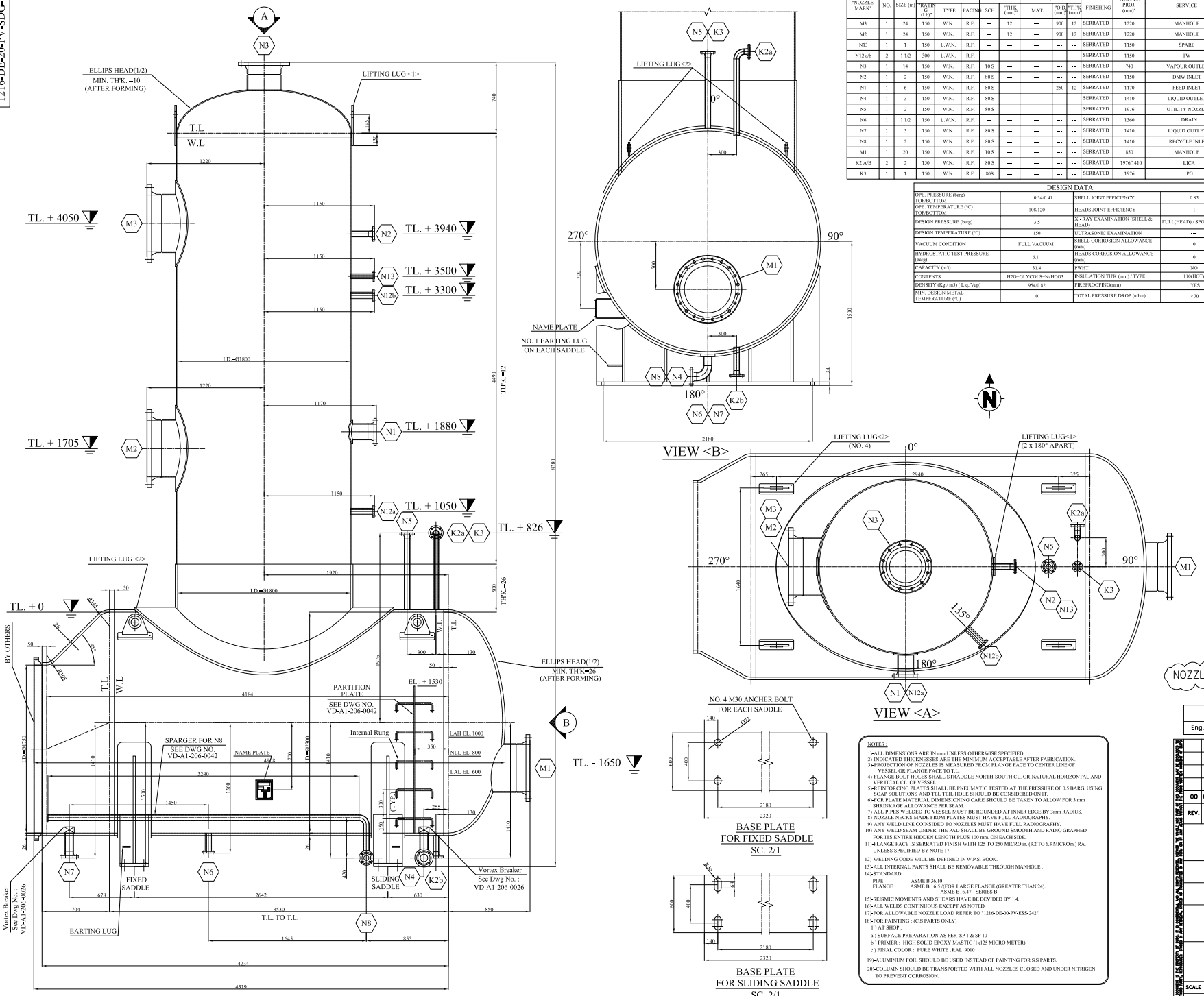
1216-DE-20-PV-SDG-140



CONNECTIONS												
"NOZZLE MARK"	NO.	SIZE (in)	FLANGES			NOZZLE NECK		*REINFORCE PLATE			FINISHING	"NOZZLE PROJ. (mm)"	SERVICE
			"RATING (Lb)"	TYPE	FACING	SCH.	"THK (mm)"	MAT.	"O.D (mm)"	"THK (mm)"			
M3	1	24	150	W.N.	R.F.	--	12	--	900	12	SERRATED	1220	MANHOLE
M2	1	24	150	W.N.	R.F.	--	12	--	900	12	SERRATED	1220	MANHOLE
N13	1	1	150	L.W.N.	R.F.	--	--	--	--	--	SERRATED	1150	SPARE
N12 a/b	2	1 1/2	300	L.W.N.	R.F.	--	--	--	--	--	SERRATED	1150	TW
N3	1	14	150	W.N.	R.F.	10 S	--	--	--	--	SERRATED	740	VAPOUR OUTLET
N2	1	2	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1150	DMW INLET
N1	1	6	150	W.N.	R.F.	80 S	--	--	250	12	SERRATED	1170	FEED INLET
N4	1	3	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1410	LIQUID OUTLET
N5	1	2	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1976	UTILITY NOZZLE
N6	1	1 1/2	150	L.W.N.	R.F.	--	--	--	--	--	SERRATED	1360	DRAIN
N7	1	3	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1410	LIQUID OUTLET
N8	1	2	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1410	RECYCLE INLET
M1	1	20	150	W.N.	R.F.	10 S	--	--	--	--	SERRATED	850	MANHOLE
K2 A/B	2	2	150	W.N.	R.F.	80 S	--	--	--	--	SERRATED	1976/1410	LICA
K3	1	1	150	W.N.	R.F.	80S	--	--	--	--	SERRATED	1976	PG

DESIGN DATA			
OPE. PRESSURE (barg) TOP/BOTTOM	0.34/0.41	SHELL JOINT EFFICIENCY	0.85
OPE. TEMPERATURE (°C) TOP/BOTTOM	108/120	HEADS JOINT EFFICIENCY	1
DESIGN PRESSURE (barg)	3.5	X - RAY EXAMINATION (SHELL & HEAD)	FULL(HEAD) / SPOT(SHELL)
DESIGN TEMPERATURE (°C)	150	ULTRASONIC EXAMINATION	--
VACUUM CONDITION	FULL VACUUM	SHELL CORROSION ALLOWANCE (mm)	0
HYDROSTATIC TEST PRESSURE (barg)	6.1	HEADS CORROSION ALLOWANCE (mm)	0
