

DESIGN DATA

CODE	ASME SEC.VIII DIV. 1 2007 ED. + 2009 ADD. + HEI	TEMA CLASS	TR (9TH ED.-07)
SURFACE AREA (EFF.)	194.7	TYPE	H-CKU
NO. OF REOD	1 (ONE)	CODE STAMP	YES
KIND OF FLUID	COND. WATER / SECONDARY STEAM	SHELL SIDE	TUBE SIDE
DESIGN PRESS.	15.3 F.V. KG/CM ²	PRIMARY STEAM / CONDENSATE	15.3 F.V. KG/CM ²
DESIGN TEMP.	350 °C	DESIGN TEMP.	350 °C
OPER. PRESS.	4.5 KG/CM ²	OPER. TEMP.	10.5 KG/CM ²
OPER. TEMP. (IN/OUT)	145/154.9 °C		185.3/183.3 °C
HYDRO. TEST PRESS.	22.95 KG/CM ²		22.95 KG/CM ²
SAFETY VALVE SET PRESSURE	15 KG/CM ²		15 KG/CM ²
PRESSURE DROP	0.5 KG/CM ²		0.5 KG/CM ²
M.A.W.P.	6 °C		6 °C
P.W.H.T	NO		15 KG/CM ²
S.R AFTER COOL FORMING	NO		NO
RADIOGRAPH	SPOT/SEAMLESS		SPOT/-
JOINT EFFICIENCY (S/H)	85/100		85/-
CORR. ALLOW.	3.2		3.2
NO. OF PASS	1 (ONE)		2 (TWO)
INSULATION	50		50
SEISMIC ZONE	2A (URC 97)		50
WIND VELOCITY	120		km/hr
PAINTING	AS PER SPEC. NO. 11314-GE-SFC-80001 REV.B		
WEIGHT (KG)	9850	KG EMPTY	10300
OPERATING	18200	KG FULL OF WATER	24050
TUBE & TUBESHEET JOINT	SEAL WELD + HEAVY EXPANDED WITH TWO GROOVES		
LOCAL REGULATION LAW	N/A		

NOZZLE LIST

MARK/REO'D	NO.	NO.	SIZE	SOCH. MAT'L	RATING	TYPE/FACING	FROM	DESCRIPTION
N1	1	12"	80	SA106-B	300#	W/N	R.F.	1150 SECONDARY CONDENSATE INLET
N2	1	12"	80	SA106-B	300#	W/N	R.F.	1190 SECONDARY STEAM OUTLET
N3	1	8"	80	SA106-B	300#	W/N	R.F.	715 PRIMARY STEAM INLET
N4	1	6"	80	SA106-B	300#	W/N	R.F.	595 PRIMARY CONDENSATE OUTLET
N5	1	3"	120	SA106-B	300#	W/N	R.F.	595 CONDENSATE FLASH TANK VENT
N6a,b	2	4"	120	SA106-B	300#	W/N	R.F.	1150 EQUALIZER
N7	1	1"	XXS	SA106-B	300#	S/W	R.F.	595 GRAB SAMPLING (W/V/V)
N8	1	3/4"	XXS	SA106-B	300#	S/W	R.F.	595 PRESS. TRANSMITTER
N9	1	1/2"	160	SA106-B	300#	S/W	R.F.	595 TEMP. INDICATOR
PI	1	3/4"	XXS	SA106-B	300#	S/W	R.F.	595 PRESS. INDICATOR
TI	1	1/2"	160	SA106-B	300#	S/W	R.F.	595 TEMP. TRANSMITTER
LI	1	1/2"	160	SA106-B	300#	S/W	R.F.	595 LG STAND PIPE CONN.(W/STAND PIPE & V/V)
LIa,b	2	3"	160	SA106-B	300#	W/N	R.F.	595 SHELL SIDE PSY (W/SAFETY V/V)
PSVa	1	4"	120	SA106-B	300#	W/N	R.F.	595 TUBE SIDE PSY (W/SAFETY V/V)
DR	1	2"	160	SA106-B	300#	W/N	R.F.	595 DRAIN (W/V/V)
LI-c,d	4	3/4"	XXS	SA106-B	-	-	SEE DMS	LEVEL TRANSMITTER (W/V/V)
NG	1	2"	160	SA106-B	300#	W/N	R.F.	595 SET DMS BLOW DOWN
M	1	2"	160	SA106-B	300#	W/N	R.F.	1190 INTEGRAL DEAERATOR BY PASS
N	1	2"	112	SA106-B	300#	W/N	R.F.	1210 MAINHOLE (W B.F. & D/W/T)

