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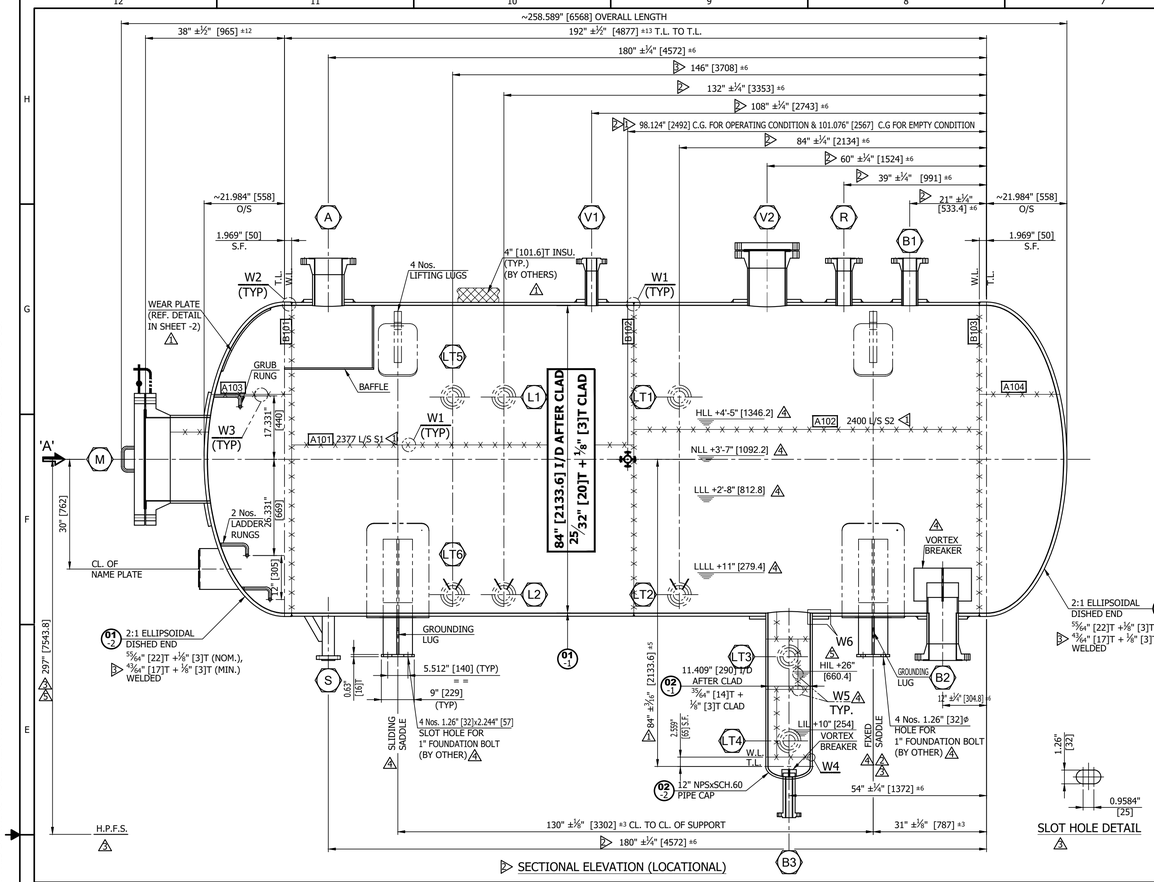
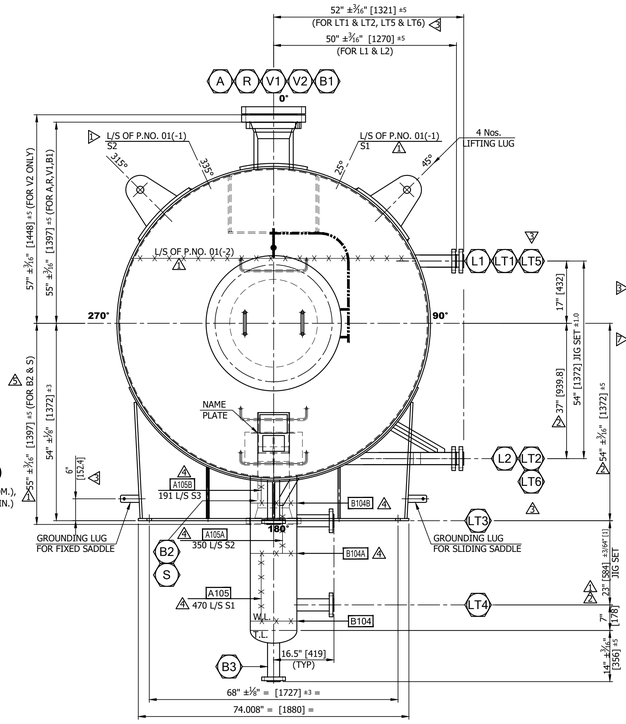
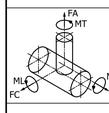




