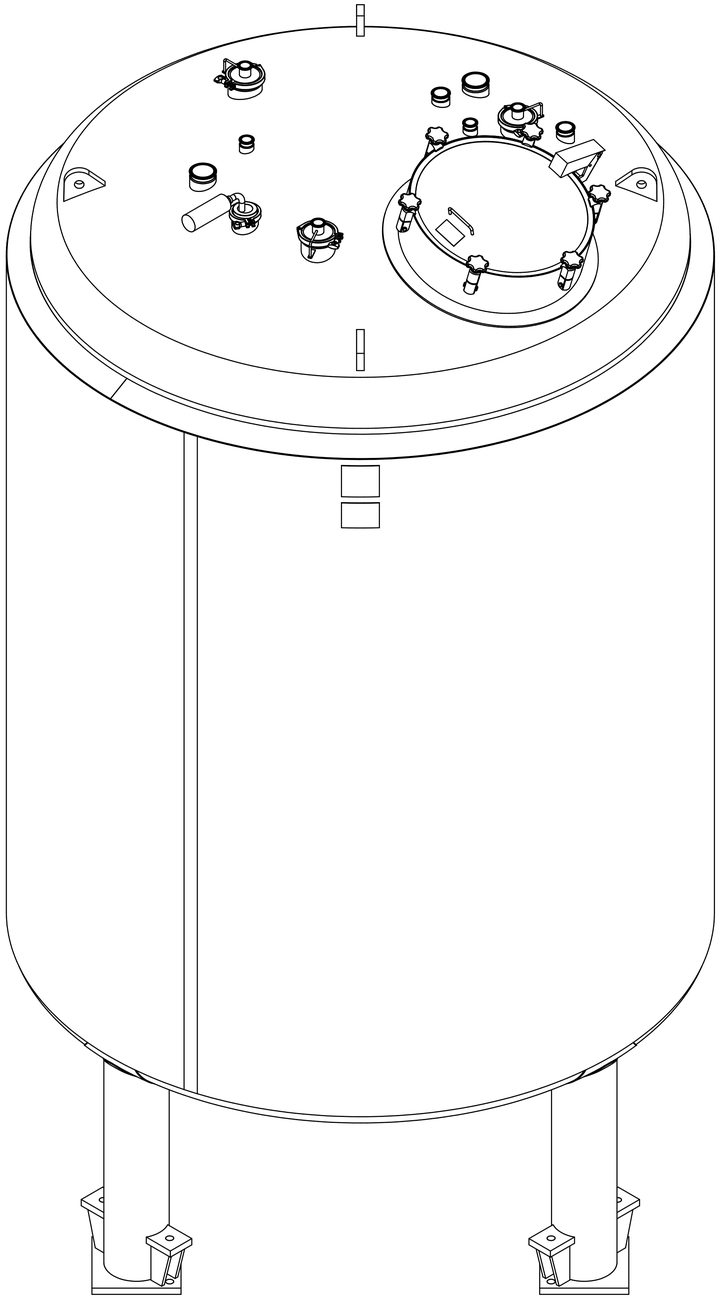
Nzl	SERVICE	ITEM	QTY	PART #	DESCRIPTION	MATERIAL
		1	1		TOP HEAD ASSEMBLY	
		1.1	1		TOP HEAD, 1/2" PL. ASME F&D X 86" I.D. X 86" D.R. X 6" K.R. X 1 1/2" S.F. X 16 9/16" F.I.D.	SA240-316/316L
A	MANWAY	1.2	1		MANWAY, 24" MC-56X W/ 6 LUGS, 6" COLLAR, SPRING ASSIST, & PLATINUM CURED SILICONE O-RING 45 PSI/FV @350° F	316/316L
		1.3	1		MANWAY REPAD, 1/4" THK. X 2" WIDE	304/304L
B	WFI RECIRC	1.4	1	SF-14-40040400	4" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L A
C	WFI RECIRC	1.5	1	SF-14-40040400	4" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L A
D	WFI RETURN	1.6	1	SF-14-40040400	4" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L A
E	RUPTURE DISC	1.7	1	SF-14-40015400	1 1/2" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
F	PRESSURE SENSOR	1.8	1	SF-14-40030400	3" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
I	SIGHT/LIGHT GLASS	1.9	1		3" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
J	VENT FILTER	1.10	1	SF-14-40030400	3" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
K	WFI SUPPLY	1.11	1	SF-14-40020400	2" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
L	SPARE	1.12	1		2" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L A
M	SPARE	1.13	1	SF-14-40015400	1 1/2" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
		1.14	4	LL-12-18000020	LIFTING LUG, 1" THK. X 3 5/8" X 6" W/ 1 1/4" DIA. HOLE (EX-LLG-005)	SA240-304/304L
		2	1		SHELL ASSEMBLY	
		2.1	1		SHELL, 3/8" PL. X 86" I.D. X 101" S.W.	SA240-316/316L
		3	1		BOTTOM HEAD ASSEMBLY	
		3.1	1		BOTTOM HEAD, 3/8" PL. ASME F&D X 86" I.D. X 86" D.R. X 6" K.R. X 1 1/2" S.F. X 16 9/16" F.I.D.	SA240-316/316L
H	OUTLET	3.2	1	SF-14-40040400	4" TRI-CLAMP FERRULE SFI 14MPW, 4" LG.	SA479-316/316L
G	PROCESS	3.3	1	SF-14-60061001	6" WELDING SPUD X 2.10" LG. W/ 1" MOUNTING FLANGE (1199-0061-0001) (TCI)	SA479-316/316L
		4	4		LEG, 8" SCH. 40S PIPE X 51" LG.	SA312-304/304L
