

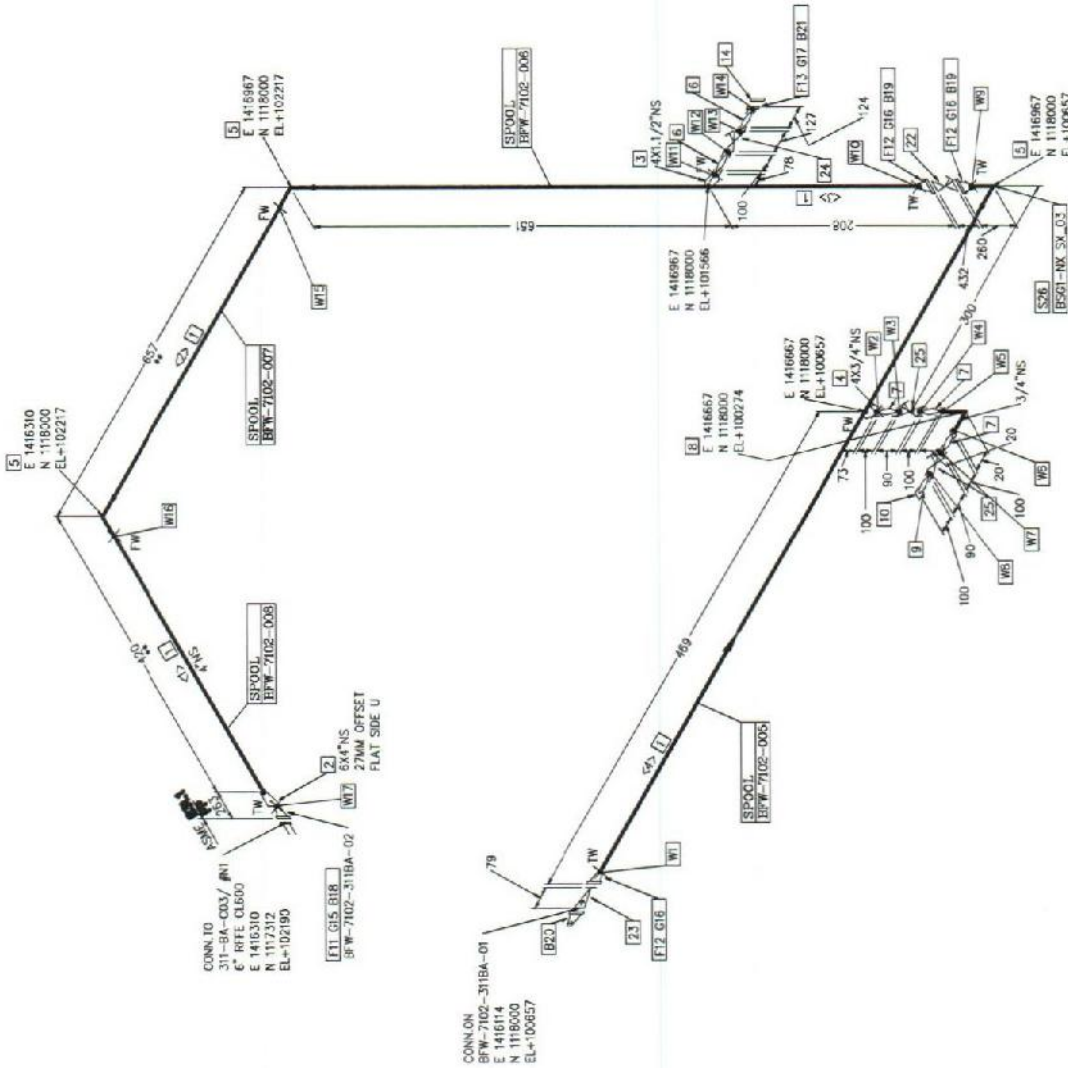
# S O M E T R I C

# D R A W I N G

# B I L L O F M A T E R I A L

SPOOL

PP STAMP



This drawing indicates the quantity of materials to be ordered. It is the responsibility of the contractor to verify the quantities of materials to be ordered. The contractor shall be responsible for any errors in this drawing. For purposes other than specifically permitted by written engineering instructions, this drawing is not to be used for any other purpose.

