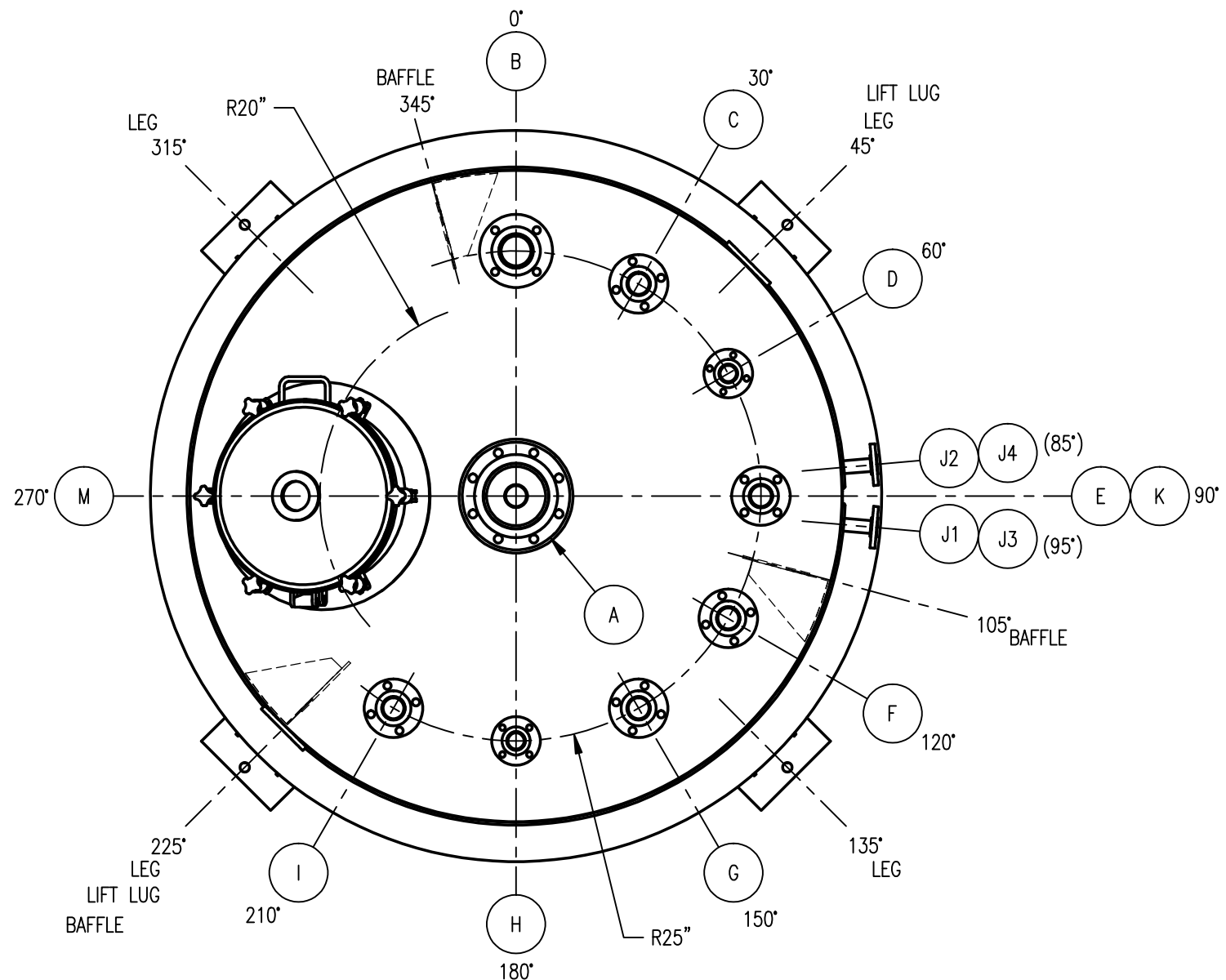


TOP & BOTTOM ELLIPSOIDAL HEADS
66" I.D.
SA-240 316/316L
1/4" THK NOM (.1875" MIN)
2" S.F.

