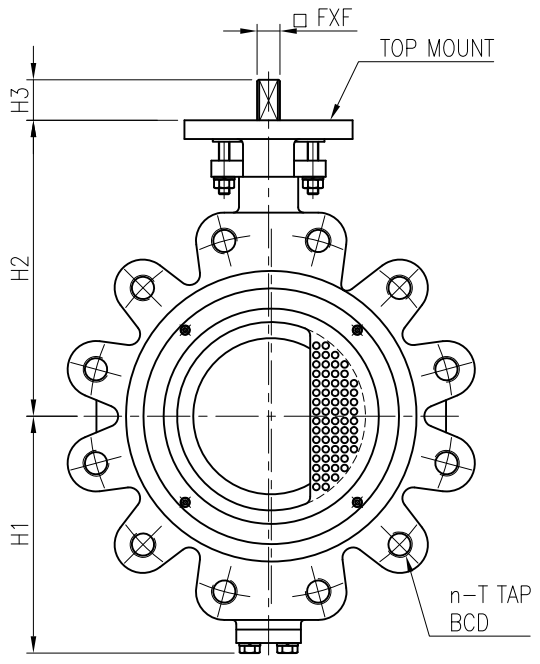
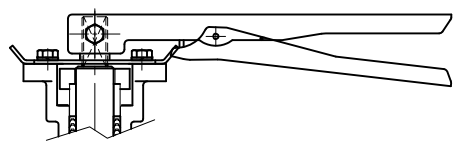
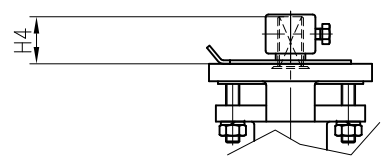
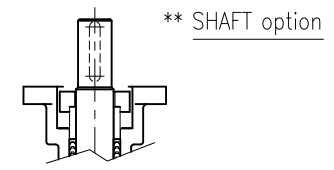
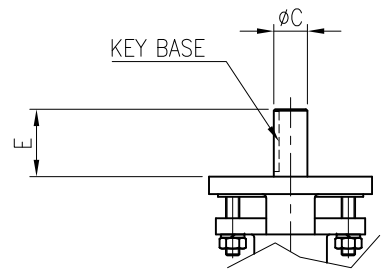
[unit : mm]

Size	L	n	BCD	T	H1	H2	H3	H4	K	G	M	FxF	E	C	KEY BASE	TOP MOUNT
14"	117	20	$\phi 514.4$	1 1/8" 8UN	325	355	90	48	186	46	20	36x36	75	$\phi 45$	14x9	ISO 5211-F14,F16
16"	133	20	$\phi 571.5$	1 1/4" 8UN	365	392	110	48	186	46	20	36x36	90	$\phi 55$	16x10	ISO 5211-F14,F16
18"	149	24	$\phi 628.6$	1 1/4" 8UN	410	418	110	48	186	46	20	36x36	90	$\phi 55$	16x10	ISO 5211-F14,F16
20"	159	24	$\phi 685.8$	1 1/4" 8UN	450	475	120	50	225	76	20	46X46	100	$\phi 60$	18x11	ISO 5211-F25
24"	181	24	$\phi 812.8$	1 1/2" 8UN	522	530	120	270	76	20	100	$\phi 75$	20x12	ISO 5211-F25		

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	C60- 14- 24- 30WB- 011	SCALE	N/A
0	21.12.03	FOR REFERENCE	DJ,LEE	JH,YU	H/P BUTTERFLY VALVE 14" TO 24" C60 WAFER CLASS 300 CONTROL	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
							AIR	kgf/cm ²	kgf/cm ²



No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	

C61- Dimension / ASME B16.5 Class300 / Lug type [unit : mm]

Size	L	n	BCD	T	H1	H2	H3 (STD. Stem)	H4 (Long Stem)	FxF	E	C	KEY BASE	TOP MOUNT
2"	43	8	$\phi 127.0$	5/8" UNC	96	125	13	35	11x11				ISO 5211-F07
2.5"	48	8	$\phi 149.2$	3/4" UNC	102	149	13	35	11x11				ISO 5211-F07
3"	48	8	$\phi 168.3$	3/4" UNC	117	160	13	35	11x11	40	$\phi 16$	5x5	ISO 5211-F07
4"	54	8	$\phi 200.0$	3/4" UNC	128	178	18	35	14x14	42	$\phi 19$	6x6	ISO 5211-F07
5"	57	8	$\phi 235.0$	3/4" UNC	146	193	18	35	14x14	42	$\phi 19$	6x6	ISO 5211-F07
6"	59	12	$\phi 269.9$	3/4" UNC	176	220	22	35	17x17	42	$\phi 20$	6x6	ISO 5211-F10
8"	73	12	$\phi 330.2$	7/8" UNC	215	260	32	35	22x22	52	$\phi 30$	10x8	ISO 5211-F12
10"	83	16	$\phi 387.4$	1" UNC	269	290	35	35	22x22	65	$\phi 32$	10x8	ISO 5211-F12
12"	92	16	$\phi 450.8$	1 1/8" 8UN	295	325	35		27x27	65	$\phi 40$	12x8	ISO 5211-F12

