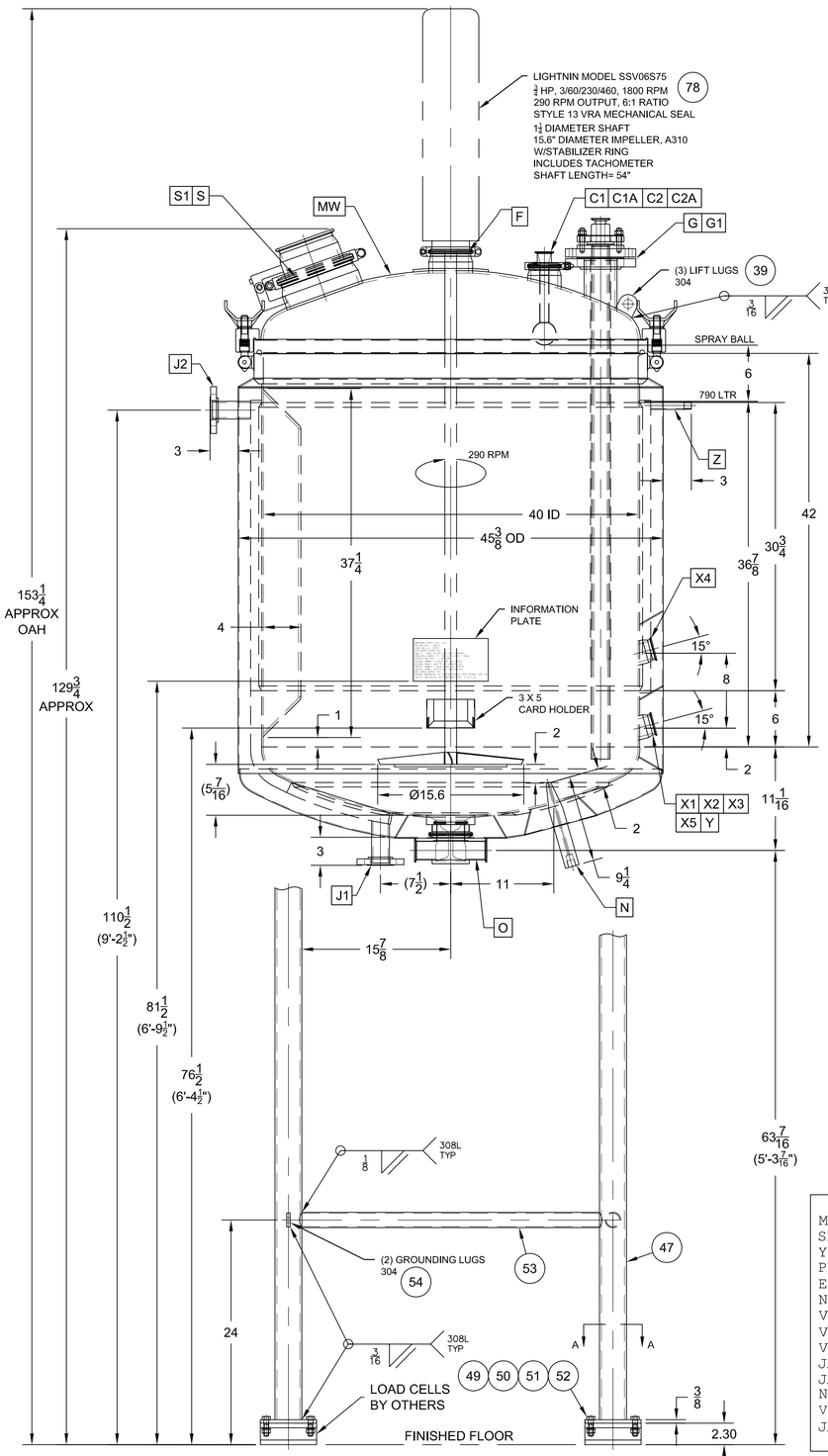
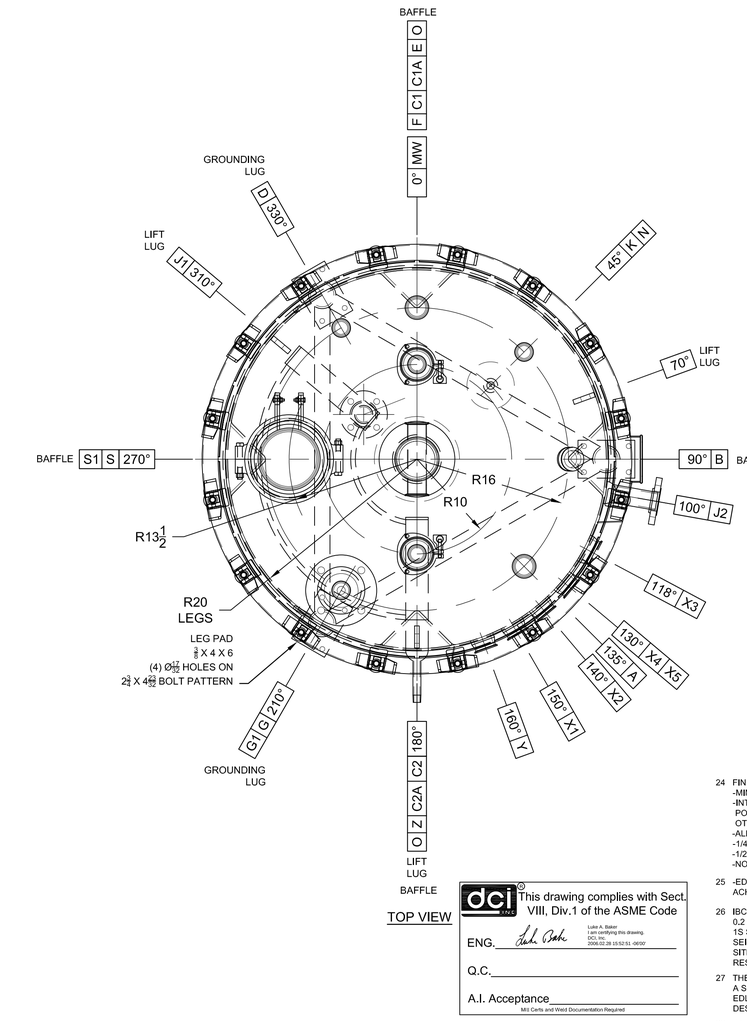


SEE TOP VIEW FOR TRUE NOZZLE ORIENTATION



dci INC — This drawing complies with Sect. VIII, Div.1 of the ASME Code

ENG. Luke A. Baker, DCI certifying this drawing, 2006.02.28 15:52:51 -06'00'

Q.C. _____

A.I. Acceptance _____

Mill Certs and Weld Documentation Required

IMPORTANT NOTICE

PLEASE REVIEW THIS FINAL ASSEMBLY DRAWING. IF YOU HAVE ANY QUESTIONS OR CONCERNS, CONTACT DCI, INC. AS SOON AS POSSIBLE. EQUIPMENT FABRICATION IS PROCEEDING IN ACCORDANCE WITH THIS DRAWING. BE ADVISED THAT ANY CHANGES MADE DURING FABRICATION WILL BE SUBJECT TO REVIEW AND POSSIBLE PRICE AND/OR SHIPMENT REVISIONS.