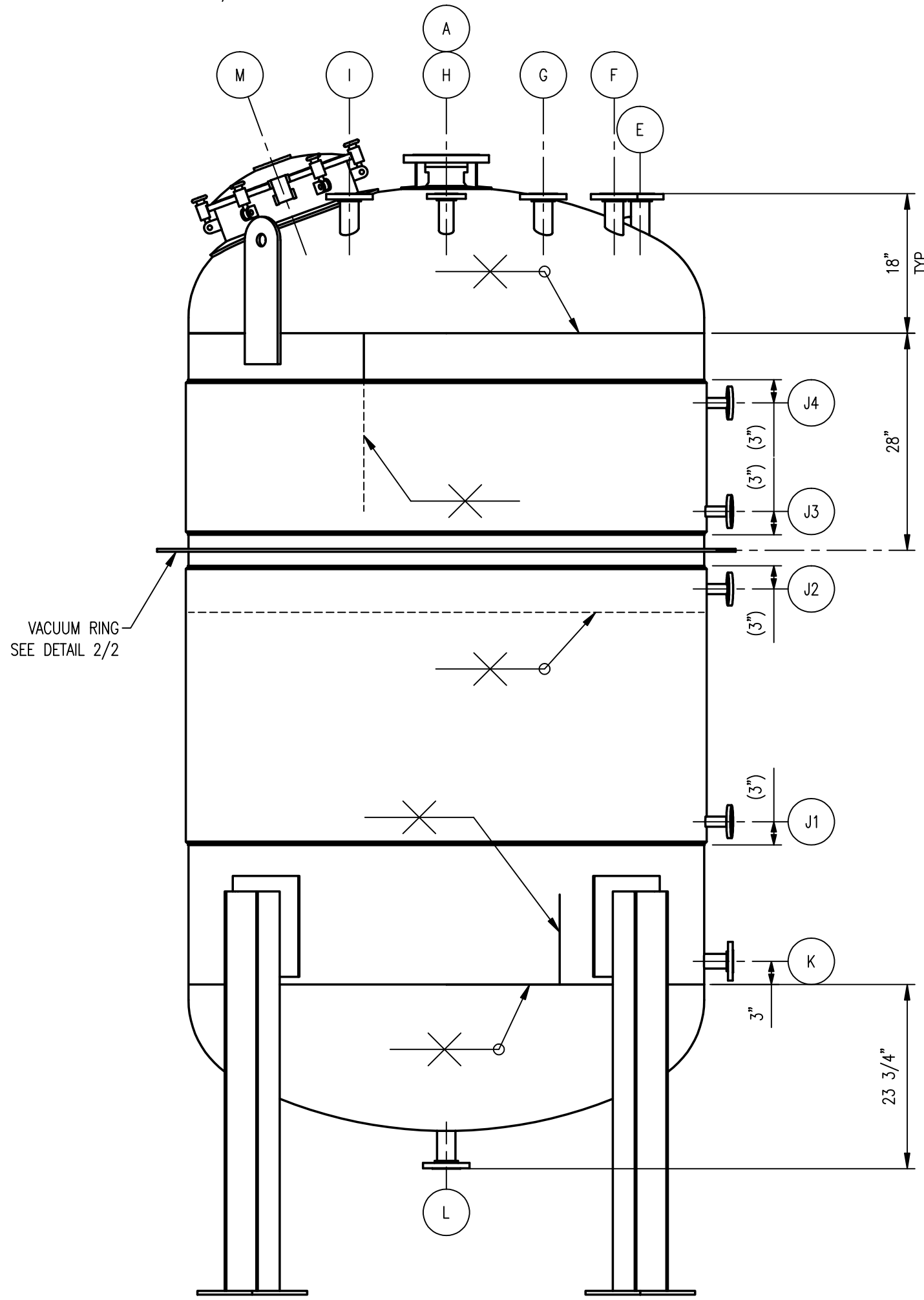
SHELL
66" I.D.
SA-240 316/316L
1/4" THK

SHELL DIMPLE JACKET
14 Ga. (.075" THK)
2" x 2" SPOT SPACING
SA-240 304/304L
SEE DETAIL 7/2 FOR ATTACHMENT

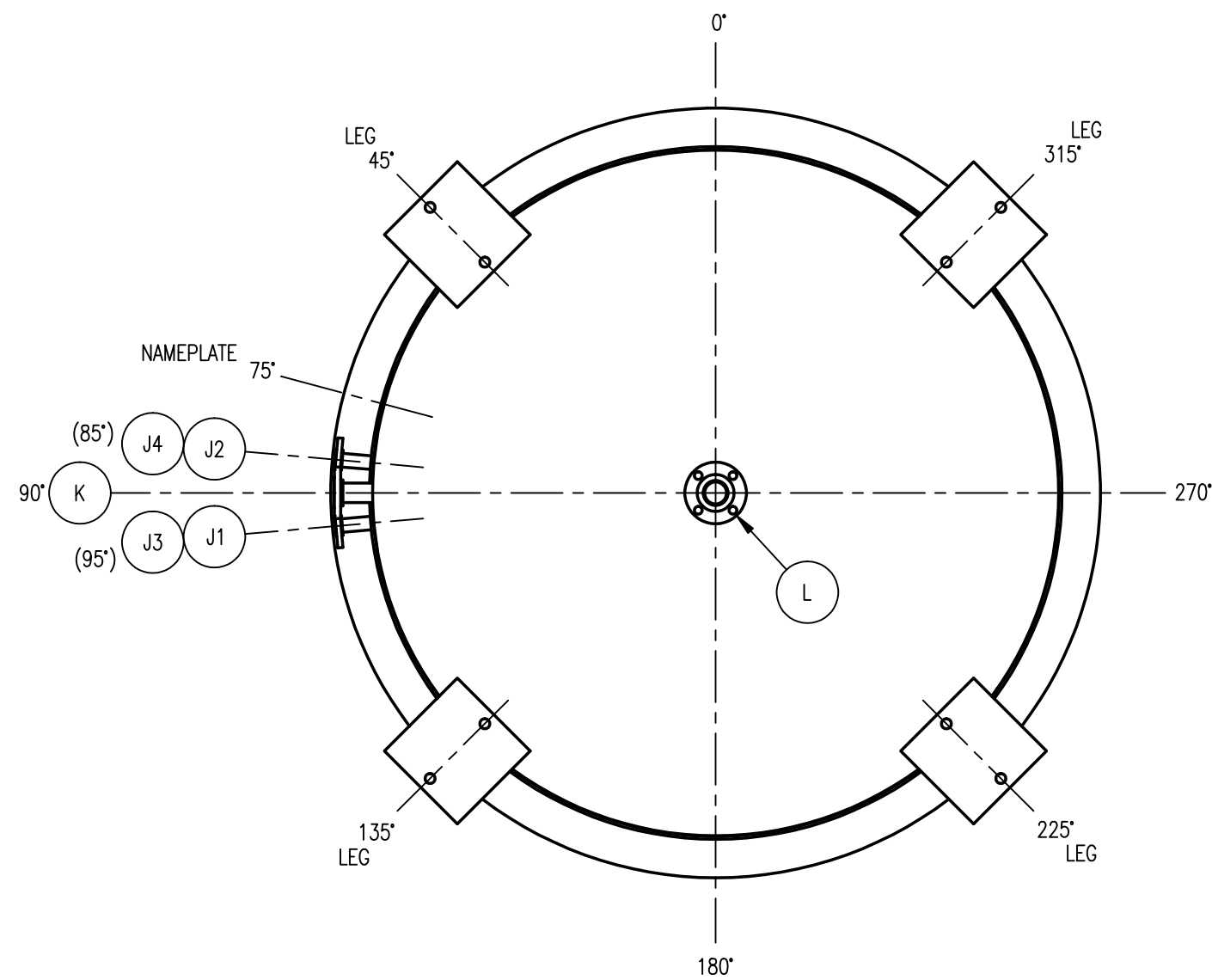
BAFFLES
SEE DETAIL 1/2



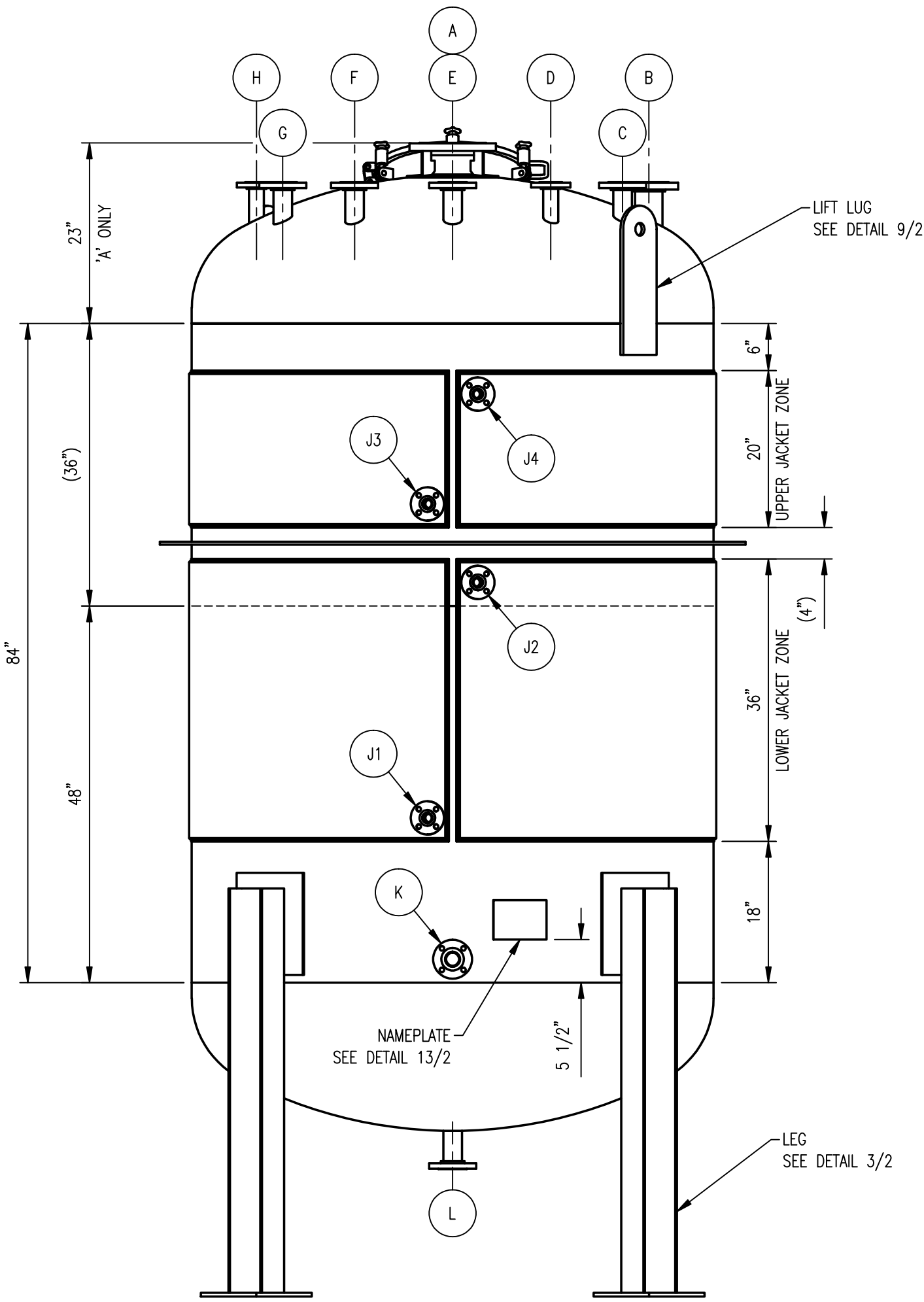
TOP VIEW
3/4"=1'-0"



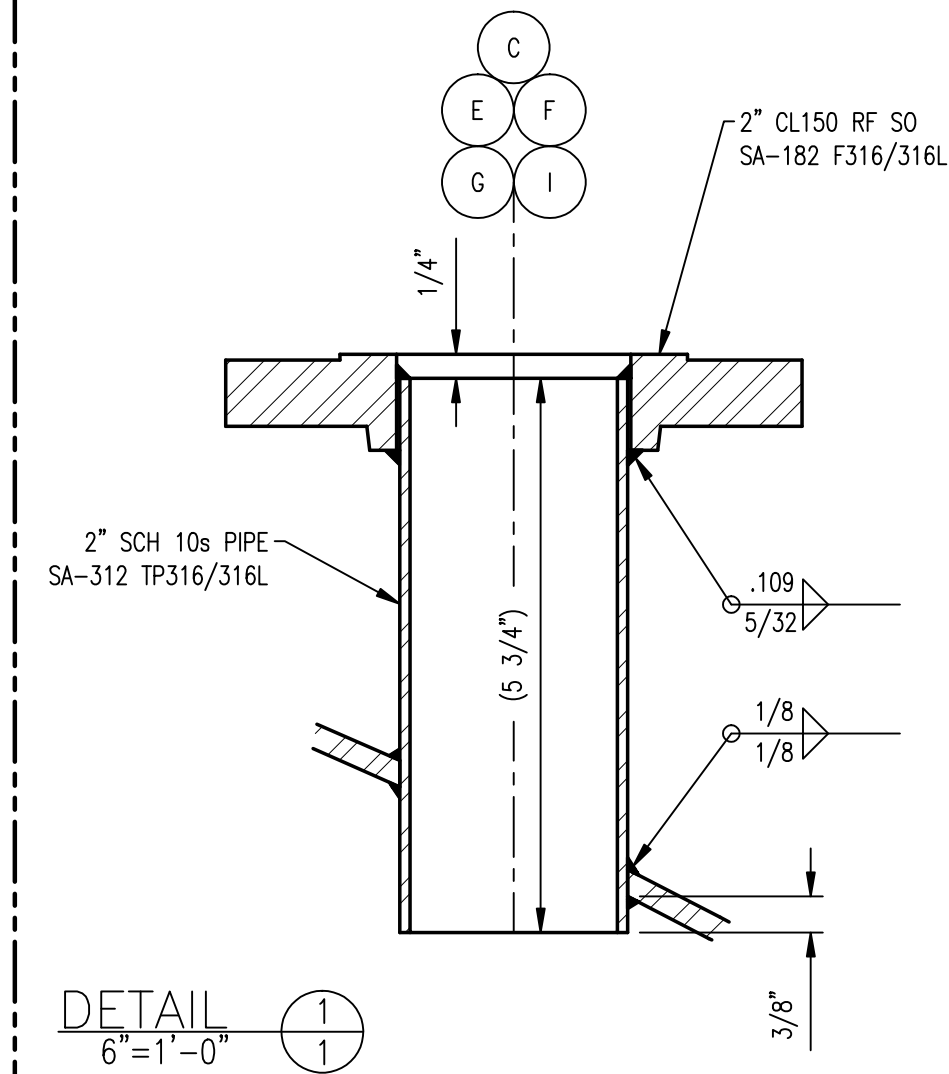
FRONT VIEW
3/4"=1'-0"



BOTTOM VIEW
3/4"=1'-0"



RIGHT VIEW
3/4"=1'-0"



DETAIL
6"=1'-0"

JACKET NOZZLES NOT DESIGNED FOR EXTERNAL LOADS; PIPING SHOULD NOT USE JACKET CONNECTIONS AS SUPPORTS

SCHEDULE OF OPENINGS

MARK	SIZE	RTG/TYPE	SCH.	SERVICE	DETAIL	NOTES
A	6"	CL150 RF SO	40s	AGITATOR	4/2	
B	3"	CL150 RF SO	40s	RELIEF VENT	6/2	
C	2"	CL150 RF SO	10s	SPRAY BALL	1/1	
D	1 1/2"	CL150 RF SO	10s	NOZZLE	12/2	
E	2"	CL150 RF SO	10s	BULK FEED INLET	1/1	
F	2"	CL150 RF SO	10s	RECIRC / DRUM FEED	1/1	
G	2"	CL150 RF SO	10s	SPRAY BALL	1/1	
H	1 1/2"	CL150 RF SO	10s	LEVEL SWITCH / N2	12/2	
I	2"	CL150 RF SO	10s	LEVEL TRANSMITTER	1/1	
J1-J4	1"	CL150 RF SO	10s	JACKET CONNECTION	5/2	
K	1 1/2"	CL150 RF SO	10s	TEMPERATURE SENSOR	8/2	
L	2"	CL150 RF SO	10s	OUTLET	11/2	
M	18"	SPECIAL	.236"	MANWAY	10/2	

*INDICATES NOZZLE FLANGE TO BE SUPPLIED WITH BLIND COVER, BOLTS, NUTS & GASKET / COUPLING: w/ HEX PLUG

DESIGN DATA

	MAIN VESSEL	JACKET/COIL
DESIGN PRESSURE:	25 PSIG / FV (14.7 PSI EXT.)	150 PSIG
DESIGN TEMPERATURE:	MIN -20°F MAX 350°F	MIN -20°F MAX 350°F
HYDRO TEST PRESSURE:	33 PSIG	198 PSIG
RADIOGRAPHIC EXAMINATION:	NONE	NONE
STRESS RELIEVE:	NONE	NONE
SPECIFIC GRAVITY OF CONTENTS:	1.4	1.0
JOINT EFFICIENCY:	HEAD(s) 85% / SHELL 70%	JACKET 55%
CORROSION ALLOWANCE:	NONE	NONE
POLISHING ALLOWANCE:	NONE	NONE

VESSEL HYDRO-TEST: 1.3 x 25 PSIG x $\frac{20000 \text{ PSI}}{19700 \text{ PSI}}$ = 33 PSIG (PER SP-PD-001 REV B)

JACKET HYDRO-TEST: 1.3 x 150 PSIG x $\frac{20000 \text{ PSI}}{19700 \text{ PSI}}$ = 198 PSIG (PER SP-PD-001 REV B)

FABRICATION

ASME PRESSURE VESSEL CODE	SECTION VIII, DIVISION 1, 2019 EDITION
ASME CODE STAMP (VESSEL):	YES ☒ NO ☐ INSPECTION
ASME CODE STAMP (JACKET/COIL):	YES ☒ NO ☐ STEEL-PRO INC. QUALITY-CONTROL: YES
SPECIFICATIONS:	OTHER: NATIONAL BOARD REGISTRY
	NAME PLATE: STEEL-PRO STANDARD
WELDING PROCEDURES	INTERIOR/EXTERIOR PREPARATION
C/S TO C/S:	1-1-FC, 1-1-T
S/S TO S/S:	8-8-FC, 8-8-T, 8-8-TPM
C/S TO S/S:	8-1-FC
SPECIAL INSTRUCTIONS	EXTERIOR SURFACE FINISH: MILL
	INTERIOR SURFACE FINISH: MILL
	EXTERIOR WELDING FINISH: MILL, CLEANED
	INTERIOR WELDING FINISH: MILL, CLEANED
	EXTERIOR COATING: RED OXIDE PRIMER, C/S ONLY
	INTERIOR COATING: PASSIVATION: CITRIC ACID PASSIVATION, PER SP-PD-002 REV D

OVERALL HEIGHT: 147"

OVERALL WIDTH: 80 3/4"

NOTES

- FLANGE BOLT HOLES: (UNLESS OTHERWISE NOTED)
ON SHELL - TO STRADDLE LONGITUDINAL CENTER LINES
ON HEADS - TO STRADDLE RADIAL CENTER LINES
- ALL OPENINGS TO BE WEATHER PROTECTED FOR SHIPMENT.
- VESSEL SHALL BE FREE OF EXCESSIVE WELD SPATTER, MILL SCALE, ETC.
- UNLESS OTHERWISE NOTED:
ALL FACTORY MADE WROUGHT STEEL BUTT WELDING FITTINGS TO MEET ASME B16.9-2018
ALL PIPE FLANGES & FLANGED FITTINGS TO MEET ASME B16.5-2013
ALL FORGED FITTINGS, SOCKET WELDING & THREADED FITTINGS TO MEET ASME B16.11-2016.
- UNLESS OTHERWISE NOTED CIRCULAR AND LONG SEAMS ARE OF TYPE 1.
- UNLESS OTHERWISE NOTED ALL REPAIRS TO HAVE AT LEAST (1) 1/8" MIN DIA. WEEP HOLE
- UNLESS OTHERWISE NOTED ALL STAINLESS STEEL VESSELS TO BE PASSIVATED.

