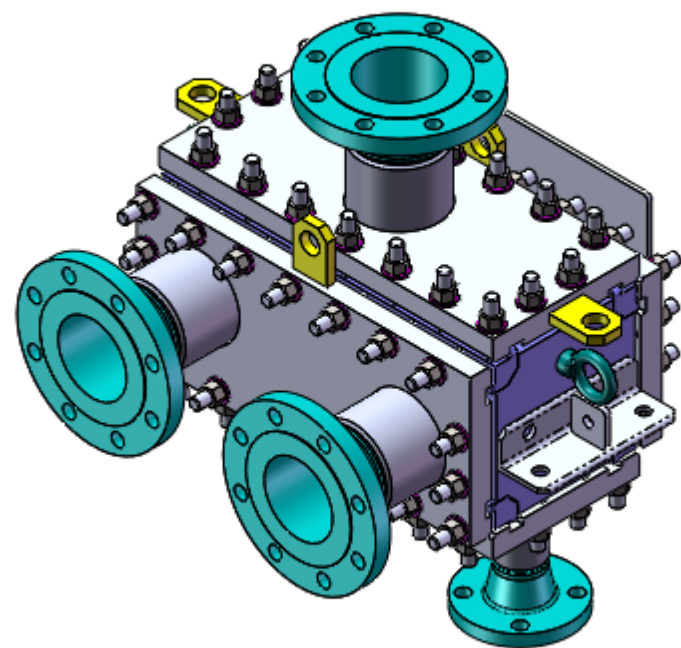




Technical drawing of a 12-inch Class 1500 gate valve in a closed position. The drawing shows the valve body, gate, and handwheel. Key dimensions include a 12-inch typical width, a 12-inch height, and various flange and connection dimensions. Callouts include A1, A2, B1, B2, 1, 2, 3, 9, 10, and 11 1/2 inches.

[illegible]

PERFORMANCE/UNIT	CIRCUIT A	CIRCUIT B
FLUID	Water-Steam	Hexanol/TLA
FLOW RATE lb/h	1,707	124,700
TEMPERATURE IN/OUT °F	364.0 / 364.0-347.0	150.0 / 165.0
PRESSURE DROP PSIG	0.00894	8.94
SURFACE AREA (sq. ft.)	22.8	90 PLATES
NUMBER OF PASSES	1	2

DESIGN PRESSURE PSIG	195/FV	195/FV
TEST PRESSURE (PSIG)	254	254
DESIGN TEMPERATURE (°F)	392 / -7	392 / -7
WEIGHT (lbs)	EMPTY: 450	FLOODED: 490

HEAT TRANSFER PLATE PACK	SA-240 316/L	
PANEL COVER	SA-516 GR.70(N)	SA-516 GR.70(N)
HEADS	SA-516 GR.60(N)	SA-516 GR.60(N)
PANEL LINERS	SA-240 316/L	SA-240 316/L
NOZZLE LINERS	UN-LINED	UN-LINED
COLUMN	SA-516 GR.60(N)	SA-516 GR.60(N)
PANEL GASKETS	Gylon 3504	Gylon 3504
BOLTING	SA-193 B7 / SA-194 2H	SA-193 B7 / SA-194 2H

