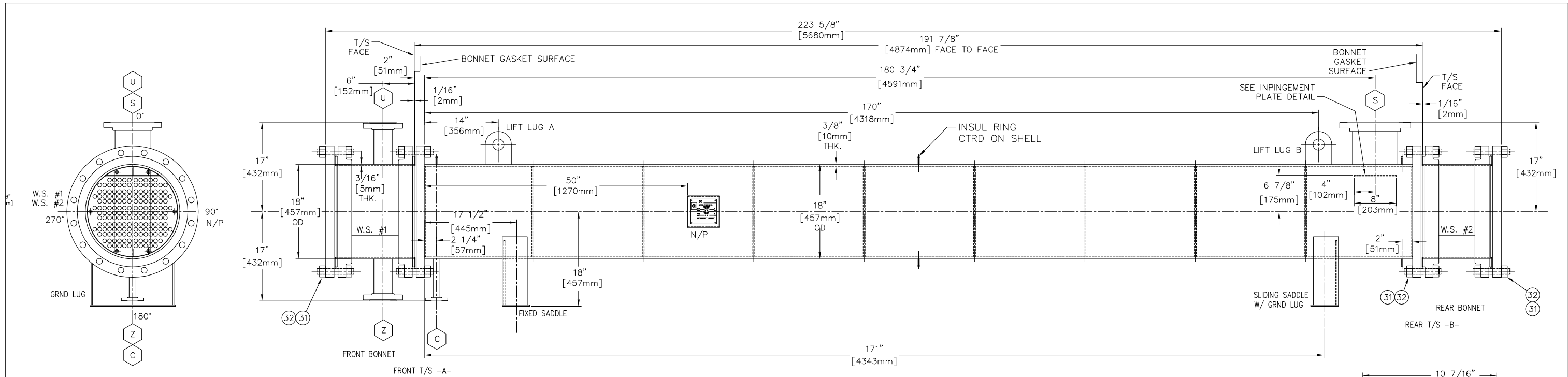
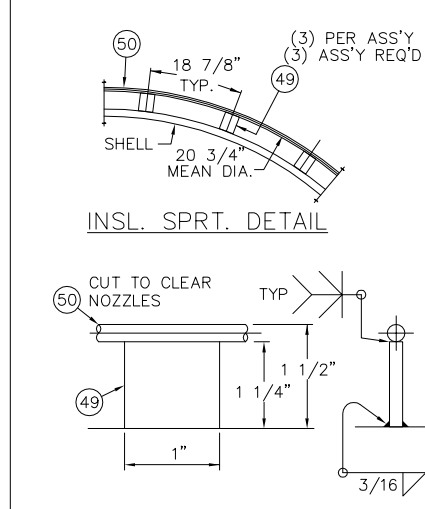


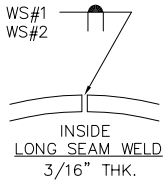


ORIENTATION VIEW

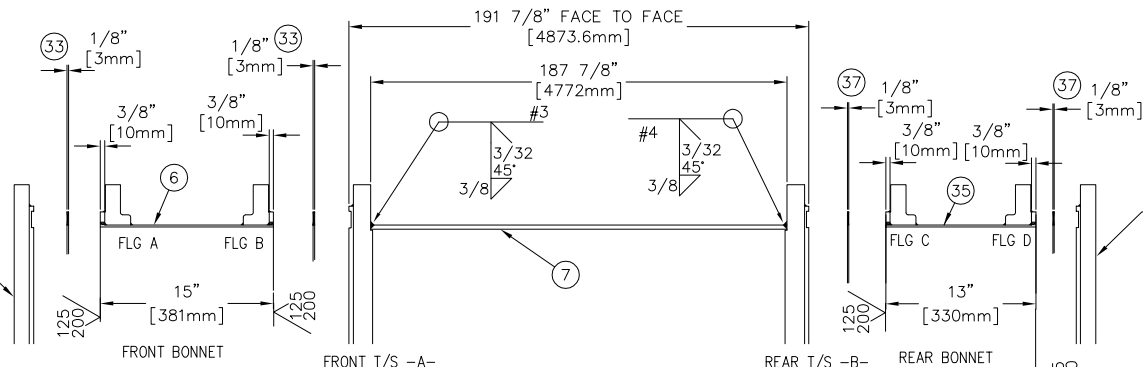
ELEVATION VIEW
UNIT 33350-A (E-1400-A)
UNIT 33350-B (E-1400-B)