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

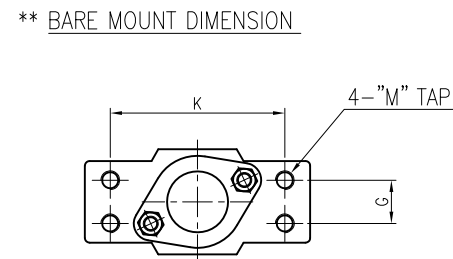
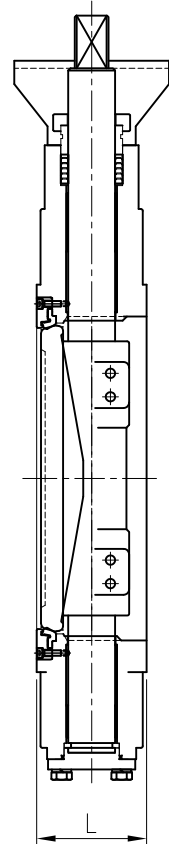
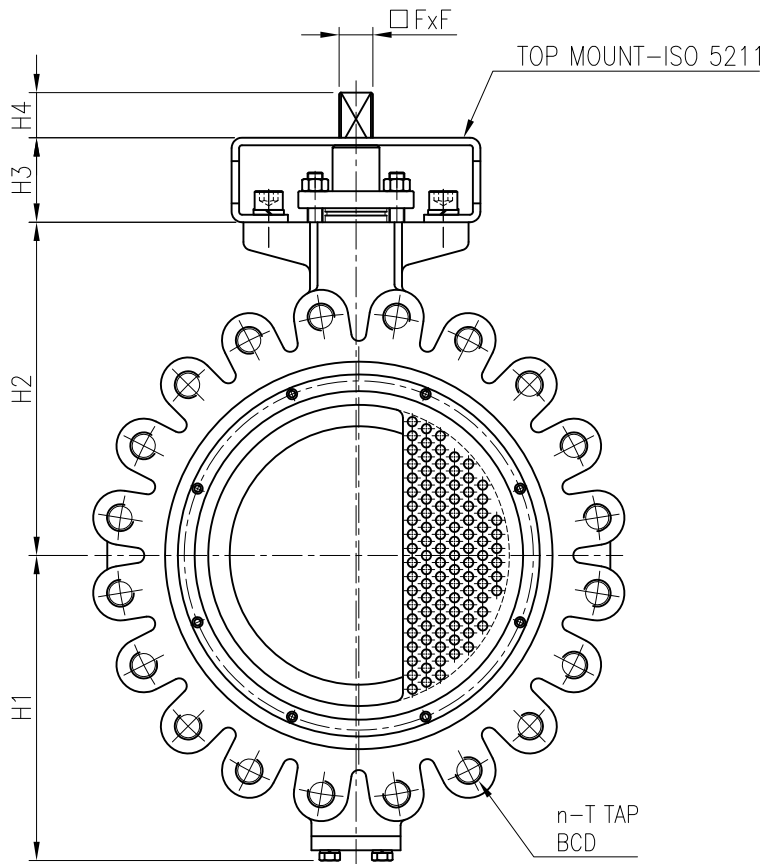
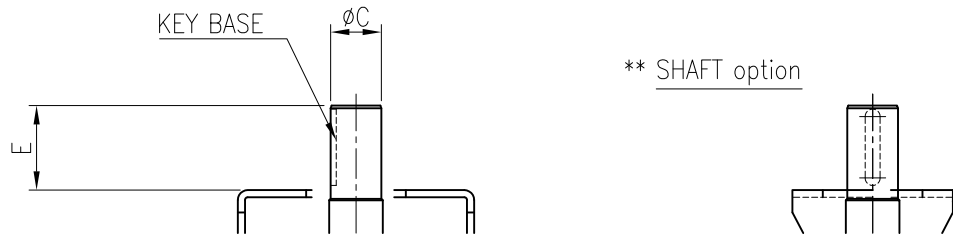
Rev. No.	DATE	DESCRIPTION	DRN.	APP.
0	21.12.01	FOR REFERENCE	DJ,LEE	JH,YU