REV	DESCRIPTION	BY	ENGR	QC	DATE
C	-NOZZLES 'B' THRU 'I' ORIENTATION CHANGED	JO			08/06/20
B	-NOZZLES 'B' THRU 'I' ORIENTATION CHANGED	JO			08/05/20
A	-SHELL HEIGHT WAS 96", NOZZLE 'M' ORIENTATION CHANGED, -NOZZLE 'C', 'E', 'F', 'G', 'I' WERE 1 1/2", BAFFLE ORIENTATION CHANGED, -NOZZLE NAMES UPDATED, DETAIL 1/1 ADDED	JO			07/23/20
0	-FOR APPROVAL	JO			07/13/20

WEIGHTS

NOM. CAPACITY: 1430 Gals
FULL. CAPACITY: 1639 Gals
EMPTY WEIGHT: 3048 Lbs
WEIGHT FULL H₂O: 16836 Lbs

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:

FRACTIONS DECIMALS ANGLES
±1/4" .XX- ±0"-30'
.XXX- .XXX-

DO NOT SCALE DRAWING

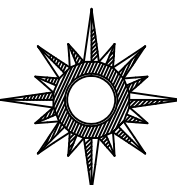
REV STATUS
OF SHEETS

REV STATUS
OF SHEETS

REV STATUS
OF SHEETS

REV STATUS
OF SHEETS

REV STATUS
OF SHEETS



Steel-Pro Incorporated

P.O. Box 449 * Rockland, Maine 04841

TITLE
V-102 MIX TANK

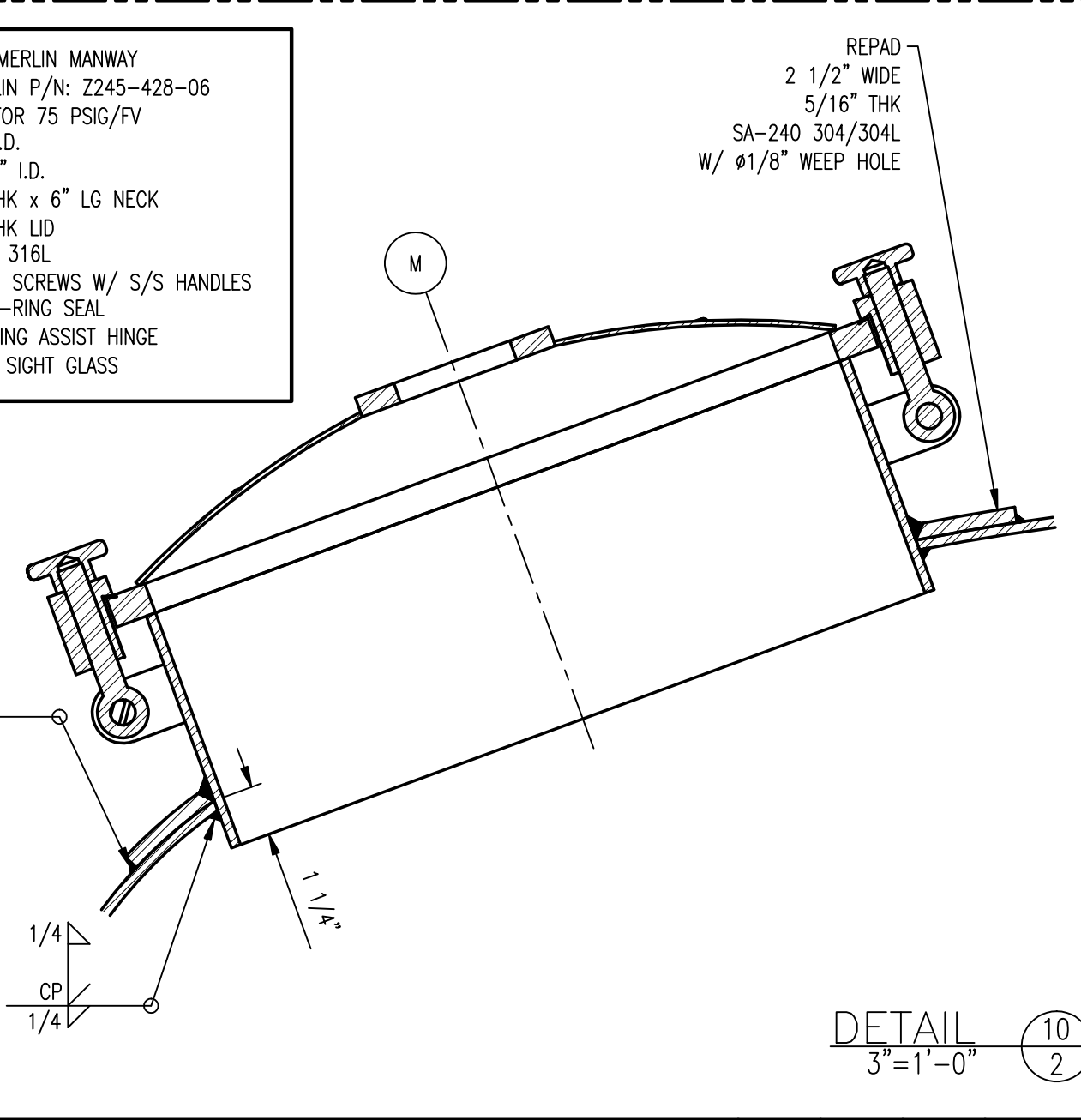