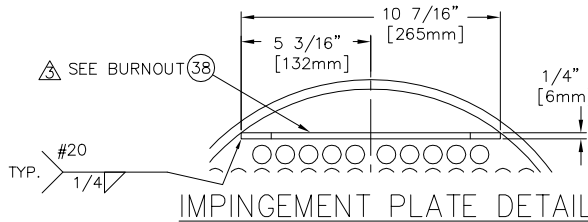
INSL. SPRT. DETAIL



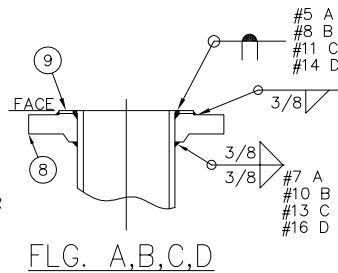
FRONT COVER
SEE DETAIL
ON SHT 3



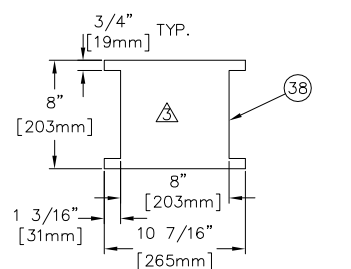
SHELL ASSEMBLY DETAIL VIEW



IMPINGEMENT PLATE DETAIL



FLG. A,B,C,D



IMPINGEMENT PLATE
BURNOUT

PT ALL N10276 WELDS PER UNF-58

UNIT #	-Y-	-Z-
33350-A	33350A	2097
33350-B	33350B	2098

MARK	SIZE	DESCRIPTION	TYPE	CLASS
Z	2"	TUBE SIDE INLET	RFLJ	150#
U	2"	TUBE SIDE OUTLET	RFLJ	150#
S	8"	SHELL SIDE INLET	RFSO	150#
C	2"	SHELL SIDE OUTLET	RFSO	150#
		NOZZLE	FLANGE	

MAJOR COMPONENT DESIGN DATA			
VESSEL DESIGNED PER THE ASME CODE SECTION VIII DIVISION 1, LATEST ADDENDA.			
SHELL SIDE		TUBE SIDE	
DESIGN PRESSURE INTERNAL:	100 PSI @ 350 DEG F	DESIGN PRESSURE INTERNAL:	100 PSI @ 350 DEG F
DESIGN PRESSURE EXTERNAL:	15 PSI @ 350 DEG F	DESIGN PRESSURE EXTERNAL:	15 PSI @ 350 DEG F
HYDRO TEST:	180 PSI @ 70 DEG F	HYDRO TEST:	180 PSI @ 70 DEG F
MDMT:	-20 DEG F	MDMT:	-20 DEG F
CORROSION ALLOWANCE:	1/8"	CORROSION ALLOWANCE:	NONE
ESTIMATED CAPACITY:	98.8 US GALLONS	ESTIMATED CAPACITY:	45.3 US GALLONS
INSULATION SPRTS: YES		INSULATION : 2" THK (SUPPLIED BY OTHERS)	
RADIOGRAPH: LONG.	CIRC.	RADIOGRAPH: LONG.	CIRC.
SHELL	N/A	SHELL	FULL UW-11A N/A
HEAD	N/A	HEAD	SMLS N/A
NOZ (PIPE)	SMLS N/A	NOZ (PIPE)	SMLS N/A
NOZ (PL)	N/A	NOZ (PL)	N/A

EXTERIOR SURFACE PREP: SSPC-SP 10 (CS ONLY)	INTERIOR SURFACE PREP: NONE
COATING: RED OXIDE PRIMER (CS ONLY)	COATING:

± 1/8"	FACE OF NOZZLE TO CENTERLINE OF EQUIPMENT.		
± 1/8"	C.L. OF NOZZLE TO BASELINE OR DATUM REFERENCE.	3	RCK 10/5/05
1"	NOZ. FLNG FACE ALIGNMENT, C.L. TO EDGE, IN DEGREES RISE	2	MEH 06/08/05
± 1/8"	PLAN LOCATION OF NOZ. OR SUPPORT LUGS FROM EQUIP. C.L. OR DATUM REF.	1	RCK6/6/05 JDJ
± 1/8"	FACE OF BOTTOM NOZZLE TO BASELINE OR DATUM REFERENCE.	NO.	BY DATE

FABRICATION TOLERANCES (GENERAL)

THIS DOCUMENT IS THE PROPERTY OF GASPAR INCORPORATED AND THE INFORMATION IT CONTAINS IS CONSIDERED TO BE CONFIDENTIAL. IT IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF GASPAR INCORPORATED, NOR REPRODUCED IN ANY FASHION W/O PRIOR WRITTEN PERMISSION, AND IS SUBJECT TO RETURN UPON REQUEST.