		5	4	EX-LEG-001	BASE PLATE, 1" PL. X 11 3/4" X 11 3/4" W/ (2) 1 1/16" DIA. HOLES	SA240-304/304L
		6	4		ESCUTCHEON, 12 GA. X 8 5/8" I.D. X 14 5/8" O.D.	304/304L
		7	1		ALCOVE, 12 GA. X 9 1/2" I.D. X 60° I.A.	SA240-304/304L
		8	1		BREAST RING, 12 GA. X 87" I.D. X 93 1/8" I.D. X 120° I.A.	SA240-304/304L
		9	1		JACKET BAND, 1/8" X 1" FLAT BAR X 92 7/8" I.D. (ROLL E.W.)	SA479-304/304L
		10	1		JACKET, 10 GA. X 93 3/8" O.D. X 106 1/16" S.W.	SA240-304/304L
		11	1		OUTER BOTTOM, 10 GA. F&D X 92 7/8" I.D. X 92 7/8" D.R. X 2" K.R. X 1" S.F. X 14 5/8" F.I.D.	SA240-304/304L
		12	8		TOP PLATE, 1" THK. X 4" X 4 1/2" W/ (1) 1 1/16" HOLE	SA240-304/304L
		13	16		GUSSET, 1/2" THK. X 3 1/2" X 6"	SA240-304/304L
N	THERMOWELL	14	1		THERMOWELL, 1 1/2" X 9" STM X 4 1/2" INS X .260" BORE (LAG INC) 1 1/2"-260WELD-IN-U4 1/2-T3 W/ 1/2" NPT	316/316L
		15	3		CIP ASSEMBLY, REMOVABLE 1 1/2" TRI-CLAMP CONNECTION W/ 3" MOUNT & (1) WELDED 2 1/2" SPRAYBALL, TOP COVERAGE, 19 GPM @ 25 PSIG RANDOM DRILLED W/ALIGNMENT PIN & BRACKET (STAINLESS SOLUTIONS)	
		16	3	SF-92-FE040000	4" TRI-CLAMP FERRULE GASKET	USP CL VI SILICONE
		17	3	SF-11-20040001	4" 13MHHM FERRULE CLAMP	304
		18	1	PVG225U-LED	SIGHT GLASS/LED LIGHT, PUREVIEW TRI-CLAMP 3" (CANTY)	316/316L
		19	1	SF-92-FE030000	3" TRI-CLAMP FERRULE GASKET	USP CL VI SILICONE
		20	1	SF-11-20030001	3" 13MHHM FERRULE CLAMP	304
		21	1		ESCUTCHEON, 12 GA. X 1 9/16" ID X 5 1/2" OD	SA240-304/304L
		22	1		VORTEX BREAKER, 7 GA. FOR 4" OUTLET (IN-VTX-002)	SA240-316/316L
		23	1		ALCOVE, 12 GA. X 11" I.D. X 60° I.A.	SA240-304/304L
		24	1		VENT SCREEN, 1" SIZE " MICRO PLASTIC, INC." (62MP1000V)	NYLON
		25	1		DATA PLATE, STD. A.S.M.E. DATA PLATE	316/316L
		26	1		NAME PLATE, STD. SFI NAME PLATE	316/316L
		27	1		INSULATION, 1"THK. CHLORIDE FREE CERAMIC (272 SQ.FT.)	ASTM C795
		28	1		INSULATION, 2"THK. CHLORIDE FREE CERAMIC (272 SQ.FT.)	ASTM C795
		29	1 GAL.		PAINT, THURMALOX #70	