94

MANUFACTURER: DCI INC.
SERIAL NO.: JS3101
YEAR BUILT: 2005
PURCHASE ORDER NO.:
EQUIP. IDENTIFICATION TAG: RR-3301
NOMINAL CAPACITY: 790 LTR (208.7 GAL)
VESSEL WEIGHT: 1,150 LBS
VESSEL MAWP: 45/-15 PSI AT 350°F
VESSEL MDMT: -20°F AT 45/-15 PSI
JACKET MAWP: 175/-15 PSI AT 375°F
JACKET MDMT: -20°F AT 185/-15 PSI
NATIONAL BOARD NO.:
VESSEL MATERIAL OF CONSTRUCTION: PFA COATED 304L SS
JACKET MATERIAL OF CONSTRUCTION: 316/316L SS

INFORMATION PLATE

N

NOTES:

1 ALL CUSTOMER SUPPLIED PARTS MUST HAVE PROPER IDENTIFICATION, PARTIAL DATA, AND MILL TEST REPORTS BEFORE BEING WELDED TO VESSEL.

2 IF THIS EQUIPMENT IS USED IN CONTACT WITH CORROSIVE MATERIALS (SALT, CHLORIDES, HALOGENS OR OTHER CORRODENTS) DCI, INC. WILL NOT BE RESPONSIBLE FOR THE CORROSION RESISTANCE, OR THE RESULTING DAMAGE TO THE METALLIC MATERIALS, WITHOUT WRITTEN ACCEPTANCE OF SUCH CORROSIVE CONDITIONS BY DCI, INC. BASED UPON A SPECIFIC INTENDED USE AND/OR SERVICE. FOR COATED MATERIALS SEE EDLON'S TERMS AND CONDITIONS.

3 ALL TOLERANCES ARE IN ACCORDANCE WITH THE LATEST EDITION OF THE "ASME" BOILER AND PRESSURE VESSEL CODE, SECTION VIII, DIVISION 1, 2004 EDITION, AND DCI STANDARD VESSEL TOLERANCES DRAWING 020000.

4 ALL ASME WELDING TO BE DONE BY ASME QUALIFIED WELDERS.

5 ALL ASME WELDING PROCEDURES ARE IN ACCORDANCE WITH ASME CODE UW-28.

6 ASME CODE JURISDICTION ENDS AT THE FIRST SEALING SURFACE EXCLUDING MANWAY.

7 ALL FLANGES WILL HAVE BOLT HOLES STRADDLE THE 0°-180° & 90°-270° CENTERLINES, UNLESS SPECIFIED OTHERWISE.

8 VESSEL AND/OR HEAT TRANSFER SURFACE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE "ASME" BOILER AND PRESSURE VESSEL CODE, SECTION VIII, DIVISION 1, 2004 EDITION.

9 VESSEL AND/OR HEAT TRANSFER SURFACE TO BE HYDROSTATICALLY OR PNEUMATICALLY TESTED PER UG-99, CHECK FOR DEFECTS, REPAIR AND RETEST IF NECESSARY.

10 SUITABLE PRESSURE AND/OR VACUUM RELIEF DEVICES MUST BE INSTALLED BY CUSTOMER FOR OPERATION OF VESSEL AND/OR HEAT TRANSFER SURFACE.

11 PRODUCTION TO PROVIDE PROTECTION FOR ALL NOZZLES AND FITTINGS PRIOR TO SHIPMENT. VESSEL MUST BE ADEQUATELY VENTED.

12 WELD SEAMS IN VESSEL HEAD AND SHELL SHOULD BE LOCATED WHERE POSSIBLE TO AVOID ALL NOZZLES, ACCESS OPENINGS, AND REINFORCEMENT PADS.

13 ALL REINFORCEMENT PADS MUST BE PROVIDED WITH (1) 1/8 DIA. WEEP HOLE LOCATED AT THE LOWEST POINT WHEN THE VESSEL IS IN ITS NORMAL OPERATING POSITION.

14 FINAL BORE IF 25MM INGOLD FITTINGS ID TO .985"-.988" AFTER WELDING. (WHEN APPLICABLE)

15 NOZZLE END I.D. SURFACES HAVE A MINIMUM 1/16 RADIUS.

16 DCI SURFACE FINISH DEFINITIONS:
AI = AS IS WELD OR MATERIAL.
CC = COLOR CLEANED WELD.
BB = BEAD BLASTED WELD OR MATERIAL.
HRAP = HOT ROLLED PLATE MATERIAL.
2B = COLD ROLLED MILL MATERIAL.
NUMERIC VALUE = RA.
NUMERIC VALUE + "E" = RA AFTER FINAL ELECTRO-POLISH.
WELD FINISH SAME AS BASE MATERIAL UNLESS NOTED OTHERWISE, EX. 32/70 (BASE/WELD).

17 DCI TO PERFORM THE FOLLOWING TESTS AND PROCEDURES:
X-7033-7 - HYDROSTATIC PRESSURE TEST
(2) TESTS REQUIRED
- ONE BEFORE PFA APPLICATION
- ONE AFTER PFA APPLICATION
- USE DI WATER ONLY
- DRAINAGE OF VESSEL TO BE PERFORMED IMMEDIATELY AFTER HYDROTEST
X-7051-6 - BPE CIP COVERAGE TEST
(TEST TO BE PERFORMED AT DCI BEFORE PFA APPLICATION)
X-7065-2 - DRAINAGE TEST PROCEDURE

18 EDLON TO PERFORM THE FOLLOWING TESTS:
THICKNESS TEST
SURFACE FINISH TEST
SPARK TEST

19 ALL COMPONENTS OF THE CIP SPRAY BALL ASSEMBLY AND DIP TUBE ASSEMBLY WILL BE ETCHED FOR EASE OF ASSEMBLY. THE LABELING WILL STATE THE VESSEL AND NOZZLE DESIGNATION.

20 LIGHT GLASS:
PAPAILIAS SERIES MSL-100/2"
INCLUDES 2" SVTC SIGHTGLASS
120 V / 100 W, UL APPROVED LIGHT
INCLUDES PUSH BUTTON WITH TIMER
(TAG HS-330-08)
NEMA 4X, (SHIPPED LOOSE, CUSTOMER TO WIRE.)

21 MATERIAL CERTS REQUIRED FOR ALL WETTED PARTS.

22 NOVASEPTIC OUTLET VALVE (TAG HV-330-04)
2" VALVE BODY, 180°F/T (NU200-3X-U957)
3" TANK CONNECTION VIA A 4" MODIFIED NA-CONNECT
NA51 DIAPHRAGM, PTFE (NA51/2X-898)
NA51 2" D-SEAL LOCKING RING (NA51/82)
NA51 PNEUMATIC ACTUATOR, NC,
SS/PLASTIC (PA51/111)
LIMIT SWITCH (CLOSED), SOLENOID VALVE 24VDC

23 VESSEL INTERIOR, MANWAY EXTERIOR, AND ALL ACCESSORIES SHALL BE COATED WITH PFA (PERFLUROALKOXY) VIA THE ELECTRO-STATIC POWDER COATING METHOD.
- NOMINAL INTERIOR COATING THICKNESS = 0.040" (40 MILS)
- NOMINAL EXTERIOR COATING THICKNESS = 0.010" (10 MILS)

24 FINISH REQUIREMENTS FOR COATING PROCEDURE.
-MINIMIZE NOZZLE PROJECTION.
-INTERNAL SURFACE / WELDS TO BE 100% FREE OF PINHOLES, POROSITY, CRATERS, PITS, HIGH SPOTS, INCLUSIONS AND OTHER DEFECTS.
-ALL WELDS TO BE GROUND SMOOTH AND FLUSH
-1/4" RADIUS FOR CONVEX CORNERS
-1/2" RADIUS FOR CONCAVE CORNERS
-NO CASTINGS ALLOWED

25 -EDLON TO PERFORM SANDBLASTING PROCEDURE TO ACHIEVE REQUIRED FINISH BEFORE FINISH APPLICATION.

