

GENERAL NOTES

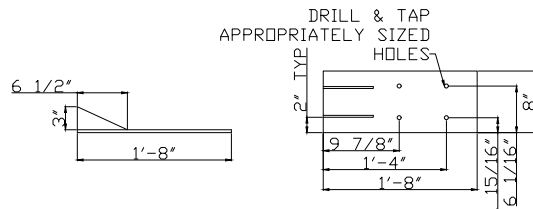
- INTERNAL SHELL AND HEAD MATERIAL; SA-516-70N
- EXTERNAL SHELL AND HEAD MATERIAL; SA-36
- ALL FLANGE MATERIAL; SA-105-N
- ALL PIPE MATERIAL; SA-106-B
- ALL BOLTING MATERIAL; SA-193-B7M/SA-194-2HM
- INTERNAL SANDBLAST TO SSPC-SP-5 (NEAR WHITE)
- INTERNALLY COATED WITH 12-18 MILS OF DEVOE 253
- EXTERNAL SANDBLAST TO SSPC-SP-6 (COMMERCIAL)
- EXTERNALLY COATED WITH ONE COAT OF PRIMER AND ONE COAT OF INDUSTRIAL WARM GREY ALKALIDE
- CATADYNE HEATER IS c/w REGULATOR, TEMPERATURE CONTROLLER, HOSE AND CABLE FOR 120VOLT/12VOLT POWER (PLEASE ADVISE NG OR LPG AND POWER SOURCE)
- ALL OPEN PIPE ENDS SHALL HAVE A 1/8" RADIUS INCLUDING INSIDE OF FLANGE EDGE
- 1 1/2" RIGID URETHANE INSULATION WITH ALUMINUM CLADDING
- DRAIN (N4) OPENING SHALL BE FLUSH WITH INSIDE OF VESSEL
- ALL SURFACES NOT COVERED BY INSULATION WILL BE PAINTED WITH INDUSTRIAL ENAMEL
- ALL OPENINGS SHALL BE COVERED PRIOR TO SHIPPING
- DESIGN PRESSURE: 50 PSI - MAWP: 14.9 PSI (NONREGISTERED)
- DESIGN TEMPERATURE: 200°F
- CORROSION ALLOWANCE: 1/8"
- HYDROTEST PRESSURE: 75 PSI
- ARC WELDING ON SKID AND SADDLES SHALL BE AS PER CSA W47.1-92 USING GAS METAL
- CONTAINMENT SHALL BE TESTED AS FOLLOWS:
 - PRESSURIZE WITH AIR TO 5 PSI
 - TEST EACH WELD WITH A SOAPY SOLUTION
 - VISUALLY INSPECT EACH WELD
 - DEPRESSURIZE AND REPAIR AND RETEST IF NEEDED
- WEIGHT: 25000#

NOZZLE SCHEDULE

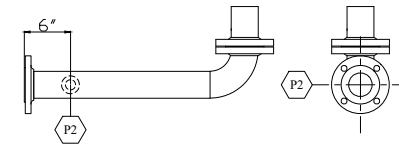
MARK	NO. REQ'D	DESCRIPTION	SIZE	ANSI	TYPE	PROJECTION		WELD		REPAD		BILL OF MATERIALS ITEM NUMBER
						INSIDE	OUTSIDE	A	B	C	D	
N1	1	INLET	12"	150#	RFWN	2"	8 1/2"	1.5	3/8	1/4	-	6,7
N2	1	GAUGE	4"	150#	RFWN	SHOWN	8 1/2"	1.5	3/8	1/4	-	8,9,21,24,25,27
N3	1	OUTLET	14"	150#	RFWN	2"	8 1/2"	1.5	3/8	1/4	-	6,7
N4	1	DRAIN	3"	150#	RFWN	FLUSH	SHOWN	1.8	3/8	1/4	-	24,25,28,29,30,31,32,33,35
M1	1	MANWAY	20"	150#	RFSO	2 1/2"	8 1/2"	2.5	3/8	1/4	-	11-17
T1	1	TEST	1"	3000#	CPLG	-	-	7	1/4	-	-	10,36
P1	1	PUMP INLET	2"	API	CPLG	-	-	-	-	-	-	41,42,43,44,45
P2	1	PUMP OUTLET	1"	150#	RFTO	-	-	-	-	-	-	41,42,43,46,47,76
C1	2	HEATER	-	-	-	-	-	-	-	-	-	70-75
A1	1	AIR INLET	3/8"	-	NPT	-	-	-	-	-	-	-