GENERAL NOTES & SPECIFICATIONS

1. Flange Bolt Holes To Straddle Major Vertical & Horizontal Vessel Center Lines Unless Indicated Otherwise.
2. The Corrosion Resistance Of The Equipment Is Not The Responsibility Of Stainless Fabrication, Inc.
3. Suitable Pressure and/or Vacuum Relief Valve(s) Must Be Installed By Customer For Vessel and/or Heat Transfer Surface Operation.
4. Design & Tolerances Are In Accordance With The Latest Edition Of The "ASME" Boiler & Pressure Vessel Code, Section VIII, Division 1, 2019 Edition
5. Production To Provide Protection For All Nozzles & Fittings Prior To Shipment. Vessel Must Be Adequately Vented.
6. Weld Seams In Vessel Head & Shell Shall Be Located Where Possible To Avoid Nozzles, Access Openings, & Reinf. Pads.
7. All Reinforcement Pads Must Be Provided With (1) 1/8" Dia. Weephole, Located At Lowest Point When Vessel Is In Its Normal Operating Position. If No Leg Weld Pad Is Required, Drill (1) 3/16" Dia. Weephole In Lowest Point Of Pipe Leg.
8. Welding Procedures Per Section IX, Asme Boiler & Pressure Vessel Code.
   Stainless To Stainless
   0808PAW21-1, 0808PAW21-1a, 0808GT21-6, 0808GT16-2, 0808GM31-1, 0808GM33-1, 0808FC31-1
   Carbon To Stainless (If Applicable)
   0108GT16-2, 0108FC31-1 0108GM31-1
   Carbon To Carbon (If Applicable)
   0101GT16-2, 0101GM31-1, 0101FC31-1
9. Minimum Design Metal Temperature: -20° F
10. H.T.S. Nozzles Are Non-Load Bearing, If Applicable.
11. The Data Plate Shall Include The Customer Purchase Order Number and Tank Tag Number If Listed On This Drawing.
12. Unless Otherwise Specified, The Shop Is To Locate Lifting Lugs On Tank Such That Lugs Are At 3 O'clock And 9 O'clock As It Ships. Spreader Beams Required.

ADDITIONAL NOTES & SPECIFICATIONS

13. The Following Standard Procedures & Specifications Are To Be Used:
    QC-100 Hydrostatic Testing
    QC-102 Drain Testing Procedure
    QC-110 Pressure Integrity Test
    QC-200 Liquid Penetrant Examination (Color Contrast Method) (AS APPLICABLE)
    QC-201 Liquid Penetrant Examination (Flouresent Contrast) (AS APPLICABLE)
    QC-600 Cleaning Of Stainless Steel Parts And Equipment
    QC-601 Passivation Procedure For 300 Series Stainless Steel
    QC-602 Electropolish Procedure
    QC-603 Final Cleaning Procedure
    QC-700 Surface Roughness Specification
    QC-800 Standard Dimensional & Fabrication Tolerances Specification
14. All exterior sheet 2B. All exterior plate, pipe, and bar to be 30RA.