26 IBC 2000 SEISMIC INFO:
0.2 SPECTRAL RESPONSE ACCELERATION (SS): 0.35
1S SPECTRAL RESPONSE ACCELERATION (S1): 0.11
SEISMIC USE GROUP = I
SITE CLASS = D
RESPONSE MODIFICATION FACTOR = 3.0

27 THE MAXIMUM ALLOWABLE WORKING TEMPERATURE OF A SC-7005 COATED VESSEL IS 300°F. PLEASE CONTACT EDLON, INC. IF A HIGHER TEMPERATURE RATING IS DESIRED.

28 TABS WILL BE SUPPLIED TO ASSIST IN THE COATING PROCESS. TABS TO BE LOCATED AT 0, 90, 180, AND 270 DEGREES LOCATED ON THE SHELL NEAR THE TOP AND BOTTOM WELD SEAM, 0.5" T X 2" W X 3" L W/ 5/8" HOLE.

29 DIMPLE JACKET PRESSURE DROP = 2.2 PSI @ 20 GPM

30 DCI TO PROVIDE TWO (2) DIP TUBES: (PTFE LINED 304L)
(1) SHALL EXTEND TO 6" FROM BOTTOM MOST POINT
(1) SHALL EXTEND TO 8" FROM BOTTOM MOST POINT

ITEM	MATERIAL DESCRIPTION	MATERIAL SPEC.	INTERIOR RA FINISH	EXTERIOR RA FINISH
SHELL	SHEET 7 GA	SA240,304L S.S.	40	N/A
TOP HEAD	PLATE 1/4	SA240,316/316L S.S.	40	40
BTM HEAD	SHEET 7 GA	SA240,304L S.S.	40	N/A
SHELL HEAT TRANS	SHEET 14 GA	SA240,316/316L S.S.	N/A	N/A
HEAD HEAT TRANS	SHEET 14 GA	SA240,316/316L S.S.	N/A	N/A
SHELL SHEATHING	SHEET 12 GA	SA240,304 S.S.	N/A	40
TOP HD SHEATHING	N/A	N/A	N/A	N/A
BTM HD SHEATHING	SHEET 12 GA	SA240,304 S.S.	N/A	40
BREAST RING	SHEET 10 GA	SA240,304 S.S.	N/A	40
LEGS	PIPE 2-1/2 SCH 40	SA312,304 S.S.	N/A	40
FITTING GASKETS	FDA CFR 21 USP CLASS VI	EPDM	N/A	N/A
MANWAY GASKET	FDA CFR 21 USP CLASS VI	EPDM	N/A	N/A
LEG BRACING	TUBE 1-5/ .109 W	SA249,304 S.S.	N/A	40
ALL OTHER PRODUCT CONTACT SURFACES	N/A	PFA COATED 304L S.S.	40	40
MANWAY RINGS	N/A	SA182F316/316L S.S.	40	40

CIP DATA: (2) 2-1/2 DCI SPRAY BALLS

CIP FLOW RATE: 19 G.P.M. AT 20 P.S.I. (EACH)

INSULATION
SHELL: 2" CHLORIDE-FREE CERAMIC FIBER
BTM HEAD: 2" CHLORIDE-FREE CERAMIC FIBER
TOP HEAD: N/A

SURFACES COVERED WITH INSULATION TO RECEIVE A 5 MIL. COATING OF THURMALOX - ALL: ☒ HEAT TRANSFER: ☐ NONE: ☐

PAINT, EXT: N/A

HEAD DIMENSIONAL INFORMATION
TOP INNER HD: 40 ID, 40 DR, 3 KR, .25 SF
BTM INNER HD: 40 ID, 40 DR, 3 KR, .25 SF
TOP OUTER HD: N/A
BTM OUTER HD: 44.87 ID, 45 DR, 2 KR, .5 SF

HEAT TRANSFER SURFACE INFORMATION
DIMPLE JACKET ON THIS JOB IS DESIGNED FOR
☒ NON-THERMAL SHOCK LOADING ☐ N/A
☐ THERMAL SHOCK LOADING
"ONE BOX MUST BE CHECKED"

SHELL:	☒ DIMPLED ☐ CONVENTIONAL	☐ HALF PIPE ☐ OTHER	☐ N/A
HEAD:	☒ DIMPLED ☐ CONVENTIONAL	☐ HALF PIPE ☐ OTHER	☐ N/A

AREA SHELL: 15 SF HEAD: 1.25 SF

DIMPLE PATTERN TYPE: 2-1/4 X 2-1/4, TYPE AF

HEATING MEDIUM: 35% PROPYLENE GLYCOL

COOLING MEDIUM: 35% PROPYLENE GLYCOL (SEE NOTE 29)

NON-DESTRUCTIVE EXAMINATION
RADIOGRAPHY-VESSEL

TOP HEAD	TOP HEAD TO SHELL	SHELL LONG. SEAM	BOTTOM HEAD	BTM HEAD TO SHELL
NONE	NONE	NONE	NONE	NONE

RADIOGRAPHY-HEAT TRANSFER

TOP HEAD	TOP HEAD TO SHELL	SHELL	BOTTOM HEAD	BTM HEAD TO SHELL
N/A	N/A	N/A	N/A	N/A

OTHER: JOINT EFFICIENCY : TOP HD = 70%, BTM HD = 70%, SHELL = 70%

U W — NB CERTIFIED BY dci INC ST CLOUD, MINNESOTA RT-

VESSEL MAWP 45 PSI AT 350 °F
MAEWP 15 PSI AT 350 °F
MDMT -20 °F AT 45 /-15 PSI

VESSEL VOLUME 208.7 GAL (790 LTR)

JACKET MAWP 175 PSI AT 375 °F
MAEWP 15 PSI AT 375 °F
MDMT -20 °F AT 185 /-15 PSI

JACKET VOLUME 2 GAL (7.5 LTR)

MFRS SERIAL NO JS3101

YEAR BUILT 2005

VESSEL TEST PRESSURE: 61 PSIG

JACKET TEST PRESSURE: 247 PSIG

PRODUCT DATA: UNKNOWN

VISCOSITY: 1-5 CPS | SPECIFIC GRAVITY: 0.8-1.2

EST. EMPTY WEIGHT: 1,150 LBS

EST. OPERATING WEIGHT: 3,250 LBS (DESIGN)

EST. FULL FLOODED WEIGHT: 3,700 LBS

SEISMIC ZONE: 2000 IBC (SEE NOTE 26)