CAPACITY (m3)	31.4	PWHT	NO
CONTENTS	H2O+GLYCOLS+NaHCO3	INSULATION THK (mm) / TYPE	110(HOT)
DENSITY (Kg / m3) (Liq./Vap)	954/0.82	FIREPROOFING(mm)	YES
MIN. DESIGN METAL TEMPERATURE (°C)	0	TOTAL PRESSURE DROP (mbar)	<70

MATERIALS		
NO.	DESCRIPTION	MATERIAL
1	SHELL / REINFORCEMENT PAD	SA - 240-304
2	HEADS	SA - 240-304
3	NOZZLE NECK PLATE	SA - 240-304
4	NOZZLE NECK PIPE	SA - 312-304
5	WELDING FITTINGS	SA - 403-WP 304
6	FLANGES / FORGING	SA - 182-F 304
7	SKIRT TOP / BOTTOM	--
8	SADDLES / LEG SUPPORT/LUG	SA - 516 -70
9	WELDED-IN PARTS	S.S.304
10	INTERNAL PIPING	S.S.304
11	REMOVABLE INTERNALS	S.S.304
12	INTERNAL FITTINGS	S.S.304
13	PRESSURE BOLTS / STUDS	SA - 193-B8
14	PRESSURE NUTS	SA - 194-8
15	INTERNAL BOLTS / STUDS	S.S.304
16	INTERNAL NUTS	S.S.304
17	PRESSURE GASKETS	SPIRAL WOUND TYPE, FILLER: GRAPHIT, IOOP: SS316
18	INTERNAL GASKETS	
19	STIFFENING RINGS / GUSSET	--
20	INSULATION SUPPORT RINGS	SA - 240-304
21	FIRE PROOFING SUPPORT	--
22	LIFTING / TAILING LUGS	SA - 240-304/SA- 516-70
23	WELDED-ON PARTS	SA - 240-304
24	ANCHOR BOLTING	A-325
25	STRUCTURAL BOLTING	A-36
26	NAME PLATE	S.S
27	NAME PLATE BRACKET	SA - 240-304
28	TRAYS	--
29	EARTH TERMINAL	S.S
30	GIRTH FLANGE	--
31	BASE RING / CHAIRS	--
32	DEMISTER/WIRE MESH	--

CODES AND STANDARDS	
DESIGN CODE	ASME SEC. VIII, DIV. 1 , 2004
WIND SPECIFICATION	UBC 97 - EXPO. D
EARTHQUAKE SPECIFICATION	UBC 97 - ZONE 4
ENGINEERING STANDARD SPECIFICATION FOR TOWERS	1216-DE-00-PV-ESS-243
STANDARD DRAWING FOR P.V.	1216-DE-00-PV-SDG-240
PAINTING SPECIFICATION	1216-DE-00-PI-ESS-409
PIPES	ASME B36 - 10
FLANGES	ASME B16.5 (ASME B 16.47 B FOR NPS LARGER THAN 24")
FITTINGS	ASME B16.9
GASKETS	API-601
THREAD BOLTS	ASME B1- 1 2A
THREAD NUTS	ASME B1 - 1 2B