M.T.R.'S REQUIRED
(ALL PARTS & WELD WIRE)
(COC'S REQUIRED FOR GASKETS)

SPECIFICATIONS	VESSEL	HEAT TRANSFER SURFACE
ASME Code, Sec. VIII, div. 1.	YES	
Inspection & Stamped	YES	
Max. Design Temp. °F	350	
Max. Design Pressure, PSIG	45	
Corrosion Allowance, Inch	0	
Specific Gravity	1.0	
Hydrostatic Test, PSIG	60	
Vacuum Design, PSIG	15	
Radiograph	NONE	

HEAT TRANSFER SURFACE: N/A

MATERIAL FINISH

INTERIOR: 20Ra/EP | EXTERIOR: SEE NOTE 14.

WELD FINISH

INTERIOR: 20Ra/EP | EXTERIOR: BF

PAINT: (2) COATS OF THURMALOX 70 UNDER INSULATION

CERTIFIED CORRECT AND RELEASED FOR FABRICATION

FABRICATION WILL BE IN ACCORDANCE WITH THIS DRAWING. ANY FURTHER CHANGES WILL BE REVIEWED FOR COST AND DELIVERY ADJUSTMENTS.

STAINLESS FABRICATION INCORPORATED

CHECKED BY: Daniel Stauffer — I have reviewed this document 2021-03-09 09:45:42

ENGINEERED BY: Jeffrey W Brunson — Digitally signed by Jeffrey W Brunson; DN: C=US, O=Engineering, O=Stainless Fabrication Inc., CN=Jeffrey W Brunson, E=jbrunson@stainlessfab.com; Reason: I am approving this document; Location: your signing location here; Date: 2021-03-09 09:48:55; Foxit PhantomPDF Version: 9.7.5