DIM. TOL, ±1/2"								
N/A	Z	SIDE	1/2 NPT MALE PIPE	DIMPLE JACKET VENT	1			
N/A	Y	SIDE	2 TRI-CLAMP	SAMPLE	1			
N/A	X5	SIDE	2 TRI-CLAMP	FUTURE PARTICLE ANALYZER	1	61	60	59
N/A	X4	SIDE	2 TRI-CLAMP	FUTURE PARTICLE ANALYZER	1	61	60	59
N/A	X3	SIDE	2-1/2 TRI-CLAMP	FUTURE REFRACTIVE INDEX	1	64	63	62
N/A	X2	SIDE	2 TRI-CLAMP	FUTURE CONDUCTIVITY	1	61	60	59
N/A	X1	SIDE	2 TRI-CLAMP	FUTURE PH	1	61	60	59
11-5/8	S1	TOP	6 TRI-CLAMP	SIGHT GLASS	1	70		69
8-7/8	S	TOP	8 TRI-CLAMP	HAND HOLE	1	72		71
N/A	O	BTM	3 X 2 X 2 TRI-CLAMP	OUTLET	1			
N/A	N	BTM	1/2 FNPT THERMOWELL	TEMPERATURE TRANSMITTER	1			
N/A	MW	TOP	40 PV-1000 MANWAY (16) LUGS	TANK ACCESS	1			
7-3/16	K	TOP	1-1/2 TRI-CLAMP	RELIEF	1			
N/A	J2	SIDE	1-1/2 150# RFSO FLANGE	DIMPLE JACKET OUTLET	1			
8-15/16	J1	BTM	1-1/2 150# RFSO FLANGE	DIMPLE JACKET INLET	1			
14-5/16	G1	TOP	1 TRI-CLAMP	DIP TUBE CONNECTION	1			
10-3/16	G	TOP	3 150# RFSO FLANGE	DIP TUBE MOUNT	1			
10-13/16	F	TOP	4 TRI-CLAMP	AGITATOR	1	68		67
7-1/4	E	TOP	2 TRI-CLAMP	PRESSURE GAUGE	1			
7-3/16	D	TOP	1-1/2 TRI-CLAMP	INSTRUMENT AIR/VENT	1			
10-7/8	C2A	TOP	1-1/2 TRI-CLAMP	CIP/INLET CONNECTION	1			
9-1/4	C2	TOP	3 TRI-CLAMP	CIP/INLET MOUNT	1	66		65
10-7/8	C1A	TOP	1-1/2 TRI-CLAMP	CIP/INLET CONNECTION	1			
9-1/4	C1	TOP	3 TRI-CLAMP	CIP/INLET MOUNT	1	66		65
6-5/8	B	TOP	2 TRI-CLAMP	LIGHT GLASS	1	61		59
7-1/4	A	TOP	2 TRI-CLAMP	FUTURE SPARE	1	61	60	59

DISTANCE FROM BTM MH CVR TO TOP CENTER OF FITTING	MK.	LOC.	DESCRIPTION	SERVICE	QTY.	CLAMP	CAP	GSKT	DESCRIPTION / (ITEM NO.)
	NOZZLE SCHEDULE					ITEM NO.			NOZZLE ACCESSORIES

REV	REVISION DESCRIPTION	REV BY/DATE
E		
D	CHANGED WELD RADIUS TO 1/2 IN LIEU OF 1/4 ON WELD DETAILS, AND UPDATED MANWAY GASKET TO BE EPDM.	NRD 02/28/06
C	UPDATED DIP TUBE LENGTH PER E-MAIL DATED 10/17/05	AWL 10/28/05
B	ADDED DETAILS AND BILL OF MATERIALS FOR PRODUCTION	AWL 09/29/05
A	REVISED PER RETURNED APPROVAL DRAWING AND SEND OUT FOR PRE-CONFIRMATION.	CCH 08/17/05

TITLE: 790 LTR PRIMARY REACTOR (4XC), RR-3301

DCI ORDER NO.: CS14715 | QTY. REQD.: 1

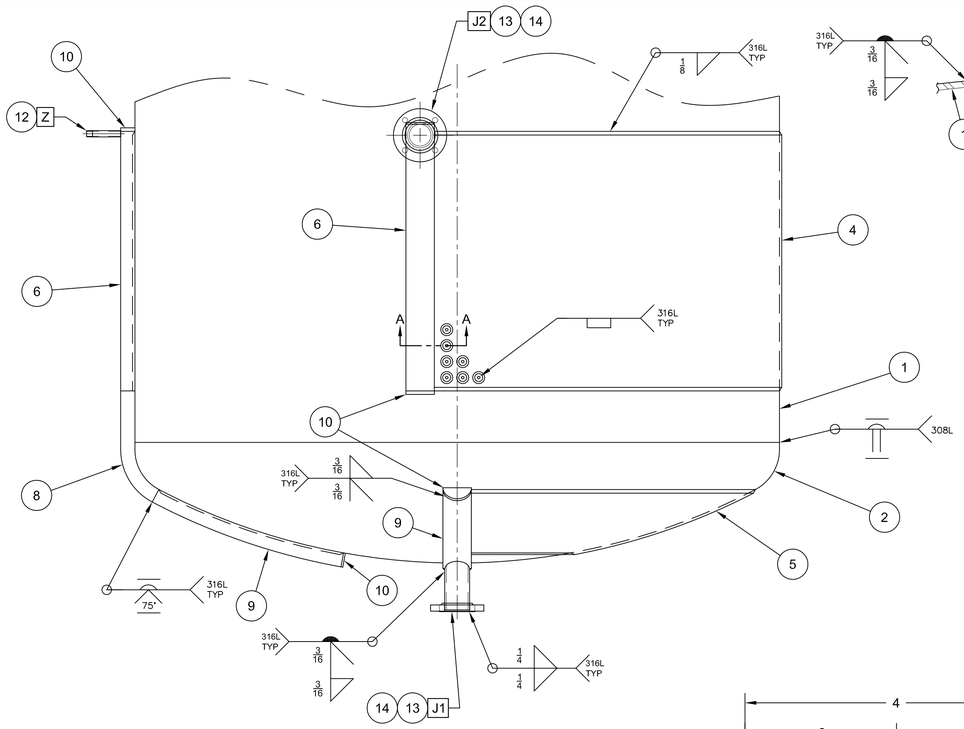
DIMENSIONS ARE IN INCHES UNLESS SPECIFIED

dci INC ST. CLOUD, MN

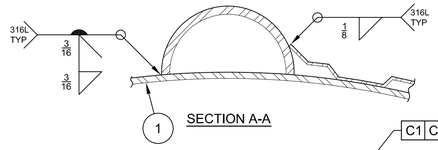
SCALE: 1/8 | DO NOT SCALE DRAWING

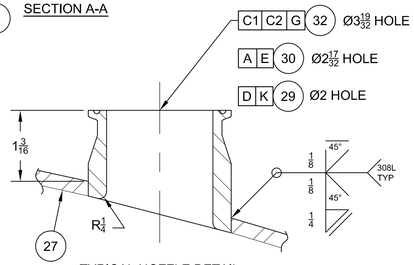
PRODUCTION AWL	APPROVAL CCH	PROJ. ENG. MDR
DATE 09/29/05	DATE 07/19/05	PROJ. MAN. VFP