FINAL

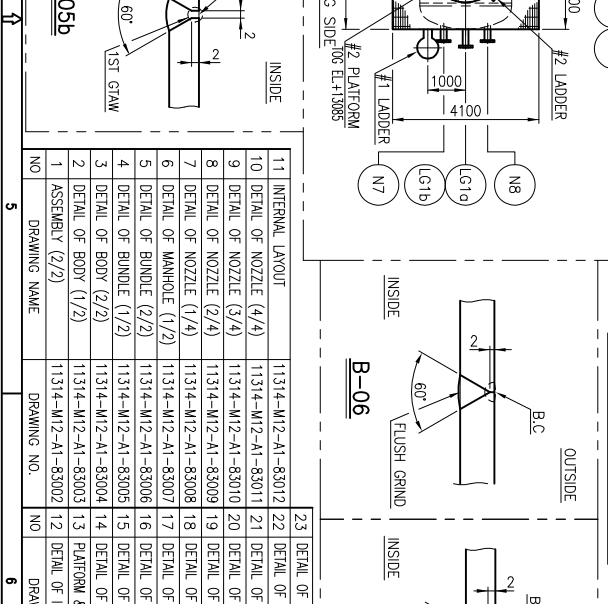
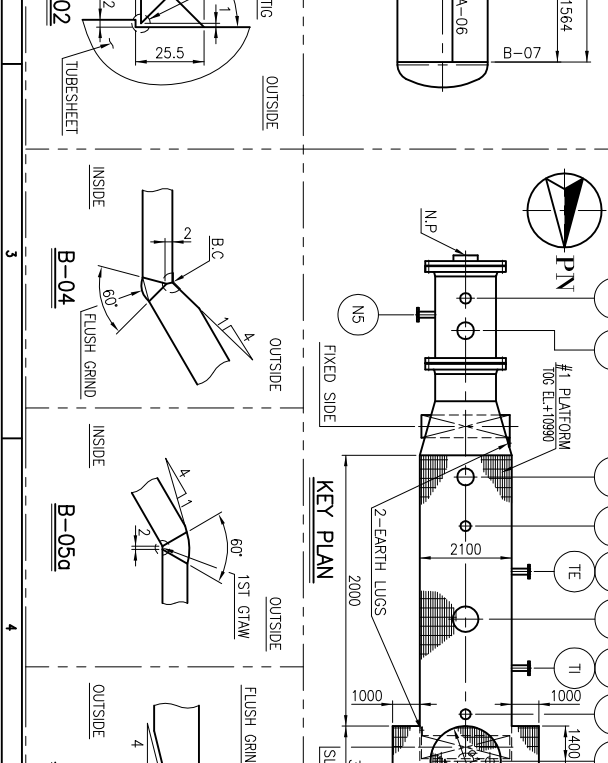
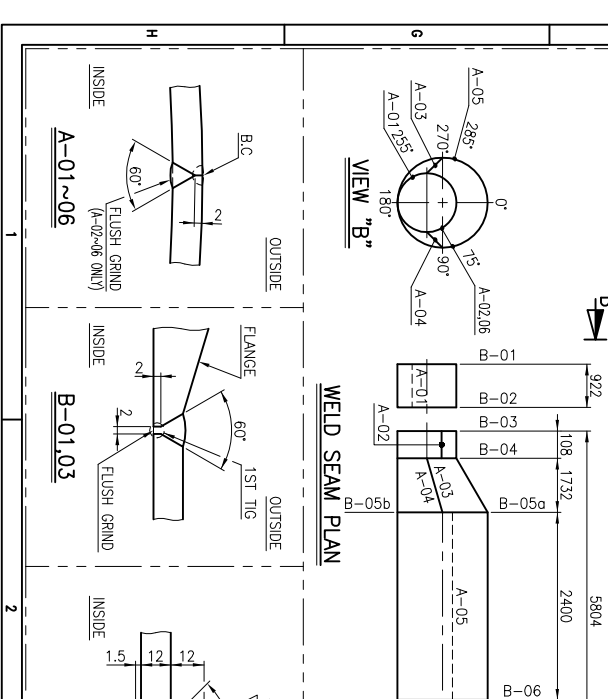
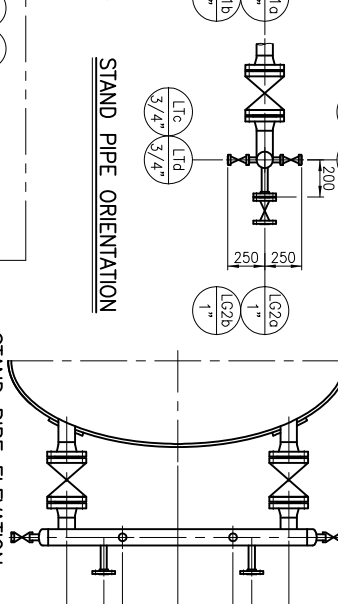
ASME