DESCRIPTION
H/P BUTTERFLY VALVE
2" TO 12" C61 LUG
CLASS 300 CONTROL

DWG. No.	C61- 2- 12- 30LB- 010		SCALE	N/A
TEST PRESSURE	HYDROSTATIC	SHELL	kgf/cm ²	kgf/cm ²
	AIR	SHELL	kgf/cm ²	kgf/cm ²



No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	
10	BRACKET	Carbon steel		Carbon steel		Carbon steel	



C61- Dimension (ASME B16.5 Class300, Lug type)

Size	L	n	BCD	T	H1	H2	H3	H4	K	G	M	F	E	C	KEY BASE	TOP MOUNT
14"	117	20	ø514.4	1 1/8" 8UN	325	355	90	48	186	46	20	36x36	75	ø45	14x9	ISO 5211-F14,F16
16"	133	20	ø571.5	1 1/4" 8UN	365	392	110	48	186	46	20	36x36	90	ø55	16x10	ISO 5211-F14,F16
18"	149	24	ø628.6	1 1/4" 8UN	410	418	110	48	186	46	20	36x36	90	ø55	16x10	ISO 5211-F14,F16
20"	159	24	ø685.8	1 1/4" 8UN	450	475	120	50	225	76	20	46X46	100	ø60	18x11	ISO 5211-F25
24"	181	24	ø812.8	1 1/2" 8UN	522	530	120	50	270	76	20	46X46	100	ø75	20x12	ISO 5211-F25

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

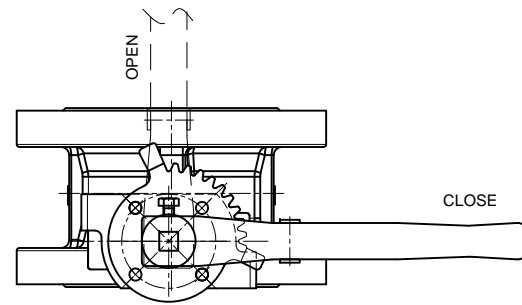
Rev. No.	DATE	DESCRIPTION	DRN.	APP.
0	21.12.03	FOR REFERENCE	DJ,LEE	JH,YU

DESCRIPTION
H/P BUTTERFLY VALVE
14" TO 24" C61 LUG
CLASS 300 CONTROL

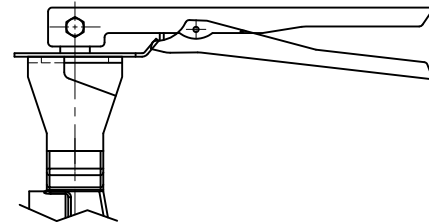
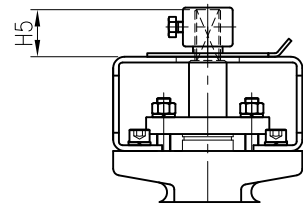
DWG. No.	C61- 14- 24- 30LB- 011	SCALE	N/A
TEST PRESSURE		SHELL	SEAT
	HYDROSTATIC	kgf/cm ²	kgf/cm ²
	AIR	kgf/cm ²	kgf/cm ²



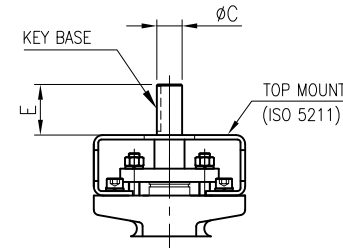
No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	



