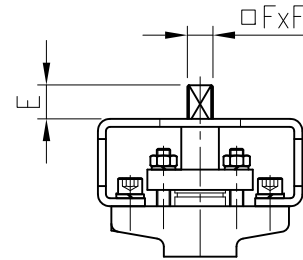




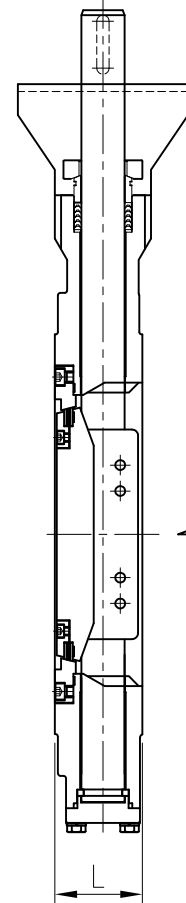
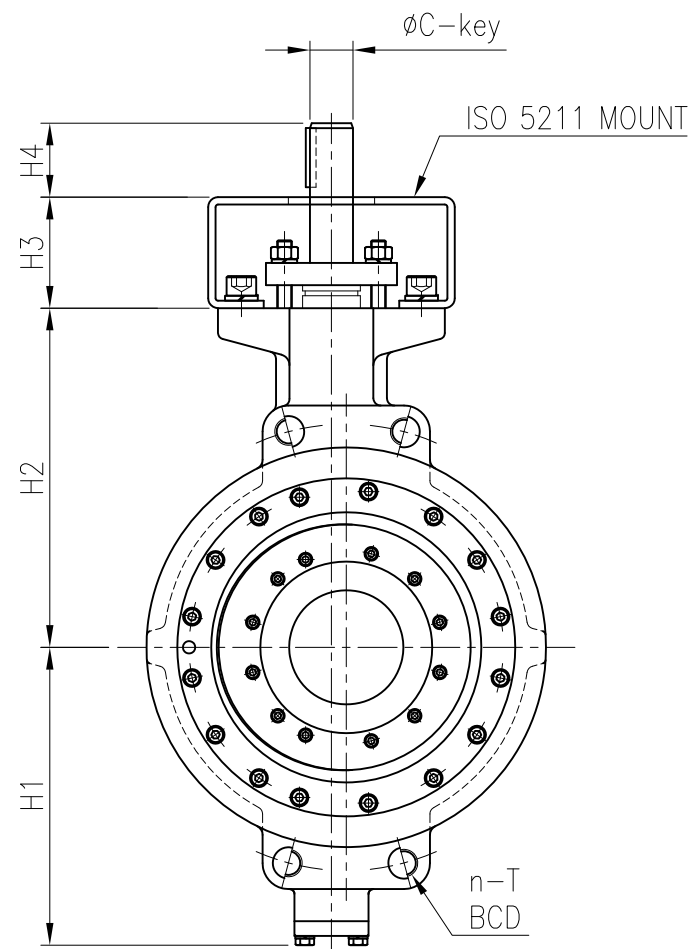
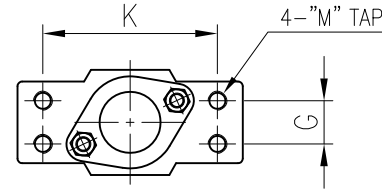
PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)

** SHAFT option



** BARE MOUNT DIMENSION



950 - Dimension / ASME B16.5 Class150 / Wafer type

[unit : mm]

Size	L	n	BCD	T	H1	H2	H3	H4	K	G	M	C	KEY BASE	E	FxF	TOP MOUNT	Weight (kg)
3"	48	4	ø152.4	ø19.1	117	130	65	40	88	22	10	ø16	5x5	13	11x11	ISO 5211-F05,F07	7.3
4"	54	4	ø190.5	ø19.1	143	160	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	12.0
5"	57	4	ø215.9	ø22.2	146	165	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	14.9
6"	57	4	ø241.3	ø22.2	171	185	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F10,F12	18.3
8"	64	4	ø298.5	ø22.2	198	235	75	52	104	32	12	ø26	8x7	26	19x19	ISO 5211-F10,F12	28.5
10"	71	4	ø362.0	ø25.4	242	275	80	60	148	36	16	ø30	10x8	32	22x22	ISO 5211-F12,F14	40.6
12"	81	4	ø431.8	7/8" UNC	267	295	90	60	148	36	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	57.2
14"	92	4	ø476.3	1" UNC	295	320	90	60	150	40	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	79.6
16"	102	4	ø539.8	1" UNC	325	370	110	75	180	45	20	ø40	12x8	35	27x27	ISO 5211-F14,F16	99.0
18"	114	4	ø577.9	1 1/8" 8UN	375	400	110	75	186	45	20	ø45	14x9	48	36x36	ISO 5211-F14,F16	117.7
20"	127	4	ø635.0	1 1/8" 8UN	405	435	120	75	186	50	20	ø50	16x10	48	36x36	ISO 5211-F14,F16	149.1
24"	154	4	ø749.3	1 1/4" 8UN	470	505	140	100	200	55	20	ø65	20x12	50	46x46	ISO 5211-F14,F16	161.0