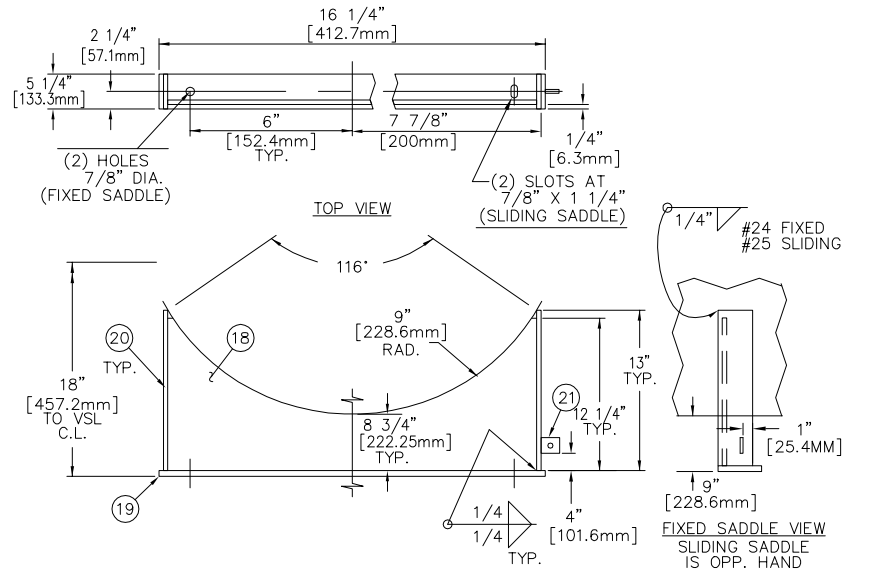
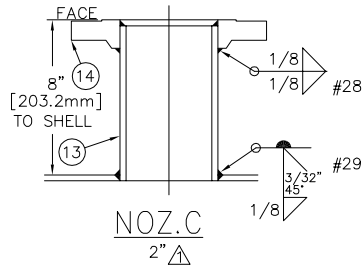
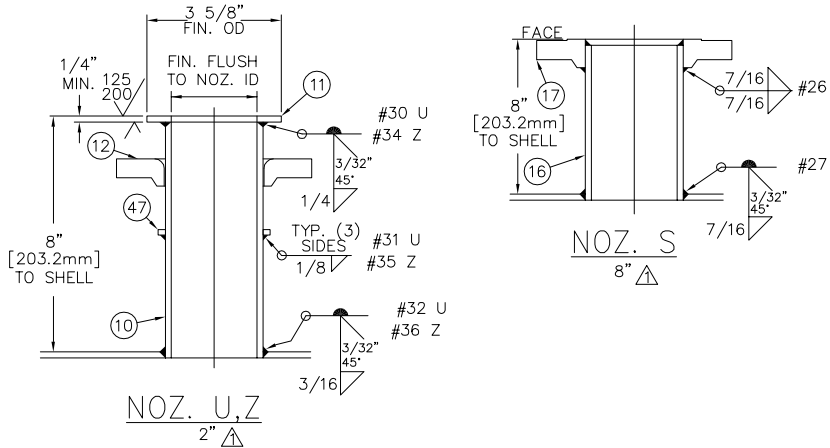
- GENERAL NOTES:
- FLANGE BOLT HOLES SHALL STRADDLE 0 & 180 DEG. VESSEL CENTERLINES UNLESS NOTED.
 - WELDS SHALL BE NEAT IN APPEARANCE, FREE OF SLAG, UNDERCUTS AND OTHER DEFECTS.
 - REINFORCING PADS AND PAD SECTIONS SHALL HAVE 1/8 INCH NPT WEEP HOLE LOCATED AS LOW AS POSSIBLE IN THE PAD WHEN THE VESSEL IS IN OPERATING POSITION. PLUG WEEP HOLE WITH HEAVY GREASE.
 - VESSEL SHALL BE CLEANED OF SCALE, OIL, WELD SPATTER AND ALL OTHER FOREIGN MATTER BEFORE HYDROSTATIC TESTING.
 - COAT ALL NOZZLE GASKET SURFACES WITH PROTECTIVE LUBRICANT BEFORE BLANKING FOR SHIPMENT.
 - PROTECT ALL MACHINED SURFACES AND THREADED CONNECTIONS WITH WOOD OR PLASTIC PROTECTORS BEFORE SHIPMENT.
- ESTIMATED EMPTY WEIGHT: 4970 LBS
SHIPPING SIZE: 25 X 35 X 224 INCHES

CERTIFIED DIMENSIONAL PRINT
BY: *Michael R. Smith*
DATE: 5/12/05

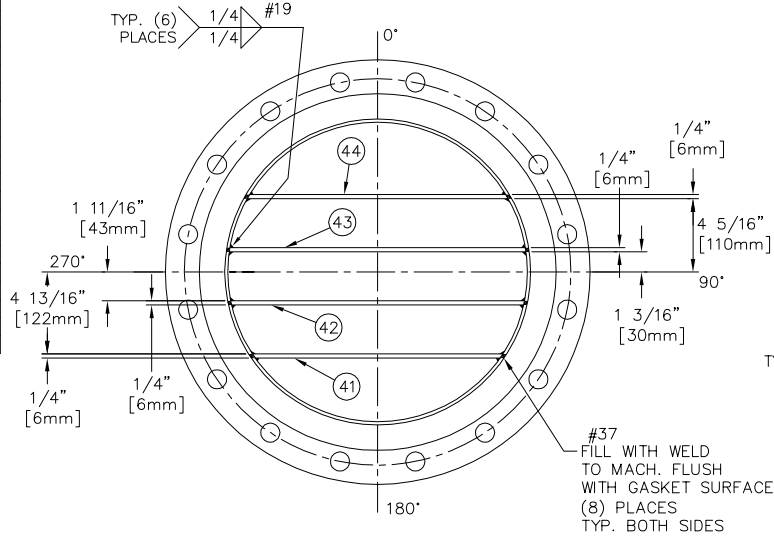
CERTIFIED BY GASPAR, INC. CANTON, OHIO	
SHELL SIDE	
MAWP	123 PSI AT 350 °F
MDMT	-20 °F AT 123 PSI
TUBE SIDE	
MAWP	123 PSI AT 350 °F
MDMT	-20 °F AT 123 PSI
-Y- SEE CHART 2005	
MFG. SERIAL NO. YEAR BUILT	
SHELLSIDE MAEPW	15 PSI AT 350 °F
TUBESIDE MAEPW	15 PSI AT 350 °F

GASPAR JOB #:				33350-W	
CLIENT: TATE & LYLE / L. GREEN					
P.O. NO.: 4600045190			NUMBER OF UNITS: 2		
INQUIRY #: 23835-A1			REFERENCE NUMBER: E-1400 A/B		
 Gaspar, Inc. CANTON, OHIO					
DRAWING TITLE: ORGANICS HEATER					
DRAWN BY: RCK/5/6/05		DRAWING NUMBER: 33350		REVISION: 3	
CHECKED BY: JDJ 5/12/05		SHEET 1 OF 3			