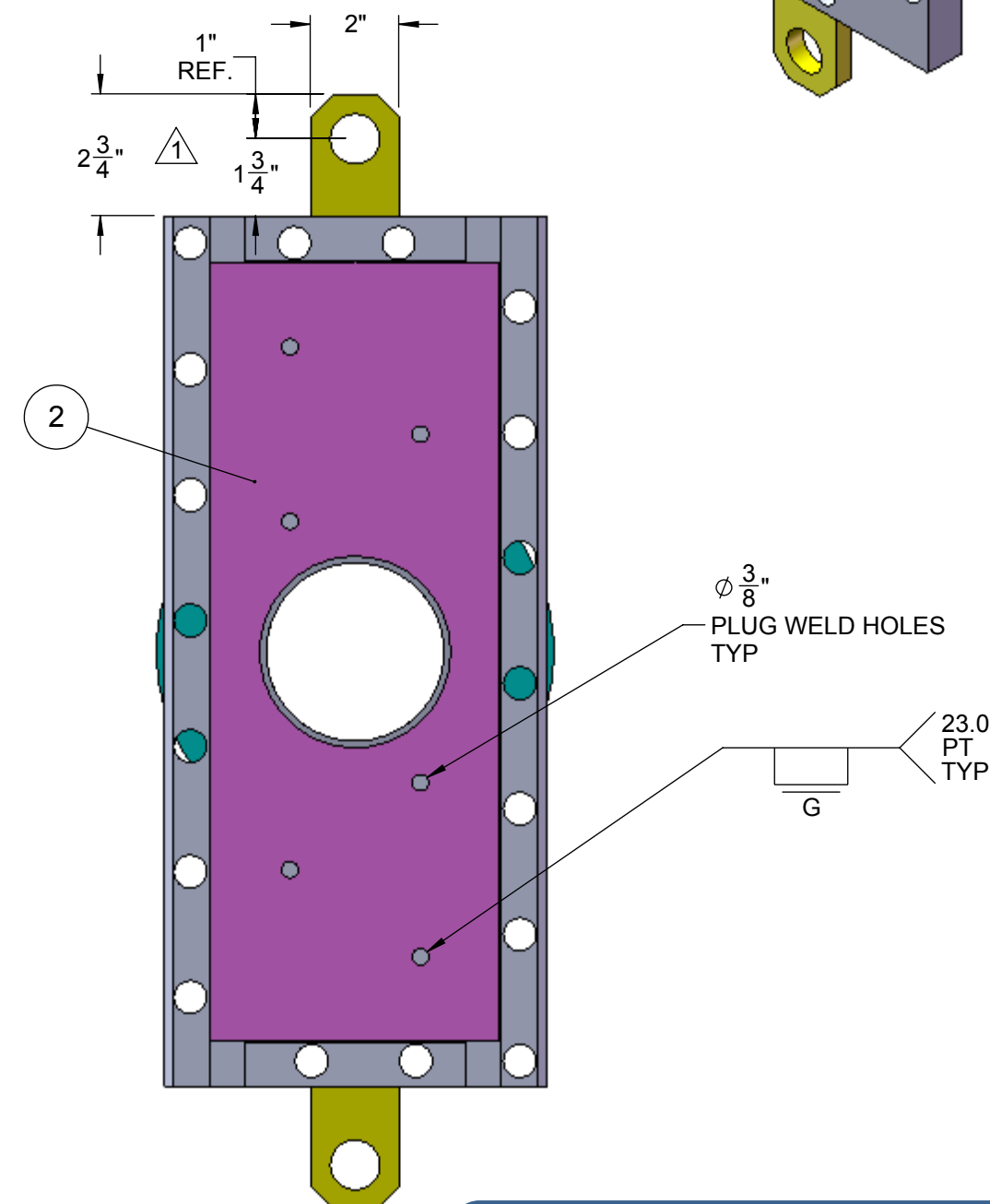
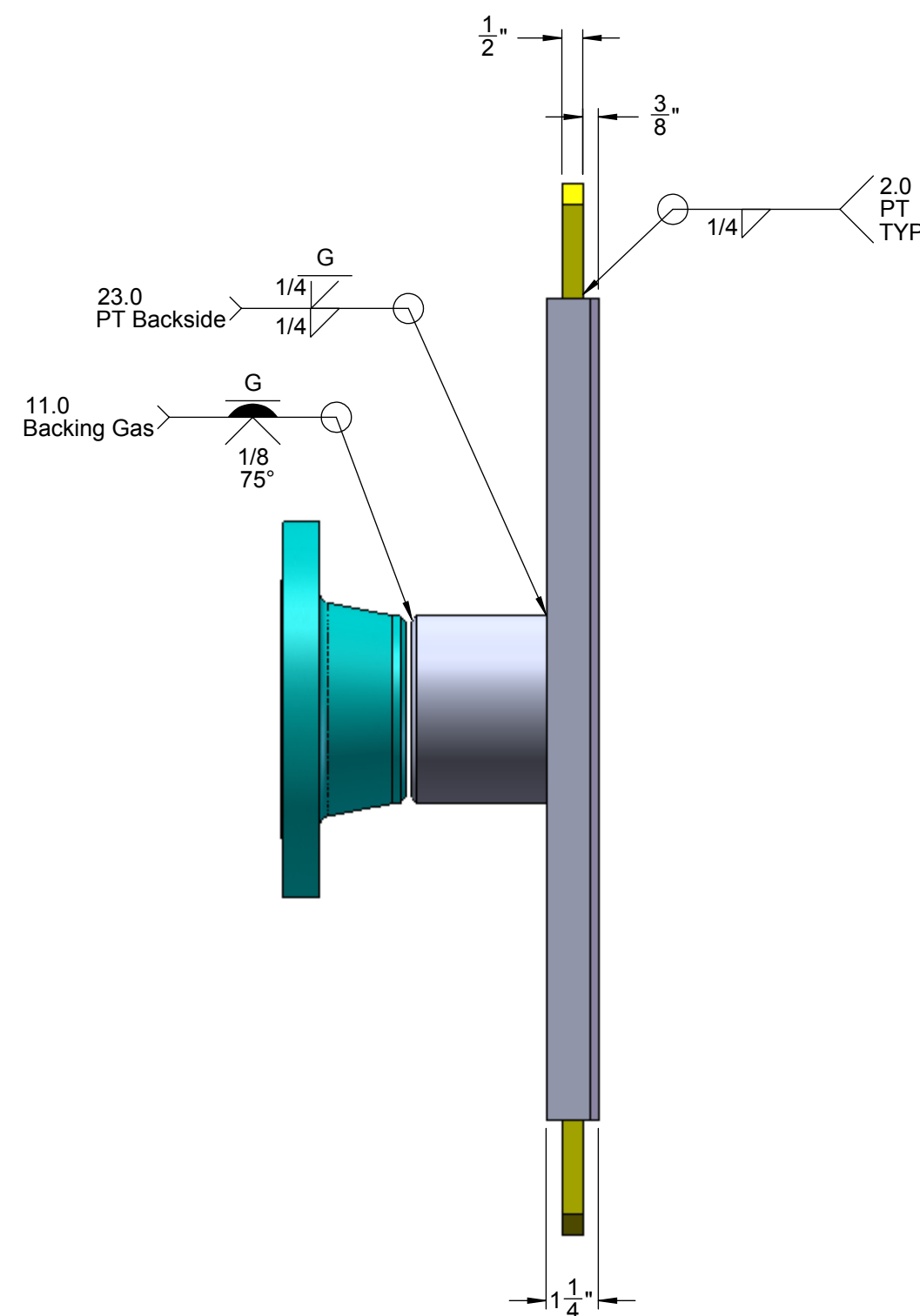
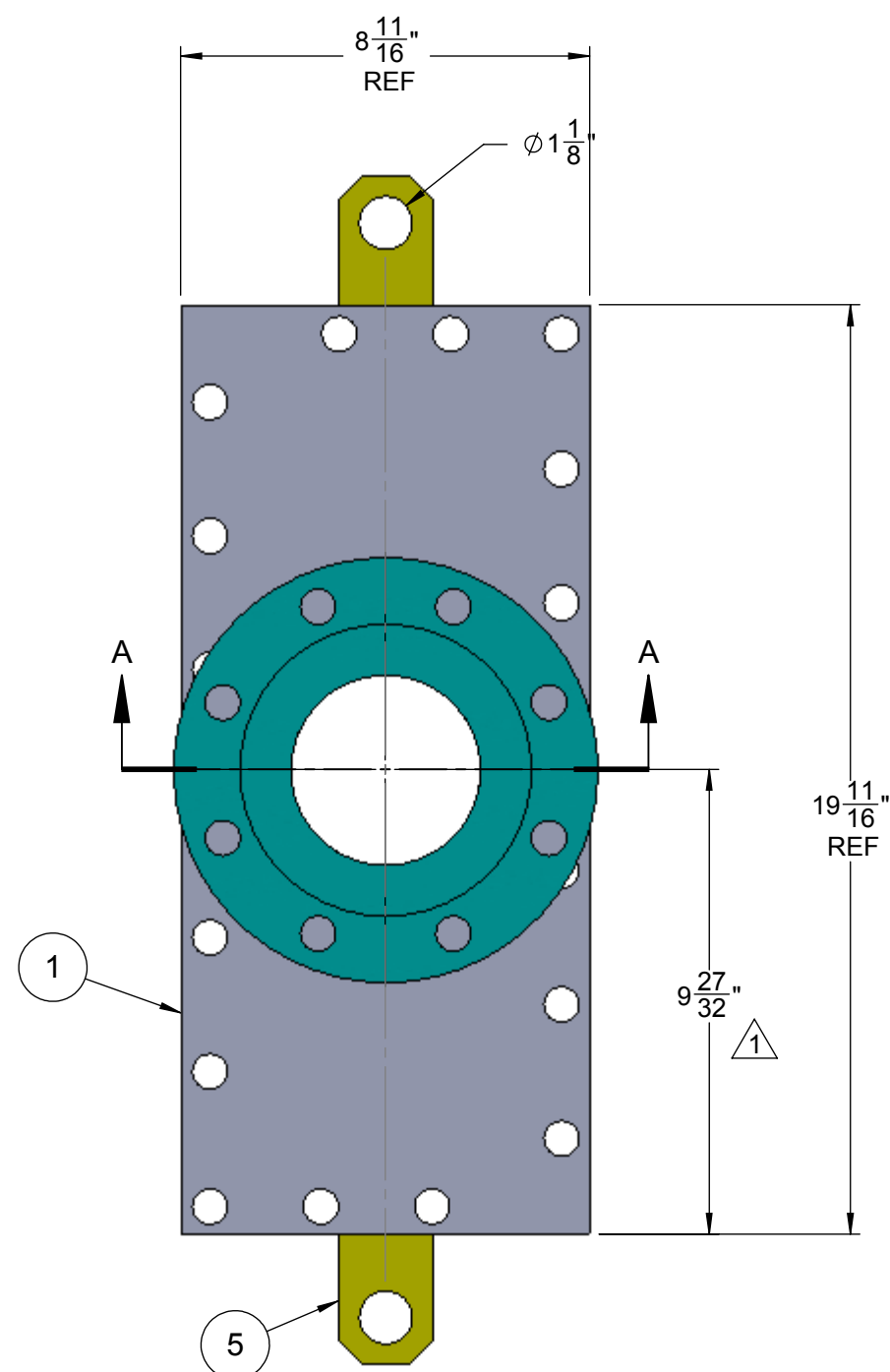
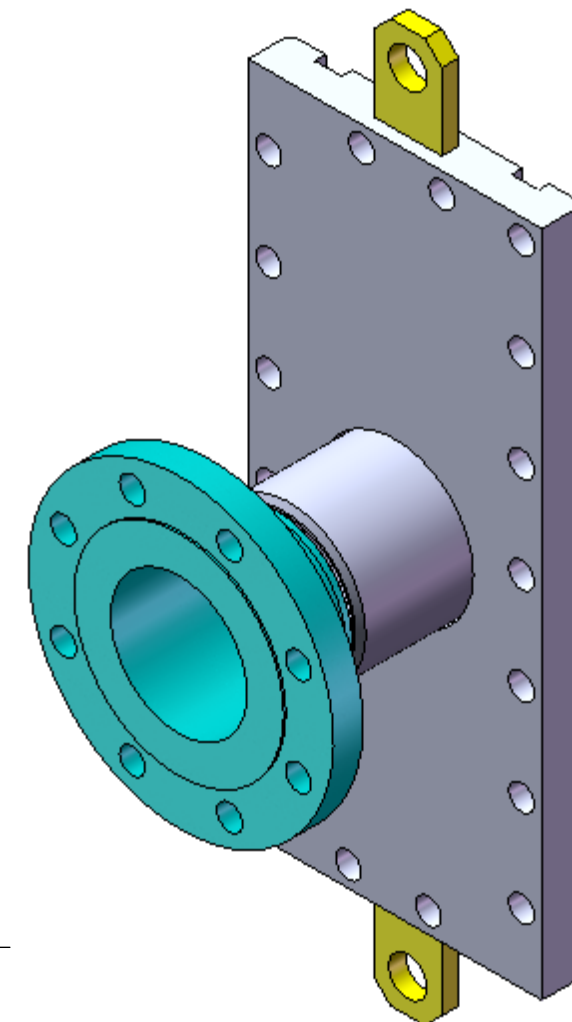
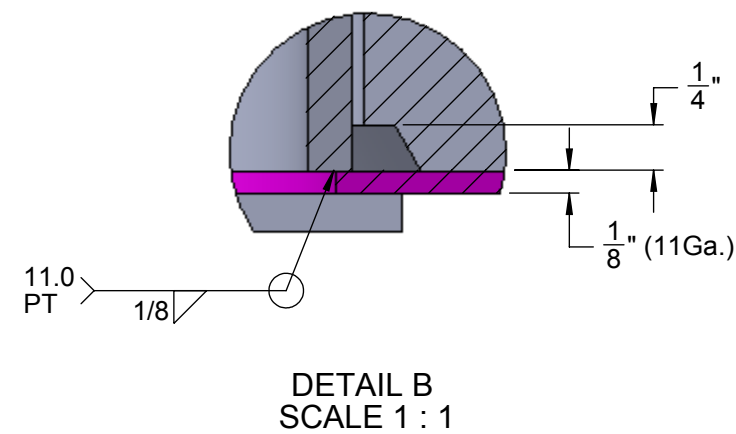
NOZZLE SCHEDULE