BILL OF MATERIALS

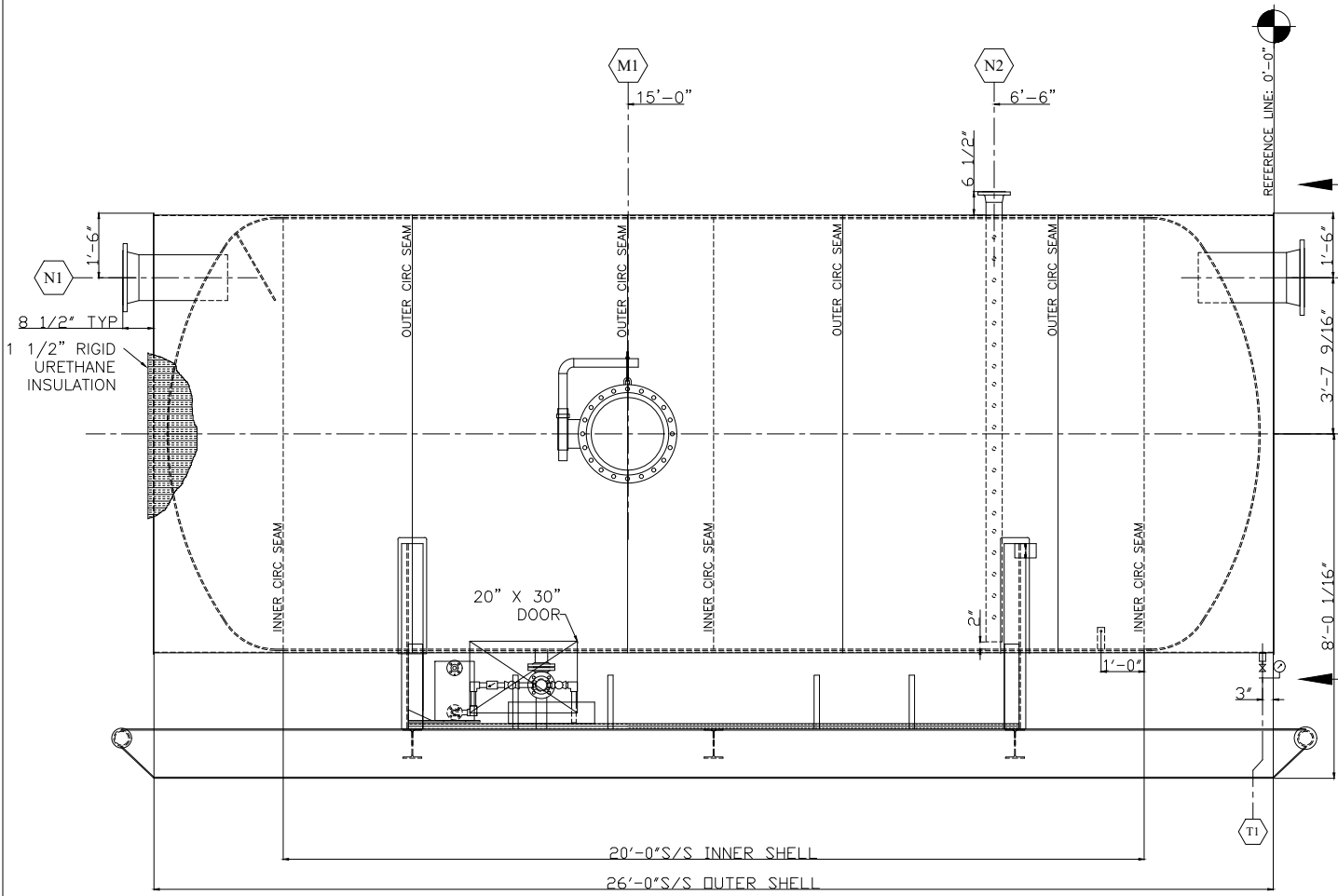
ITEM	REQ'D	PART	DESCRIPTION	MATERIAL	WEIGHT
1	4	SHELL	3/16" THK X 383 11/16" LG X 60" W ROLLED TO 121 3/4" ID	SA-36	4900#
2	2	SHELL	3/8" THK X 120" W X 379 3/8" LONG ROLLED TO 120" ID	SA-516-70N	9900#
3	2	HEAD	3/16" THK X 123" OD	SA-36	1250#
4	1	SHELL	3/16" THK X 383 11/16" LG X 72" W ROLLED TO 121 3/4" ID	SA-516-70N	1500#
5	2	HEAD	3/8" THK 2:1 SEMI ELLIPTICAL HEAD X 10'-0" ID	SA-516-70N	3900#
6	1	N1	12" 150# RFWN FLANGE STD C/W PROTECTOR	SA-105-N	106#
7	1	N1	12" SCH STD PIPE X 2'-11/16" LONG	SA-106-B	60#
8	1	N2	4" 150# RFWN FLANGE XH	SA-105-N	15#
9	1	N2	4" SCH XH PIPE X 10'-2 1/2" LG (SEE DWNCOMMER DWG)	SA-106-B	12#
10	1	T1	VACUUM GAUGE ASSEMBLY (ABOVE GROUND)	-	-
11	1	M1	20" X 150# RFSO FLG	SA-105-N	165#
12	1	M1	20" X 150# RF BLIND FLG	SA-105-N	285#
13	1	M1	20" PIPE SCH STD X 12 1/2" LONG	SA-106-B	79#
14	1	M1	20" X 150# RF FLEXITALLIC GASKET	304SS	-
15	20	M1	1 1/8" DIA X 6" LONG STUD	SA-193-B7M	30#
16	40	M1	1 1/8" DIA NUT	SA-194-2HM	20#
17	1	M1	STANDARD DAVIT ARM (SEE 20 DAVIT DWG)	-	-
18	4	HEATER	1 1/2" X 1 1/2" X 0.100" WALL HSS X 15" LG	300W	10#
19	2	HEATER	12" X 24" CATADYNE HEATER (SEE CATADYNE HEATER DWG)	-	-
20	1	VENT	GALV VENT AIR OUTLET MOUNT SIDE OF HEATER NEAR TOP	-	-
21	1	N2	4" X 150# RF FLEXITALLIC GASKET	304SS	-
22	1	N2	1322 VISI LEVEL GAUGE	-	-
24	20	N2,N4	5/8" DIA X 3 1/2" LG STUD	SA-193-B7M	15#
25	40	N2,N4	5/8" DIA NUT	SA-194-2HM	15#
27	1	N2	4" X 150# RF BLIND FLG TAPPED TO 1 1/2"	SA-105-N	16#
28	1	N4	3" X 150# RF FLEXITALLIC GASKET	304SS	-
29	1	N4	3" X 150# FLANGE PROTECTOR	POLY	-
30	1	N4	3" PIPE SCH XH X 4 11/16" LG	SA-106-B	5#
31	1	N4	3" PIPE SCH XH X 23 5/8" LG	SA-106-B	27#
32	1	N4	3" X 90° LR BW ELBOW SCH XH	SA-234-WPB	6#
35	3	N4	3" X 150# RFSO FLG	SA-105-N	8#
36	1	T1	1" X 3000# NPT FULL COUPLING	SA-105-N	1#
37	1	DECAL	10" X 18" BILTON WELDING DECAL	-	-
38	1	ANODE	2" X 1/4" FLATBAR X 6" LG W/ HOLE (SEE ANODE DWG)	SS	1#