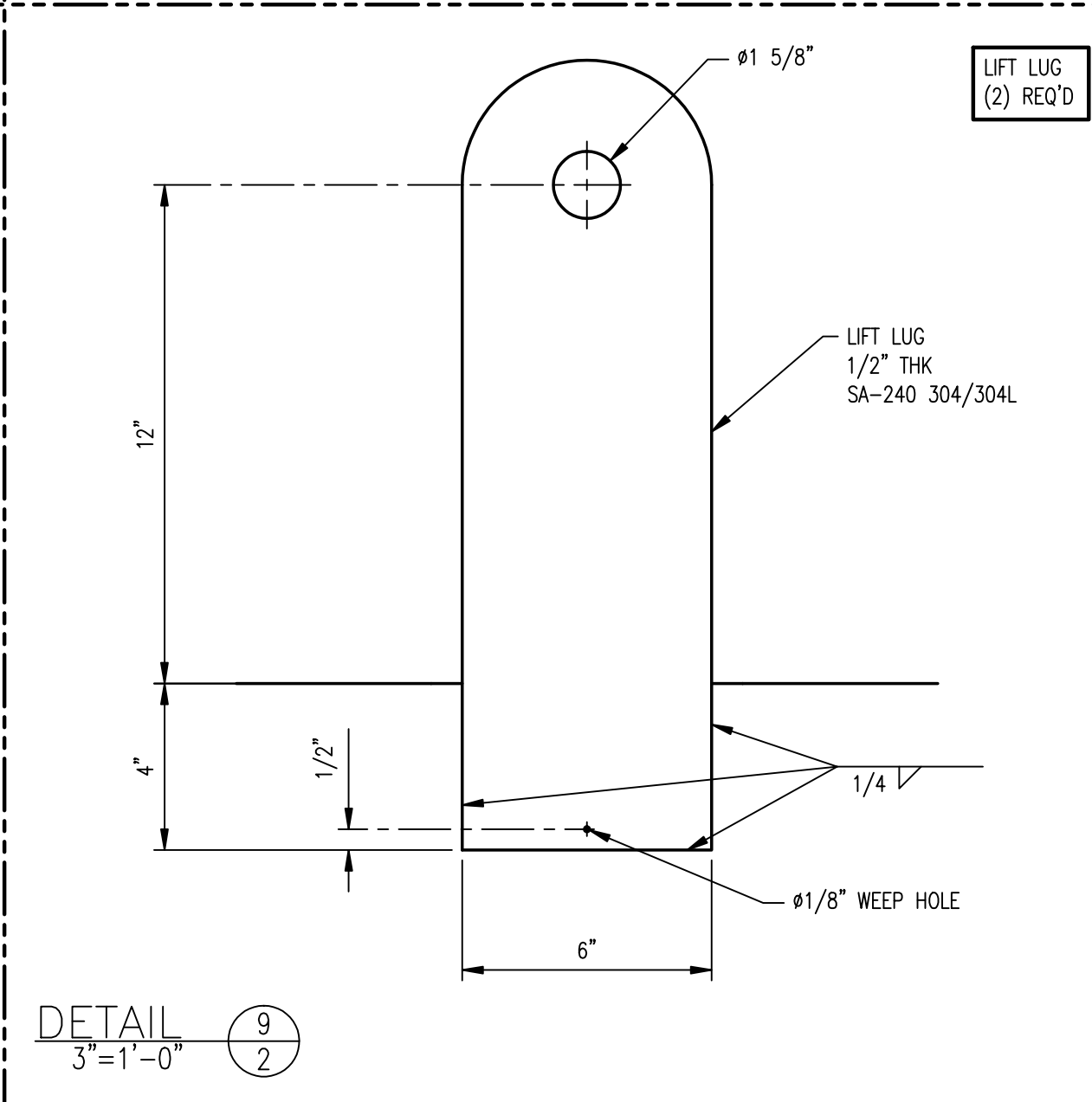
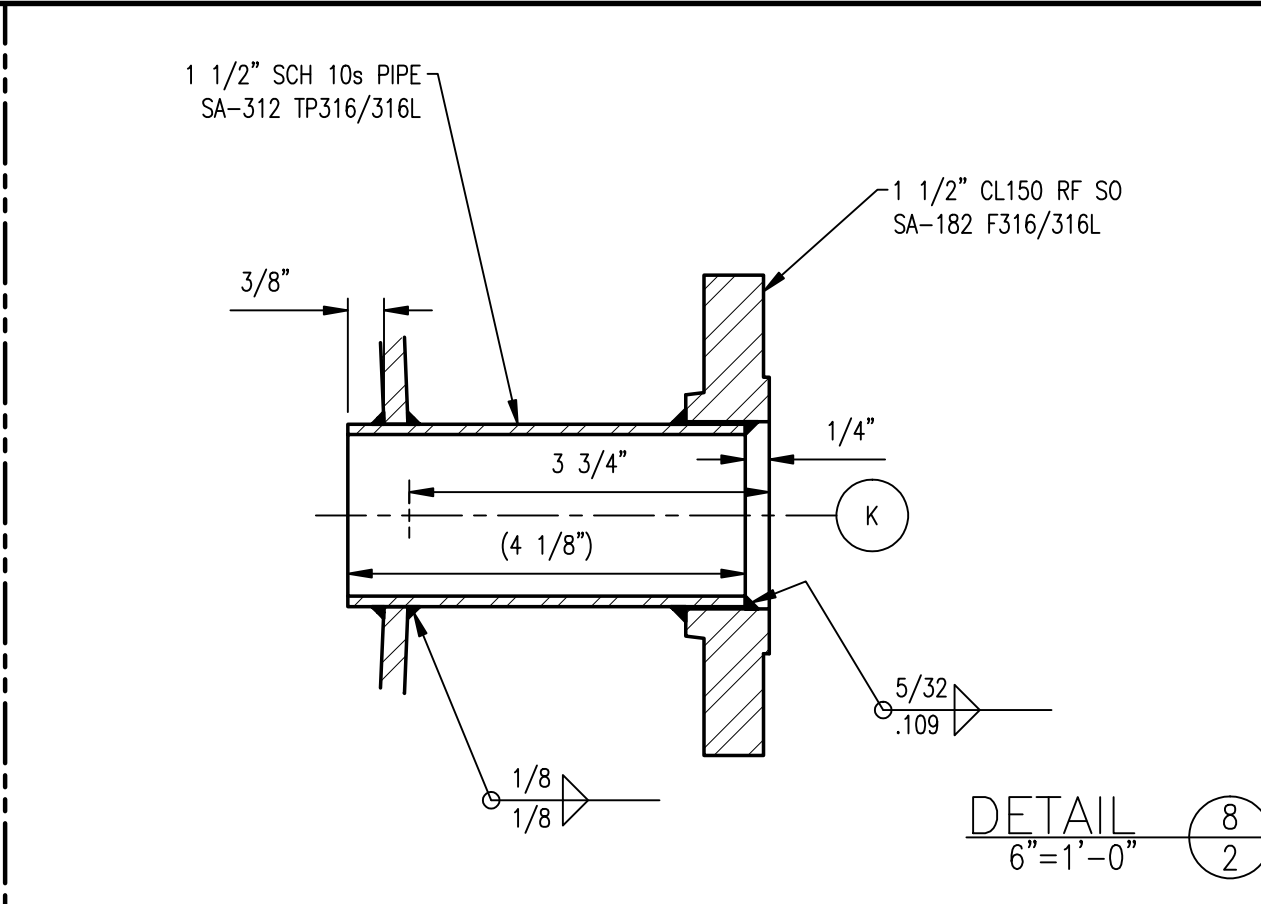
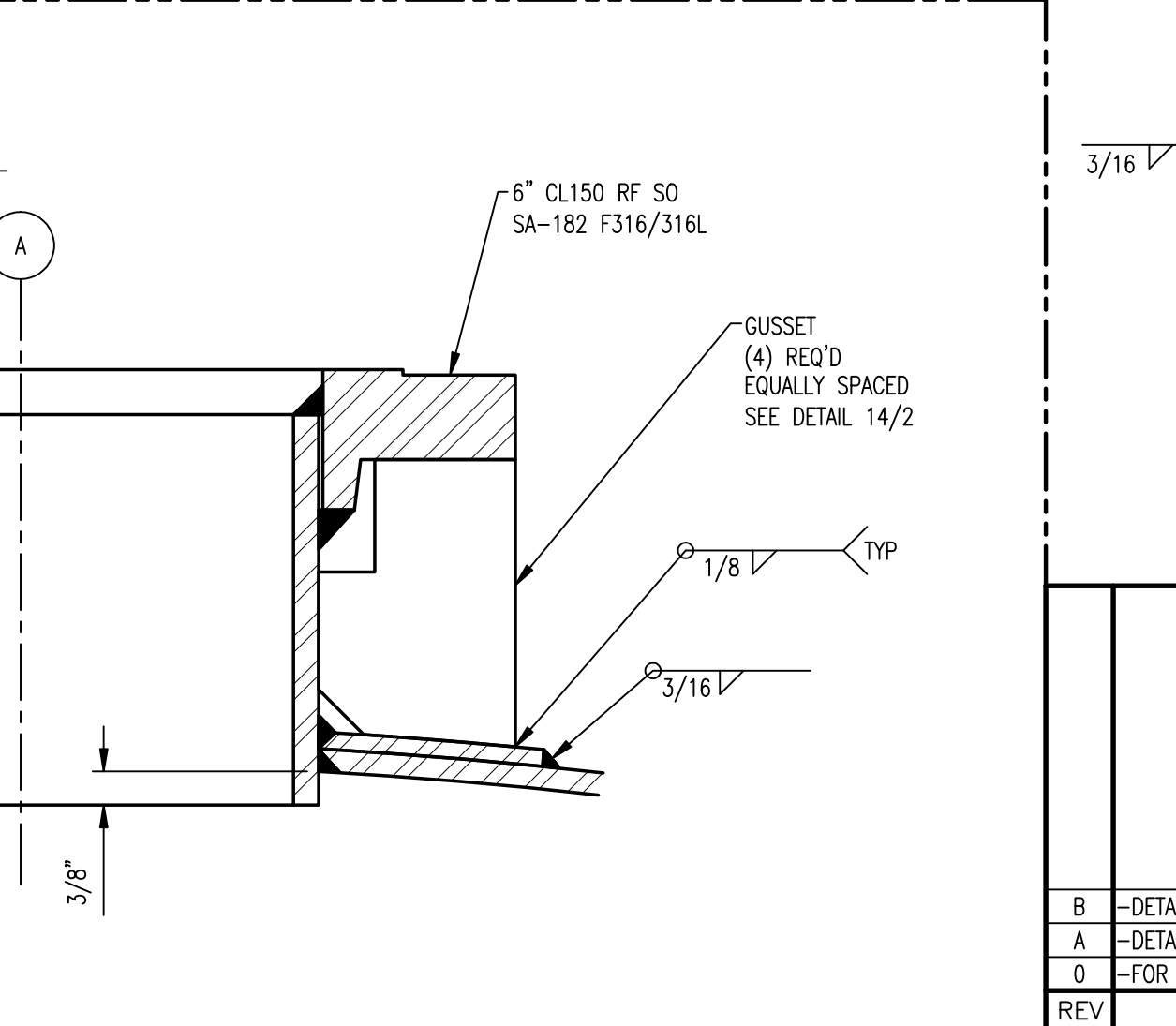
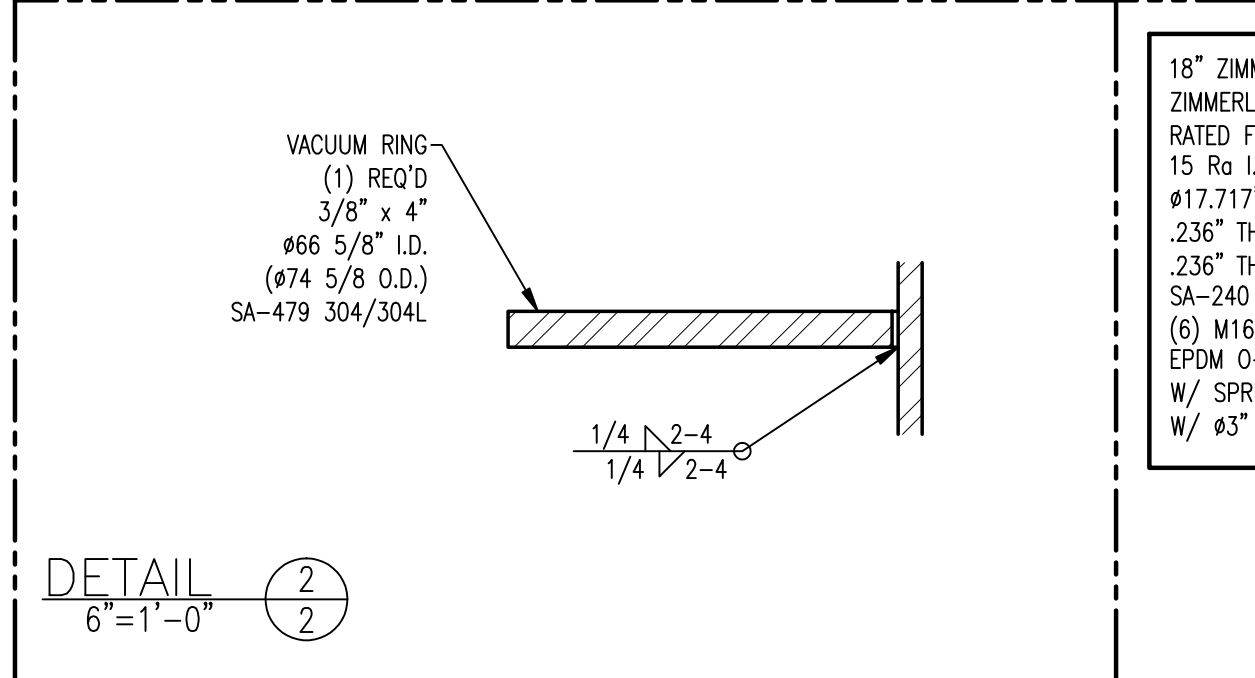
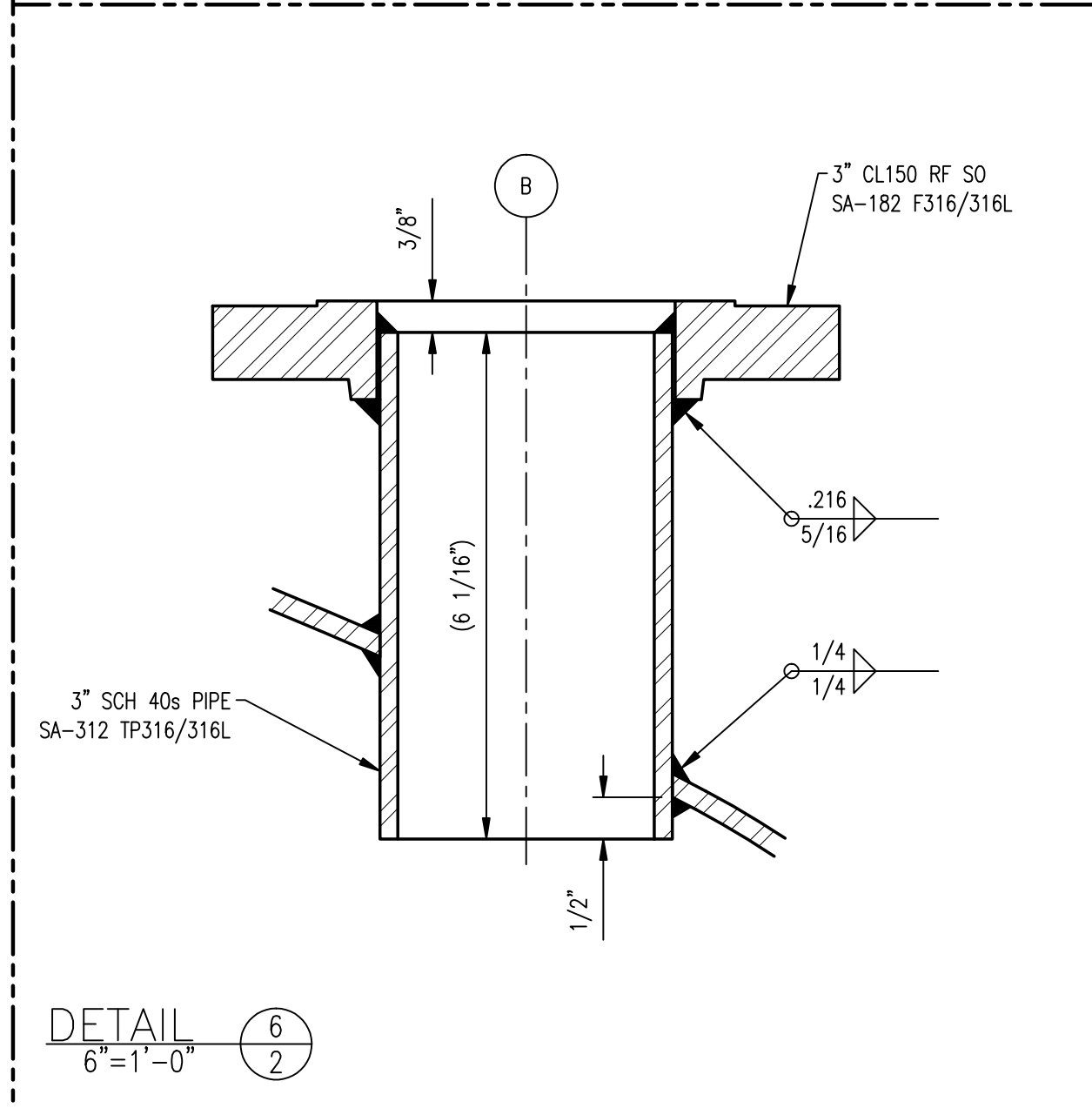
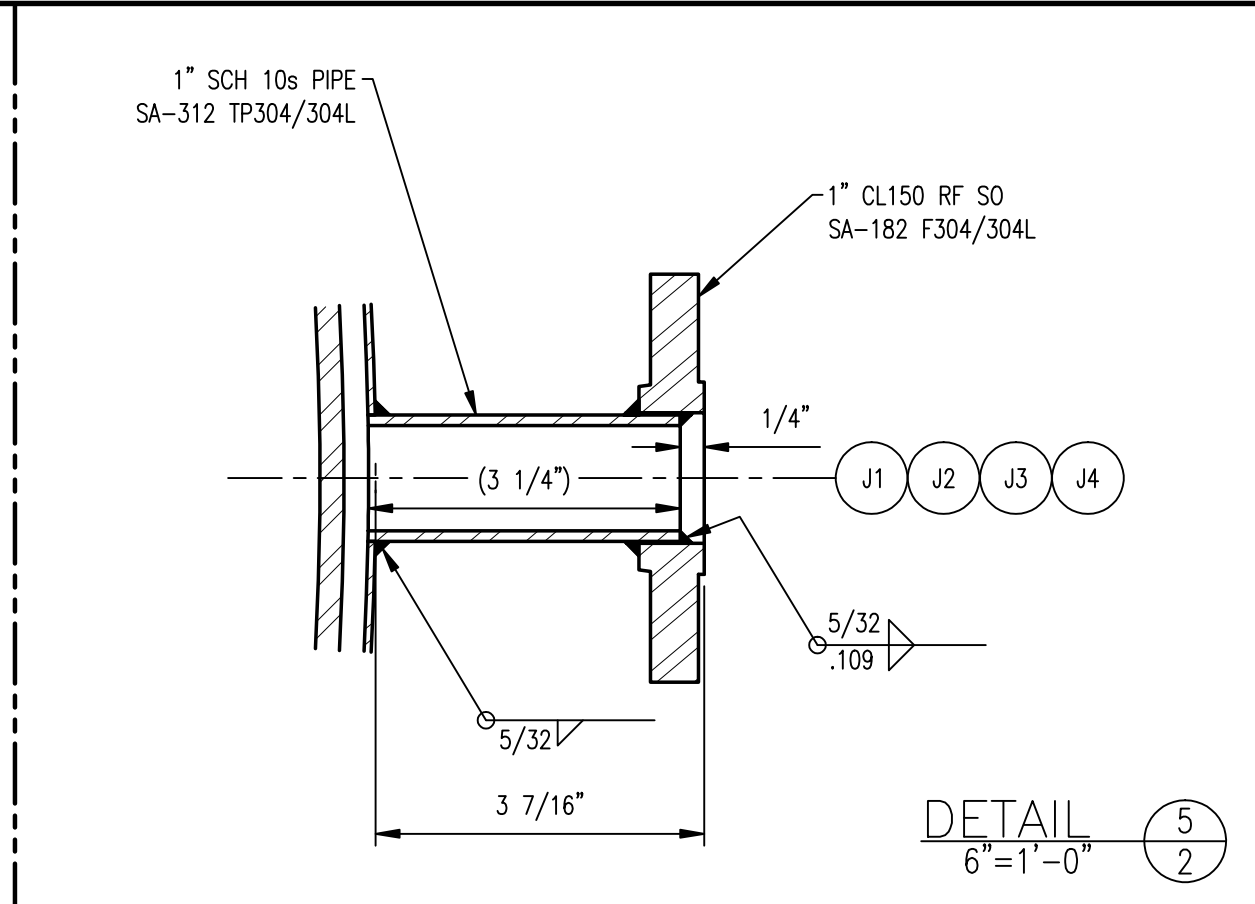
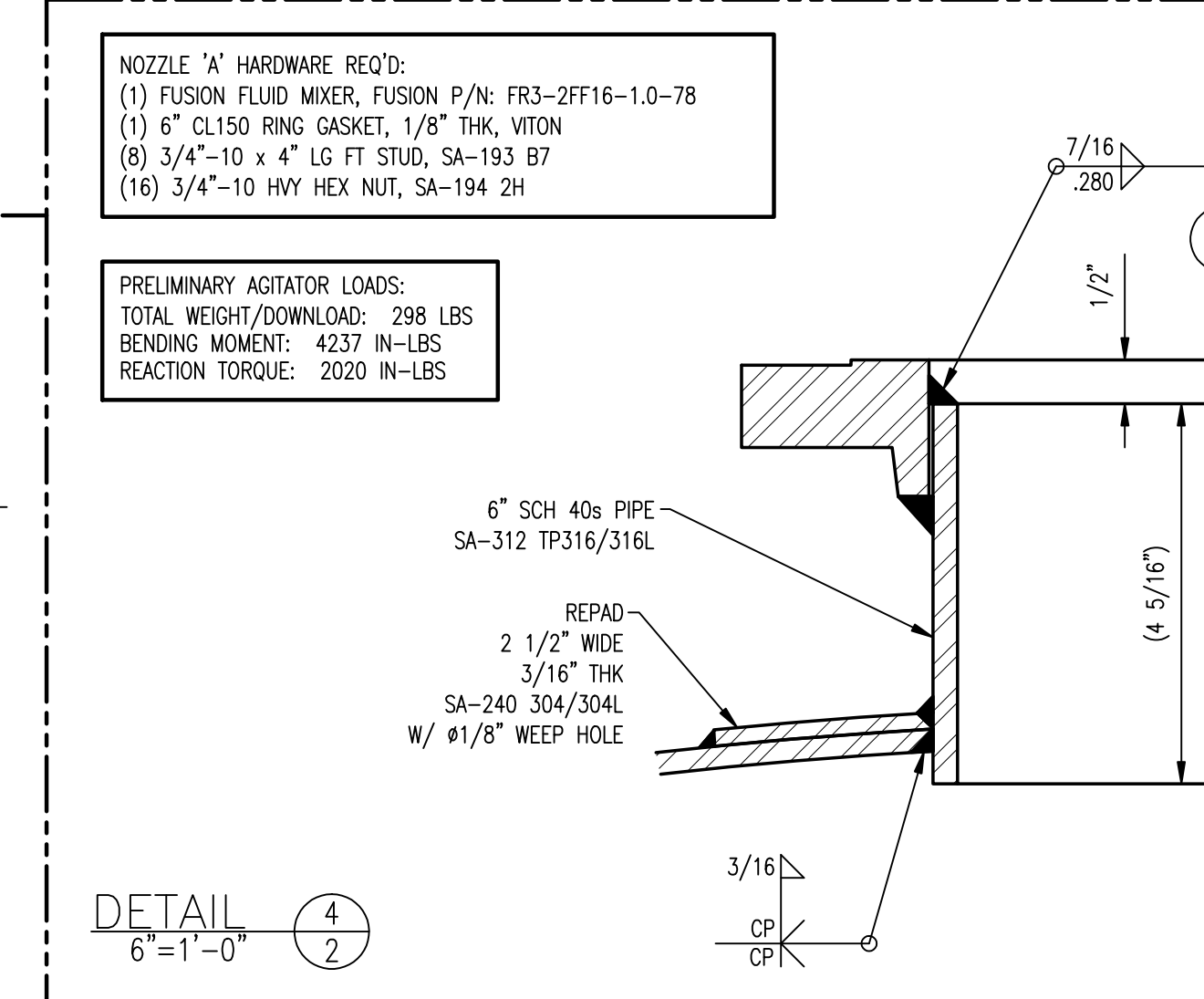
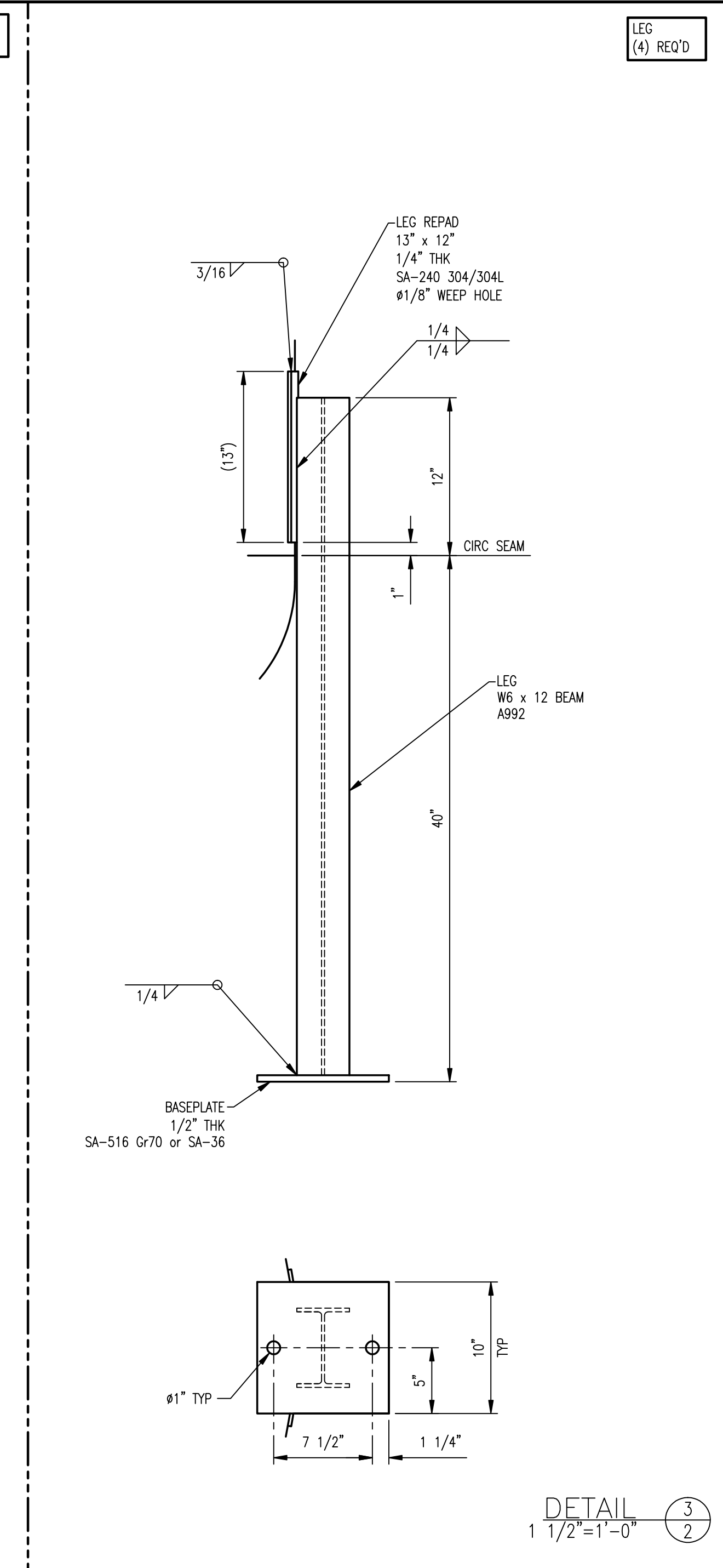
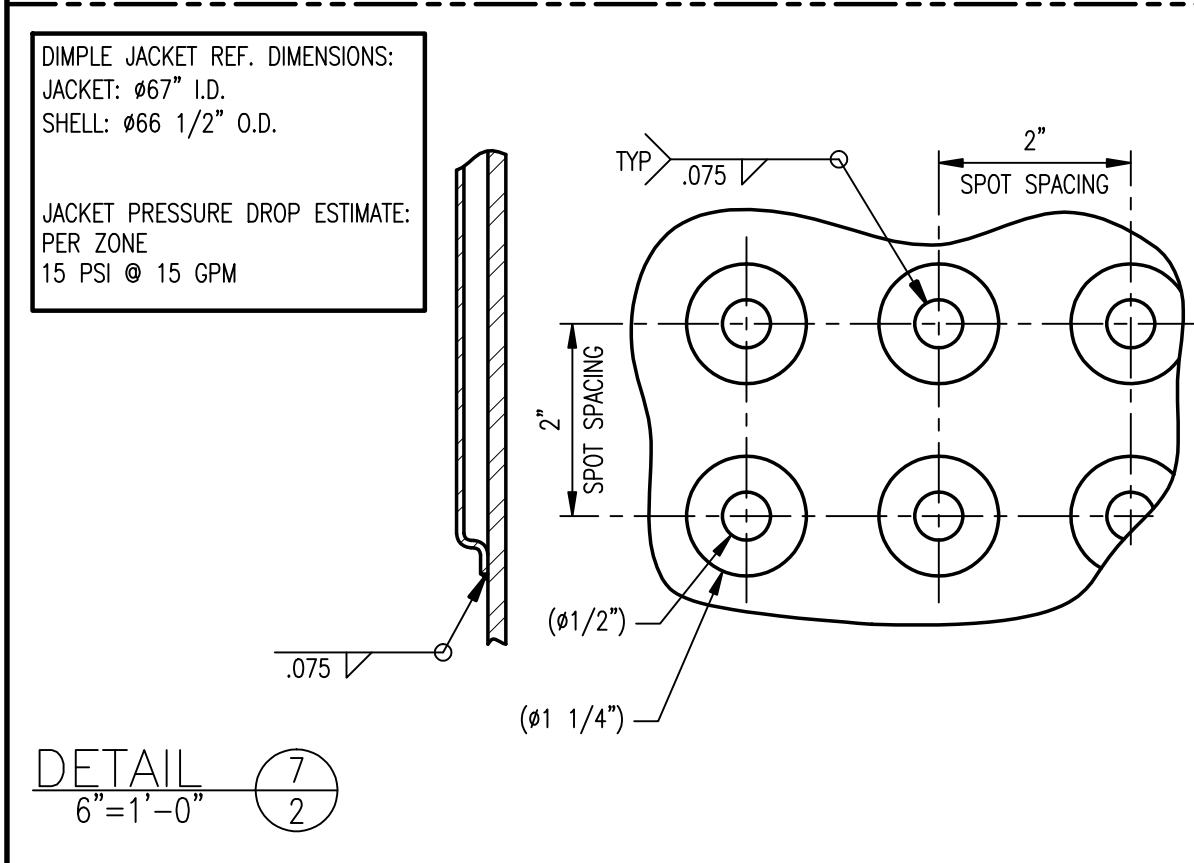
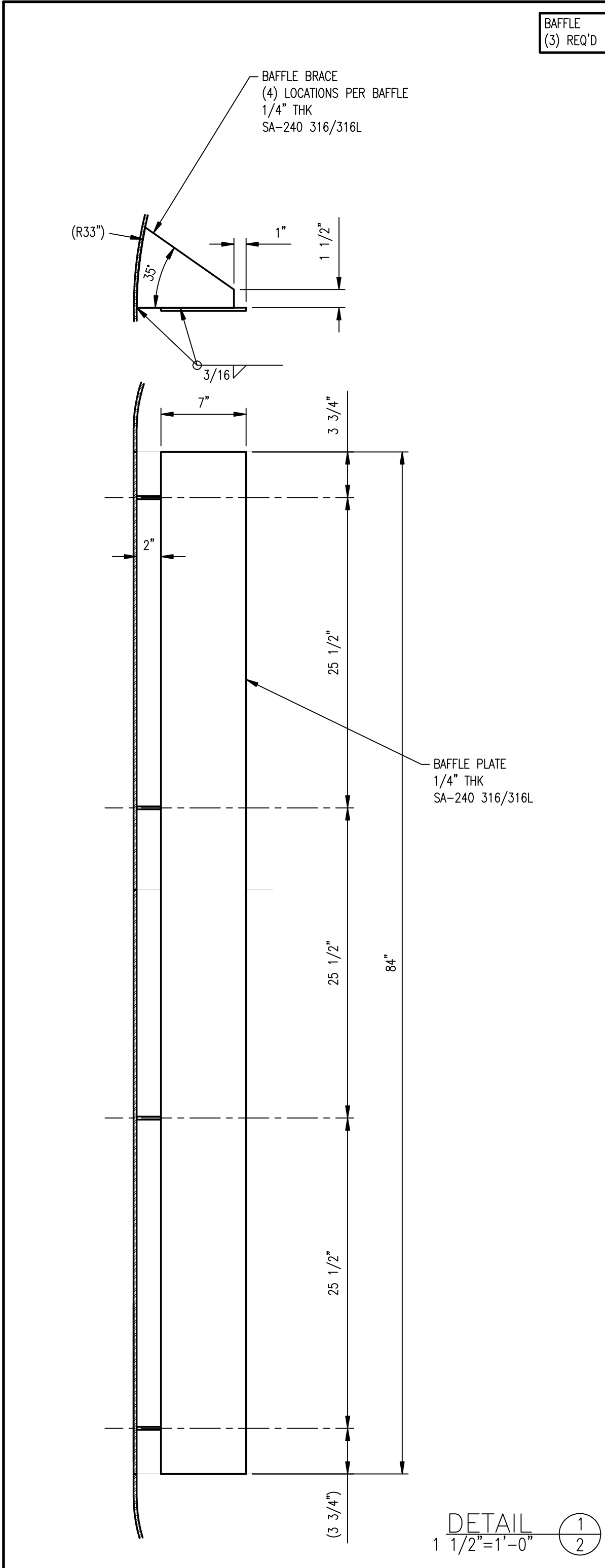
CUST. DREW MARINE P.O. NO. PB-2020-003