DESIGN DATA

1	CONSTRUCTION CODE		ASME SECTION VIII DIV.1, EDITION 2019
	ASME 'U' STAMP REQUIREMENT		YES
	NATIONAL BOARD REGISTRATION		YES
	SPECIAL SERVICE		NO
	CYCLIC SERVICE		NO
	SOUR SERVICE		NO
2	FLUID CIRCULATED / SERVICE		HC & H2O
3	MAWP	psi(g) (kg/cm²(g))	312 (22) GOVERNING BY SHELL
4	MAP (GOVERNING COMPONENT)	psi(g) (kg/cm²(g))	315 (22.14) GOVERNING BY SHELL
5	DESIGN PRESSURE (INT./EXT.)	psi(g) (kg/cm²(g))	295 (20.7406) / 15 (1.054)
6	DESIGN TEMPERATURE (INT./EXT.)	°F (°C)	500 (260) / 300 (148.89)
7	OPERATING PRESSURE	psi(g) (kg/cm²(g))	240 (16.8737)
8	OPERATING TEMPERATURE	°F (°C)	110 (43.33)
9	MDMT @ MAWP	°F (°C)	5 (-15)
10	LOWEST ALLOWABLE MDMT @ MAWP	°F (°C)	- 49 (-45.00)
11	SHOP HYDRO TEST PRESSURE BASED ON MAP CALCULATED UG-99(c) (HORIZONTAL)	psi(g) (kg/cm²(g))	405.82 (28.53)
12	SITE HYDRO TEST PRESSURE BASED ON UG-99(B)-NOTE-35 (HORIZONTAL)	psi(g) (kg/cm²(g))	405.470 (28.508)
13	CORROSION ALLOWANCE (VESSEL)	INCH (mm)	1/8" (3 mm) CLADDING
14	RADIOGRAPHY (SHELL / DISH)		85% SHELL / 100% DISH (RT-4)
15	WELD JOINT EFFICIENCY (SHELL/DISH)		0.85 / 1.0
16	POST WELD HEAT TREATMENT		NO
17	POST FORMING HEAT TREATMENT		NO
18	IMPACT TEST REQUIREMENT		EXEMPTED (REF. NOTE M8)
19	INSULATION (TYPE / THK.)	INCH (mm)	FP / 4" (101.6) (BY OTHERS)
20	FIRE PROOFING THK. (ON SADDLE)	mm	NA
21	WIND DESIGN AS PER		ASCE 7-16, EXPOSURE CATEGORY -C, RISK CATEGORY -III, Kzt = 1
22	BASIC WIND SPEED	mph	101
23	SEISMIC DESIGN AS PER		ASCE 7-16 IMPORTANCE FACTOR, I=1.5 SITE CLASS D, SS=1.616, S1=0.579
24	DELETED		
25	SPECIFIC GRAVITY		0.55 (HC) / 1 (H2O)
26	PAINTING / CLEANING		REF. NOTE- M4 & M5
27	INSPECTION BY		LRQA VERIFICATION LTD. / AIR PRODUCT
28	WEIGHT EMPTY WEIGHT ~lb(kg)		~ 25272 (11463)
	ERECTION WEIGHT ~lb(kg)		~ 40170 (18221)
	OPERATING WEIGHT ~lb(kg)		~ 65676 (29790)
	HYDRO TEST WEIGHT AT SHOP ~lb(kg)		~ 74191 (33652)
29	H_2 PARTIAL PRESSURE	psi(g) @ °F	89.6 @ 110
30	APPLICABLE UG-22 LOADING		UG-22, a, b, c, d (2), f, j