NOTES

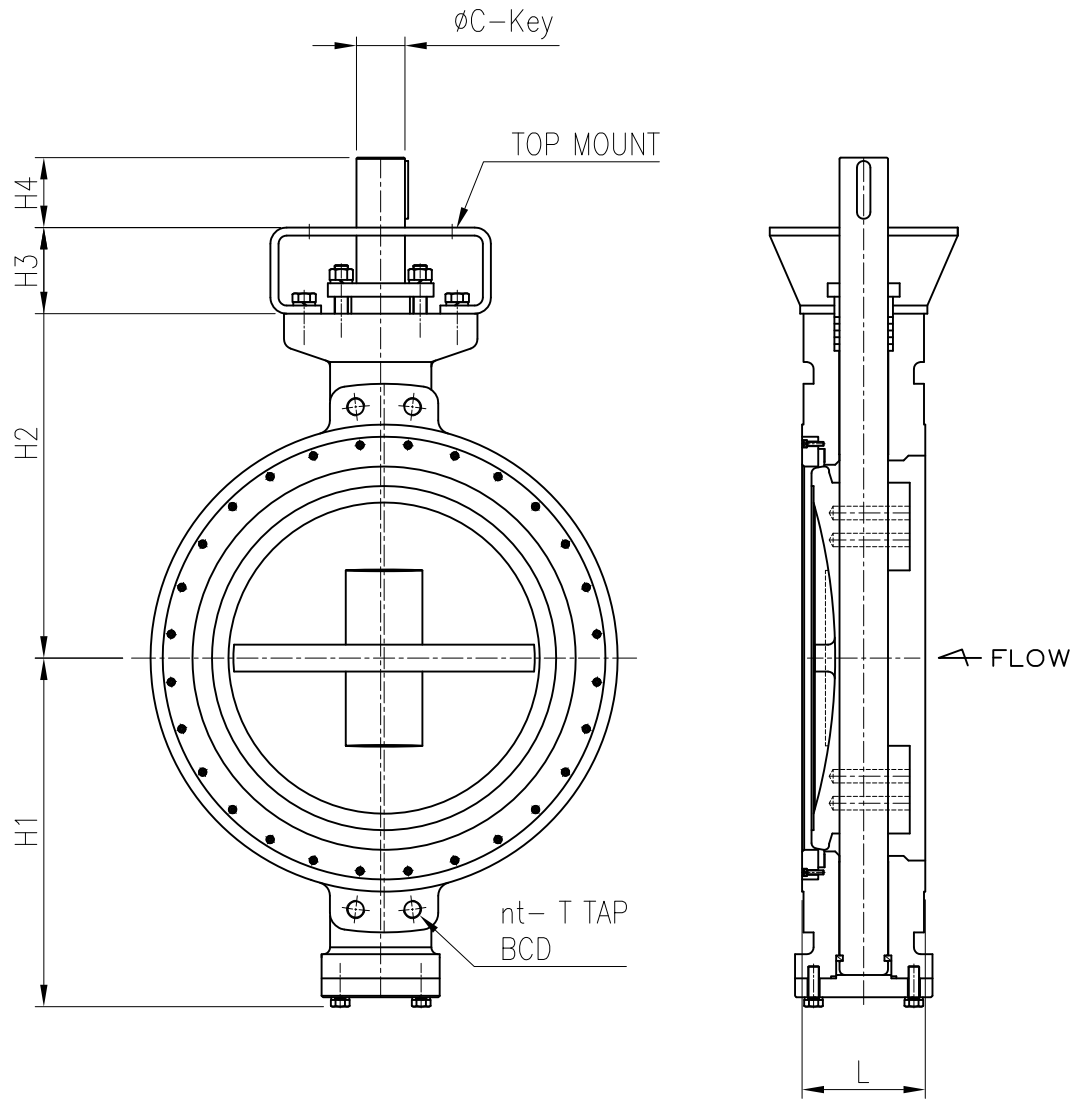
- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	950- 3- 24- 15WB- 010	SCALE	N/A
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU	TRIPLE BUTTERFLY VALVE 3" TO 24" 950 WAFER CLASS 150 BARE STEM	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
							AIR	kgf/cm ²	kgf/cm ²

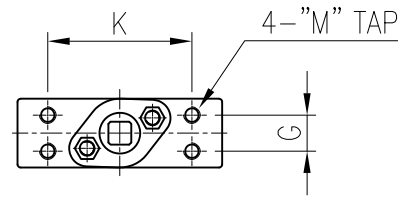


PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)