APPROVALS DATE S.O. NO. 23039 QTY 1

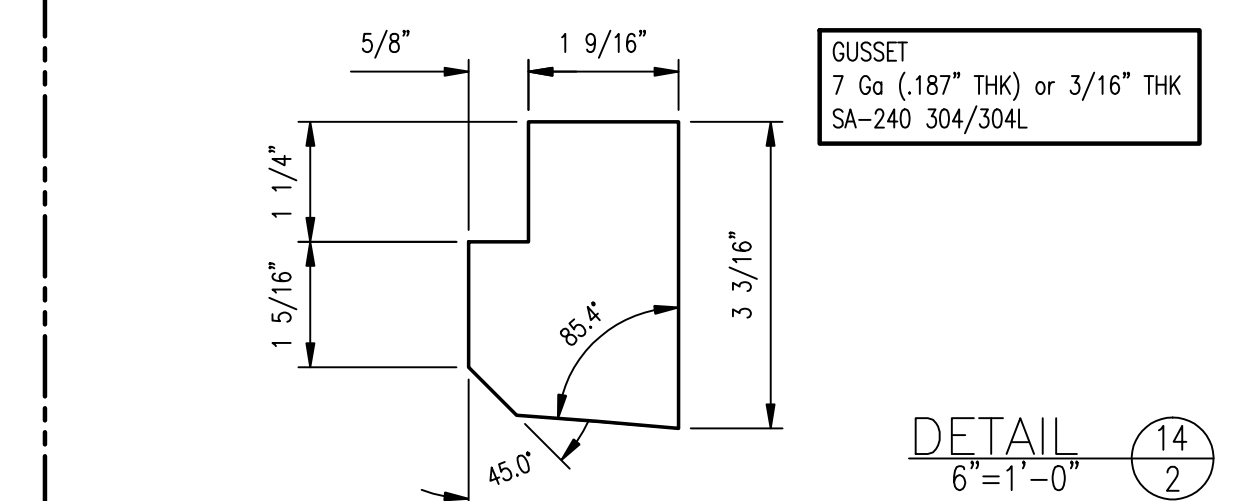
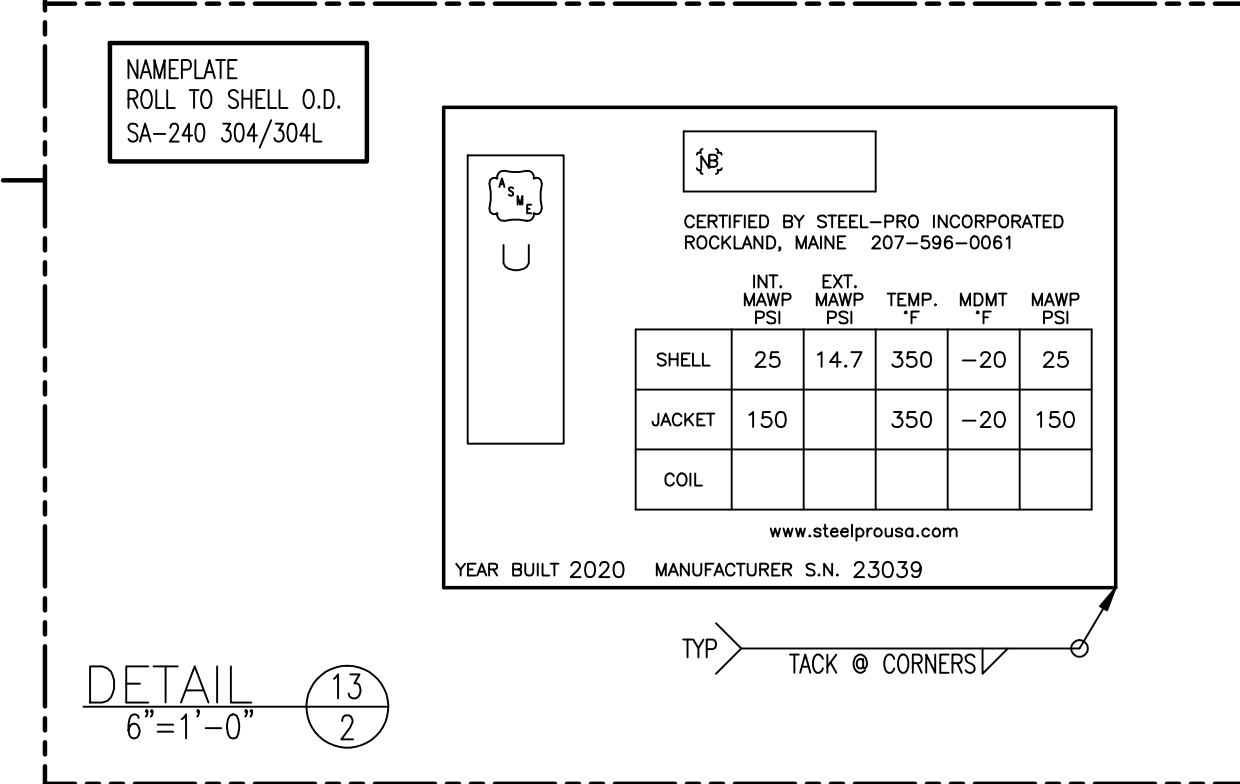
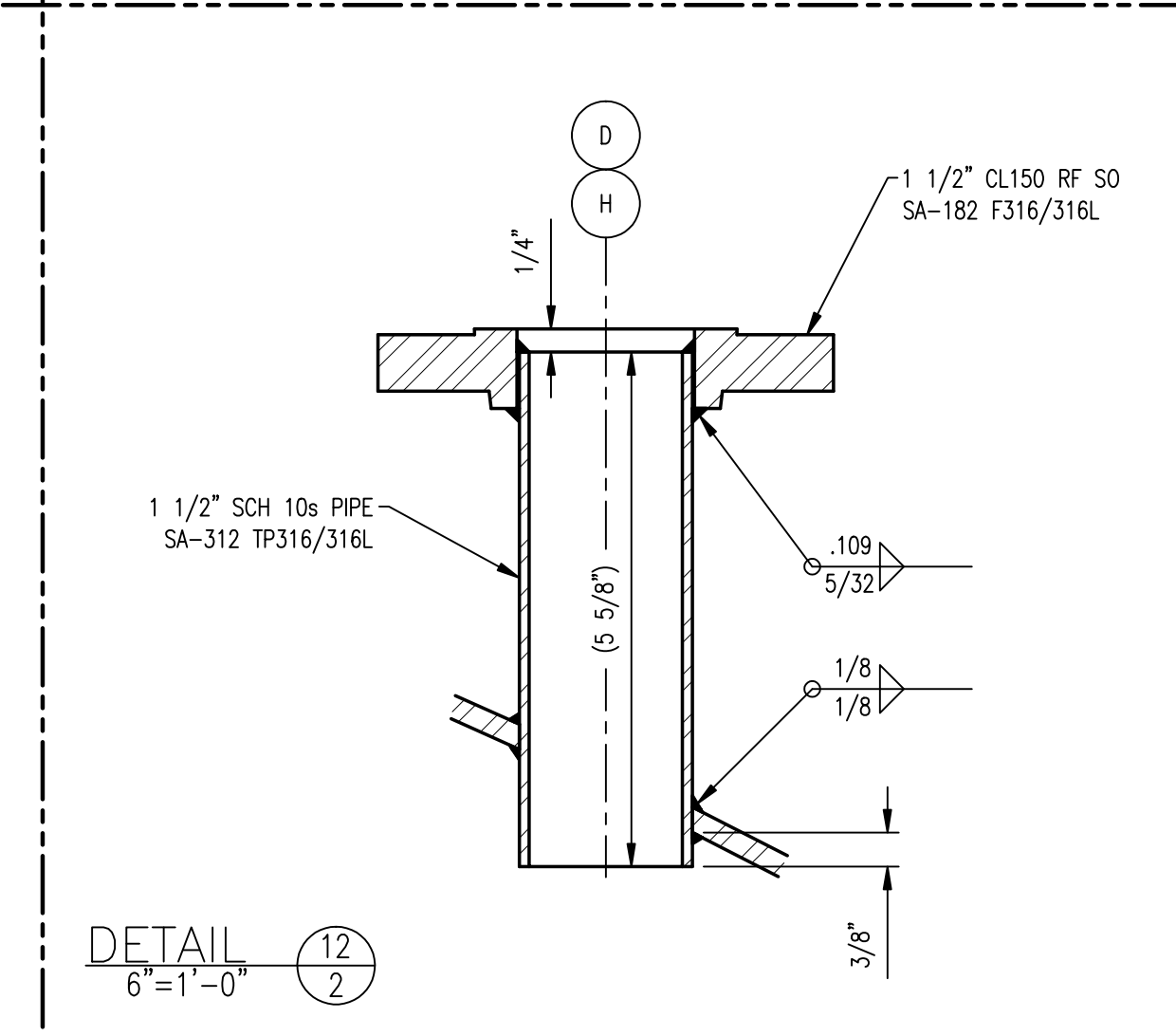
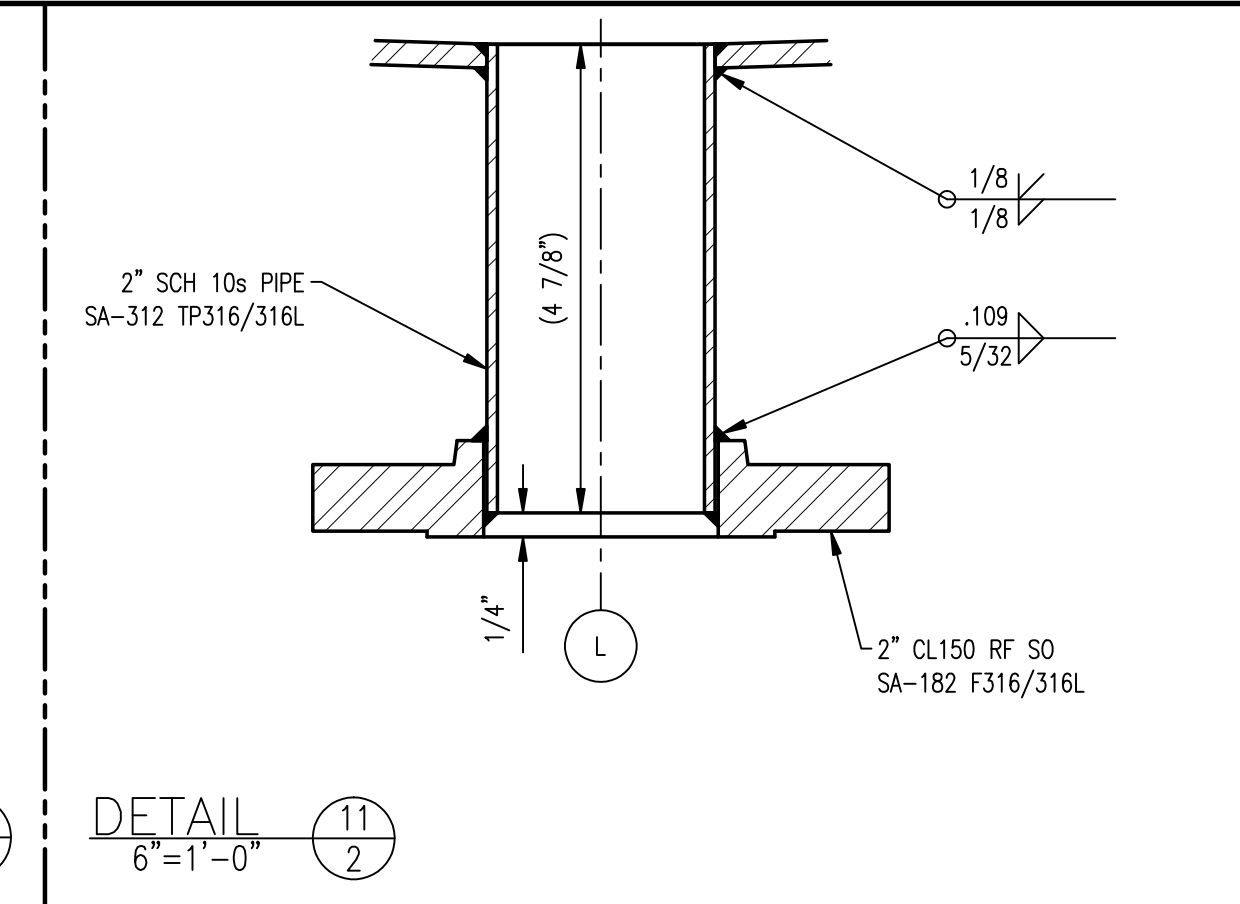
DRAWN J OJALA 07/13/20