NOTES:

1. Designed, constructed and "U" stamped in accordance with ASME Code Section VIII Division 1, 2013 Edition, NB registered.
2. Tolerances on linear dimensions $\pm 1/8"$, unless otherwise noted. Tolerance on angular dimensions $\pm 1/2^\circ$.
3. Flange bolt holes to straddle shown center lines.
4. Impact testing exempt per subsection C, UCS-66(a)(b) and UHA-51(d).
5. Painting: All surfaces except flange faces will be painted, including non-ferrous components. Surfaces preparation shall be abrasive blasted per SSPC-SP10. Paint: (2 coats) International Intertherm 228HS, 4-6 mils dft per coat, color: Gray.
6. See panel assembly drawings for welding and panel details.
7. ER309 wire used for welding procedure 7.0.

PROJECT INFO.
Project Location: Raceland, Louisiana
Project No.: 19J1
Equipment Tag No.: HE-2401
Equipment Name: Hemi-Sugars Amine Solvent Heater

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALFA LAVAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ALFA LAVAL IS PROHIBITED.		Alfa Laval Inc. Lykens, PA 17048				
CUSTOMER: AMG Inc. (Virdia)						
PO No.: 148						
SO: 1416		COMPABLOC MODEL CP15-H-90				
Serial No: 30112-70360		NAME	DATE	SIZE	DWG. NO.	REV
MO: 4372		DRAWN DLG	8/6/2015	C	101-07-0901-002	1
SCALE: 1:8		CHECKED DLG	8/6/2015			



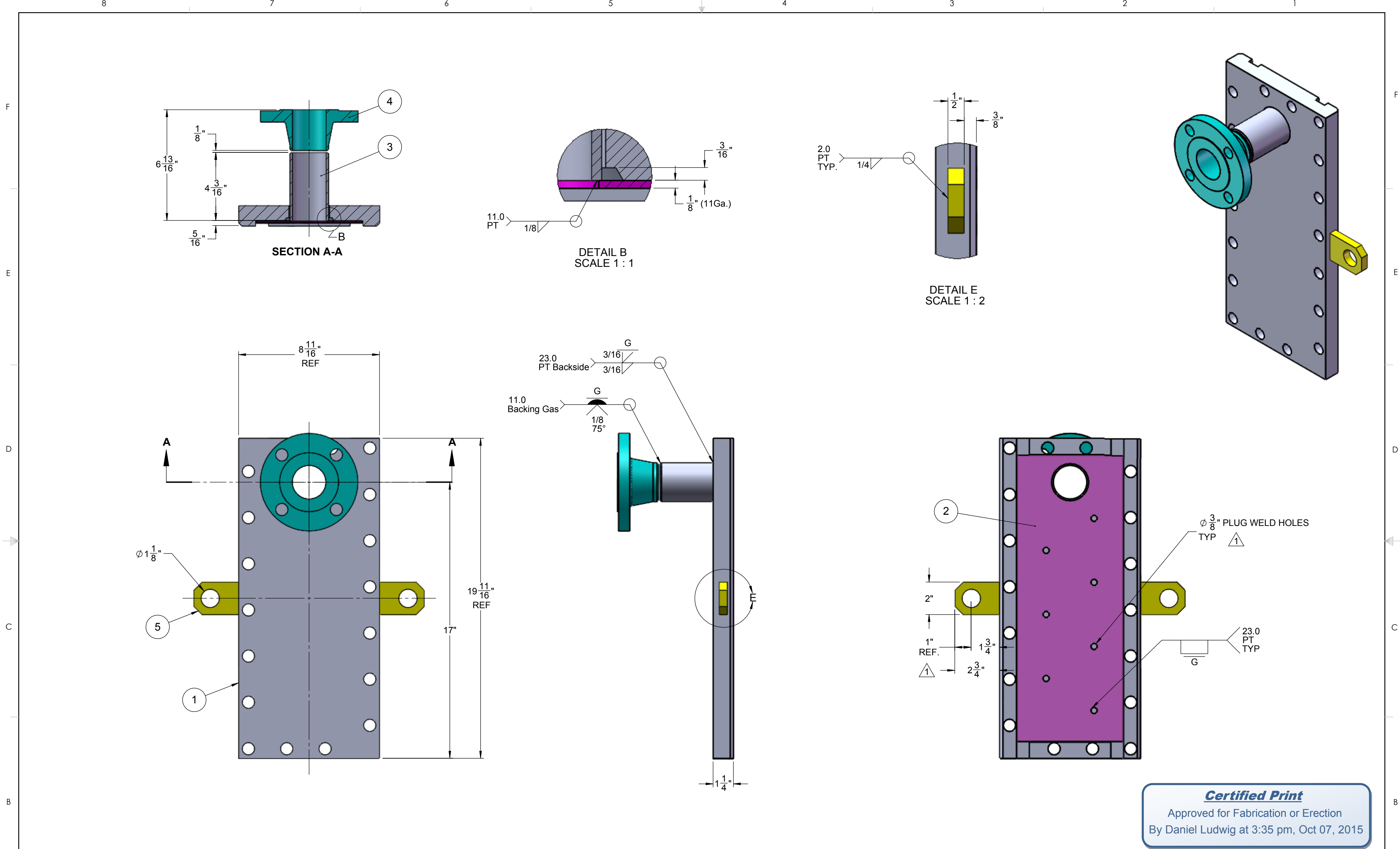
Approved for Fabrication or Erection
By Daniel Ludwig at 3:35 pm, Oct 07, 2015