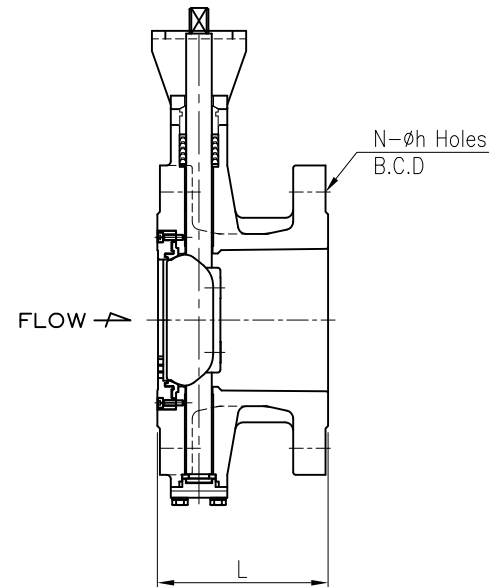
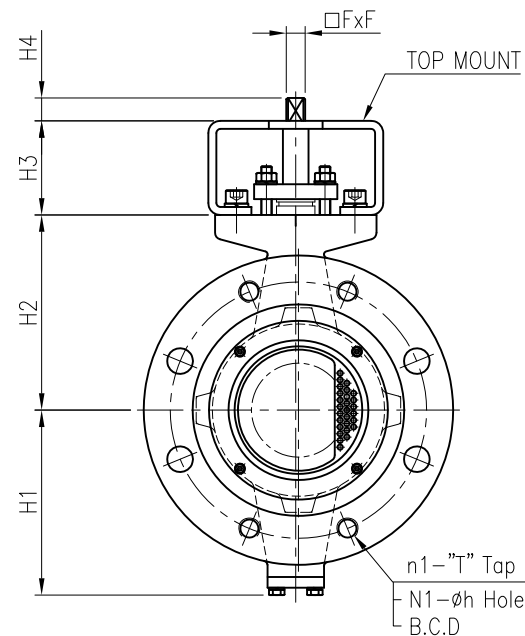
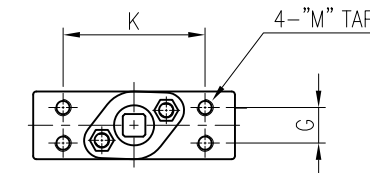
** LEVER option



** SHAFT option



** BARE MOUNT DIMENSION



C63- Dimension / ASME B16.5 Class300 / Flange type

[unit : mm]

Size	L	B.C.D	n1	T(Tap)	N	N1	h	H1	H2	H3	H4 (STD. Stem)	H5 (Long Stem)	K	G	M	FxF	E	C	KEY BASE	TOP MOUNT
3"	180	ø168.3	4	3/4"UNC	8	4	ø22.2	117	130	65	13	35	88	22	10	11x11	40	ø16	5x5	ISO 5211-F05,F07
4"	190	ø200.0	4	3/4"UNC	8	4	ø22.2	138	145	70	18	35	88	22	10	14x14	42	ø19	6x6	ISO 5211-F07,F10
5"	210	ø235.0	4	3/4"UNC	8	4	ø22.2	146	165	70	18	35	88	22	10	14x14	42	ø19	6x6	ISO 5211-F07,F10
6"	210	ø269.9	4	3/4"UNC	12	8	ø22.2	176	187	70	22	35	94	24	10	17X17	42	ø20	6x6	ISO 5211-F10,F12
8"	230	ø330.2	4	7/8"UNC	12	8	ø25.4	215	230	75	32	35	104	32	12	22x22	52	ø30	10x8	ISO 5211-F10,F12
10"	250	ø387.4	4	1" UNC	16	12	ø28.4	269	280	80	35	35	142	40	16	22x22	65	ø32	10x8	ISO 5211-F12,F14
12"	270	ø450.8	4	1 1/8" 8UN	16	12	ø31.8	295	320	90	35		150	40	16	27x27	65	ø40	12x8	ISO 5211-F12,F14

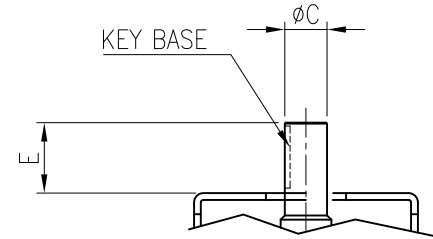
NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