PREFIX	DRAWING NO.	REV
014-04	JS3101	D

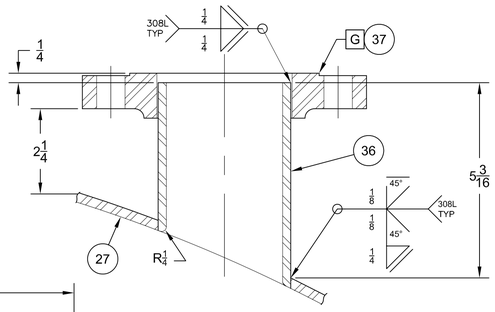


DIMPLE JACKET DETAIL
SEE SHEET 1 FOR ORIENTATION

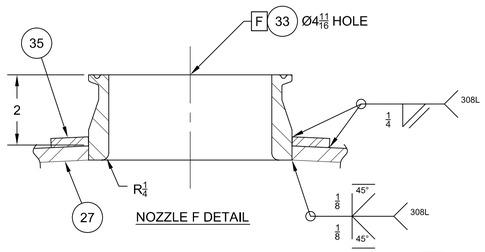




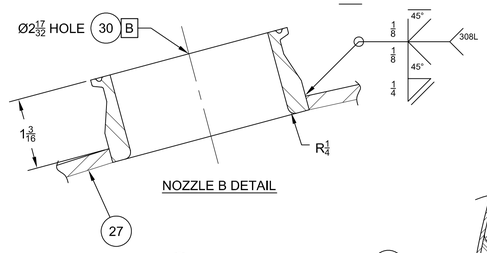
TYPICAL NOZZLE DETAIL



NOZZLE G DETAIL



NOZZLE F DETAIL



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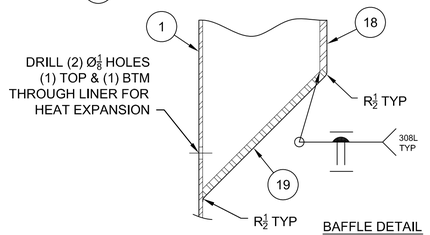
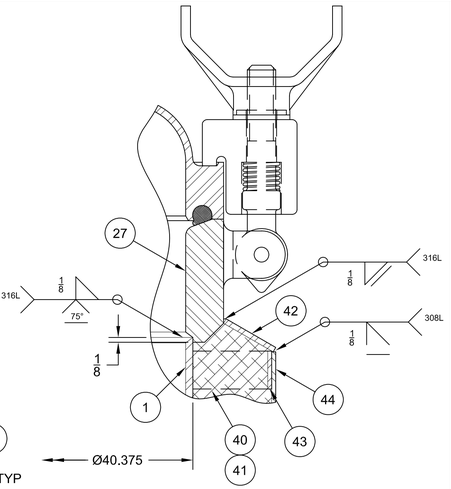
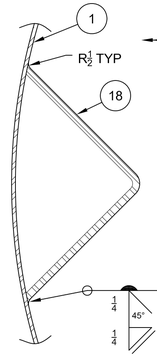