- PROJECT INFO.**
Project Location: Raceland, Louisiana
Project No.: 19J1
Equipment Tag No.: HE-2401
Name: Hemi-Sugars Amine Solvent Heater

5	2	301-04-1001-001	LIFTING LUG, PANEL	SA-516 70
4	1	402-04-1503-001	FLANGE - 4" 150# RF WN STD BORE	SA-182 F316/L
3	1	502-04-4108-001	PIPE - 4" sch STD	SA-312 TP316/L
2	1	337-15-0913-008	LINER - CP15-90	SA-240 316/L
1	1	302-15-1102-001	PANEL Aa, CP15-90 MACHINING	SA-516 70 N
ITEM NO.	QTY.	PART NO	DESCRIPTION	MATERIAL

1	REVISED PER CUSTOMER COMMENTS	10/6/2015	DLG
REV.	DESCRIPTION	DATE	APPROVER
REVISIONS			

			UNLESS OTHERWISE SPECIFIED:		NAME		DATE		Alfa Laval 300 Chestnut St. Lykens, PA 17048 TITLE: PANEL Aa ASSEMBLY FOR CP15-H-90		
			DIMENSIONS ARE IN INCHES		DRAWN		DLG 8/28/2015				
			TOLERANCES: FRACTIONAL: ± 1/8 ANGULAR: ± 1/2°		CHECKED		BLL 9/1/2015				
			TWO PLACE DECIMAL ±.05 THREE PLACE DECIMAL ±.005		Customer: AMG Inc. (Virdia)						
			BOLT HOLES STRADDLE CENTER LINES		PO No.: 148				SIZE C		
					PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALFA LAVAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ALFA LAVAL IS PROHIBITED.						
1416 4372 30112-70360			ASSEMBLY WEIGHT: 70 lbs		DWG. NO. 203-15-0902-007				REV 1		
APPLICATION			SCALE: 1:4								
SO	MO	SERIAL NO									



NOTES:
1. ER70S-6 WIRE USED FOR WELD PROCEDURE 2.0.
2. ER316L WIRE USED FOR WELD PROCEDURE 11.0.
3. E309LT-1 WIRE USED FOR WELD PROCEDURE 23.0.
4. REQUIRED NDE: PT OF LIFT LUG, LINER WELDS AND NOZZLE TO PANEL GROOVE WELD.