WELD: WELD  
 SOCKET WELD: SOCKET WELD  
 TRACED PIPE: TRACED PIPE  
 SUPPORT MARK: SUPPORT MARK

FW: TAG WELD. \*\* : ADJUST. +100MM  
 \* : LOCAL

NO.	SPEC	QTY	SIZE	DESCRIPTION
1	UAT10C005	4	1.6 M	PIPE: A106 GR.B, SMLS, BE, SCH80
2	UAT10C006	RE	681	ECCREDUCER: A234 OR WRB, SMLS, BW, SCH80 X SCH80
3	UAT10C006	150	401.1/2	SOCKLELET: A105, MSS SP-97, SW, CL3000
4	UAT10C006	150	401.1/2	SOCKLELET: A105, MSS SP-97, SW, CL3000
5	UAT10C006	E	4	90 ELBOW: A234 OR WRB, SMLS, BW, SCH80
6	UAT10C006	JN	1.1/2	NIPTLE: A106 GR.B, SMLS, 100MM, PRE, SCH160
7	UAT10C006	JN	3/4	NIPTLE: A106 GR.B, SMLS, 100MM, PRE, SCH160
8	UAT10C006	E	3/4	90 ELBOW: A105, SW, CL3000
9	UAT10C006	JN	3/4	NIPTLE: A106 GR.B, SMLS, 100MM, PDE X TDE, SCH160
10	UAT10C006	OPT	3/4	CAP: A105, WPE, CL3000
11	UAT10C006	F	6	FLANGE: A105, ASME, WN, RF, CL600, SCH80
12	UAT10C006	F	4	FLANGE: A105, ASME, WN, RF, CL600, SCH80
13	UAT10C006	F	1.1/2	FLANGE: A105, ASME, SW, RF, CL600, SCH80
14	UAT10C006	FB	1.1/2	BLIND FLANGE: A105, ASME, BLND, RF, CL600
15	UAT10C006	D	6	GASKET: 3304GR, ASME, 4.5MM, RF, SWG TYPE304H F, GRA.
16	UAT10C006	D	4	GASKET: 3304GR, ASME, 4.5MM, RF, SWG TYPE304H F, GRA.
17	UAT10C006	D	1.1/2	GASKET: 3304GR, ASME, 4.5MM, RF, SWG TYPE304H F, GRA.
18	UAT10C006	B	U1	BOUL/NUT: A193 GR.8, A193 GR.9, ASME, STUD, HEX NUT
19	UAT10C006	B	U7/8	BOUL/NUT: A193 GR.8, A193 GR.9, ASME, STUD, HEX NUT
20	UAT10C006	B	U7/8	BOUL/NUT: A193 GR.8, A193 GR.9, ASME, STUD, HEX NUT
21	UAT10C006	B	U3/4	BOUL/NUT: A193 GR.8, A193 GR.9, ASME, STUD, HEX NUT
22	UAT10C006	VA	4	VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY, CHECK VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY
23	UAT10C006	VD	4	VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY, CHECK VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY
24	UAT10C006	VA	1.1/2	VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY, SW, CL600
25	UAT10C006	VA	3/4	VALVE: A206 GR.8, 150#(RF/NO.5), ASME, BELGARY, SW, CL600
26	UAT10C006	4	1	SUPPORT TAG: B501-NX_S3_03