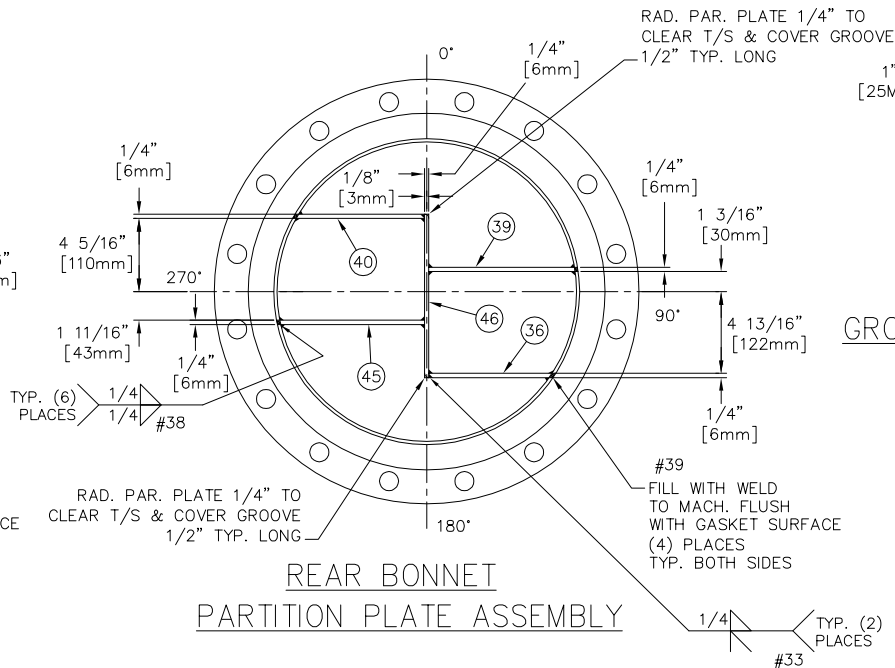
MRK	REV	QTY	TYPE	DESCRIPTION	LOCATION	MATERIAL
0.1	-			QTY'S SHOWN FOR 1 UNIT, TOTAL OF 2 UNIT REQUIRED		
1	-	178	TUBE	3/4 OD X 0.065 THK AVG WLD X 192 LG (+1/8,-0)	TUBES	SB-626-N10276
1	-			TUBE EXPANDER		
2	-	2	PLATE	1 13/16 FIN X 25 FIN OD	T/S A & B	SA-516-70
3	-	2	PLATE	3/8 NDM X 21 1/2 FIN OD	T/S A&B FACE	SB-575-N10276
4	-	8	PLATE	3/8 FIN X 17 1/8 OD	BAFFLE	SA-36
5	-	1	BAR/ROD	1/4 THK X 1 3/4 WD X 148 1/2 LG	LONG BAFFLE	SA-36
6	-	1	SHELL	3/16 NDM X 15 WD X 55 15/16 (-1/8,+0) D/L X 18	FRONT BON	SB-575-N10276
7	-	1	PIPE	18 SMLS X S/STD X 187 7/8 LG	SHELL	SA-106B
8	-	4	FORGING	18 150# B-16.5 RFSO	BLONNET FLG	SA-105
9	-	4	PLATE	3/8 FIN THK X 21 OD X 18 1/2 ID	BON FLG FACE	SB-575-N10276
10	1	2	PIPE	2 WLD X S/40S X 10 LG	NOZ U,Z	SB-619-N10276
11	1	2	PLATE	1/4 THK X3 5/8 FIN OD X 2 1/16 FIN ID	NOZ U,Z	SB-575-N10276
12	1	2	FORGING	2 150# B-16.5 RFLJ	NOZ U,Z	SA-105
13	1	1	PIPE	2 SML X S/80 X 9 1/2 LG	NOZ C	SA-106B
14	1	1	FORGING	2 150# B-16.5 RFSO	NOZ C	SA-105
15	-	1	BAR/ROD	1/4 THK X 1 1/2 WD X 148 1/2 LG	LONG BAF	SA-36
16	1	1	PIPE	8 SMLS X S/40 X 9 1/2 LG	NOZ S	SA-106B
17	1	1	FORGING	8 150# B-16.5 RFSO	NOZ S	SA-105
18	-	2	PLATE	1/4 THK X 12 1/4 WD X 15 1/4 LG	SADDLES	SA-36
19	-	2	PLATE	1/4 THK X 5 1/4 WD X 16 1/4 LG	SADDLES	SA-36
20	-	4	PLATE	1/4 THK X 4 3/4 WD X 13 LG	SADDLES	SA-36
21	-	1	PLATE	1/8THK X 2 WD X 2 LG	GRND LUG	SS
22	-	2	PLATE	3/8 THK X 5 WD X 6 1/4 LG	LIFT LUG	SA-36
23	-	1	PLATE	1/8 THK X 6 WD X 11 LG	N/P	SA-36
24	-	1	BAR/ROD	3/8 DIA X 148 LG (THD BOTH ENDS 1 1/2)	TIE RODS	SA-36
25	-	5	BAR/ROD	3/8 DIA X 169 LG (THD BOTH ENDS 1 1/2)	TIE RODS	SA-36
26	-	12	BOLTING	3/8 16UNC NUT X HEX HEAVY	TIE RODS	SA-194-2H
27	-	5	PIPE	3/8 WLD X S/40 X 20 3/16 LG +/- 1/64	SPACERS	SA-106B
28	-	6	PIPE	3/8 WLD X S/40 X 41 5/8 LG +/- 1/64	SPACERS	SA-106B
29	-	28	PIPE	3/8 WLD X S/40 X 20 5/8 LG +/- 1/64	SPACERS	SA-106B
30	-	2	FORGING	18 150# B-16.5 BLIND (FLAT FACE)	BON COV.	SA-105
31	3	64	BOLTING	1 1/8 -BUNC STUD X 7 LG	BON FLG	SA-193-B7
32	3	128	BOLTING	1 1/8 -BUNC NUT X HEX HEAVY	BON FLG	SA-194-2H
33	-	2	GASKET	1/8 THK X 21 OD X 18 ID WITH RIBS SEE DWG.	FRONT BON	GARLOCK
33	-					GARLON 3510
34	-	2	PLATE	3/8 NDM X 21 1/2 OD	COVER FACER	SB-575-N10276
35	-	1	SHELL	3/16 NDM X 13 WD X 55 15/16 (-1/8,+0) D/L X 18	REAR BON	SB-575-N10276
36	-	1	PLATE	1/4 THK X 13 FIN WD X 7 LG PART. PLATE	REAR BON	SB-575-N10276
37	-	2	GASKET	1/8 THK X 21 OD X 18 ID WITH RIBS SEE DWG.	REAR BON	GARLOCK
37	-					GARLON 3510
38	-	1	PLATE	1/4 THK X 8 WD X 10 7/16 LG	IMP. PLATE	SA-36
39	-	1	PLATE	1/4 THK X 13 FIN WD X 8 1/2 LG PART. PLATE	REAR BON	SB-575-N10276
40	-	1	PLATE	1/4 THK X 13 FIN WD X 7 3/8 LG PART. PLATE	REAR BON	SB-575-N10276
41	-	1	PLATE	1/4 THK X 14 3/8 WD X 15 FIN LG PART. PLATE	FRONT BON	SB-575-N10276
42	-	1	PLATE	1/4 THK X 17 1/8 WD X 15 FIN LG PART. PLATE	FRONT BON	SB-575-N10276
43	-	1	PLATE	1/4 THK X 17 1/4 WD X 15 FIN LG PART. PLATE	FRONT BON	SB-575-N10276
44	-	1	PLATE	1/4 THK X 15 WD X 15 FIN LG PART. PLATE	FRONT BON	SB-575-N10276
45	-	1	PLATE	1/4 THK X 13 FIN WD X 8 7/16 LG PART. PLATE	REAR BON	SB-575-N10276
46	-	1	PLATE	1/4 THK X 13 FIN WD X 9 5/8 LG PART. PLATE	REAR BON	SB-575-N10276
47	-	4	BAR/ROD	1/8 THK X 1/4 WD X 1/4 LG	NOZ U,Z	SA-36
48	-	1	PIPE	3/8 WLD X S/40 X 41 3/16 LG +/- 1/64	SPACERS	SA-106B
49	2	9	PLATE	1/4 THK X 1 WD X 1 1/4 LG	INSUL RING	SA-36
50	2	3	BAR/ROD	1/4 DIA X 65 3/16 D/L	INSUL RING	SA-36
9991	-			SURF PREP: SSPC-SP 10 (CS ONLY)		
9992	-			PRIMER: RED OXIDE PRIMER (CS ONLY)		