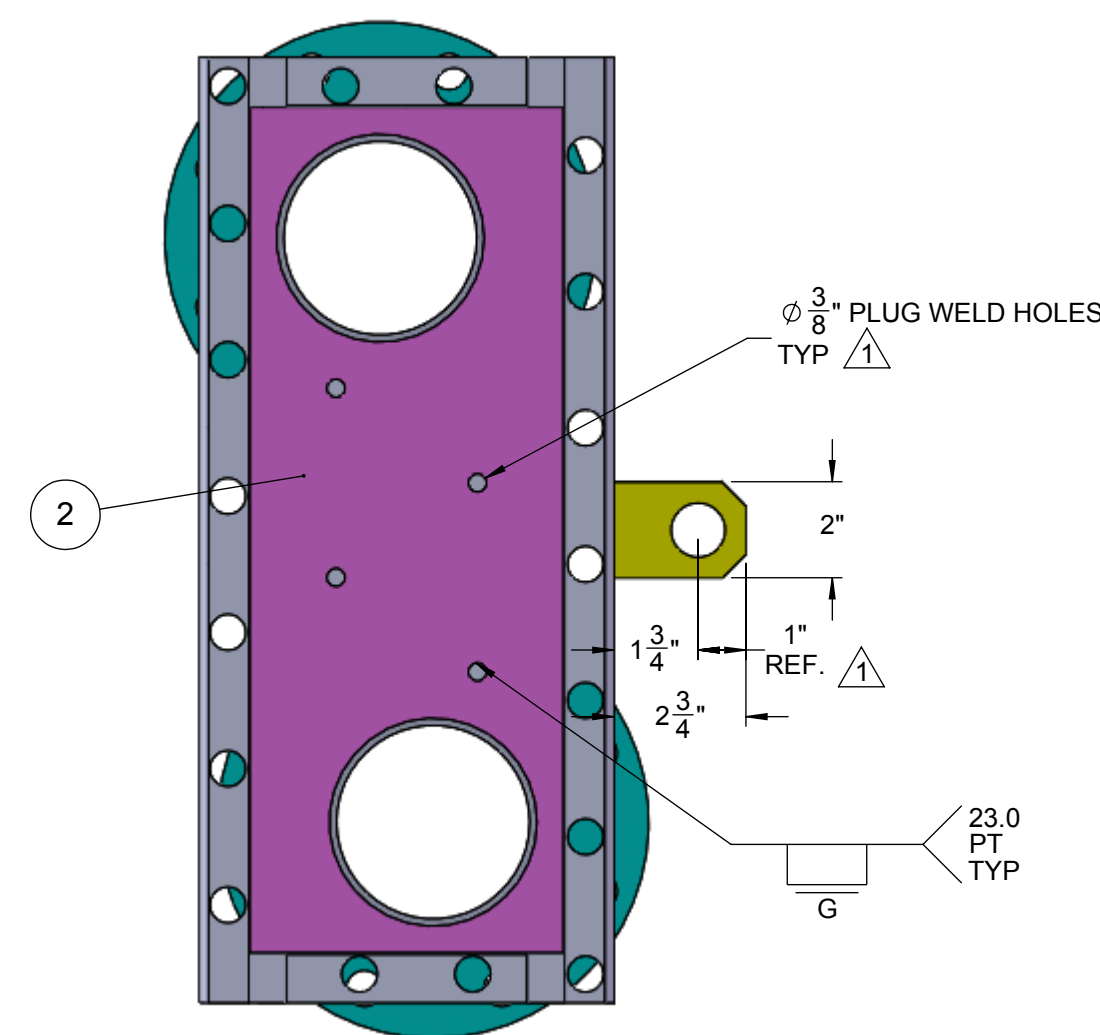
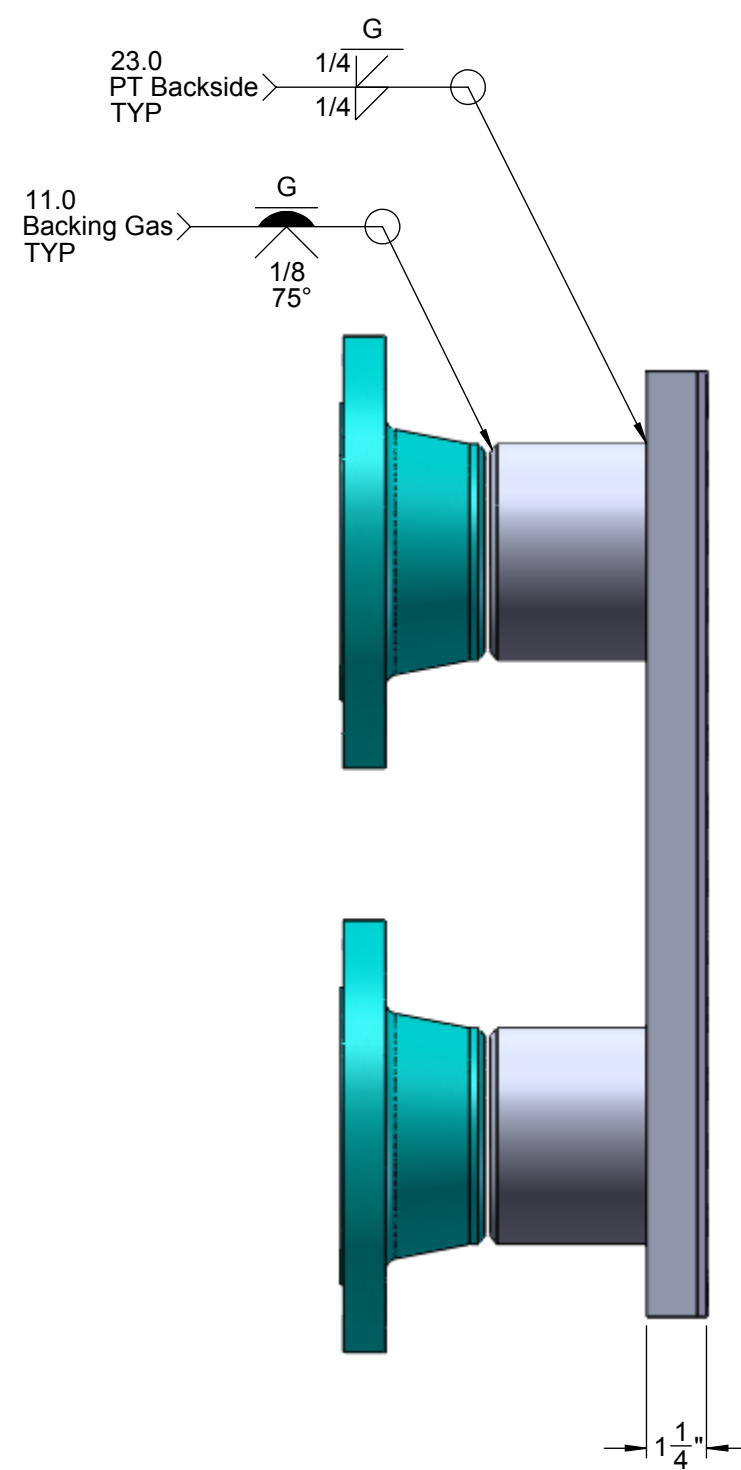
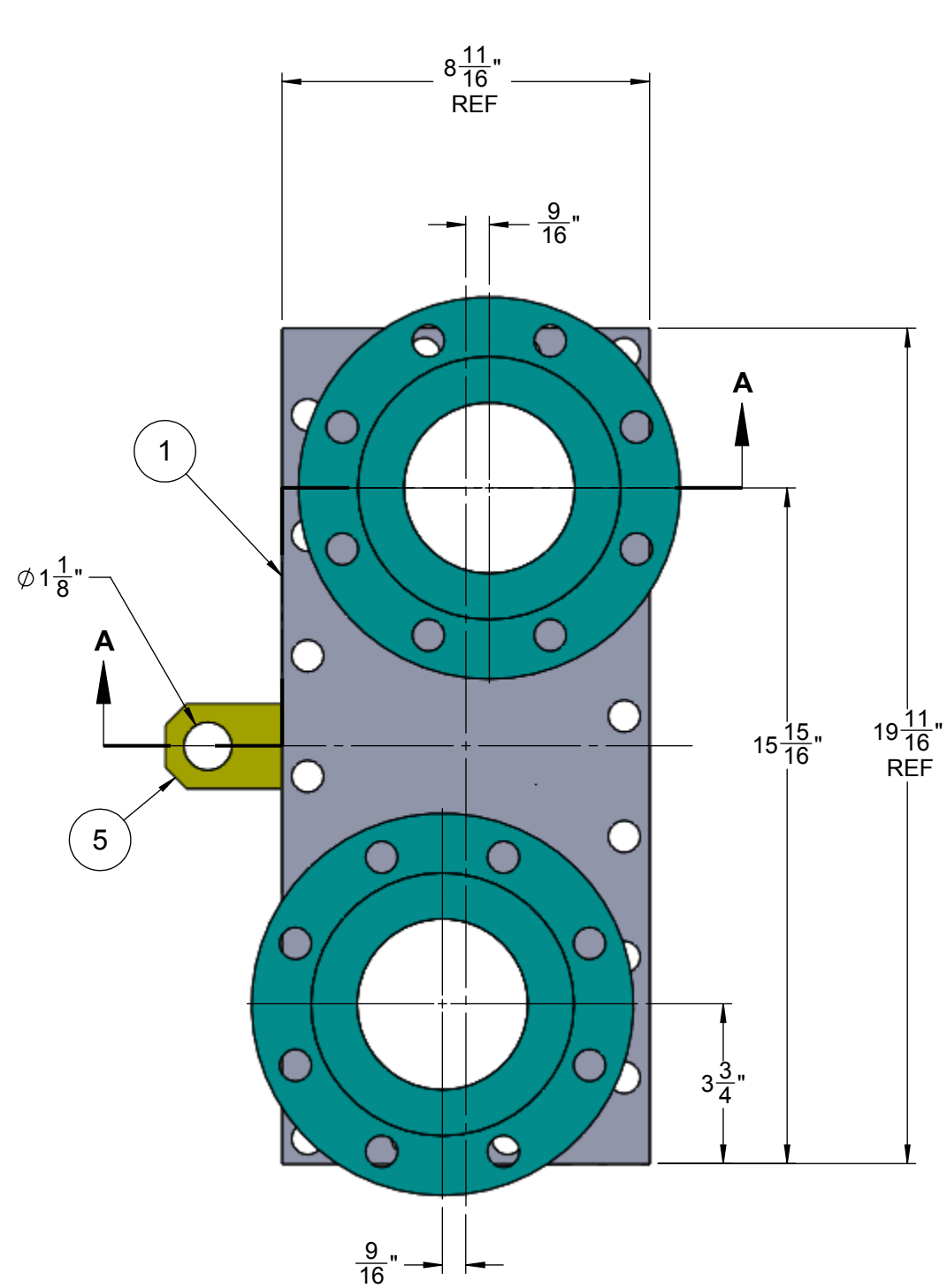
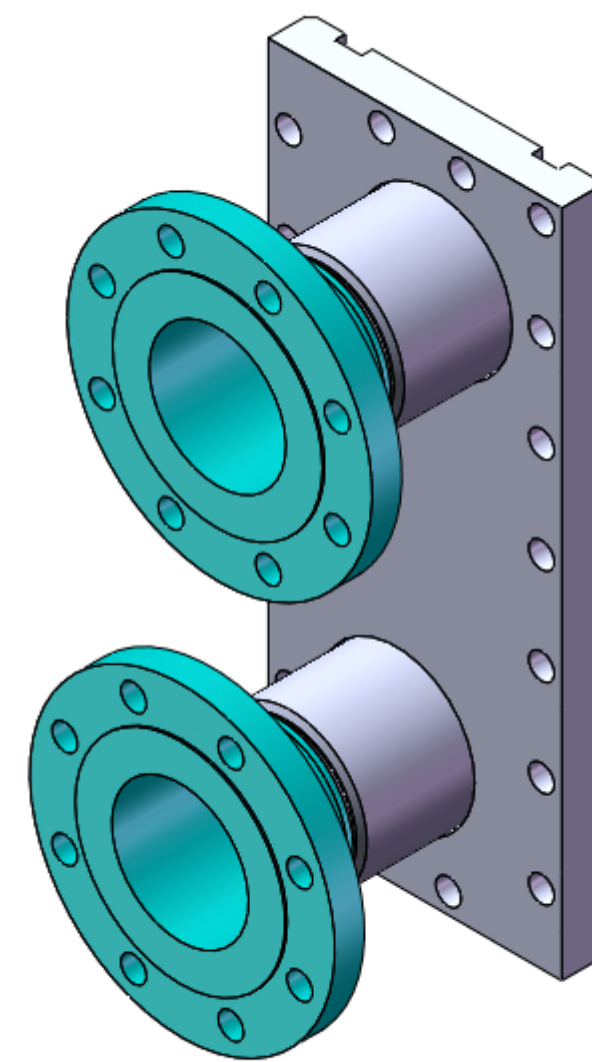
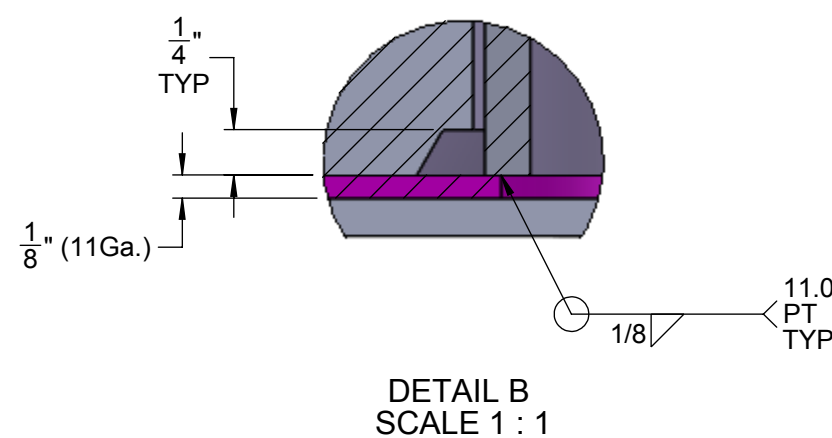
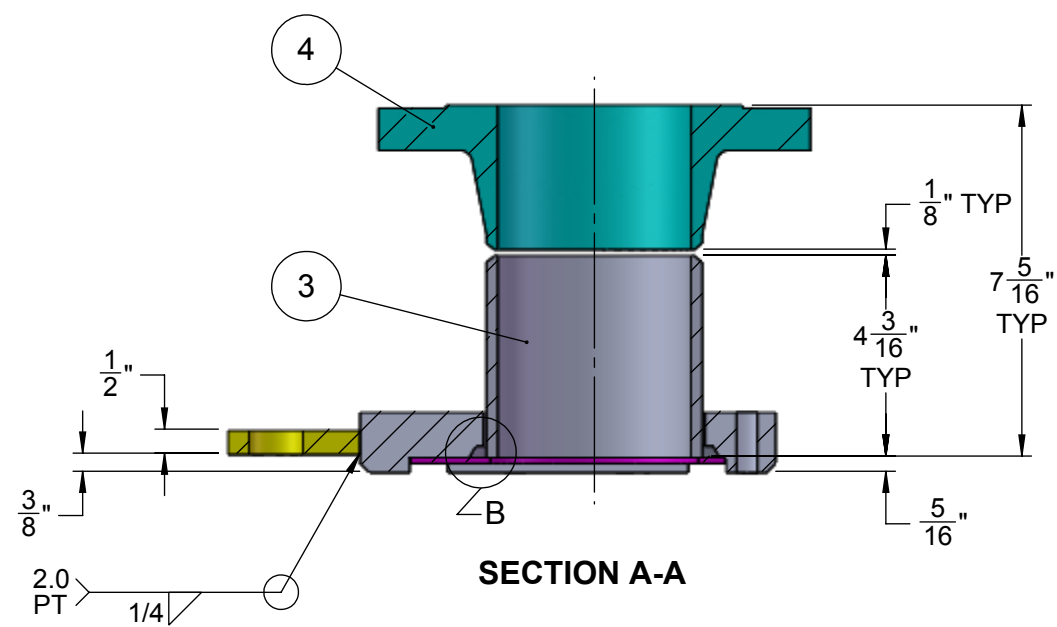
PROJECT INFO.
Project Location: Raceland, Louisiana
Project No.: 19J1
Equipment Tag No.: HE-2401
Equipment Name: Hemi-Sugars Amine Solvent Heater