RESERVED

DRAWN	BRETT DUNCAN	DATE	1/11/2021
CHECKER	DANIEL STAUFFER	DATE	1/20/2021
ENGINEER	JEFF BRUNSON	DATE	1/20/2021

TITLE: 10,000 LITER WFI STORAGE TANK

TAG NO. V-223-1 A

SHEET 1 OF 3

QUANTITY: (1) ONE | EST. EMPTY WEIGHT: 6914 lbmass

CUSTOMER: MECO

ADDRESS: 68375 COMPASS WAY EAST, MANDEVILLE, LA 70471

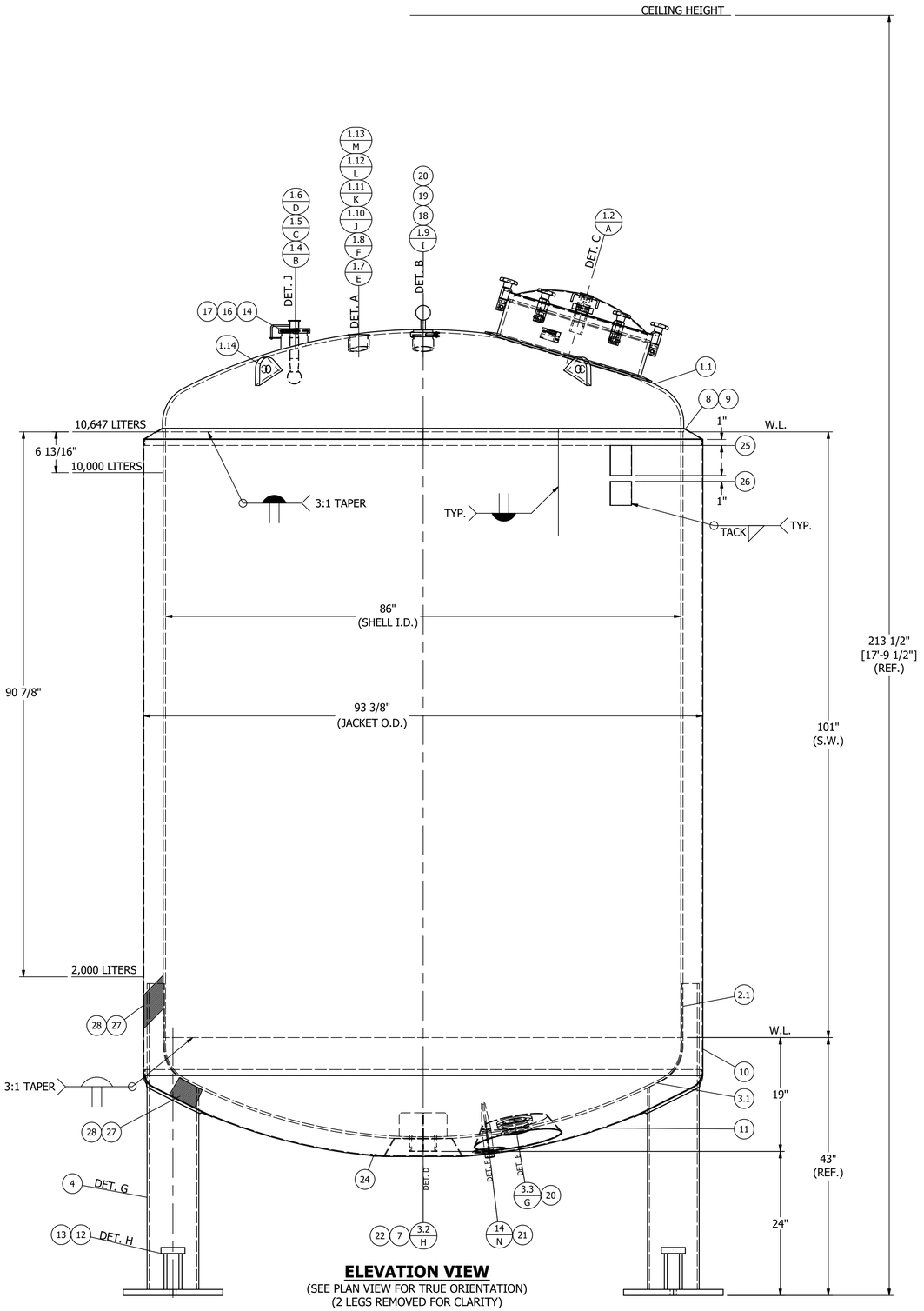
SHIP TO: LONZA-HAYWARD, CA

CUSTOMER ORDER NO: 137735

Stainless Fabrication, Incorporated
4455 W. Kearney
Springfield, MO 65803
(417) 865-5696