** BARE MOUNT DIMENSION



950 - Dimension / ASME B16.47 SERIES A Class150 / Wafer type [unit : mm]

Size	L	total (n)	nt	BCD	T	H1	H2	H3	H4	K	G	M	C	KEY BASE	TOP MOUNT (OPTION)	WEIGHT (kg)
26"	165	24	4	ø806.4	1 1/4" (8UN)	520	510	120	100	200	55	20	ø65	20x12	ISO 5211-F16,F20	368
28"	165	28	4	ø863.6	1 1/4" (8UN)	570	545	140	100	220	60	20	ø70	20x12	ISO 5211-F16,F20	415
30"	190	28	4	ø914.4	1 1/4" (8UN)	600	555	140	100	230	60	20	ø75	20x12	ISO 5211-F20,F25	523
32"	190	28	4	ø977.9	1 1/2" (8UN)	630	600	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	590
34"	203	32	4	ø1028.7	1 1/2" (8UN)	650	640	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	699
36"	203	32	4	ø1085.8	1 1/2" (8UN)	690	670	150	110	270	80	24	ø85	25x14	ISO 5211-F25,F30	780
40"	216	36	4	ø1200.2	1 1/2" (8UN)	720	675	160	125	280	70	24	ø90	25x14	ISO 5211-F25,F30	1040
42"	251	36	4	ø1257.3	1 1/2" (8UN)	750	700	160	150	280	70	24	ø95	25x14	ISO 5211-F30,F35	1322
48"	254	44	4	ø1422.4	1 1/2" (8UN)	845	860	160	155	300	100	27	ø110	28x16	ISO 5211-F30,F35	1744

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

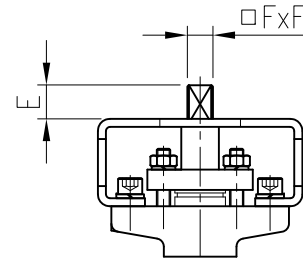
Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	950- 26- 48- 15WB- 011	SCALE	N/A
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU	TRIPLE BUTTERFLY VALVE 26" TO 48" 950 WAFER CLASS 150 BARE STEM	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					kgf/cm ²			kgf/cm ²	
					AIR			kgf/cm ²	kgf/cm ²



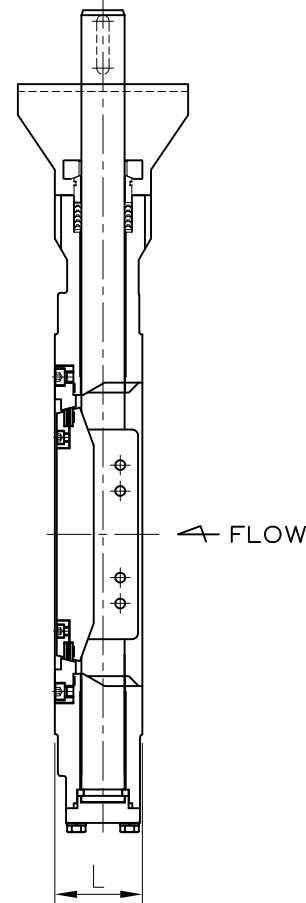
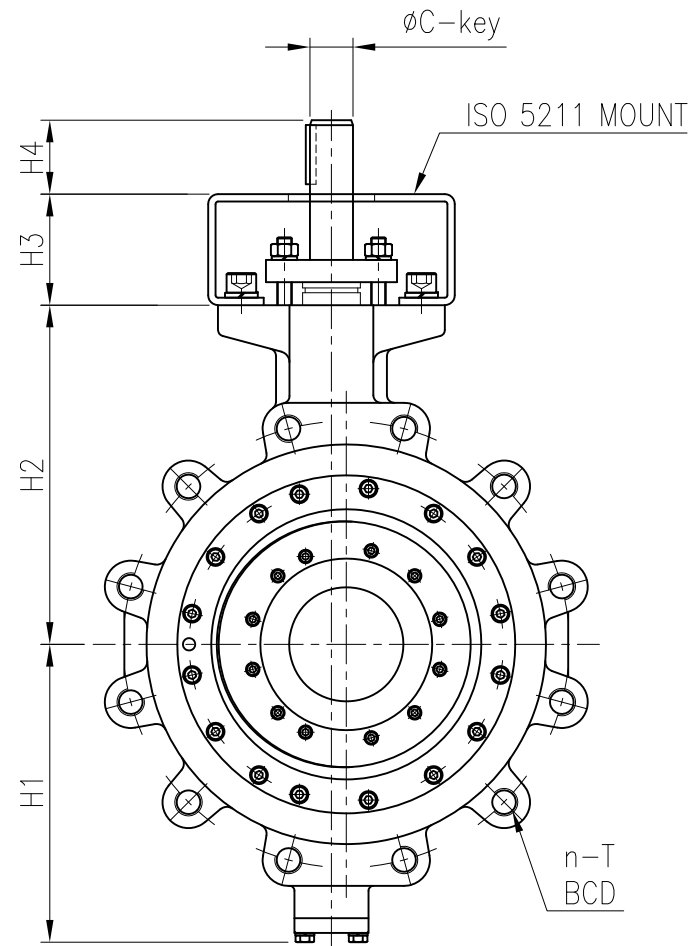
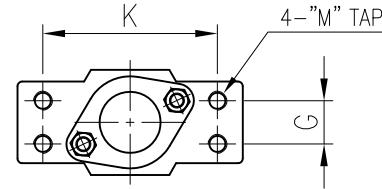
PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)