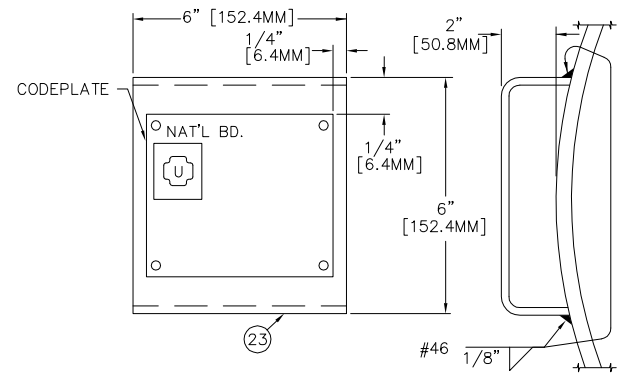
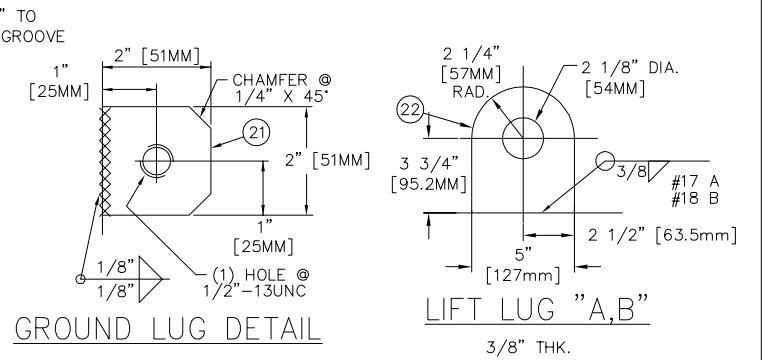
FIXED / SLIDING SADDLE DETAIL