5	2	301-04-1001-001	LIFTING LUG, PANEL	SA-516 70
4	1	402-02-1503-001	FLANGE - 2" 150# RF WN STD BORE	SA-182 F316/L
3	1	502-02-4108-001	PIPE - 2" sch STD	SA-312 TP316/L
2	1	337-15-0913-009	LINER - CP15-90	SA-240 316/L
1	1	302-15-1102-002	PANEL Ab, CP15-90 MACHINING	SA-516 70 N
ITEM NO.	QTY.	PART NO	DESCRIPTION	MATERIAL

1	REVISED PER COMMENTS AND INTERNAL REVIEW	10/6/2015	DLG
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			

			UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Alfa Laval 300 Chestnut St. Lykens, PA 17048		
			DIMENSIONS ARE IN INCHES	DRAWN	DLG	8/31/2015	TITLE: PANEL Ab ASSEMBLY FOR CP15-H-90		
			TOLERANCES: FRACTIONAL: 1/8 ANGULAR: ± 1/2° TWO PLACE DECIMAL ±.05 THREE PLACE DECIMAL ±.005	CHECKED	BLL	9/1/2015			
				Customer: AMG Inc. (Virdia)					
				PO No.: 148					
			BOLT HOLES STRADDLE CENTER LINES	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALFA LAVAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ALFA LAVAL IS PROHIBITED.			SIZE C DWG. NO. 203-15-0902-008 REV 1		
1416	4372	30112-70360	ASSEMBLY WEIGHT: 65 lbs						
SO	MO	SERIAL NO	SCALE: 1:4						
APPLICATION									

F
E
D
C
B
A



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By Daniel Ludwig at 3:35 pm, Oct 07, 2015