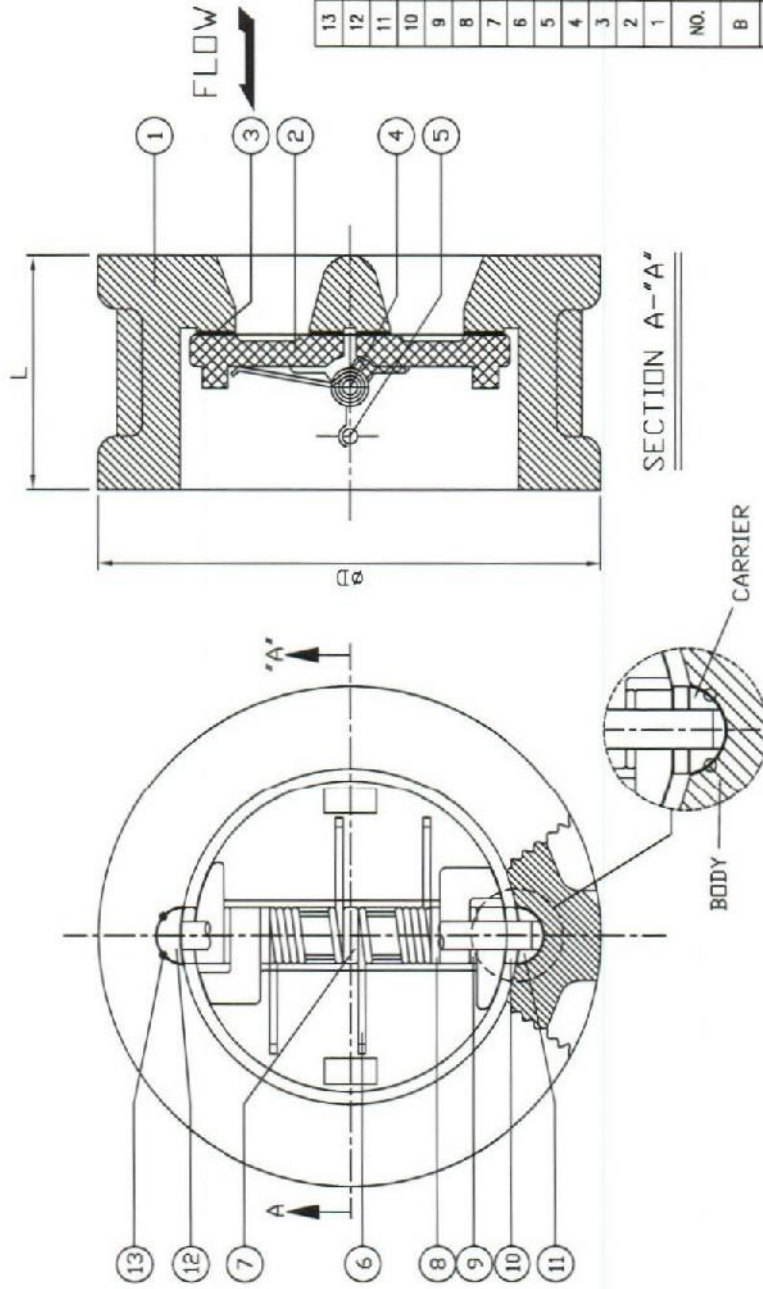
PIPE CLASS	UAT10C006	PIPE CLASS	OPER/DESN PRES (bar-g)	52.36	/RS
P. A. ID. No.	PAU-PA-A-C-VOM-MA10-0001	OPER/DESN TEMP (deg C)	133.6	/102	
PLAN DWG. No.	PAU-PA-A-C-VOM-MA10-0001-01	FLUID PHASE	Liquid		
LINE FROM	8FW-7101	TEST MEDIUM/PRES(bar-g)	Hydro	/127.5	
LINE TO	ECONOMIZER	N D E (%)	100%		
PAINT SPECIFICATION	P-5/NOIR/F-3 [R6]	STRESS ANALYSIS	M/A		
STRESS ANALYSIS	YES	INSULATION	331		
REMARK	9311	INSULATION (mm)	25		