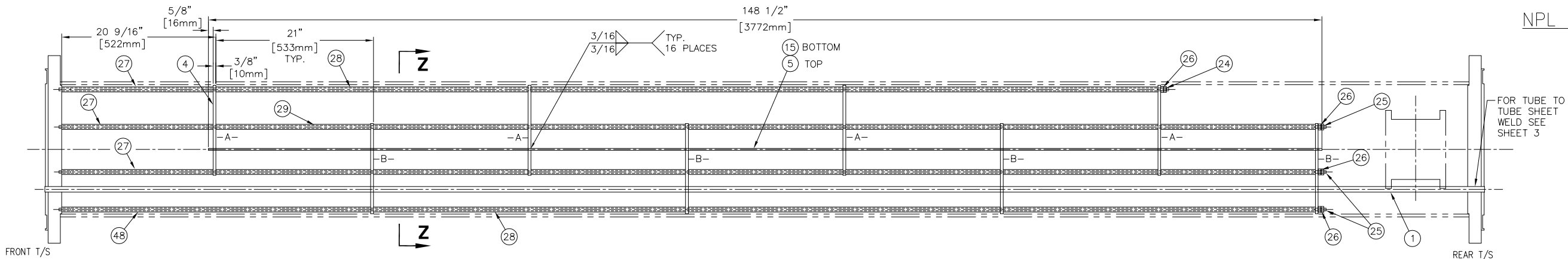
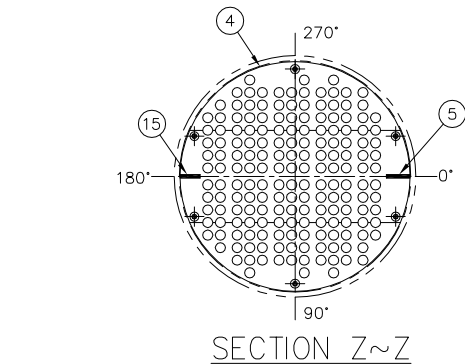
FRONT BONNET PARTITION PLATE ASSEMBLY