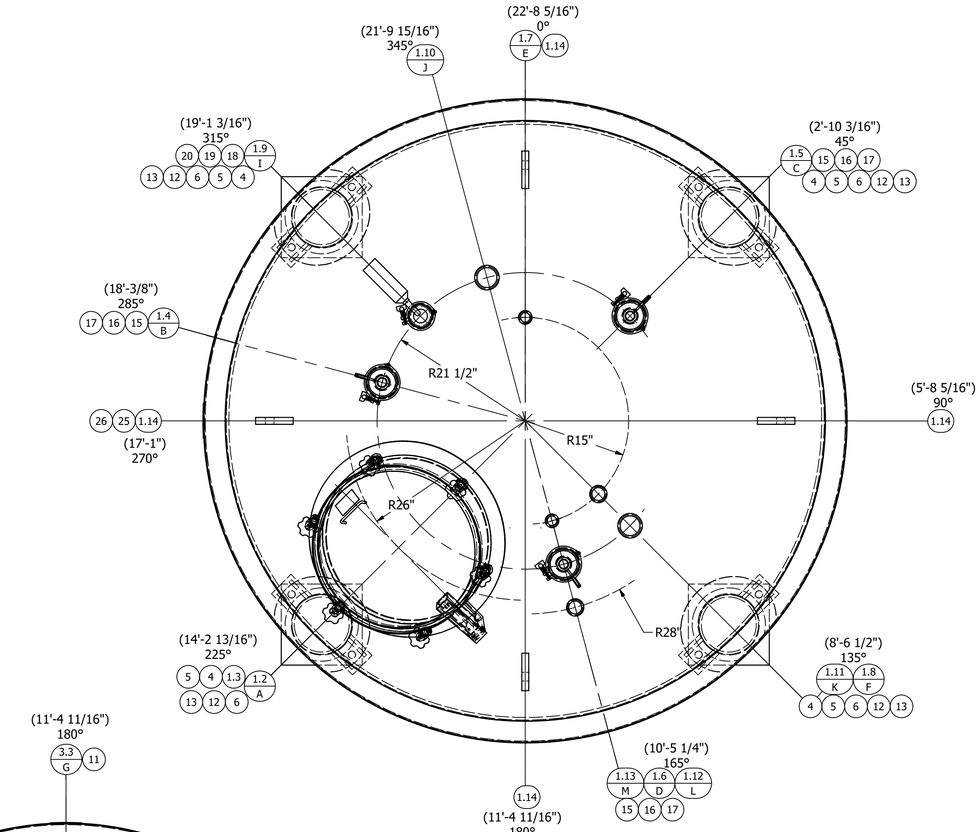
DRAWING NO. 13780-1-M1 REV A

REV	DESCRIPTION	DESIGNER	CHECKED BY	ENGINEER	DATE
A	RELEASED FOR FABRICATION, CHANGED TAG NUMBER FROM WFI-TK100, ITEM 1.12 NOZZLE SEVERICE WAS WFI RETURN, ADDED PART NUMBER TO ITEM 1.6, ITEMS 1.4, 1.5, 1.6 SERVICE NAME WAS CIP	BD	JK	JB	2/8/2021

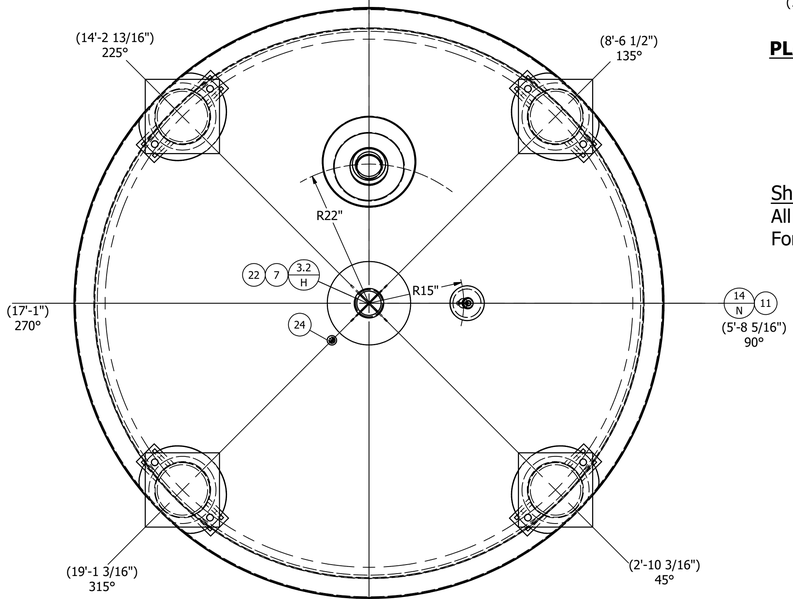


ELEVATION VIEW

(SEE PLAN VIEW FOR TRUE ORIENTATION)
(2 LEGS REMOVED FOR CLARITY)



PLAN VIEW



BOTTOM HEAD VIEW

Shop Note:
All Arc Length Locations are From 0° Along The Top Head O.D.
For Reference Only. The Shop Is To Verify And Adjust As Required.