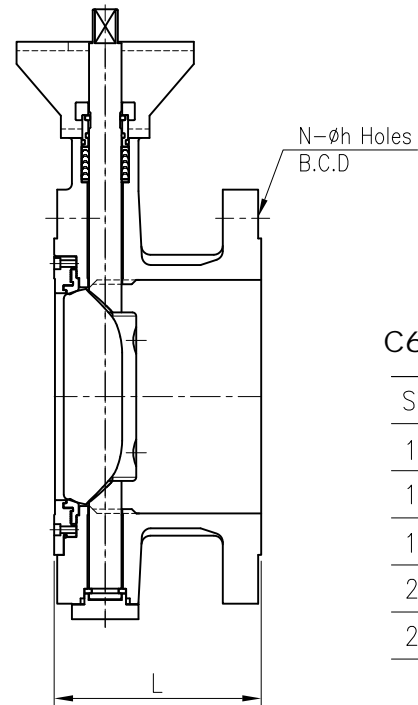
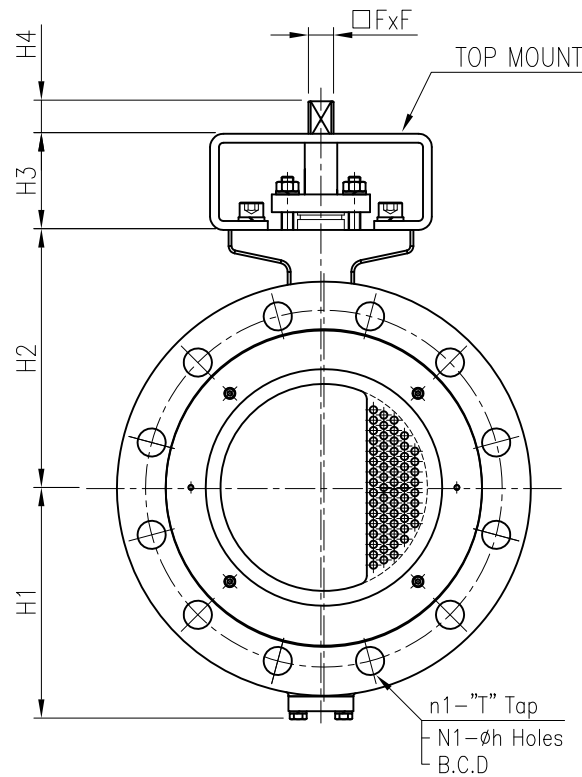
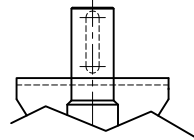
Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	C63- 3- 12- 30FB- 010	SCALE	N/A
0	21.12.03	FOR REFERENCE	DJ,LEE	JH,YU	H/P BUTTERFLY VALVE 3" TO 12" C63 FLANGED CLASS 300 CONTROL	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					AIR			kgf/cm ²	kgf/cm ²



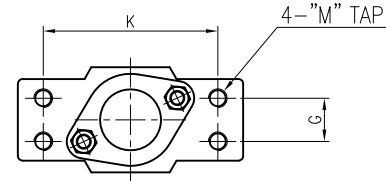
No.	Part	Soft Seated		Metal Seated		Fire Safe	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel	Carbon steel	Stainless steel
01	BODY	WCB	CF8M	WCB	CF8M	WCB	CF8M
02	DISC	CF8M		CF8M+HCR		CF8M	
03	STEM	17-4PH		17-4PH		17-4PH	
04	SEAT	RTFE		SS316		RTFE+SS316	
05	SEAT RETAINER	1020	SS316	1020	SS316	1020	SS316
06	PACKING	PTFE(V-PACKING)		GRAPHITE		GRAPHITE	
07	BUSH(BEARING)	SS304+Teflon	SS316+Teflon	SS304+HCR	SS316+HCR	SS304+HCR	SS316+HCR
08	GLAND BRIDGE	SS304		SS304		SS304	
09	GLAND RING	SS304+HCR		SS304+HCR		SS304+HCR	
10	BRACKET	Carbon steel		Carbon steel		Carbon steel	



** SHAFT option



** BARE MOUNT DIMENSION



C63 - Dimension / ASME B16.5 Class300 / Flange type

[unit : mm]

Size	L	B.C.D	n1	T(Tap)	N	N1	h	H1	H2	H3	H4	K	G	M	F	E	C	KEY BASE	TOP MOUNT
14"	290	ø514.4	4	1 1/8" 8UN	20	16	ø31.8	325	355	90	48	186	46	20	36x36	75	ø45	14x9	ISO 5211-F14,F16
16"	310	ø571.5	4	1 1/4" 8UN	20	16	ø35.1	365	392	110	48	186	46	20	36x36	90	ø55	16x10	ISO 5211-F14,F16
18"	330	ø628.6	4	1 1/4" 8UN	24	20	ø35.1	410	418	110	48	186	46	20	36x36	90	ø55	16x10	ISO 5211-F14,F16
20"	350	ø685.8	4	1 1/4" 8UN	24	20	ø35.1	450	475	120	50	225	76	20	46X46	100	ø60	18x11	ISO 5211-F25
24"	390	ø812.8	4	1 1/2" 8UN	24	20	ø41.1	522	530	120	270	76	20			100	ø75	20x12	ISO 5211-F25

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS300

					DESCRIPTION	DWG. No.	C63- 14- 24- 30FB- 011	SCALE	N/A
					H/P BUTTERFLY VALVE	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					14" TO 24" C63 FLANGED			kgf/cm ²	kgf/cm ²
					CLASS 300 CONTROL			AIR	kgf/cm ²
Rev. No.	DATE	DESCRIPTION	DRN.	APP.					
0	21.12.03	FOR REFERENCE	DJ,LEE	JH,YU					