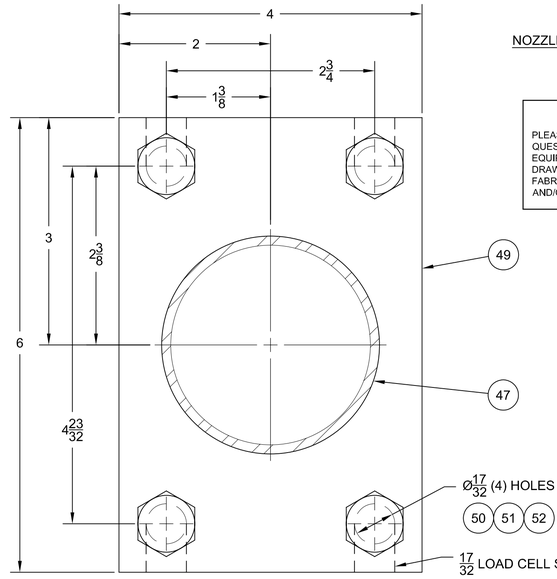
BAFFLE DETAIL



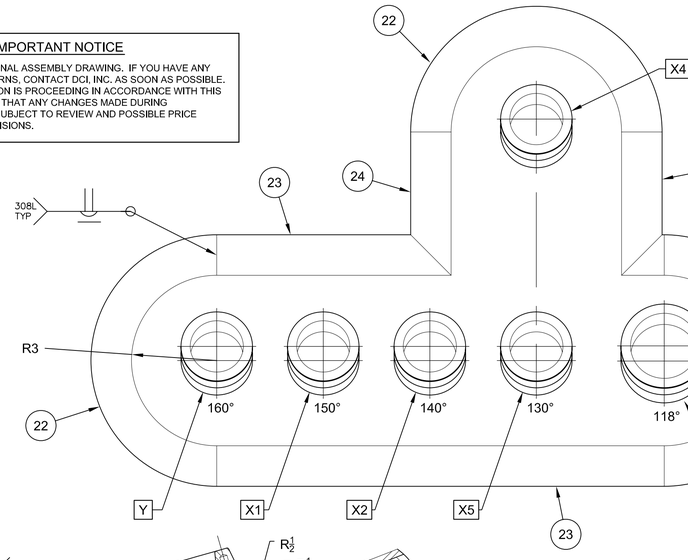
MANWAY DETAIL

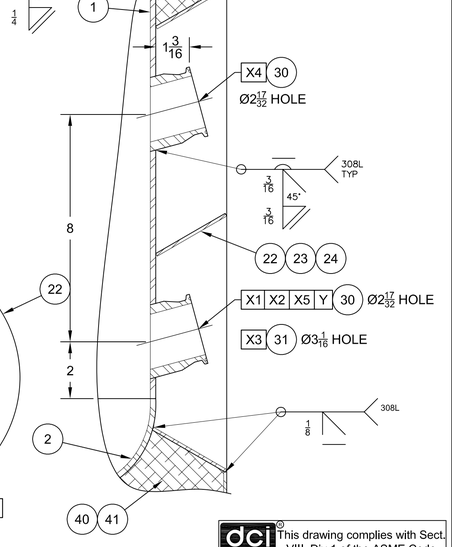


NOZZLE S DETAIL

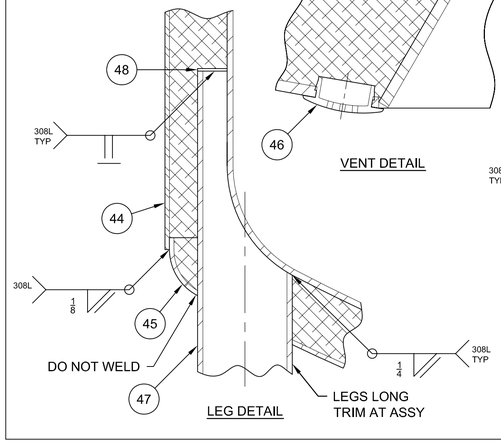


VIEW A-A
LEG AT 90°



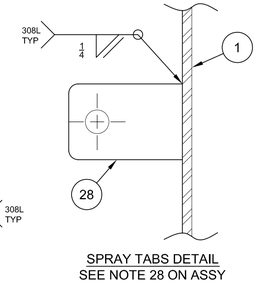


TYP SIDE NOZZLE DETAIL

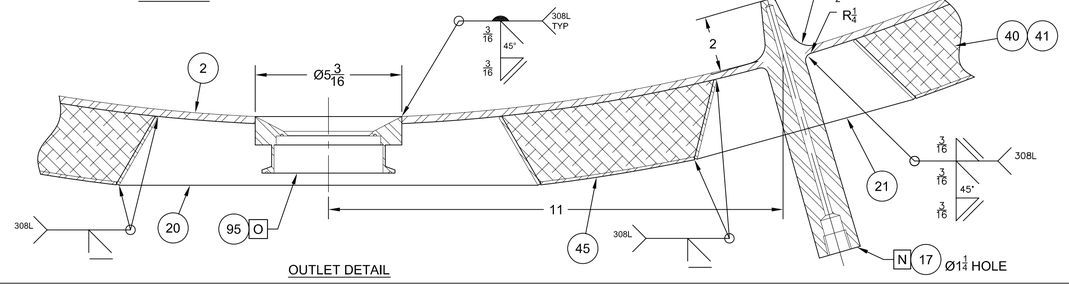


LEG DETAIL

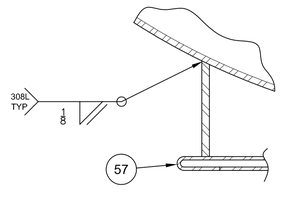
VENT DETAIL



SPRAY TABS DETAIL
SEE NOTE 28 ON ASSY



OUTLET DETAIL



CARD HOLDER DETAIL

IMPORTANT NOTICE

PLEASE REVIEW THIS FINAL ASSEMBLY DRAWING. IF YOU HAVE ANY QUESTIONS OR CONCERNS, CONTACT DCI, INC. AS SOON AS POSSIBLE. EQUIPMENT FABRICATION IS PROCEEDING IN ACCORDANCE WITH THIS DRAWING. BE ADVISED THAT ANY CHANGES MADE DURING FABRICATION WILL BE SUBJECT TO REVIEW AND POSSIBLE PRICE AND/OR SHIPMENT REVISIONS.

This drawing complies with Sect. VIII, Div.1 of the ASME Code

ENG. Luke A. Baker I am certifying this drawing. DCI, Inc. 2006.02.28 15:53:18 -06'00'

Q.C.

A.I. Acceptance

Mill Certs and Weld Documentation Required

TITLE 790 LTR PRIMARY REACTOR (4XC), RR-3301

DCI ORDER NO.: CS14715 | QTY. REQD.: 1

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED

SCALE: N/A | DO NOT SCALE DRAWING

PRODUCTION	APPROVAL	PROJ. ENG.
AWL	CCH	MDR
DATE 09/29/05	DATE 07/19/05	PROJ. MAN. VFP

ST. CLOUD, MN

PREFIX	DRAWING NO.	REV
014-04	JS3101	D

SHEET 2 OF 2

BILL OF MATERIAL

(FOR REFERENCE USE ONLY)

NAME	DWG NO.	REV
AWL	JS3101	D

REF JS3094

This drawing complies with Sect. VIII, Div.1 of the ASME Code

ENG. Luke A. Baker, I am certifying this drawing. DCI, Inc. 2006.02.28 15:53:31 -06'00'

Q.C.