** SHAFT option



** BARE MOUNT DIMENSION



951 - Dimension / ASME B16.5 Class150 / Lug type

[unit : mm]

Size	L	n	BCD	T	H1	H2	H3	H4	K	G	M	C	KEY BASE	E	FxF	TOP MOUNT	Weight (kg)
3"	48	4	ø152.4	5/8" UNC	117	130	65	40	88	22	10	ø16	5x5	13	11x11	ISO 5211-F05,F07	7.9
4"	54	8	ø190.5	5/8" UNC	143	160	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	14.1
5"	57	8	ø215.9	3/4" UNC	146	165	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	17.4
6"	57	8	ø241.3	3/4" UNC	171	185	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F10,F12	21.6
8"	64	8	ø298.5	3/4" UNC	198	235	75	52	104	32	12	ø26	8x7	26	19x19	ISO 5211-F10,F12	34.0
10"	71	12	ø362.0	7/8" UNC	242	275	80	60	148	36	16	ø30	10x8	32	22x22	ISO 5211-F12,F14	50.9
12"	81	12	ø431.8	7/8" UNC	267	295	90	60	148	36	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	65.6
14"	92	12	ø476.3	1" UNC	295	320	90	60	150	40	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	91.3
16"	102	16	ø539.8	1" UNC	325	370	110	75	180	45	20	ø40	12x8	35	27x27	ISO 5211-F14,F16	103.2
18"	114	16	ø577.9	1 1/8" 8UN	375	400	110	75	186	45	20	ø45	14x9	48	36x36	ISO 5211-F14,F16	133.3
20"	127	20	ø635.0	1 1/8" 8UN	405	435	120	75	186	50	20	ø50	16x10	48	36x36	ISO 5211-F14,F16	168.9
24"	154	20	ø749.3	1 1/4" 8UN	470	505	140	100	200	55	20	ø65	20x12	50	46x46	ISO 5211-F14,F16	200.4