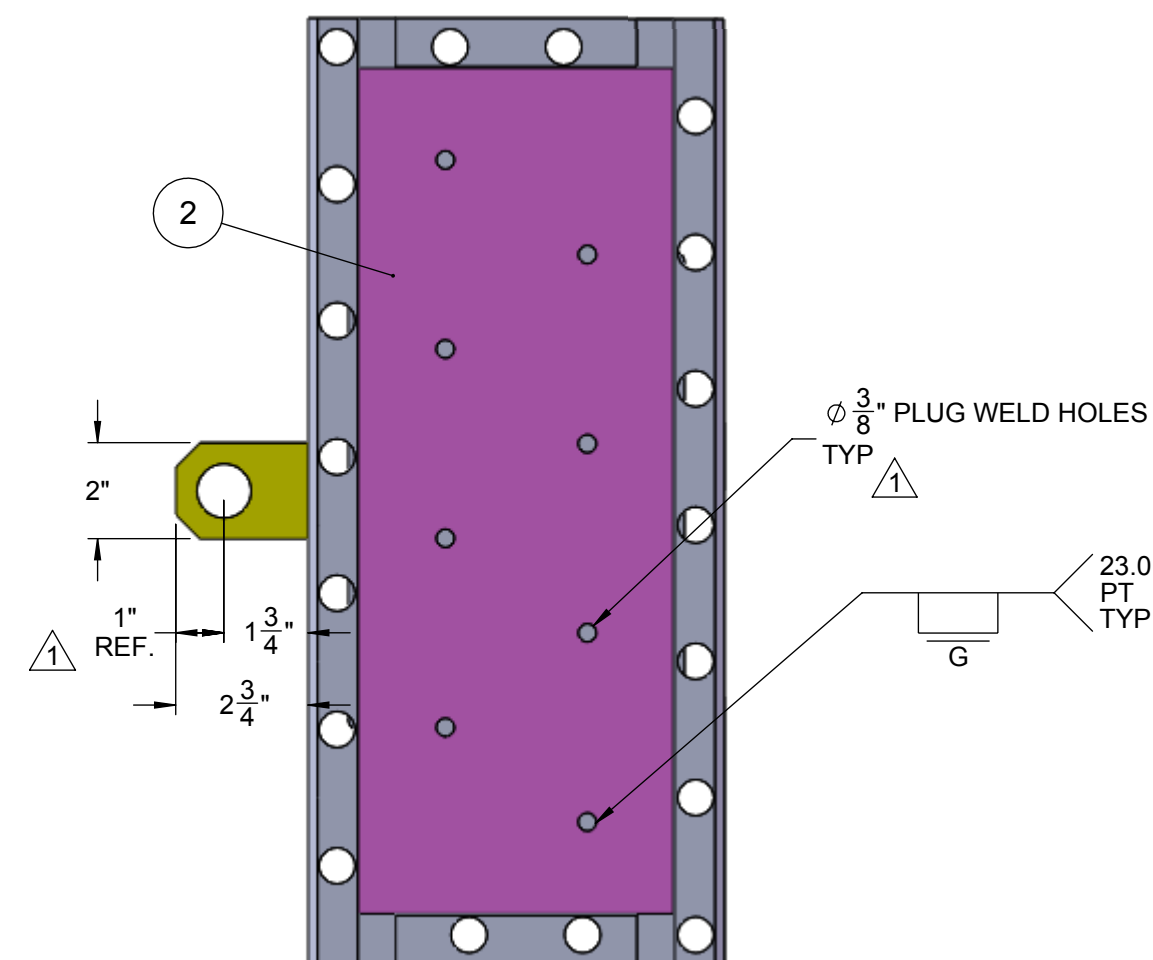
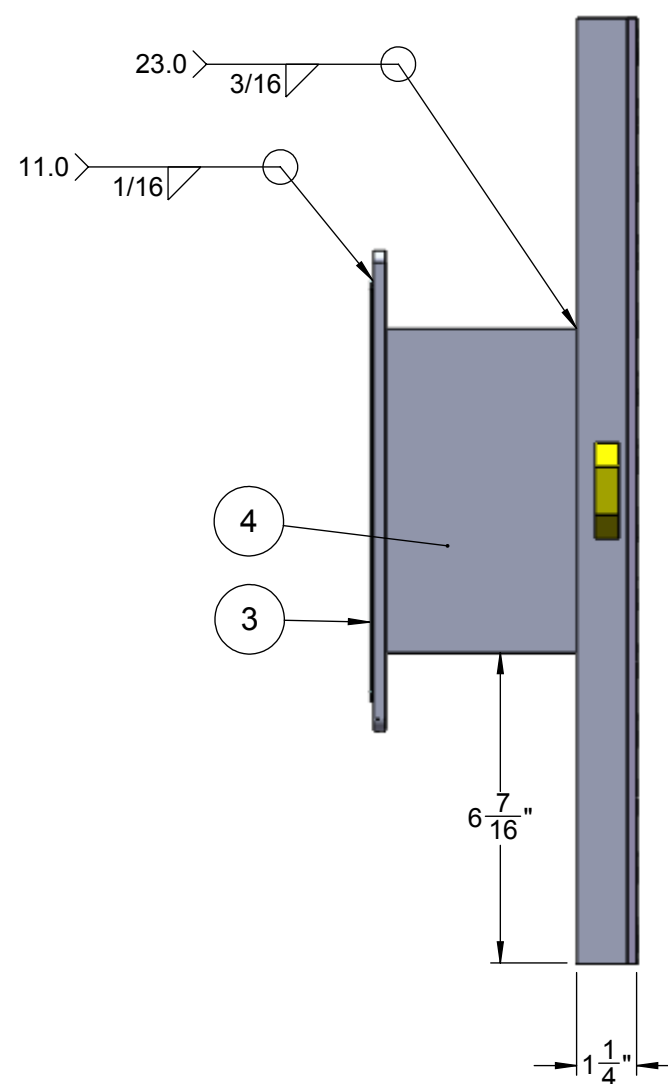
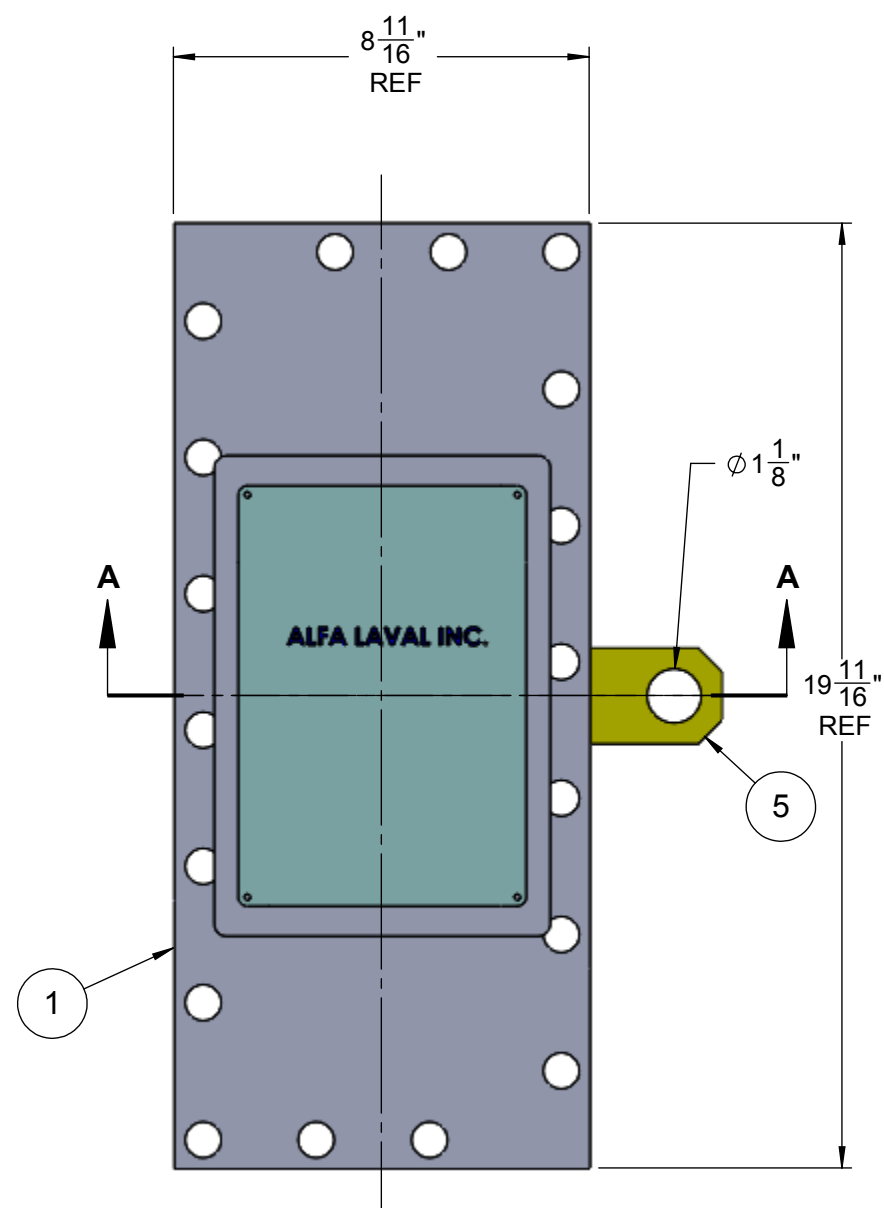
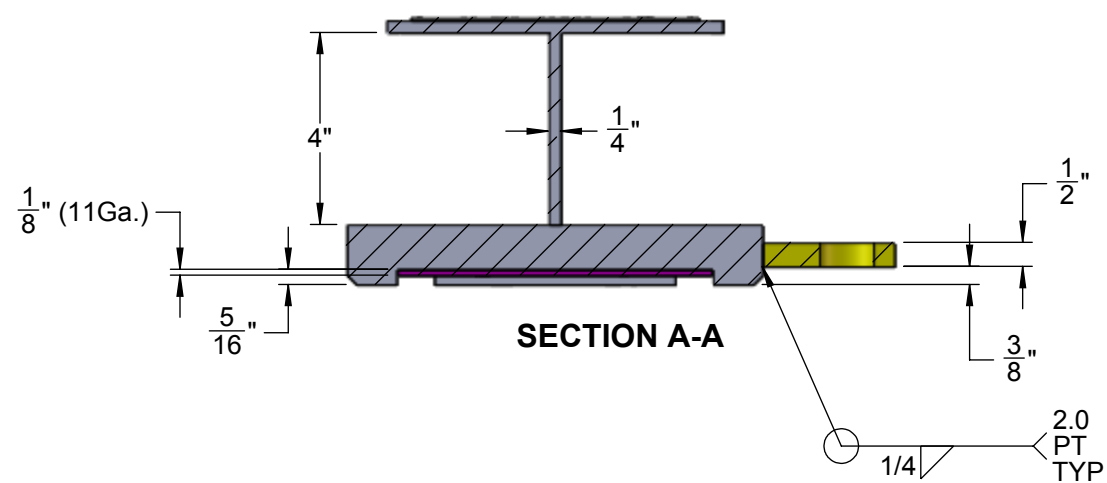
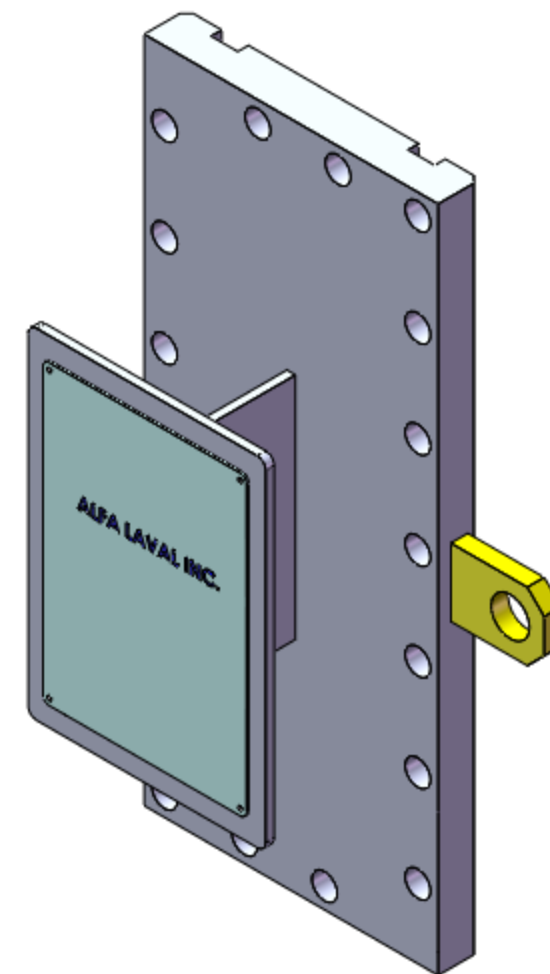
NOTES:
1. ER70S-6 WIRE USED FOR WELD PROCEDURE 2.0.
2. ER316L WIRE USED FOR WELD PROCEDURE 11.0.
3. E309LT-1 WIRE USED FOR WELD PROCEDURE 23.0.
4. REQUIRED NDE: PT OF LIFT LUG, LINER WELDS AND NOZZLE TO PANEL GROOVE WELD.