REV	DESCRIPTION	DESIGNER	CHECKED BY	ENGINEER	DATE
A	RELEASED FOR FABRICATION, ITEM 1.2 WAS AT 0°, ITEM 1.4 WAS AT 60°, ITEM 1.8 WAS AT 90°, ITEM 1.9 WAS AT 120°, ITEM 1.5 WAS AT 180°, ITEM 1.10 WAS AT 210°, ITEM 1.7 WAS AT 135°, ITEMS 1.11 AND 1.13 WERE AT 225°, ITEM 1.12 WAS AT 240°, ITEM 1.6 WAS AT 300°, ITEM 3.3 WAS AT 225°, ITEM 14 WAS AT 315°	BD	JK	JB	2/8/2021

CERTIFIED CORRECT AND
RELEASED FOR FABRICATION

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STAINLESS FABRICATION INCORPORATED

DRAWN	BRETT DUNCAN	DATE 1/11/2021
CHECKED	DANIEL STAUFFER	DATE 1/20/2021
DES. ENGR. APPROVED	JEFF BRUNSON	DATE 1/20/2021

SHEET 2 OF 3

Stainless Fabrication, Incorporated
4455 W. Kearney
Springfield, MO 65803
(417) 865-5696

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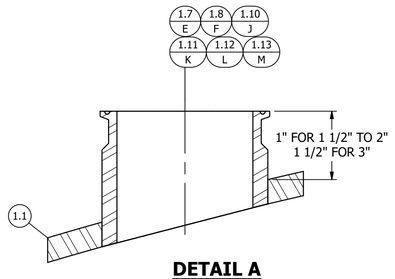
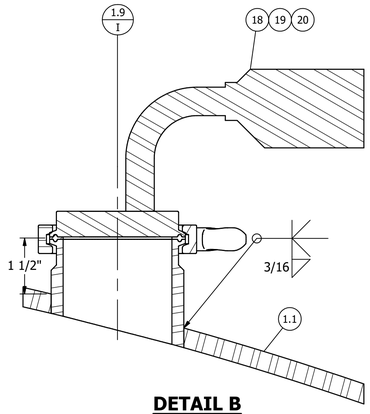
APPROVED
daniel.stauffer , 1/20/2021 ,8:40:13 AM

ENGINEERED BY
APPROVED
jeff.brunson , 1/20/2021 ,8:48:27 AM

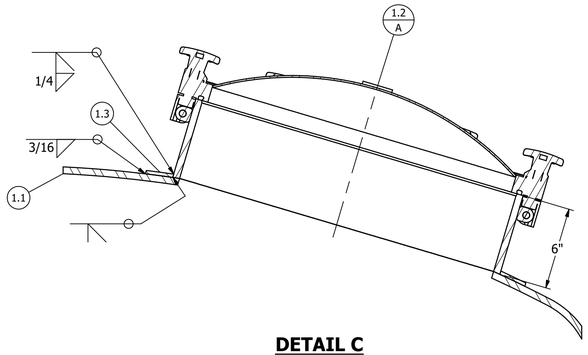
DRAWING NO. 13780-1-M2
A REVISION



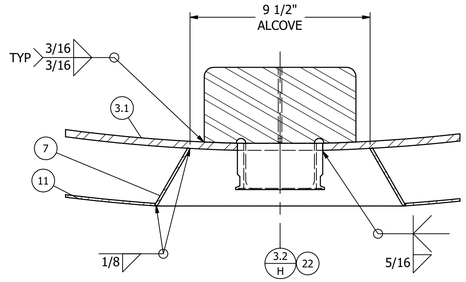
DETAIL A
(TOP HEAD FERRULES)



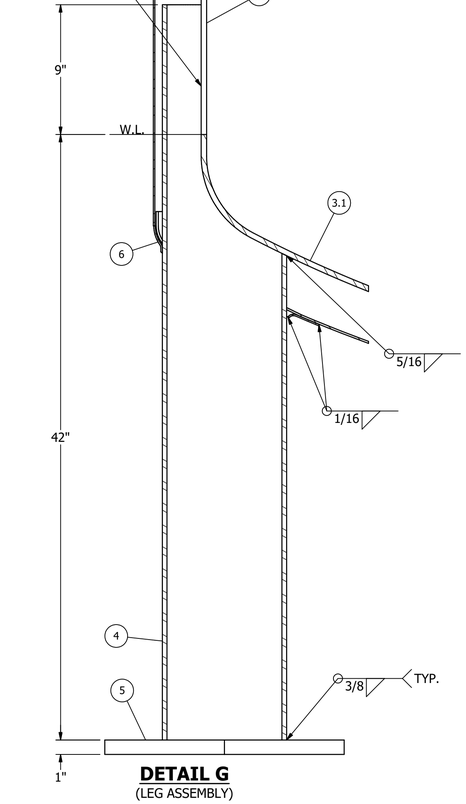
DETAIL B
(SIGHT GLASS)