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

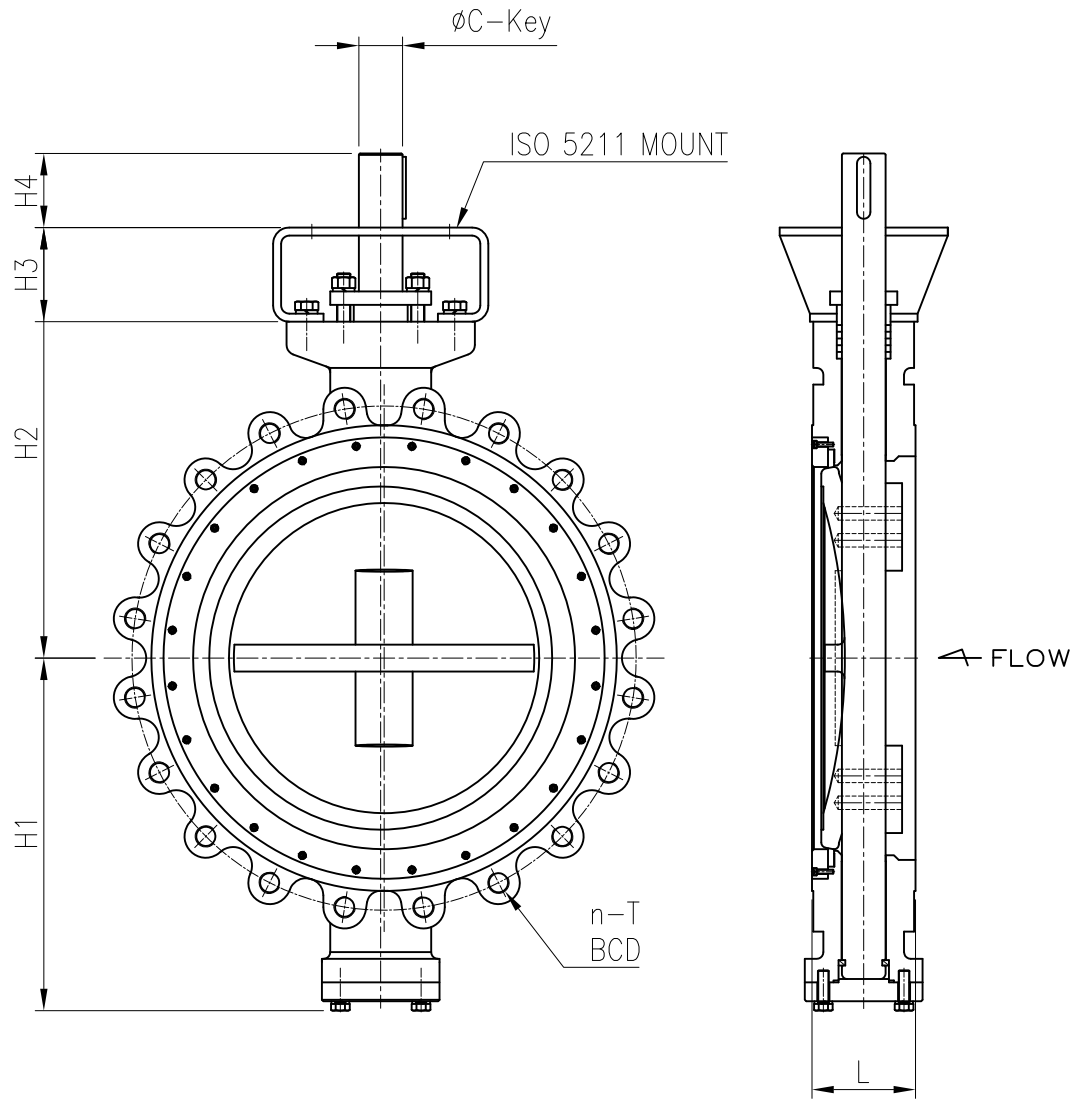
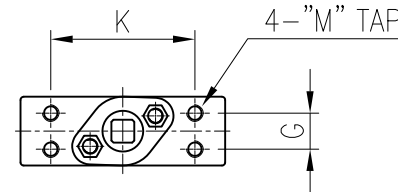
Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	951- 3- 24- 15LB- 010	SCALE	N/A
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU	TRIPLE BUTTERFLY VALVE 3" TO 24" 951 LUG CLASS 150 BARE STEM	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
							AIR	kgf/cm ²	kgf/cm ²



PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)

** BARE MOUNT DIMENSION



951 - Dimension / ASME B16.47 SERIES A Class150 / Lug type [unit : mm]

Size	L	n	BCD	T	H1	H2	H3	H4	K	G	M	C	KEY BASE	TOP MOUNT (OPTION)	WEIGHT (kg)
26"	165	24	ø806.4	1 1/4" (8UN)	520	510	120	100	200	55	20	ø65	20x12	ISO 5211-F16,F20	441
28"	165	28	ø863.6	1 1/4" (8UN)	570	545	140	100	220	60	20	ø70	20x12	ISO 5211-F16,F20	498
30"	190	28	ø914.4	1 1/4" (8UN)	600	555	140	100	230	60	20	ø75	20x12	ISO 5211-F20,F25	627
32"	190	28	ø977.9	1 1/2" (8UN)	630	600	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	708
34"	203	32	ø1028.7	1 1/2" (8UN)	650	640	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	838
36"	203	32	ø1085.8	1 1/2" (8UN)	690	670	150	110	270	80	24	ø85	25x14	ISO 5211-F25,F30	936
40"	216	36	ø1200.2	1 1/2" (8UN)	720	675	160	125	280	70	24	ø90	25x14	ISO 5211-F25,F30	1248
42"	251	36	ø1257.3	1 1/2" (8UN)	750	700	160	150	280	70	24	ø95	25x14	ISO 5211-F30,F35	1586
48"	254	44	ø1422.4	1 1/2" (8UN)	845	860	160	155	300	100	27	ø110	28x16	ISO 5211-F30,F35	2092

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

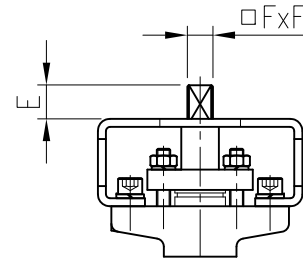
Rev. No.	DATE	DESCRIPTION	DRN.	APP.	DESCRIPTION	DWG. No.	951- 26- 48- 15LB- 011	SCALE	N/A
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU	TRIPLE BUTTERFLY VALVE 26" TO 48" 951 LUG CLASS 150 BARE STEM	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					kgf/cm ²			kgf/cm ²	
					AIR			kgf/cm ²	kgf/cm ²