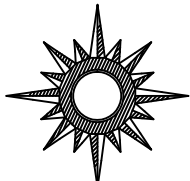
ENGR. CHK. DWG.NO. T-1902 REV. C

SCALE AS NOTED SHEET 1 OF 2 SHEETS



REV	DESCRIPTION	BY	ENGR	QC	DATE
B	-DETAIL 4/2; AGITATOR DETAILS FINALIZED	JO			08/05/20
A	-DETAILS 1/2 & 12/2; UPDATED, DETAIL 7/2: DIMPLE JACKET NOTE ADDED	JO			07/23/20
0	-FOR APPROVAL	JO			07/13/20



		Steel-Pro Incorporated	
P.O. Box 449 * Rockland, Maine 04841			
TITLE V-102 MIX TANK			
CUST. DREW MARINE		P.O. NO. PB-2020-003	
APPROVALS	DATE	S.O. NO. 23039	QTY 1
DRAWN J OJALA	07/13/20		
ENGR. CHK.		DWG.NO. T-1902	REV. B
Q.C. CHK.			
SCALE AS NOTED		SHEET 2 OF 2 SHEETS	

Mfr Representative: RA Date: 12/18/2020
Authorized Inspector: 99 Date: 12/18/2020

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS Page 1 of 3
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1 114

1. Manufactured and certified by Steel-Pro Incorporated
771 Main Street Rockland, ME 04841
(Name and address of Manufacturer)
2. Manufactured for Drew Marine, 100 S. Jefferson Rd Suit 204 Whippany, NJ 07981
(Name and address of Purchaser)
3. Location of installation Unknown
(Name and address)
4. Type Vertical Jacketed Vessel, V-101 Mix Tank 23038
(Horizontal, vertical, or sphere) (Tank, separator, jkt. vessel, heat exch., etc.) (Manufacturer's serial number)
--- T-1899 Rev. C 2579 2020
(CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Div. 1 2019 --- ---
(Edition and Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. Shell: (a) Number of course(s) 2 (b) Overall length Upper Jacket Zone: 20.00" / Lower Jacket Zone: 26.00"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	90.500" ID	20.00" (Upper)	SA-240 Type 304/304L	0.075"	---	2	None	---	---	---	---	---	---
2	90.500" ID	26.00" (Lower)	SA-240 Type 304/304L	0.075"	---	2	None	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---

7. Heads: (a) --- (b) ---
(Material spec. number, grade or type) (H.T. — time and temp.) (Material spec. number, grade or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	---	---	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---	---	---

8. Type of jacket Dimple Jacket Per UW-19 (c) Jacket closure Formed Edge with Fillet Welds
(Describe as ogee and weld, bar, etc.)

If bar, give dimensions. If bolted, describe or sketch. ---

9. MAWP 150 PSIG --- at max. temp. 350°F 350°F Min. design metal temp. -20°F at 150 PSIG
(Internal) (External) (Internal) (External)
10. Impact test No, Exempt From Impact Testing Per UHA-51 at test temperature of ---
(Indicate yes or no and the component(s) impact tested)
11. Hydro., pneu., or comb. test pressure Hydrostatic Test at 198 PSIG Proof test ---

Items 12 and 13 to be completed for tube sections.

12. Tubesheet --- --- --- --- ---
(Stationary (material spec. no.)) (Diameter (subject to press.)) (Nominal thickness) (Corr. allow.) (Attachment (welded or bolted))
--- --- --- --- ---
(Floating (material spec. no.)) (Diameter) (Nominal thickness) (Corr. allow.) (Attachment)
13. Tubes --- --- --- --- ---
(Material spec. no., grade or type) (O.D.) (Nominal thickness) (Number) (Type (straight or U))

Mfr Representative: RA Date: 12/18/2020
Authorized Inspector: SA Date: 12/18/2020

FORM U-1

Page 2 of 3

Manufactured by Steel-Pro Incorporated
Manufacturer's Serial No. 23038 CRN --- National Board No. 2579

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s) 1 (b) Overall length 72.000"

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	90.000" ID	72.000"	SA-240 Type 316/316L		0.250"	---	1	None	70%	1	None	70%	---	---
---	---	---	---		---	---	---	---	---	---	---	---	---	---
---	---	---	---		---	---	---	---	---	---	---	---	---	---

Body Flanges on Shells												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---

15. Heads: (a) SA-240 Type 316/316L (Material spec. number, grade, or type) (H.T. — time and temp.) (b) SA-240 Type 316/316L (Material spec. number, grade, or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	Top	0.250"	---	---	---	2:1	---	---	---	---	X	1	Full	85%
(b)	Bottom	0.250"	---	---	---	2:1	---	---	---	---	X	1	Full	85%

Body Flanges on Heads												
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	---	---	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---	---	---

16. MAWP 25 PSIG 14.7 PSIG at max. temp. 350°F 350°F Min. design metal temp. -20°F at 25 PSIG
(Internal) (External) (Internal) (External)

17. Impact test No, Exempt From Impact Testing Per UHA-51 at test temperature of ---
[Indicate yes or no and the component(s) impact tested]

18. Hydro., pneu., or comb. test pressure Hydrostatic Test at 33 PSIG Proof test ---

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
A	1	8.0" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH40S	---	SA-304/304L	UW-16.1(d)	UW-21 (1)	---
B	1	3.0" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH40S	---	---	UW-16.1(i)	UW-21 (1)	---
C, E, F, G, I	5	2.0" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH10S	---	---	UW-16.1(i)	UW-21 (1)	---
L	1	2.0" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH10S	---	---	UW-16.1(i)	UW-21 (1)	---
D, H	2	1.50" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH10S	---	---	UW-16.1(i)	UW-21 (1)	---
K	1	1.50" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH10S	---	---	UW-16.1(i)	UW-21 (1)	---
J1, J2, J3, J4	4	1.0" NPS	RFSO	SA-312 316/316L	SA-182 F316/316L	SCH10S	---	---	UW16.1(w-1)	UW-21 (1)	---

20. Supports: Skirt No Lugs --- Legs 4 Others --- Attached Welded to Shell Repad
(Yes or no) (Number) (Number) (Describe) (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name, and identifying number):

Vertical Vessel Assembly: FASTCO Fabrication Inc. S/N: 945-14567-1, U Certificate Number: 24, 078, Expires: February 26, 2020.

Multibolted Closure Device: Zimmerlin GmbH Edelstahl-Technik, S/N: D0720 150709, U Certificate Number: 28,065, Expires: November 21, 2021

90.0" I.D. Welded 2:1 Elliptical Head: Samuel Pressure Vessel Group, S/N: H6548-1-1-1 & -2, U Certificate Number: 12346, Expires: August 28, 2022

22. Remarks

All loadings considered per UG-22 and U-2(a). Vessel designed for non-corrosive service. SRD by others.

Mfr Representative: AS Date: 12/18/2020
Authorized Inspector: DS Date: 12/18/2020

FORM U-1

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Manufactured by Steel-Pro Incorporated
Manufacturer's Serial No. 23038 CRN --- National Board No. 2579

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization Number 17,648 Expires April 23, 2021

Date 12/18/2020 Name Steel-Pro Incorporated Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, CT.

have inspected the pressure vessel described in this Manufacturer's Data Report on November 4, 2020, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 12/18/2020 Signed [Signature] Commissions N.B. 14054
(Authorized Inspector) (National Board Authorized Inspector Commission number)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number --- Expires ---.