REV	DATE	MADE BY	CHK'D	DESCRIPTION
1	07-20-15	KJW	SHO	FINAL

LINE No.	DWG. No.	LINE No.
8FW-7102-6	UA110C005-HC	8FW-7102-3118A-02

SAMSUNG ENGINEERING CO., LTD.  
 SAMSUNG ENGINEERING  
 SEOUL, KOREA  
 SO-3586  
 BOLWIA PAU

TAG NO. CL4BA3AA



(Unit :mm)

SIZE	B	ØD	L	WEIGHT(kg)
A	4"	194	79	15

- NOTES
- DESIGN CODE : API 594
  - END FLANGE DIMENSIONS : ASME B16.5
  - HYDROSTATIC TEST PRESSURE : API 598  
SHELL:2250PSI (159Kgf/cm<sup>2</sup>)  
SEAT:1650PSI (116Kgf/cm<sup>2</sup>)
  - RETAINERLESS TYPE

NO.	NAME OF PART	MATERIAL	QTY	REMARK
13	SETTING SCREW BOLT	SS316	4	
12	CARRIER PLATE	A240-316	2	
11	CARRIER	A270-316	2	
10	B-LUG BEARING	B124-C37700	2	
9	P-LUG BEARING	B124-C37700	2	
8	S-LUG BEARING	B124-C37700	2	
7	CENTER BEARING	B124-C37700	1	
6	SPRING	INCONEL X-750	1	
5	STOP PIN	A276-316	1	
4	HINGE PIN	A276-316	1	
3	SEAT	Stellite 6	1	
2	DISC	A217-CA15+ST16	2	
1	BODY	A216-WCB	1	

DESCRIPTION	FOR APPROVAL	H.J.MOON	J.C.KIM	J.C.KIM
B	13.09.13			
A	13.08.26			

REV	DATE	DESCRIPTION OF REASON	DRAW'G	CHK'D	APP'D	REMARK

DRAW'G		APP'D		SCALE	UNIT	PROJECT
H.J.MOON	J.C.KIM	J.C.KIM	J.C.KIM	NON	inch	BOLWA

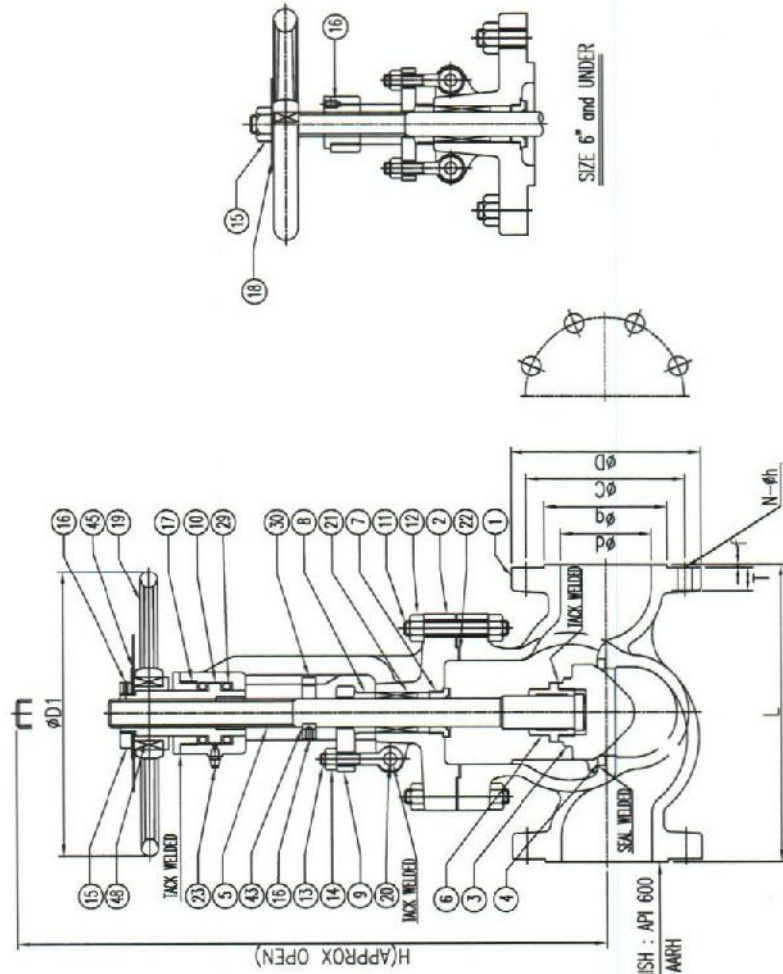
DESCRIPTION	CARBON STEEL CLASS 600	
	DUAL PLATE CHECK VALVES(WAFER TYPE)	