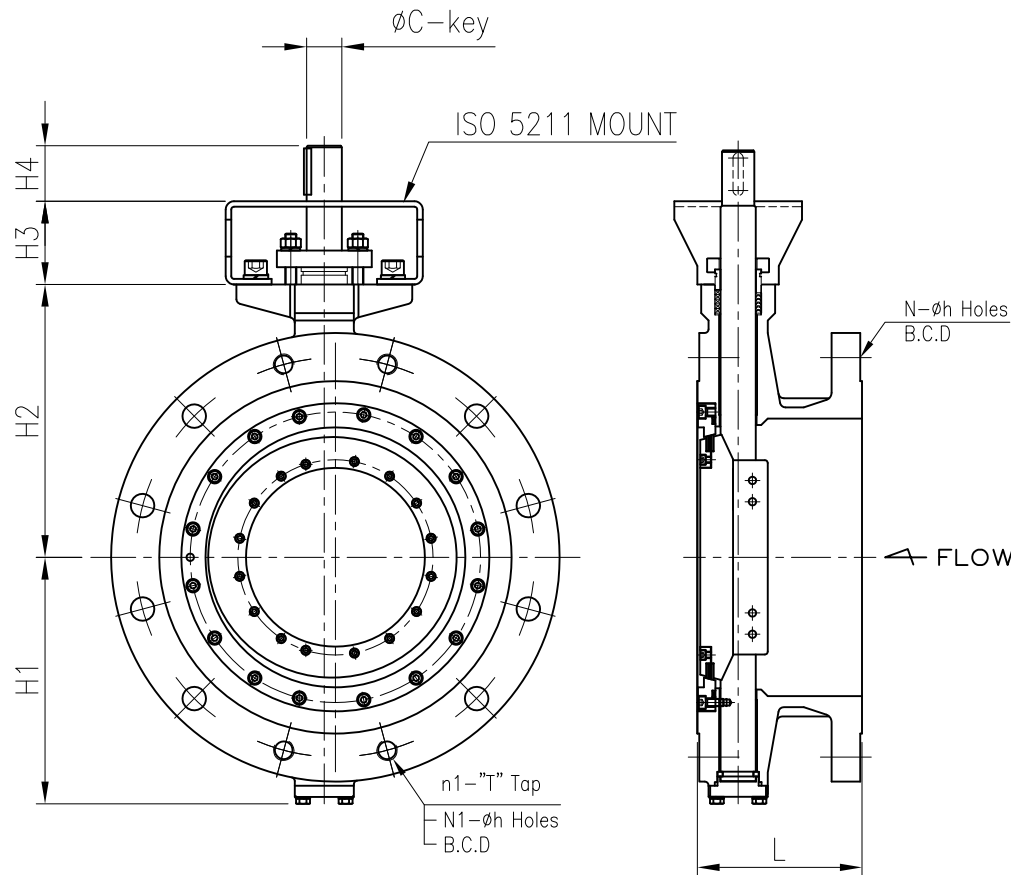
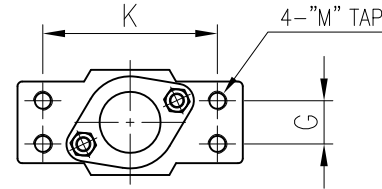
PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)

** SHAFT option



** BARE MOUNT DIMENSION



953 - Dimension / ASME B16.5 Class150 / Flange type

[unit : mm]

Size	L	BCD	n1	T(Tap)	N	N1	h	H1	H2	H3	H4	K	G	M	C	KEY BASE	E	FxF	TOP MOUNT	Weight (kg)
3"	114	ø152.4	4	5/8" UNC	4	-	ø19.1	117	130	65	40	88	22	10	ø16	5x5	13	11x11	ISO 5211-F05,F07	14.7
4"	127	ø190.5	4	5/8" UNC	8	4	ø19.1	143	160	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	26.4
5"	140	ø215.9	4	3/4" UNC	8	4	ø22.2	146	165	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F07,F10	32.1
6"	140	ø241.3	4	3/4" UNC	8	4	ø22.2	171	185	70	42	94	24	10	ø20	6x6	22	17x17	ISO 5211-F10,F12	39.5
8"	152	ø298.5	4	3/4" UNC	8	4	ø22.2	198	235	75	52	104	32	12	ø26	8x7	26	19x19	ISO 5211-F10,F12	62.1
10"	165	ø362.0	4	7/8" UNC	12	8	ø25.4	242	275	80	60	148	36	16	ø30	10x8	32	22x22	ISO 5211-F12,F14	85.2
12"	178	ø431.8	4	7/8" UNC	12	8	ø25.4	267	295	90	60	148	36	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	107.1
14"	191	ø476.3	4	1" UNC	12	8	ø28.4	295	320	90	60	150	40	16	ø35	10x8	35	27x27	ISO 5211-F12,F14	162.0
16"	216	ø539.8	4	1" UNC	16	12	ø28.4	325	370	110	75	180	45	20	ø40	12x8	35	27x27	ISO 5211-F14,F16	179.2
18"	222	ø577.9	4	1 1/8" 8UN	16	12	ø31.8	375	400	110	75	186	45	20	ø45	14x9	48	36x36	ISO 5211-F14,F16	229.6
20"	229	ø635.0	4	1 1/8" 8UN	20	16	ø31.8	405	435	120	75	186	50	20	ø50	16x10	48	36x36	ISO 5211-F14,F16	290.8
24"	267	ø749.3	4	1 1/4" 8UN	20	16	ø35.1	470	505	140	100	200	55	20	ø65	20x12	50	46x46	ISO 5211-F14,F16	344.3