Date --- Name --- Signed ---
(Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by --- of ---, have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items ---, not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a pressure test of ---. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date --- Signed --- Commissions ---
(Authorized Inspector) (National Board Authorized Inspector Commission number)

(07/17)

2579

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FORM U-2 MANUFACTURER'S PARTIAL DATA REPORT
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

244

1. Manufactured and certified by FASTCO Fabrication, Inc.
FASTCO Fabrication, Inc. - 675 West Broadway Lincoln, ME 04457
(Name and address of Manufacturer)

2. Manufactured for Steel-Pro Inc. - 771 Main Street P.O. Box 449 Rockland, ME 04841
(Name and address of Purchaser)

3. Location of installation Unknown
(Name and address)

4. Type Vertical Vessel Assembly - V-101 Mix Tank 945-14567-1 -----
(Description of vessel part (shell, two-piece head, tube bundle)) (Manufacturer's serial number) (CRN)

----- T-1899 Rev. B Steel-Pro Inc. 2020
(National Board number) (Drawing number) (Drawing prepared by) (Year built)

5. ASME Code, Section VIII, Div. 1 2019 ----- -----
(Edition and Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. Shell: (a) Number of course(s) 2 (b) Overall length Upper Jacket Zone: 20" / Lower Jacket Zone: 26"

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	90.500" ID	20" (Upper)	SA-240 Type 304/304L		0.075"	-----	2	None	---	-----	-----	---	-----	-----
2	90.500" ID	26" (Lower)	SA-240 Type 304/304L		0.075"	-----	2	None	---	-----	-----	---	-----	-----
-----	-----	-----	-----		-----	-----	-----	-----	---	-----	-----	---	-----	-----

Body Flanges on Shells												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
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7. Heads: (a) ----- (b) -----
(Material spec. number, grade or type) (H.T. — time and temp.) (Material spec. number, grade or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---
(b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---

Body Flanges on Heads												
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
(b)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

8. Type of jacket Dimple jacket per UW-19 (c) Jacket closure Ogee and weld
(Describe as ogee and weld, bar, etc.)

If bar, give dimensions. If bolted, describe or sketch. -----

9. MAWP ----- ----- at max. temp. ----- Min. design metal temp. ----- at -----
(Internal) (External) (Internal) (External)

10. Impact test Exempt - UHA 51 at test temperature of -----
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test pressure None Proof test -----

Items 12 and 13 to be completed for tube sections.

12. Tubesheet ----- ----- ----- ----- -----
(Stationary (material spec. no.)) (Diameter (subject to press.)) (Nominal thickness) (Corr. allow.) (Attachment (welded or bolted))

----- ----- ----- ----- -----
(Floating (material spec. no.)) (Diameter) (Nominal thickness) (Corr. allow.) (Attachment)

13. Tubes ----- ----- ----- ----- -----
(Material spec. no., grade or type) (O.D.) (Nominal thickness) (Number) (Type (straight or U))

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Manufactured by FASTCO Fabrication, Inc.

Manufacturer's Serial No. 945-14567-1 CRN ----- National Board No. -----

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s) 1 (b) Overall length 72.000"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	90.000" ID	72.000"	SA-240 Type 316/316L	0.250"	-----	1	None	---	1	None	---	-----	-----
---	-----	-----	-----	-----	-----	-----	-----	---	-----	-----	---	-----	-----
---	-----	-----	-----	-----	-----	-----	-----	---	-----	-----	---	-----	-----

Body Flanges on Shells												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
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15. Heads: (a) SA-240 Type 316/316L (Material spec. number, grade, or type) (H.T. — time and temp.) (b) SA-240 Type 316/316L (Material spec. number, grade, or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	Top	0.250"	-----	-----	-----	2:1	-----	-----	-----	-----	XXX	1	Full	---
(b)	Bottom	0.250"	-----	-----	-----	2:1	-----	-----	-----	-----	XXX	1	Full	---

Body Flanges on Heads												
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	----	----	----	----	----	----	----	----	----	----	----	----
(b)	----	----	----	----	----	----	----	----	----	----	----	----

16. MAWP ----- at max. temp. ----- Min. design metal temp. ----- at -----
(Internal) (External) (Internal) (External)17. Impact test Exempt - UHA 51 at test temperature of -----
(Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test pressure None Proof test -----

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
A	1	8" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.40s	-----	3/16"SA240 304/L	UW16.1(d)	UW-21(1)	Top head
B	1	3" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.40s	-----	-----	UW16.1(i)	UW-21(1)	Top head
C,E,F,G,I	5	2" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.10s	-----	-----	UW16.1(j)	UW-21(1)	Top head
L	1	2" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.10s	-----	-----	UW16.1(j)	UW-21(1)	Bottom head
D,H	2	1-1/2" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.10s	-----	-----	UW16.1(i)	UW-21(1)	Top head
K	1	1-1/2" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.10s	-----	-----	UW16.1(i)	UW-21(1)	Shell
J1,J2,J3,J4	4	1" NPS	RFSO	SA-312 - 316/L	SA-182 - F316/L	Sch.10s	-----	-----	Fillet weld	UW-21(1)	Dimple jacket

20. Identification of part(s)

Name of Part	Quantity	Line No.	Mfr's. Identification No.	Mfr's. Drawing No.	CRN	National Board No.	Year Built
Multibolted Closure Device	1	19	D0720 150709	202 450 277 rev.0	-----	-----	2020
90.0" I.D. Welded 2:1 Elliptical Head	2	15	H6548-1-1-1 & -2	80.12963	-----	-----	2020
-----	-----	-----	-----	-----	-----	-----	-----

21. Supports: Skirt No Lugs ----- Legs 4 Others ----- Attached ----- Shell - Welded
(Yes or no) (Number) (Number) (Describe) (Where and how)

22. Remarks

Cont. from line 19: Purpose: M, No.: 1, Dia. or Size: 18", Type: Manway, Nozzle: SA-240 316L, Flange: SA-479 316L, Nozzle Thk. Nom.: 0.240", Corr.: 0, Reinf. Matl.: 0.375" thk. SA-240 Type 304/L, Att. Details Nozzle: UW-16.1(s), Flange: Fig.2-4(4a), Location: Top head / Pressure testing by others / No design function by FASTCO Fabrication, Inc.

(07/17)

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FORM U-2

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Manufactured by FASTCO Fabrication, Inc.
Manufacturer's Serial No. 945-14567-1 CRN ----- National Board No. -----

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U or PRT Certificate of Authorization number 24,078 Expires February 26, 2022

Date 11/19/2020 Name FASTCO Fabrication, Inc. Signed *Paul L. L...*
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut

have inspected the pressure vessel part described in this Manufacturer's Data Report on 11/19/2020, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 11/19/2020 Signed *[Signature]* Commissions NB14054
(Authorized Inspector) (National Board Authorized Inspector Commission number)

(07/17)

MULTIPLE
REVISED

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

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1. Manufactured and certified by Zimmerlin GmbH Edelstahl-Technik, Frohmattenstrasse 19, D-79268 Boetzingen, Germany
(Name and address of Manufacturer)

2. Manufactured for Archon Industries Inc., 357 Spool Rock Road, Bldg. I Unit 505, Suffern, New York, USA
(Name and address of Purchaser)

3. Location of installation _____
(Name and address)

4. Type Multibolted Closure Device D0720 150708-150709 ---
(Description of vessel part (shell, two-piece head, tube bundle)) (Manufacturer's serial number) (CRN)

--- 202 450 277 rev.1 Zimmerlin GmbH 2020
(National Board number) (Drawing number) (Drawing prepared by) (Year built)

5. ASME Code, Section VIII, Div. 1 Ed2019 2911 ---
(Edition and Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

6. Shell: (a) Number of course(s) 1 (b) Overall length 5.35"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	ID17.72"	5.35"	SA-240 316L	0.24"	0	1	none	0.7	7	none	N/A	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Body Flanges on Shells										Bolting			
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
1	loose	17.72"	19.06"	1.06"	---	SA-479 316L	Fig 2-4 (4a)	shell	6xM16x5.3"	SA-193 B8M2	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	

7. Heads: (a) SA-240 316L, no H.T. (b) ---
(Material spec. number, grade or type) (H.T. --- time and temp.) (Material spec. number, grade or type) (H.T. --- time and temp.)

Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
	Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a) hinged top	0.22"	---	---	---	---	---	19.69"	---	X	X	---	---	---
(b) ---	---	---	---	---	---	---	---	---	---	---	---	---	---

Body Flanges on Heads									Bolting			
Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
(a) head	integral	17.72"	19.06"	1.46"	---	SA-479 316L	Fig 1-6(d)	see above	---	---	---	
(b) ---	---	---	---	---	---	---	---	---	---	---	---	

8. MAWP 25psi FV at max. temp. 350°F 350°F Min. design metal temp. -20°F at 25psi/FV
(Internal) (External) (Internal) (External)

9. Impact test none, exempt per UHA-51 (d) (1) at test temperature of ---
(Indicate yes or no and the component(s) impact tested)

10. Hydro., pneu., or comb. test pressure --- Proof test N.A.

11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom	Corr.		Nozzle	Flange	
sight glass	1	2.96"	w.e	---	*	---	---	---	---	UW16.1(k)	---
---	---	---	---	---	---	---	---	---	---	---	---

12. Identification of part(s)

Name of Part	Quantity	Line No.	Mfr's. Identification No.	Mfr's. Drawing No.	CRN	National Board No.	Year Built
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---	---	---	---	---	---	---	---

13. Supports: Skirt no Lugs --- Legs --- Other --- Attached ---
(Yes or no) (Number) (Number) (Describe) (Where and how)

14. Remarks

Nameplate engraved on dished head, Lower part identified with the last six digits of the MSN; Design with exemption of reinforcement calculation between cover and PV, performed by Zimmerlin GmbH; Bolt design acc. Zimmerlin design; no pressure test performed by Zimmerlin GmbH; using U-2(g)/App. 46 for the calculation of the cover flange; *SA-182 F316L (07/17)

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FORM U-2A

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Manufactured by Zimmerlin GmbH Edelstahl-Technik, Frohmattenstrasse 19, D-79268 Boetzingen, Germany
Manufacturer's Serial No. D0720 150708-150709 CRN --- National Board No. ---

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U or PRT Certificate of Authorization no. 28,065 Expires November 21, 2021

Date 05. Nov. 2020 Name Zimmerlin GmbH Signed i. v. Dufte
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut

have inspected the pressure vessel part described in this Manufacturer's Data Report on 20. Aug. 2020 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 05. Nov. 2020 Signed [Signature] Commissions 15910
(Authorized Inspector) (National Board Authorized Inspector Commission number)

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FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Samuel Pressure Vessel Group, 1119 Bridge Street, Tomahawk, Wisconsin 54487 USA

(Name and address of Manufacturer)

2. Manufactured for Steel Pro Inc, 771 Main Street, P.O. Box 449, Rockland, ME 04841 USA

(Name and address of Purchaser)

3. Location of installation Unknown

(Name and address)

4. Type 90.0" I.D. Welded 2:1 Elliptical Head H6548-1-1-1 & -2 -

(Description of vessel part (shell, two-piece head, tube bundle))

(Manufacturer's serial number)

(CRN)

80.12963 Samuel Pressure Vessel Group 2020

(National Board number)

(Drawing number)

(Drawing prepared by)

(Year built)

5. ASME Code, Section VIII, Div. 1 2019 - -

(Edition and Addenda, if applicable (date))

(Code Case number)

(Special service per UG-120(d))

6. Shell: (a) Number of course(s) - (b) Overall length -

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
-	-	-	-		-	-	-	-	-	-	-	-	-	-
-	-	-	-		-	-	-	-	-	-	-	-	-	-
-	-	-	-		-	-	-	-	-	-	-	-	-	-

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Nut & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) 0.375" SA240, Type 316 (b) -

(Material spec. number, grade or type) (H.T. — time and temp.)

(Material spec. number, grade or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	Unknown	0.250"	-	-	-	2:1	-	-	-	-	-	1	Full	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Nut & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-

8. MAWP - at max. temp. - Min. design metal temp. - at -

(Internal)

(External)

(Internal)

(External)

9. Impact test None at test temperature of -

(Indicate yes or no and the component(s) impact tested)

10. Hydro., pneu., or comb. test pressure By Others Proof test -

11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

12. Identification of part(s)

Name of Part	Quantity	Line No.	Mfr's Identification No.	Mfr's Drawing No.	CRN	National Board No.	Year Built
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

13. Supports: Skirt No Lugs - Legs - Other - Attached -

(Yes or no)

(Number)

(Number)

(Describe)

(Where and how)

14. Remarks

Material is Dual Certified SA-240, Type 316/316L
 No Design Functions Were Performed By Samuel Pressure Vessel Group

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FORM U-2A

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Manufactured by Samuel Pressure Vessel Group, 1119 Bridge Street, Tomahawk, Wisconsin 54487 USA
Manufacturer's Serial No. H6548-1-1-1 & -2 CRN National Board No.

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U or PRT Certificate of Authorization no. 12346 Expires August 28, 2022

Date 08-12-2020 Name Samuel Pressure Vessel Group Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company of Lynn, MA

have inspected the pressure vessel part described in this Manufacturer's Data Report on 8/12/2020 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 8/12/2020 Signed [Signature] Commissions NB16755
(Authorized Inspector) (National Board Authorized Inspector Commission number)