DATE	DWG NO.	KS-WCB-DUCH-D-A1	REV B
13.02.05			

기성금속주식회사  
KEY SUNG METAL CO., LTD.

TAG NO. BF4BA3AA



FLANGE FINISH : API 600  
125 - 250 AARH

- NOTES
1. SHELL WALL THICKNESS : API 600 CLASS 600
  2. FACE TO FACE DIMENSION : ASME B16.10
  3. END FLANGE DIMENSIONS : ASME B16.5
  4. HYDROSTATIC TEST PRESSURE : API 598  
BODY: 2225PSI (157Kg/cm<sup>2</sup>)  
SEAT&B/SEAT: 1630PSI (115kg/cm<sup>2</sup>)
  5. SIZE 8" and LARGER

(Unit :mm)

SIZE	A	B	φd	φg	φC	φD	L	T	f	φD1	H	N-φh
DN 100	4"	101.6	157.2	215.9	273.1	431.8	38.1	6.4	355	567	8-25.4	

48	IMPECTOR BUSH	A216-WCB	1		
45	WASHER	STEEL	1		
43	KEY	STEEL	1		
30	STOPPER	STEEL	1		
29	BEARING	COMMERCIAL	2	NOTE 5	
23	GREASE NIPPLE	STEEL	1		
22	GASKET	SS304+GRAPHITE	1	SPIRAL WOUND	
21	PACKING	GRAPHITE	1set		
20	HINGE PIN	STEEL	2		
19	HANDWHEEL	A395	1		
18	NAME PLATE	A240-316	1		
17	SLEEVE GLAND	STEEL	1		
16	SET SCREW	STEEL	1		
15	HANDLE NUT	STEEL	1		
14	GLAND NUT	A194-2H	2		
13	GLAND BOLT	A307-B	2		
12	BONNET NUT	A194-2H	1set		
11	BONNET BOLT	A193-B7	1set		
10	YOKE SLEEVE	A439-D2C	1		
9	GLAND FLANGE	A283-D	1		
8	PACKING GLAND	A276-410	1		
7	BONNET BUSH	A276-410	1		
6	DISC GLAND	A276-410	1		
5	STEM	A479-410	1		
4	SEAT RING	A105+STL	2		
3	DISC	A479-410+STL	1		
2	BONNET	A216-WCB	1		
1	BODY	A216-WCB	1		
NO.	NAME OF PART	MATERIAL	QTY	REMARK	
B	13.09.13 FOR APPROVAL	H.J.MOON	J.C.KIM	J.C.KIM	
A	13.08.26 FOR APPROVAL	H.J.MOON	J.C.KIM	J.C.KIM	
REV	DATE	DESCRIPTION OF REASON	DRAW'G	CHK'D	APP'D
		CARBON STEEL CLASS 600, H/W-OP			
		BOLTED BONNET, RF, GLOBE VALVES			
DRAW'G	CHK'D	APP'D	SCALE	NON	
H.J.MOON	J.C.KIM	J.C.KIM	UNIT	(mm)	inch
			PROJECT		
DATE	13.02.05	DWG NO.	KS-WCB-GL-D-A1	REV	B

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KEY SUNG METAL CO., LTD.