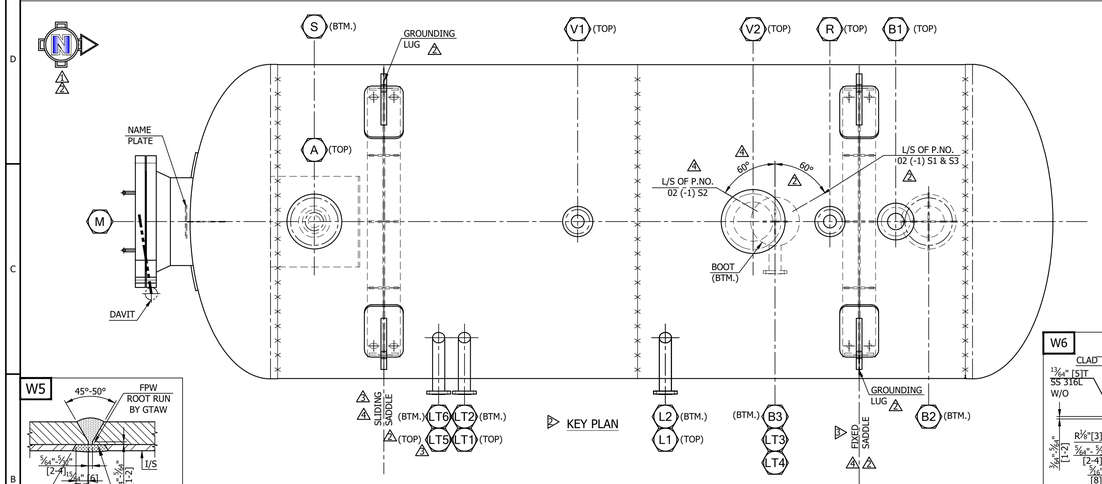
NOZZLE LOADING DATA

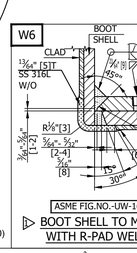


NOZZLE MARK	SIZE NPS(DN)	FA (lbf)	F_C (lbf)	F_L (lbf)	M_C (ft-lb)	M_L (ft-lb)	M_T (ft-lb)
A,B2	8"(200)	2500	1900	2500	3300	4300	5000
B1,R	4"(100)	1300	940	1300	830	1100	1200
S, LT1-LT4, L1,L2	2 (50)	630	470	630	210	270	310
B3	2 (50)	630	0	786	342	0	310
V1	3 (80)	940	710	940	460	600	700
V2	10"(250)	3100	2400	3100	5200	6700	7700

FOUNDATION LOAD (AT BASE)

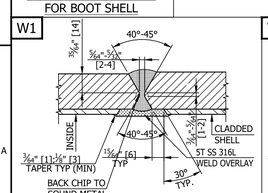
CONDITION	WIND FORCE (lb)	WIND MOMENT (ft-lb)	SEISMIC FORCE (lb)	SEISMIC MOMENT (ft-lb)
EMPTY	3145.9	14156.55	23861	107373
OPERATING	3145.9	14156.55	35646	160404
HYDROTEST	2359.5	10617.75	NA	NA



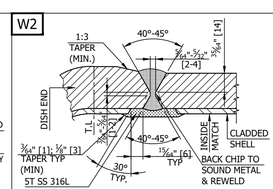


(SHACKLE SIZE 1 1/4", CAPACITY = 12 TON, MODEL NO. G2130/S2130)