NOTES

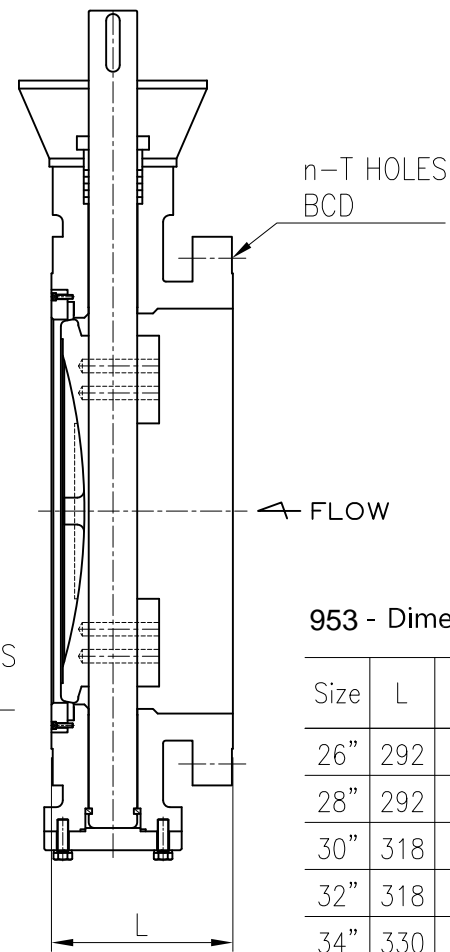
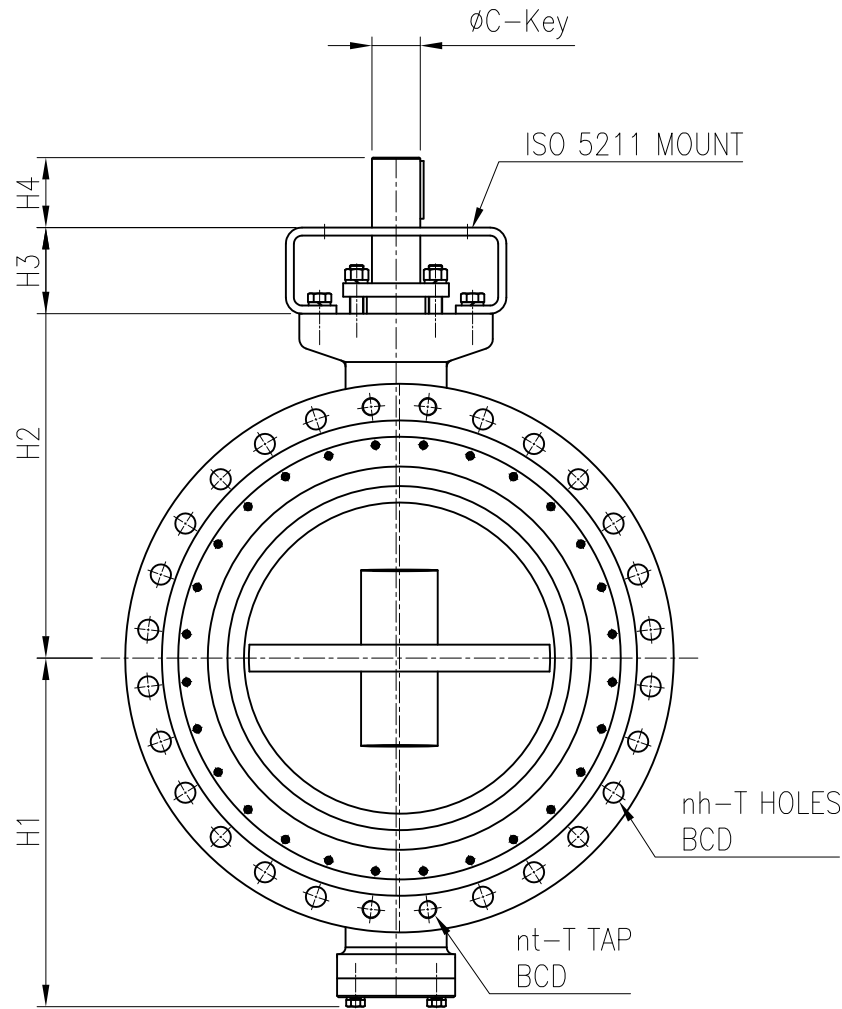
- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