NOZZLE ORIENTATION (VIEW "A")

GENERAL NOTES

- ALL DIMENSIONS ARE IN MM'S UNLESS OTHERWISE NOTED.
- ALL FLANGE BOLT HOLES SHALL STRADDLE H/EX. NORMAL CENTERLINE.
- NOZZLE PROJECTIONS ON SHELL ARE REFERRED FROM CENTER LINE OF H/EX. TO GASKET CONTACT FACE OF FLANGE.
- GASKET SEATING SURFACE FINISHED AS FOLLOWS:
 - SPRAL WOUND GASKET (NON STD. FLANGE)
 - SPRAL WOUND GASKET (STD. FLANGE)
 - SPIRAL WOUND GASKET (STD. FLANGE) WITH SPIRAL SEPARATED.
 - SPIRAL WOUND GASKET (STD. FLANGE) WITH SMOOTH FINISH.
- BASE LINE (B.I) INDICATES THE GASKET CONTACT SURFACE OF GIRTH FLANGE.
- ALL WELDS TO BE CONTINUOUS UNLESS OTHERWISE NOTED.
- DIMENSIONS TO BAFFLES ARE TO CENTER OF EACH PLATE.
- THE REINFORCING PAD SHALL HAVE A TELL TALE HOLE AND LOCATED AS FOLLOWS.

- GASKET MATERIAL
 - GIRTH FLANGE (TUBE SIDE) : SPIRAL WOUND (14.5)
 - HOOP : 304 S.S
 - FILLER : FLEXIBLE GRAPHITE
 - INNER RING : 304 S.S
 - PASS PARTITION RIB : METAL JACKET
 - JACKET : 304 S.S
 - FILLER : FLEXIBLE GRAPHITE
 - GIRTH FLANGE (SHELL SIDE) : SPIRAL WOUND (14.5)
 - HOOP : 304 S.S
 - FILLER : FLEXIBLE GRAPHITE
 - INNER RING : 304 S.S
 - FLYER : FLEXIBLE GRAPHITE
 - INNER RING : 304 S.S
 - OUTER RING : CS
- ALL THE COUNTER FLANGE PROVIDE BY VENDOR. (INCL. B/N & GASKET)
 - SPARE PARTS
 - PRE-COMMISSIONING & START-UP
 - GASKET : 100%
 - BOLT/NUT : 10% (MIN. 2 SETS)
 - GASKET : 100%
 - BOLT/NUT : 10% (MIN. 2 SETS)
 - GASKET : 200%
 - BOLT/NUT : 10% (MIN. 2 SETS)
 - GASKET : 200%
 - 1 YEAR WARRANTY
 - 2 YEARS OPERATION
 - SURFACE PREPARATION : SSPC-SP10 NEAR WHITE BLAST CLEANING(SA2.5)



NO.	REVISION	DESCRIPTION	DATE	BY	CHKD	APPD.
1	ASSEMBLY (2/2)					
2	DETAIL OF BODY (1/2)					
3	DETAIL OF BODY (1/2)					
4	DETAIL OF BODY (1/2)					
5	DETAIL OF BODY (1/2)					
6	DETAIL OF BODY (1/2)					
7	DETAIL OF BODY (1/2)					
8	DETAIL OF BODY (1/2)					
9	DETAIL OF BODY (1/2)					
10	DETAIL OF BODY (1/2)					
11	INTERNAL LAYOUT					
12	DETAIL OF NAME PLATE (1/2)					
13	DETAIL OF NAME PLATE (1/2)					
14	DETAIL OF NAME PLATE (1/2)					
15	DETAIL OF NAME PLATE (1/2)					
16	DETAIL OF NAME PLATE (1/2)					
17	DETAIL OF NAME PLATE (1/2)					
18	DETAIL OF NAME PLATE (1/2)					
19	DETAIL OF NAME PLATE (1/2)					
20	DETAIL OF NAME PLATE (1/2)					
21	DETAIL OF NAME PLATE (1/2)					
22	DETAIL OF NAME PLATE (1/2)					
23	DETAIL OF NAME PLATE (1/2)					

MARAFIQ STG Units 5 & 6 Project

POWER & WATER UTILITY COMPANY FOR JUBAIL & YANBU (MARAFOI)

YANBU, KINGDOM OF SAUDI ARABIA

Hanuba Engineering & Construction

Power HX Tech Co., Ltd.

STEAM TRANSFORMER
8P-AS-TR-01
(ASSEMBLY (1/2))

SCALE: 1 : 20

JOB NO. _____ CONTRACT NO. 7200011314