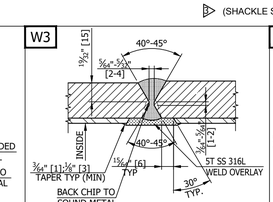
L/S & C/S WELD DETAIL FOR BOOT SHELL



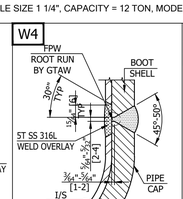
L/S & C/S WELD DETAIL FOR MAIN SHELL



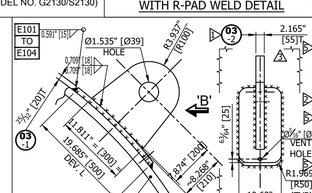
MAIN SHELL TO DISHEND WELD DETAIL



L/S WELD DETAIL FOR DISHEND



BOOT SHELL TO DISHED END WELD DETAIL



DET. OF LIFTING LUG ON SHELL

MATERIAL OF CONSTRUCTION

SHELL / DISH END	SA 516 GR 70 + SA 240 GR 316L CLAD
FLANGES (EXTERNAL)	SA 105 + SS 316L WO
NOZZLE NECK	SA 516 GR 70 + SA 240 GR 316L CLAD / SA 106 GRB + SS316L WO
FITTINGS	SA 234 WPB + SS 316L WO
BOLTS (EXTERNAL)	SA 193 GR B7 / SA 194 GR 2H
EXTERNAL APPURTENANCES	SA 516 GR 70
INTERNALS (FIXED)	SS 316L
SADDLE	SA 516 GR 70
ANCHOR BOLT	ASTM F3125 GRADE A325, TYPE 1
ss 4.5T SS 316 SPWD GASKET WITH GRAPHITE FILLER AND 3.2T SS 316 INNER & OUTER RING. (DIMENSIONS AS PER ASME B 16.20)	

REV NO.	SR. NO.	DESCRIPTION	QTY./ ITEM	MATERIAL	SIZE	WT. (kg)	REMARK
4		WELD JOINT NO.: A101 TO A105, A105A, A105B, B101 TO B104, B104A, B104B, E101 TO E104			SUB TOTAL OF WEIGHT (Kg)	8421	
3	-2	LIFTING LUG	4	SA 516 GR 70	55T x 300W x 310 L	160	
	-1	PAD FOR LIFTING LUG	4	SA 516 GR 70	20T x 270W x 500 DEV.L	85	
3	03	**LIFTING LUG ASSLY**					
1	-3	PAD FOR BOOT	1	SA 516 GR 70	20T x 550 DEV.ø	26	
	-2	PIPE END CAP	1	SA 234 WPB + SS 316L WO	NPS 12 x SCH 60 x BW	22	
1	-1	BOOT SHELL	1	SA 516 GR 70 + SS 316L CLAD	(14+3)T x 1040W x 965 DEV LG	134	
	02	**BOOT SHELL ASSLY**					
	-2	DISHED END	2	SA 516 GR 70 + SS 316L CLAD	(22+3T) (NOM.) x 2640 B. DIA	2149	
	-1	MAIN SHELL	1	SA 516 GR 70 + SS 316L CLAD	(20+3T) x 4777 W x 6777 DEV. LG.	5845	
	01	**MAIN SHELL ASSLY**					

BILL OF MATERIAL

W/O 5T SS 316L WELD OVERLAY (FOR MIN. 1/8" [3] MM UNDILUTED CHEMISTRY)

MARK	QTY.	SIZE NPS(DN)	THK.	SCH.	CLASS	TYPE	FACE	SERVICE	PROJ. FROM CL.	RF PAD T x W	REMARK
			PIPE		ASME B16.5 FLANGE						
LT5-LT6	2	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	300	LWN	RF	LEVEL TRANSMITTER	SEE DRG.	-	
BOOT	1	295.85 I/D	3/8" [10] + (W/O)	-	-	-	-	-	SEE DRG.	3/16" [20] x 6 3/16" [110]	-
S	1	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	600	LWN	RF	STEAM OUT	SEE DRG.	-	-
V2	1	10"(250)	5/16" [9.27] + (W/O)	80+ (W/O)	300	WN	RF	VENT (VENTILATION)	SEE DRG.	3/16" [20] x 3 15/16" [100]	WITH BLRF
V1	1	3"(80)	3/8" [7.62] + (W/O)	80+ (W/O)	600	WN	RF	VENT	SEE DRG.	3/16" [20] x 2 3/16" [60]	
R	1	4"(100)	3/8" [7.62] + (W/O)	80+ (W/O)	300	WN	RF	RELIEF VALVE	SEE DRG.	3/16" [20] x 2 3/16" [60]	
M	1	24"(600)	3/8" [14]+ 0.118" [3] CLAD	-	300	WN	RF	MANWAY	SEE DRG.	3/16" [22]x 6 3/16" [160]	WITH DAVIT & BLRF
LT3-LT4	2	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	600	LWN	RF	LEVEL TRANSMITTER (BOOT)	SEE DRG.	-	18-LT-D3 72C
L1-L2	2	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	600	LWN	RF	LEVEL GAUGE	SEE DRG.	-	
LT1-LT2	2	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	600	LWN	RF	LEVEL TRANSMITTER	SEE DRG.	-	18-LT-D3 72A
B3	1	(2" I/D) 50.8 I/D	1/2" [16.67] + (W/O)	-	600	LWN	RF	SOUR WATER OUTLET	SEE DRG.	-	W/VORTEX BREAKER
B2	1	8"(200)	1/2" [12.7] + (W/O)	80+ (W/O)	300	WN	RF	HYDROCARBON LIQUID OUTLET (STRIPPER FEED)	SEE DRG.	3/16" [20] x 2 3/16" [60]	W/VORTEX BREAKER
B1	1	4"(100)	1/2" [8.56] + (W/O)	80+ (W/O)	300	WN	RF	VAPOR OUTLET (ABSORBER FEED GAS)	SEE DRG.	3/16" [20] x 2 3/16" [60]	-
A	1	8"(200)	1/2" [12.7] + (W/O)	80+ (W/O)	300	WN	RF	VAPOR-LIQUID INLET (STRIPPER FEED)	SEE DRG.	3/16" [20] x 2 3/16" [60]	W/BAFFLE