PROJECT INFO:
Project Location: Raceland, Louisiana
Project No.: 19J1
Equipment Tag No.: HE-2401
Equipment Name: Hemi-Sugars Amine Solvent Heater

5	1	301-04-1001-001	LIFTING LUG, PANEL	SA-516 70
4	2	402-04-1503-001	FLANGE - 4" 150# RF WN STD BORE	SA-182 F316/L
3	2	502-04-4108-001	PIPE - 4" sch STD	SA-312 TP316/L
2	1	337-15-0913-010	LINER - CP15-90	SA-240 316/L
1	1	302-15-1102-003	PANEL Ba, CP15-90 MACHINING	SA-516 70 N
ITEM NO.	QTY.	PART NO	DESCRIPTION	MATERIAL

1	REVISED PER COMMENTS AND INTERNAL REVIEW	10/6/2015	DLG
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			

1416	4372	30112-70360	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/8 ANGULAR: ± 1/2° TWO PLACE DECIMAL ± .05 THREE PLACE DECIMAL ± .005 BOLT HOLES STRADDLE CENTER LINES ASSEMBLY WEIGHT: 85 lbs SCALE: 1:4	DRAWN DLG 9/1/2015 CHECKED BLL 9/1/2015 CUSTOMER: AMG Inc. (Virdia) PO No.: 148 PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALFA LAVAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ALFA LAVAL IS PROHIBITED.	NAME DATE DLG 9/1/2015 BLL 9/1/2015 AMG Inc. (Virdia) 148	TITLE: PANEL Ba ASSEMBLY FOR CP15-H-90 SIZE C DWG. NO. 203-15-0902-009 REV 1
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Approved for Fabrication or Erection
By Daniel Ludwig at 3:35 pm, Oct 07, 2015

- NOTES:

- NOTES:
1. ER70S-6 WIRE USED FOR WELD PROCEDURE 2.0.
 2. ER316L WIRE USED FOR WELD PROCEDURE 11.0.
 3. E309LT-1 WIRE USED FOR WELD PROCEDURE 23.0.
 4. REQUIRED NDE: PT OF LIFT LUG, LINER WELDS.

PROJECT INFO.
Project Location: Raceland, Louisiana
Project No.: 19J1
Equipment Tag No.: HE-2401
Name: Hemi-Sugars Amine Solvent Heater

Equipment Name: Hemi-Sugars Amine Solvent Heater

5	1	301-04-1001-001	LIFTING LUG, PANEL	SA-516 70
4	1	313-12-4913-005	CP T STYLE NAMEPLATE BRACKET	SA-240 316/L
3	1	319-12-0004-002	ALFA LAVAL STD NAMEPLATE	SA-240 304/L
2	1	337-15-0913-011	LINER - CP15-90	SA-240 316/L
1	1	302-15-1102-004	PANEL Bb, CP15-90 MACHINING	SA-516 70 N
ITEM NO.	QTY.	PART NO	DESCRIPTION	MATERIAL

1	REVISED PER COMMENTS AND INTERNAL REVIEW	10/6/2015	DLG
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			

			UNLESS OTHERWISE SPECIFIED:			NAME			DATE			Alfa Laval 300 Chestnut St. Lykens, PA 17048					
			DIMENSIONS ARE IN INCHES			DRAWN			DLG						9/12/2015		
			TOLERANCES: FRACTIONAL ± 1/8 ANGULAR: ± 1/2°			CHECKED			BLL						9/12/2015		
			TWO PLACE DECIMAL ±.05 THREE PLACE DECIMAL ±.005			Customer: AMG Inc. (Viridia)											
			BOLT HOLES STRADDLE CENTER LINES			PO No.: 148						TITLE: PANEL Bb ASSEMBLY FOR CP15-H-90					
						PROPRIETARY AND CONFIDENTIAL											
						THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALFA LAVAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ALFA LAVAL IS PROHIBITED.											
1416			4372			30112-70360						SIZE C					
SO			MO			SERIAL NO			ASSEMBLY WEIGHT: 60 lbs						DWG. NO. 203-15-0902-010		
APPLICATION			SCALE: 1:4									REV 1					