A.I. Acceptance

Mill Certs and Weld Documentation Required

ITEM NO.	PART NO.	QTY.	DESCRIPTION	MATL. SPEC.
.	.	.	.	.
84	094-211812-10	1	CIP MOUNTING TUBE & BALL ASSY,3 TC CAP,1.5 TC,8.375 LG (NOZ C2)	KYNAR
83	094-211812-9	1	CIP MOUNTING TUBE & BALL ASSY,3 TC CAP,1.5 TC,8.375 LG (NOZ C1)	KYNAR
82	236-211811-7	1	DIP TUBE (6" FROM BTM) 53.5" LG 3" FLG FACE TO END OF TUBE	PTFE LINED 304L
81	236-211811-6	1	DIP TUBE (8" FROM BTM) 51.5" LG 3" FLG FACE TO END OF TUBE	PTFE LINED 304L
80	965-913259	1	TIMER SWITCH,LIGHT, #NET-1-3-UL NEMA 4X	.
79	965-907088	1	LIGHT GLASS PAPAILIAS SERIES MSL-100/2"	.
78	939-913184	1	LIGHTNIN MIXER .75 HP SERIES SSV06S75 15.6" DIA A310 IMPELLER	.
77	961-913186	1	NOVASEPTIC VLV BODY 2" #NU200-3X-U957	316/316L
76	961-912077	1	NOVASEPTIC #PA51/111 PNEUMATIC ACTUATOR	.
75	961-913192	1	NOVASEPTIC #NA51/82 2" D-SEAL LKG RING	.
74	961-913191	1	NOVASEPTIC #NA51/2X-898 PTFE DIAPHRAGM	.
73	965-907479	1	SIGHT GLASS 6" PAPAILIAS SVTC	
72	917-912593	1	CLAMP HVY DUTY 8" #C080.6.SHXII	LJ STAR 316SS
71	919-911983	1	GSKT 8" TC #40RXF-E FDA CFR 21 USP CLASS VI	BLACK EPDM
70	917-912579	1	CLAMP LT DUTY 6" SINGLE HINGE #C060.4.S.F3	LJ STAR 304
69	919-909925	1	GSKT 6" TC #40RXF-E FDA CFR 21 USP CLASS VI	BLACK EPDM
68	917-912591	1	CLAMP HVY DUTY 4" #C040.4.SSH	LJ STAR 304
67	919-909924	1	GSKT 4" TC #40RFX-E FDA CFR 21 USP CLASS VI	BLACK EPDM
66	917-912577	2	CLAMP LT DUTY 3" SINGLE HINGE #C030.4.S.F3	LJ STAR 304
65	919-909923	2	GSKT 3" TC #40RXF-E FDA CFR 21 USP CLASS VI	BLACK EPDM
64	917-912576	1	CLAMP LT DUTY 2.5" SINGLE HINGE #C025.4.S.F3	LJ STAR 304
63	266-211755	1	CAP,TC,2.5,3.047 DIA,.25 THK,COATED	SA240,304L
62	919-911385	1	GSKT 2.5" TC #40RXF-E FDA CFR 21 USP CLASS VI	BLACK EPDM
61	917-912575	6	CLAMP LT DUTY 2" SINGLE HINGE #C020.4.S.F3	LJ STAR 304
60	266-212347	5	CAP,TC,2,2.516 DIA,.25 THK,COATED	SA240,304L
59	919-909922	6	GSKT 2" TC #40RXF-E FDA CFR 21 USP CLASS VI	BLACK EPDM
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57	180-166580	1	CARD HOLDER,3 X 5,16 GA	SA240,316/316L
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54	059-212326	2	GROUND LUG,.375X1.5X2,.56 HOLE,.25 R CORNERS	SA479,304
53	960-903883	3	TUBE 1-5/8" .109 ORN POL OD X 32-1/2" LG	SA249,304
52	913-917255	12	NUT FULL HEX HD 1/2"-13 UNC	ASTM F594 Group1
51	913-917208	12	WASHER LOCK 1/2"	ASTM F593 Group 1
50	913-916632	12	BOLT HEX HD 1/2"-13 UNC X 1-3/4" LG	ASTM F593 Group 1
49	244-207178	3	LEG PAD,.375X4X6,(4).53 HOLES,2.75X4.75 BP	SA240,304
48	950-	3	SHT 12 GA X 1-1/2" X 3" (LEG CAPS)	SA240,304
47	158-211754	3	LEG SECT,UPR,2.5-40,3.187 R,76.5 LG,FLAT TOP	SA312,304
46	975-942436	1	VENT PLUG WHITE (A016309)	NYLON
45	051-206963	1	HD,TS,RF,44.87 ID,45 DR,2 KR,.5 SF,12 GA	SA240,304
44	122-211753	1	OUTER JKT,45.375 OD,41.1875 H,12 GA	SA240,304
43	950-	1	SHT 12 GA X 1 X 141-9/16 (OUTER JKT BACKING)	SA240,304
42	185-211752	1	BREAST RING,42 ID,45.375 OD,1 H,30 DEG,10 GA	SA240,304
41	928-916302	115	INS 1" X 48" X 25' (2 LAYERS 1" THICK)	CERWL #3
40	969-922333	.25	PAINT BLACK THURMALOX DAMPNEY	#70
39	066-200100	3	LIFT LUG,FLAT,.5X2,3 LG,1 HOLE	SA240,316/316L
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37	914-926733	1	FLANGE 3" 150# RFSO ANSI	SA182F,304L
36	935-902836	1	PIPE 3 SCH 40 X 5-1/2" LG	SA312,304/304L
35	211-211764	1	PAD REINF,8 DIA,4.75 HOLE,.25 PLT	SA240,304
34	110-211748	1	HAND HOLE INSPECTION PORT ASSY,8 TC,HNGD,6 TC,COATED	304/304L
33	119-211733	1	FERRULE,TC,HW,COATED,4,3.834 ID,4.682 OD,2.50 LG (NOZ F)	SA479,304/304L
32	119-212337	3	FERRULE,TC,HW,COATED,3,2.870 ID,3.579 OD,3.250 LG (NOZ C1,C2,G)	SA479,304/304L
31	119-211747	1	FERRULE,TC,HW,COATED,2.5,2.370 ID,3.047 OD,2.50 LG (NOZ X3)	SA479,304/304L
30	119-212336	8	FERRULE,TC,HW,COATED,2,1.870 ID,2.516 OD,2.75 LG (NOZ A,B,E,X1,X2,X4,X5,Y)	SA479,304/304L
29	119-211732	2	FERRULE,TC,HW,COATED,1.5,.870 ID,1.984 OD,2.50 LG (NOZ D,K)	SA479,304/304L
28	059-212346	8	GROUND LUG,.5X2X3,.625 HOLE,.25 R CORNERS (COATING TABS)	SA479,304
27	130-211744	1	MH COV ASSY,PV,40,3.21 FR,.25 COV,COATED	316/316L
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24	950-	2	SHT, 12 GA X 3-1/2 X 6 (OUTER JKT RECESS)	SA240,304
23	199-211743	1	SLEEVE,JKT REC,30 DEG,1.81 INS,1.12 H,20.156 R,20 DEG C TO C	.
22	133-212512	2	TAPER,60 DEG,6 ID,9.593 OD,3 H,12 GA (CUT IN HALF)	SA240,304
21	133-212319	1	TAPER,60 DEG,5 ID,8.31 OD,2.75 H,12 GA	SA240,304
20	133-187675	1	TAPER,60 DEG,9 ID,12 OD,2.438 H,12 GA	SA240,304
19	266-211742	8	CAP,BAFFLE,.25 X 5.25 H X 7.4375 WD	SA240,304L
18	027-211741	4	BAFFLE,FLAT,90 DEG BEND,4 H,36.375 LG	SA240,304L
17	087-212331	1	THERMOWELL,1/2-14NPT,.266 X 9 BULB,1.5 OD,9.25 LG+	SA479,304/304L
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14	914-901255	2	FLANGE 1-1/2" 150# RFSO ANSI	SA182F,316/316L
13	935-903321	2	PIPE 1-1/2" SCH 40 (5" LG)	SA312,316/316L
12	930-912227	1	PIPE 1/2 SCH 40 TOE (4-1/2 LG)	SA312,316/316L
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10	041-148791	6	END CAP,HDR,HALF PIPE,2,SCH 40,.25 THK	SA240,316/316L
9	041-212281	2	HDR,HALF PIPE,2 SCH 40,11 LG,40.187 R,BTM HDR	SA240,316/316L
8	935-	1	PIPE 2" SCH 40 X 15 " LG (JOINER)	SA240,316/316L
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6	041-212280	2	HDR,HALF PIPE,2 SCH 40,96 LG,42 SLOTS (30.75 LG)	SA240,316/316L
5	303-212365	1	DIMPLE JKT,AF,DH,40.18 IDR,17 R,6.5 R,PIPE HDRS,14 GA	SA240,316/316L
4	139-212360	1	DIMPLE JKT,AF,40 ID,30.75 H,96.75 LG,HALF PIPE,NO BAF,14 GA	SA240,316/316L
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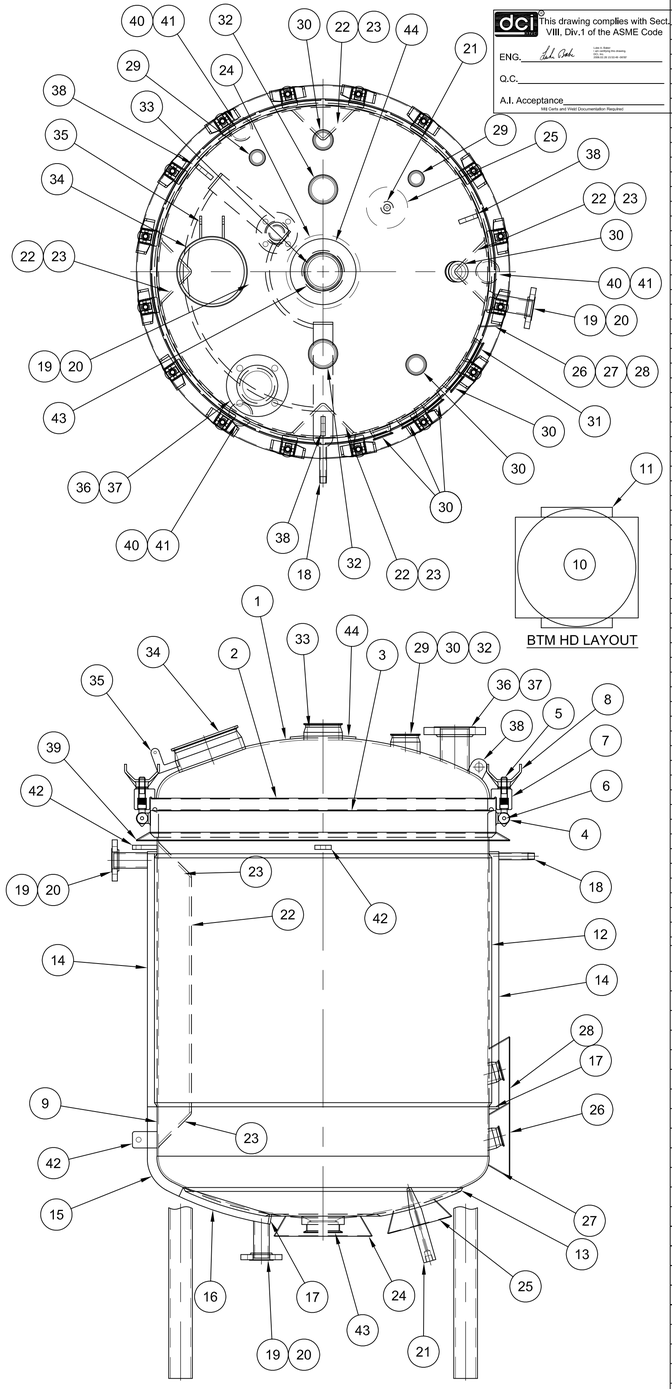
2	051-190177	1	HD,TS,RF,40 ID,40 DR,3 KR,.25 SF,7 GA (INNER BTM HD)	SA240,304L
1	125-212359	1	LINER,FLAT/FLAT,40 ID,38.87 H,7 GA	SA240,304L