					DESCRIPTION	DWG. No.	953- 3- 24- 15FB- 010	SCALE	N/A
					TRIPLE BUTTERFLY VALVE	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					3" TO 24" 953 FLANGED			kgf/cm ²	kgf/cm ²
					CLASS 150 BARE STEM			AIR	kgf/cm ²
Rev. No.	DATE	DESCRIPTION	DRN.	APP.					
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU					

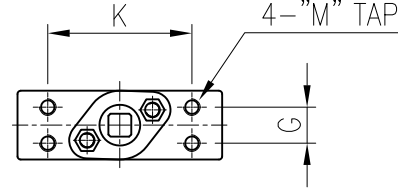


PROJECT

No.	Part	MATERIAL
01	BODY	A216 WCB, A351 CF8/CF8M/CF3M, etc.
02	DISC	A216 WCB, A351 CF8/CF8M/CF3M, etc.
03	STEM	Stainless Steel(304, 316, 316L etc.), A564 630(17-4PH), etc.
04	BODY SEAT	Stainless Steel(304, 316, 316L etc.), Stainless Steel+Hard Facing
05	DISC SEAT	316SS+(Graphite or PTFE) Laminate, PCTFE, etc.
06	SEAT RETAINER	Stainless Steel(304, 316, 316L etc.), Carbon steel, etc.
07	PACKING	Graphite, PTFE(V-Type), RTFE(V-Type), etc.
08	BUSH(BEARING)	SS316+Teflon, SS316+HCR, Copper Alloy, etc.
09	GLAND BRIDGE	Stainless Steel(304, 316, 316L etc.)
10	GLAND RING	Stainless Steel(304, 316, 316L etc.)



** BARE MOUNT DIMENSION



953 - Dimension / ASME B16.47 SERIES A Class150 / Flange type [unit : mm]

Size	L	n	nt	nh	BCD	T		H1	H2	H3	H4	K	G	M	C	KEY BASE	TOP MOUNT (OPTION)	WEIGHT (kg)
						TAP	HOLES											
26"	292	24	4	20	ø806.4	1 1/4" (8UN)	ø35.1	520	510	120	100	200	55	20	ø65	20x12	ISO 5211-F16,F20	872
28"	292	28	4	24	ø863.6	1 1/4" (8UN)	ø35.1	570	545	140	100	220	60	20	ø70	20x12	ISO 5211-F16,F20	940
30"	318	28	4	24	ø914.4	1 1/4" (8UN)	ø35.1	600	555	140	100	230	60	20	ø75	20x12	ISO 5211-F20,F25	1039
32"	318	28	4	24	ø977.9	1 1/2" (8UN)	ø41.3	630	600	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	1284
34"	330	32	4	28	ø1028.7	1 1/2" (8UN)	ø41.3	650	640	150	110	270	60	20	ø80	22x14	ISO 5211-F25,F30	1324
36"	330	32	4	28	ø1085.8	1 1/2" (8UN)	ø41.3	690	670	150	110	270	80	24	ø85	25x14	ISO 5211-F25,F30	1398
40"	410	36	4	32	ø1200.2	1 1/2" (8UN)	ø41.3	720	675	160	125	280	70	24	ø90	25x14	ISO 5211-F25,F30	1962
42"	410	36	4	32	ø1257.3	1 1/2" (8UN)	ø41.3	750	700	160	150	280	70	24	ø95	25x14	ISO 5211-F30,F35	2121
48"	470	44	4	40	ø1422.4	1 1/2" (8UN)	ø41.3	845	860	160	155	300	100	27	ø110	28x16	ISO 5211-F30,F35	3279

NOTES

- DESIGN STD. : API 609
- Mating FLANGE : ASME B16.5 CLASS150

					DESCRIPTION	DWG. No.	953- 26- 48- 15FB- 011	SCALE	N/A
					TRIPLE BUTTERFLY VALVE	TEST PRESSURE	HYDROSTATIC	SHELL	SEAT
					26" TO 48" 953 FLANGED			kgf/cm ²	kgf/cm ²
					CLASS 150 BARE STEM			AIR	kgf/cm ²
Rev. No.	DATE	DESCRIPTION	DRN.	APP.					
0	23.06.15	FOR REFERENCE	DJ,LEE	JH,YU					