NOZZLES AND CONNECTIONS

AS BUILT DRAWING

THE ANUP ENGG. LTD. — LRQA VERIFICATION LTD. / AIR PRODUCT

EN207120-ANUP-9V3-00025	V-1270-TRANS-2021	1 OF 1	TRANSPORTATION DRAWING	1
EN207120-ANUP-9V3-00035	V-1270-FAD-2021	4 OF 4	EXTERNAL CLEATS DRAWING	3
EN207120-ANUP-9V3-00028	V-1270-FAD-2021	3 OF 4	NAME PLATE AND GENERAL NOTES DETAILS DRAWING	4
EN207120-ANUP-9V3-00023	V-1270-FAD-2021	2 OF 4	SADDLE & NOZZLES DETAILS DRAWING	5

CLIENT DOC. NO.	DRG.NO.	SHT.No.	DESCRIPTION	REV.

REFERENCE DRAWING

REV. NO.	DATE	DESCRIPTION	BY	CHD.	APPD.
7	01-02-2023	FOUNDATION LOADING DATA AND SEISMIC DATA UPDADATED AS MARKED AND RE-AS BUILT DRAWING	RKP	JAD	BMP
6	13-09-2022	AS BUILT DRAWING	GML	AAS	BMP
5	23-08-2022	REVISED AS PER CLIENTS COMMENS AS MARKED 5 & ISSUED FOR APPROVAL	SBP	AAS/JAD	BMP
4	26-07-2022	REVISED AS PER CLIENTS COMMENS AS MARKED 4 & ISSUED FOR APPROVAL	SBP	AAS/JAD	BMP
3	20-05-2022	REVISED AS PER CLIENTS COMMENS AS MARKED 3 & ISSUED FOR APPROVAL	SBL	KRK	BMP
2	19-01-2022	REVISED AS PER CLIENTS COMMENS AS MARKED 2 & ISSUED FOR APPROVAL	SBL	KRK	DKB
1	29-10-2021	REVISED AS PER CLIENTS COMMENS AS MARKED 1 & ISSUED FOR APPROVAL	SBL	KRK/DMP	DKB
0	17-08-2021	ISSUED FOR APPROVAL	SBL	AAS/DRG	BMP

REVISIONS

ENGINEERING & PROJECT MANAGEMENT

CUSTOMER / CLIENT

WORLD ENERGY PARAMOUNT
PARAMOUNT, CA

THE ANUP ENGINEERING LTD.
AHMEDABAD

OWNER : AIR PRODUCT MANUFACTURING LLC	CLIENT'S DRAWING NO. : EN207120-ANUP-9V3-00024
P.O.NO. : 4505487163, DT. 9 JUL. 2021	PROJECT NAME : WORLD ENERGY RENEWABLES PROJECT
PROJECT LOCATION : WORLD ENERGY, PARAMOUNT, CA, USA	UNIT NAME : PROPANE RECOVERY

DRN.	SBL	STRIPPER FEED DRUM	ITEM NO. 18-D-372
CHD.	AAS/DRG		
APPD.	BMP	GENERAL ARRANGEMENT DRAWING	QTY ONE
DATE	17-08-2021		
SCALE	1 : 20		

MFR'S SERIAL No.: V-1270 | MFR'S DRG. NO.: V-1270-FAD-2021 | SHEET NO. 1 OF 4 | REV. 7 | A1

ORIGINAL FRAME SIZE 841 x 594 mm

MFR`S JOB NO: V-1270