ITEM NO.	PART NO.	QTY.	DESCRIPTION	MATL. SPEC.
95	910-913193	1	NOVASEPTIC NA CONN NAC300-3X-U959 SPECIAL 3" NA CONN W/4" CONN	316/316L
94	097-212341	1	INFO PLATE,TURNER/STRKYER	.
93	097-148336	1	INFO LABEL,DANGER,MOVING AGITATOR	.
92	097-148335	1	INFO LABEL,DANGER,CONFINED SPACE	.
91	097-164003	1	INFO LABEL,EXTERIOR STAINLESS STEEL SURFACE	.
90	097-162341	1	INFO LABEL,INTERNAL SURFACES	.
89	976-908948	1	LABEL UNION MADE	.
88	976-908949	1	LABEL AMERICAN FLAG	.
87	097-005436	2	INFO PLATE,ASME PRESSURE RATING	SA240,304
86	097-010000	1	INFORMATION PLATE,DCI,SAINT CLOUD,MN	

WPS — LEGEND
1-501
WELDERS STAMP

	WELD WIRE HEAT NUMBERS		
	PRODUCT CONTACT (WIRE TYPE)	HEAT TRANSFER (WIRE TYPE)	OTHER (WIRE TYPE)
RECORD ALL WELDS IN SKETCH			
SPECIAL NOTES (PRODUCT CONTACT)			
☐ GTAW ONLY			
☐ GTAW ONLY 99.996 ARGON			
☒ NO STICK WELDING (SMAW)			
☐ NO PLASMA WELDING (PAW)			
☐ NO GMAW WELDING (GMAW-P ALLOWED)			
☐ NO GMAW-P WELDING			
☐ NO AUTOGENOUS WELDING			
☐ OTHER			
☒ RECORD WELD WIRE HEAT NOS.			



This drawing complies with Sect. VIII, Div.1 of the ASME Code

ENG.

Q.C.

A.I. Acceptance

TIG Coils and Weld Documentation Required

TRAVELER, CHECK LIST

SHEET 1 OF 1

DRAWN AWL	DATE 9/28/05	AS BUILT SKETCH	REV. D
CHECKED	DATE	SERIAL NO.- JS3101	
Q.C. DWG REVIEW		N.B. NO.-	
A.I. DWG REVIEW		FINAL ASSY- JS3101	

ITEM NO.	NO. REQD	MATL SPEC	DESCRIPTION	HEAT NO.	P.O. NO.	SUPPLIER	Q.C.
1	2	SA240,316/316L	PLATE, 1/4 (MH CVR HD)				
2	1	SA182F,316/316L	RING 40 ID X 42 OD (CVR RING)				
3	1	SA182F,316/316L	RING 40 ID X 42 OD (FRM RING)				
4	4	SA351,CF8M	CASTING 143988 (FRM HLDN LUG)				
5	4	SA193,B8	FORGED SCREW 143989 (CLAMPSCREW)				
6	4	SA564,630	ROUND 3/8 (CLAMPSCREW PIN)				
7	4	SA351,CF8M	CASTING 143987 (CVR HLDN LUG)				
8	4	SA351,CF10S-MnN	CASTING 028713 (WINGNUT)				
9	1	SA240,304L	SHEET, 7 GA (LINER)				
10	1	SA240,304L	SHEET, 7 GA (BTM HD)				
11	2	SA240,304L	SHEET, 7 GA (BTM HD)				
12	1	SA240,316/316L	SHEET, 14 GA (DIMPLE JKT,LINER)				
13	1	SA240,316/316L	SHEET, 14 GA (DIMPLE JKT,BTM HD)				
14	2	SA312,316/316L	PIPE 2"-40 (HALF PIPE HDR,LINER)				
15	1	SA312,316/316L	PIPE 2"-40 (HALF PIPE HDR JOINER)				
16	2	SA312,316/316L	PIPE 2"-40 (HALF PIPE HDR,BTM HD)				
17	6	SA240,316/316L	PLATE, 1/4" (END CAP,HALF PIPE HDR)				
18	1	SA312,316/316L	PIPE,1/2" SCH 40 (VENT,DIMPLE JKT)				
19	2	SA312,316/316L	PIPE 1-1/2"-40 (CONN, DIMPLE JKT)				
20	2	SA182F,316/316L	FLANGE,1-1/2" RFSO ANSI (DJ CONN)				
21	1	SA479,304/304L	RD, 1-1/2" (THERMOWELL)				
22	4	SA240,304L	PLATE, 1/4" (BAFFLES)				
23	8	SA240,304L	PLATE, 1/4" (BAFFLE CAPS)				
24	1	SA240,304	SHEET, 12 GA (TAPER, OUTLET AREA)				
25	1	SA240,304	SHEET, 12 GA (TAPER, THERMOWELL)				
26	2	SA240,304	SHEET, 12 GA (TAPER,SIDE FTGS)				
27	2	SA240,304	SHEET, 12 GA (SLV,HORIZ,OUTER JKT REC)				
28	2	SA240,304	SHEET, 12 GA (SLEEVE,VERT,OUTER JKT REC)				
29	2	SA479,304L/304L	FERL,TC,HW,1.5,1.870 ID,1.984 OD				
30	8	SA479,304/304L	FERL,TC,HW,2,1.870 ID,2.516 OD				
31	1	SA479,304/304L	FERL,TC,HW,2.5,2.370 ID,3.047 OD				
32	2	SA479,304/304L	FERL,TC,HW,3,2.870 ID,3.579 OD				
33	1	SA479,304/304L	FERL,TC,HW,4,3.834 ID,4.682 OD				
34	1	SA312,304/304L	FERL,TC,HW,8,7.782 ID,8.570 OD				
35	2	SA240,316/316L	PLATE, 1/4" (HANDHOLE HINGE LUG)				
36	1	SA312,304/304L	PIPE, 3" SCH 40 (DIP TUBE)				
37	1	SA182F304L	FLANGE 3" 150# RFSO ANSI (DIP TUBE)				
38	3	SA240,316/316L	PLATE, 1/2" (LIFT LUGS,MH CVR)				
39	1	SA240,304	SHEET, 10 GA (BREAST RING)				
40	3	SA312,304/304L	PIPE 2-1/2" SCH 40 (LEGS)				
41	3	SA240,304	SHEET, 12 GA (LEG CAPS)				
42	8	SA479,304	FLAT, .5 X 2 (COATING TABS)				
43	1	SA479,316/316L	PURCH 2" NOVASEPTIC VALVE BODY				
44	1	SA479,304	PLATE, 1/4" (REINF PAD)				
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INSPECTION STEPS DCI JOB No.	Q.C.DATE	A.I.DATE
1.) Inspect Welded Seams of shell,heads,dimple jacket		
2.) Bottom Head fit up & tack,weld prep		
3.) Bottom Head welding appearance Nozzles & girth seam		
4.) Top Head fit up & tack,weld prep		
5.) Top Head welding appearance Nozzles & girth seam		
6.) Nozzles, attachments, Manway weld prep & layout		
7.) Shell Nozzles, attachments, Manway welding appearance		
8.)* Dimple Jacket Weld Macro-Section Results Satisfactory		
9.) Non Destructive Examination (if required)		
10.)* Internal Visual inspection		
11.) Preliminary Pressure Test		
12.)* Final Pressure Test		
13.)* Final visual & Dimensional inspection		
14.)* Stamping		
15.)* Calculation & Mill Test Report Review		
16.)* Sign Data Report		
17.) Non-Conformance (if applicable)		

* Indicates inspection points required by Authorized Inspector.