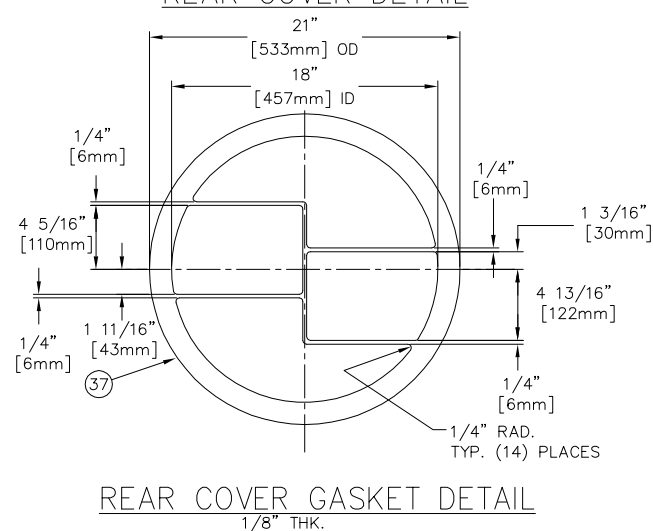
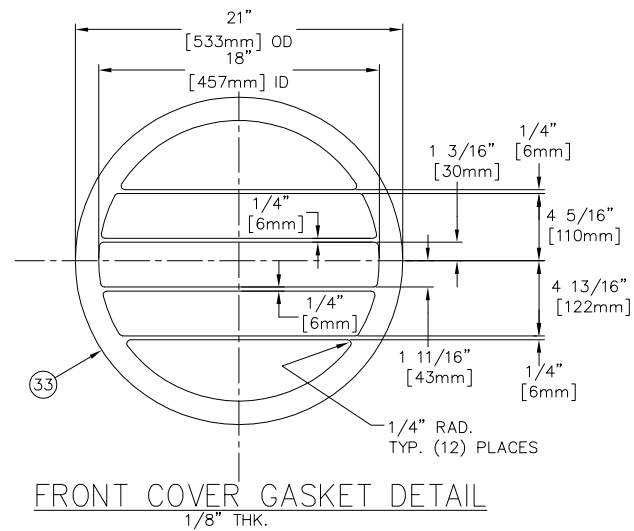
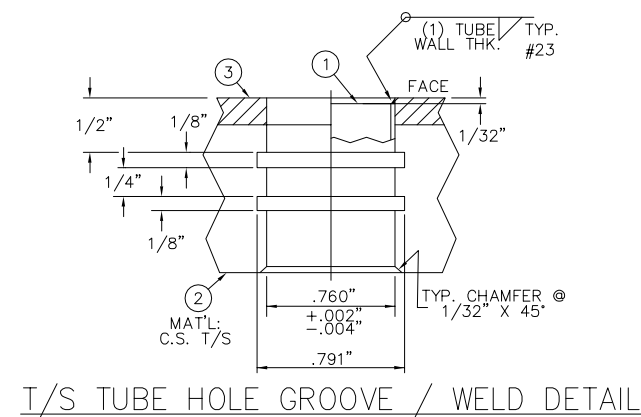
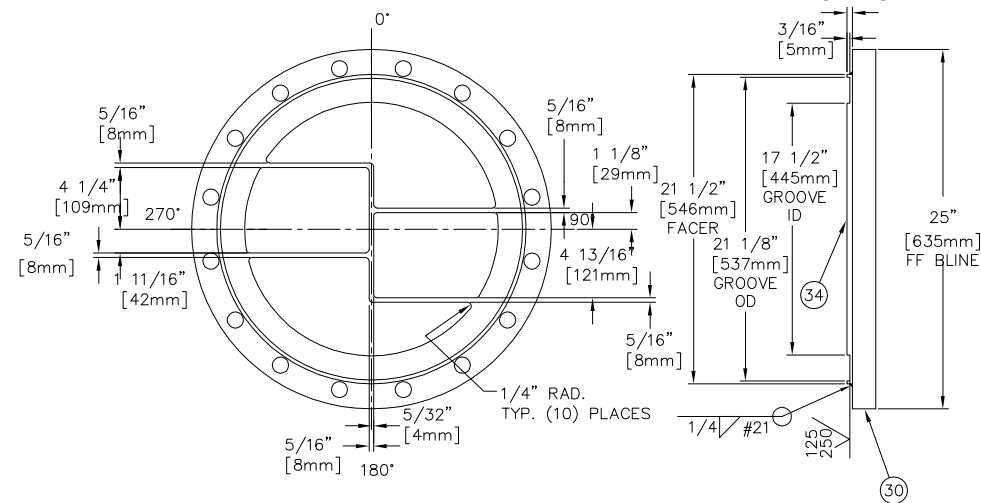
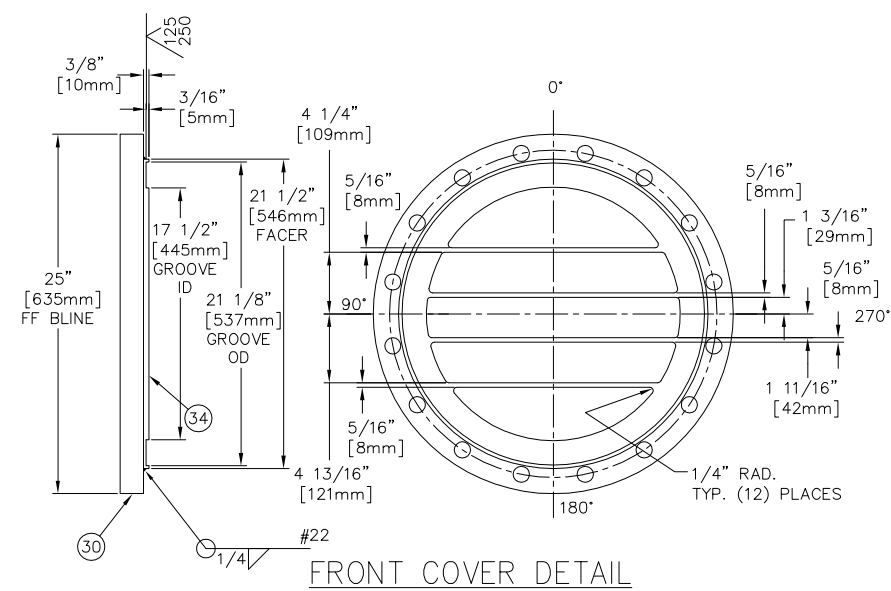
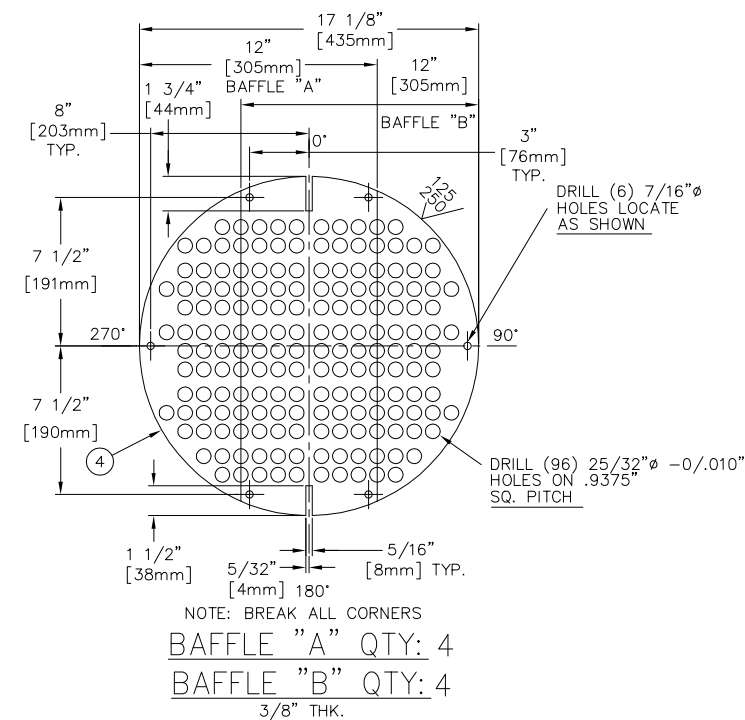
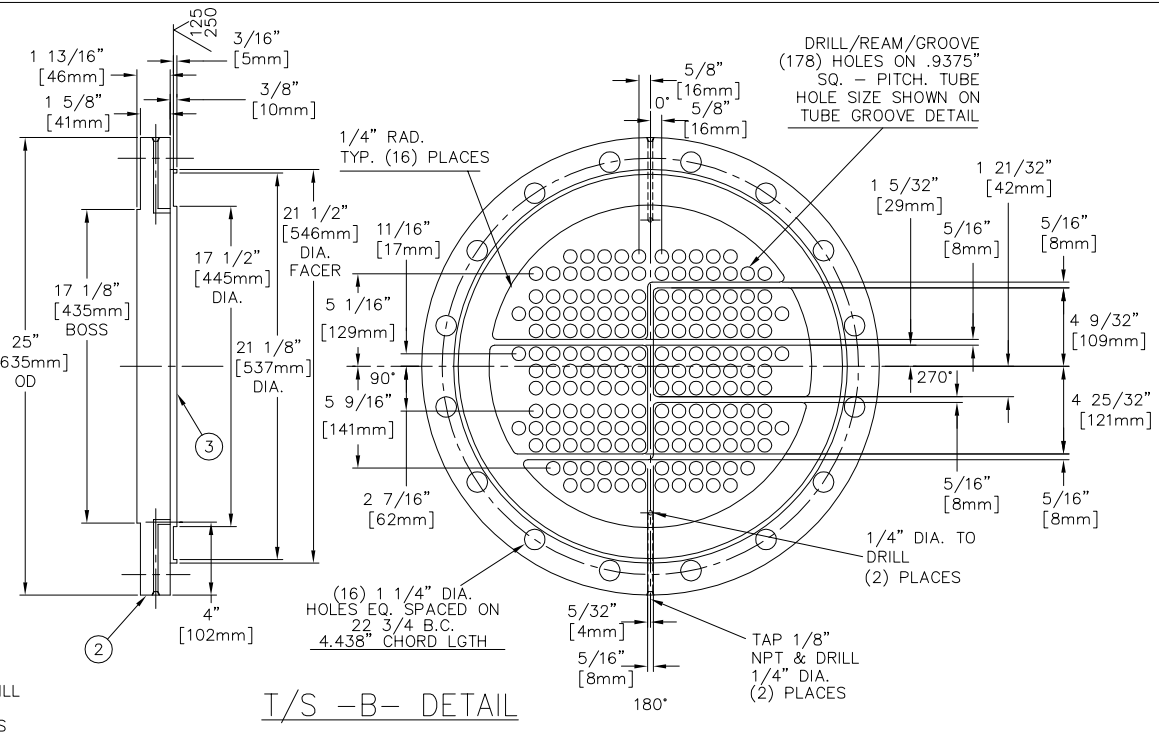
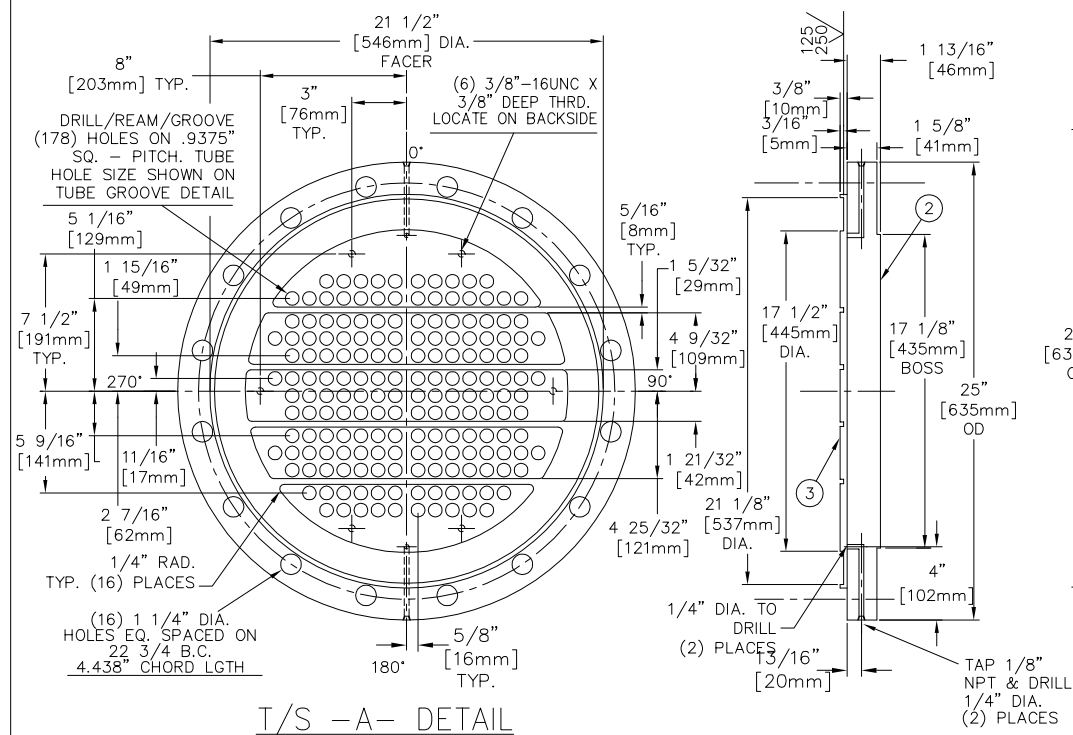
REAR BONNET PARTITION PLATE ASSEMBLY



NPL BRKT DETAIL



GASPAR JOB #		33350-W	
CLIENT		TATE & LYLE / L. GREEN	
P.O. NO.	4600045190	NUMBER OF UNITS	2
INDUSTRY #	23835-A1	REFERENCE NUMBER	E-1400 A/B
 Gaspar, Inc. CANTON, OHIO			
DRAWING TITLE: ORGANICS HEATER			
DRAWN BY: RCK/5/6/05	DRAWING NUMBER: 33350	REVISION:	3
CHECKED BY: JDU 5/12/05	SHEET 2 OF 3		



GASPAR JOB #:		33350-W	
CLIENT:		TATE & LYLE / L. GREEN	
P.O. NO.:	4600045190	NUMBER OF UNITS:	2
INQUIRY #:	23835-A1	REFERENCE NUMBER:	E-1400 A/B
		Gaspar, Inc. CANTON, OHIO	
DRAWING TITLE:			
ORGANICS HEATER			
DRAWN BY:	DRAWING NUMBER:	REVISION:	
ROCK-6/05	33350	3	
CHECKED BY:		3	
JDI 5/12/05	SHEET 3 OF 3		