39	1	SPACER	3/8" HRR X 60'-0" LG	SA-36	300#
41	3	P1,P2	1" NPT 2000# ELBOW	-	-
42	1	P1,P2	SOLENOID VALVE	-	-
43	AR	P1,P2	1" PIPE SCH XH	A-106-B	-
44	1	P1	1" X 3000# TOL	A-105-N	-
45	1	P1	1" NPT NACE 150# BALL VALVE	A-105-N	-
46	1	P2	2" X 1" XH SWAGE	-	-
47	1	P2	1" X 150# RF THRD FLG	A-105-N	-
48	8	INSUL	1 1/2" X 16'-0" LG SHT RIGID URETH,CORR & STUCCO EMBOSS ALUM ONE SIDE (CURFS)	-	-
49	8	INSUL	1 1/2" X 10'-6" LG SHT RIGID URETH, CORR & STUCCO EMBOSS ALUM ONE SIDE (CURFS)	-	-
50	6	INSUL	1 1/2" X 45" COV X 10'-6" LG SHT RIGID URETH, CORR & STUCCO EMBOSS ONE SIDE	-	-
51	4	INSUL	1 1/2" X 45" COV X 14'-6" LG SHT RIGID URETH, CORR & STUCCO EMBOSS ALUM BOTH SIDES	-	-
52	120 FT	INSUL	SEA "L" FLASHING	-	-
53	8 FT	INSUL	SEA "Z" FLASHING	-	-
54	1000	INSUL	SCREWS - #8 - 1/2" STAINLESS STEEL	-	-
55	4	INSUL	ALUMINUM SILICONE CAULK	-	-
57	1	DOOR	ALUMINUM DOOR FRAME X 10'-0" LG	-	-
58	1	DOOR	C-CHANNEL X 10'-0" LG	-	-
59	1	DOOR	BARREL BOLT	-	-
60	2	DOOR	HINGES	-	-
61	1	DOOR	LATCH	-	-
62	1	DOOR	1" X 2" ALUMINUM ANGLE X 32" LG	-	-
63	1	DOOR	D-HANDLE	-	-
68	2	PUMP	1/4" THK 3" X 6 1/2" BRACKET	SA-36	-
69	1	PUMP	3/8" THK 8" X 20" MOUNT	SA-36	-
70	1	C1	1" X 3000# TOL	SA-105-N	1#
71	2	C1	1" X CLOSE NIPPLE	SA-106-B	1#
72	1	C1	1" X 2000# 90° THRD ELBOW	SA-105-N	1#
73	1	C1	1" PIPE SCH XH X 10 1/2" LG TOE	SA-106-B	1#
74	1	C1	1" X 2000# THRD NACE BALL VALVE	SA-105-N	-
75	1	C1	12 GUAGE 36" X 24" CONTAINMENT TRAY (SEE DETAIL)	-	48#
76	1	P2	2" API FULL COUPLING	-	1#
77	1	PUMP	VERSA MATIC TRANSFER PUMP (SOUR SERVICE)	-	1#
78	1	N1	3/8" DEFLECTOR PLATE	SA-516-70N	5#
79	1	NAMEPLATE	4" X 6" NAMEPLATE (SEE 4X6 NAMEPLATE DWG)	SA-36	1#
80	1	N4	3" MALE ALUMINUM CAMLOCK C/W FEMALE THREADS	-	5#
81	1	N4	3" X 3" NIPPLE	SA-106-B	5#
82	1	N4	3" ALUMINUM CAMLOCK CAP	-	1#
83	2	N4	3" 150# RFTO	SA-105-70N	20#
84	1	N3	14" SCH STD PIPE X 2'-5 1/4" LONG	SA-106-B	20#
85	1	N3	14" 150# RFWN FLANGE C/W PROTECTOR	SA-105-N	115#