LOAD AT SUPPORT BASE						
WEIGHT			EARTHQUAKE LOADS (OPE.)		WIND LOAD (OPE.)	
"ERECTION (Kg)"	"OPERATION (Kg)"	"TEST (Kg)"	"SHEAR (KN)"	"MOMENT (KN.m)"	"SHEAR (KN)"	"MOMENT (KN.m)"
16000	33000 *	65132 *	127.6	191.4	60	241

* THIS LOAD IS RELEVANT TO T-2006 ÷ E-2012

ATTACHMENT NO.14.8
1216-DE-00-PV-REQ-206

NOZZLE ORIENTATION & LOADING DATA ARE HOLD

NOTES :
1)-ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.
2)-INDICATED THICKNESSES ARE THE MINIMUM ACCEPTABLE AFTER FABRICATION.
3)-PROJECTION OF NOZZLES IS MEASURED FROM FLANGE FACE TO CENTER LINE OF VESSEL OR FLANGE FACE TO T.L.
4)-FLANGE BOLT HOLES SHALL STRADDLE NORTH-SOUTH CL. OR NATURAL HORIZONTAL AND VERTICAL CL. OF VESSEL.
5)-REINFORCING PLATES SHALL BE PNEUMATIC TESTED AT THE PRESSURE OF 0.5 BARG. USING SOAP SOLUTIONS AND TEL TEIL HOLE SHOULD BE CONSIDERED ON IT.
6)-FOR PLATE MATERIAL DIMENSIONING CARE SHOULD BE TAKEN TO ALLOW FOR 3 mm SHRINKAGE ALLOWANCE PER SEAM.
7)-ALL PIPES WELDED TO VESSEL MUST BE ROUNDED AT INNER EDGE BY 3mm RADIUS.
8)-NOZZLE NECKS MADE FROM PLATES MUST HAVE FULL RADIOGRAPHY.
9)-ANY WELD LINE COINSIDED TO NOZZLES MUST HAVE FULL RADIOGRAPHY.
10)-ANY WELD SEAM UNDER THE PAD SHALL BE GROUND SMOOTH AND RADIO GRAPHED FOR ITS ENTIRE HIDDEN LENGTH PLUS 100 mm. ON EACH SIDE.
11)-FLANGE FACE IS SERRATED FINISH WITH 125 TO 250 MICRO in. (3.2 TO 6.3 MICROm.) RA. UNLESS SPECIFIED BY NOTE 17.
12)-WELDING CODE WILL BE DEFINED IN W.P.S. BOOK.
13)-ALL INTERNAL PARTS SHALL BE REMOVABLE THROUGH MANHOLE .
14)-STANDARD:
PIPE ASME B 36.10
FLANGE ASME B 16.5)FOR LARGE FLANGE (GREATER THAN 24): ASME B16.47 - SERIES B
15)-SEISMIC MOMENTS AND SHEARS HAVE BE DEVIDED BY 1.4.
16)-ALL WELDS CONTINUOUS EXCEPT AS NOTED.
17)-FOR ALLOWABLE NOZZLE LOAD REFER TO "1216-DE-00-PV-ESS-242"
18)-FOR PAINTING : (C.S PARTS ONLY)
1) AT SHOP :
a) SURFACE PREPARATION AS PER SP 1 & SP 10
b) PRIMER : HIGH SOLID EPOXY MASTIC (1x125 MICRO METER)
c) FINAL COLOR : PURE WHITE , RAL 9010
19)-ALUMINUM FOIL SHOULD BE USED INSTEAD OF PAINTING FOR S.S PARTS.
20)-COLUMN SHOULD BE TRANSPORTED WITH ALL NOZZLES CLOSED AND UNDER NITRIGEN TO PREVENT CORROSION.

DE	EXT	IFE	R
Eng. Phase	Purpose of Distribution (POD)	Purpose of Issue (POI)	Owner's Action

REV.	ISSUE DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY	AUTHORIZED BY
00	06.12.2014	ISSUED FOR ENGINEERING	Z.Shahamirian	A.Etaati	A.Etaati	A.Kadkhodaei

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20-T-2006
GENERAL ASSEMBLY

SCALE : NTS	OWNER PROJ. NO. : BU20	OWNER NO. :	REV.:	SIZE :
SHEET: 1 OF 1	PIDEC PROJ. NO. : 1216	PIDEC NO. : 1216-DE-20-PV-SDG-140	00	A1