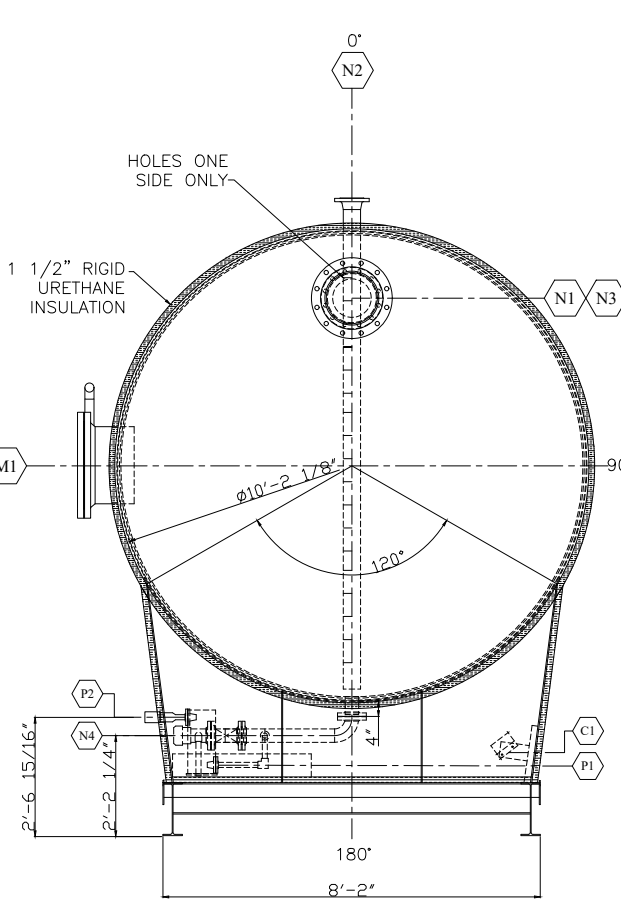
PUMP MOUNT DETAIL



DRAIN SPOOL DETAIL



ELEVATION VIEW



ORIENTATION VIEW A-A

FILE PATH:

1	WELD NECK FLANGE	2	SLIP ON FLANGE	3	SEAM	4	CONTAINMENT SEAM	5	NOZZLE NECK	6	HEAD TO SHELL	7	COUPLING	8	NOZZLE NECK
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REV. NO.	DATE	REVISION	BY	APPD
0	12/22/00	APPROVAL DRAWING	JMB	JLM
1	08/01/01	CHANGED INLET & OUTLET	JMB	JLM
2	08/01/01	ISSUED FOR FABRICATION	JMB	JLM
3	15/01/01	CHANGED INLET TO 12"	JMB	JLM
4	15/01/01	ISSUED FOR FABRICATION	JMB	JLM
5	02/14/01	LOWERED GAUGE NOZZLE 2"	JMB	JLM
6	02/14/01	FINAL DRAWING	JMB	JLM
7				

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CONCISE DESIGN ENGINEERING

10'-0" DIA X 20'-0" DOUBLE WALL ABOVE GROUND KNOCKOUT TANK

DATE: 12/20/00
SCALE: N.T.S.
DRAWN BY: JMB
PURCHASE ORDER: LNH1133
LOCATION: LADYFERN FACILITIES
PART NO.:

SHEET: 1 OF 3

JOB NO.: A222

DRAWING NO.: A222-1

REV. 6