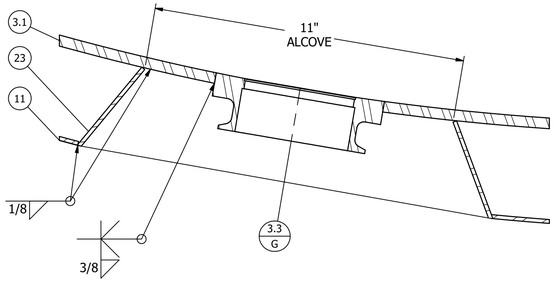
DETAIL C
(MANWAY)



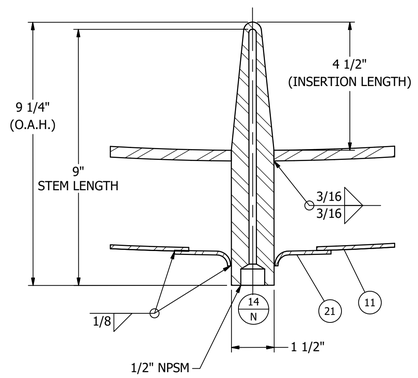
DETAIL D
(OUTLET)



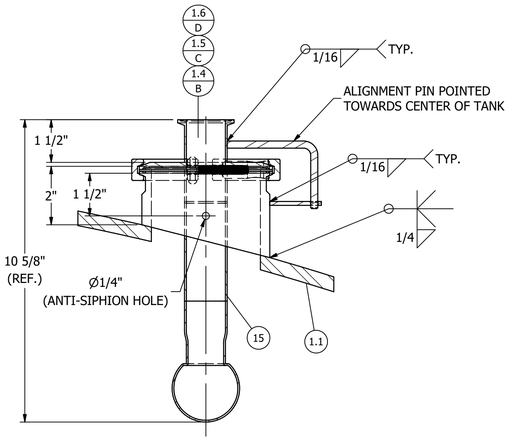
DETAIL G
(LEG ASSEMBLY)



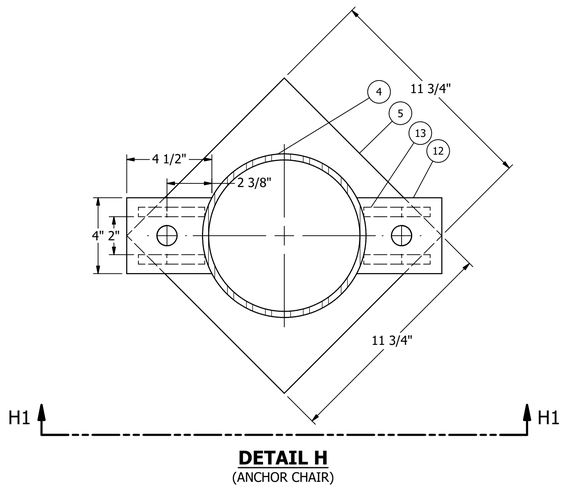
DETAIL E
(WELDING SPUD)



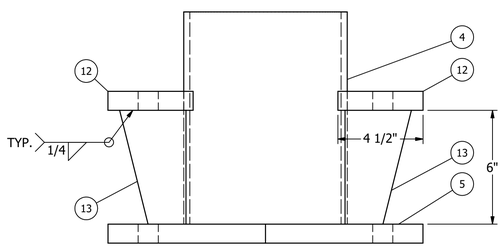
DETAIL F
(THERMOWELL)



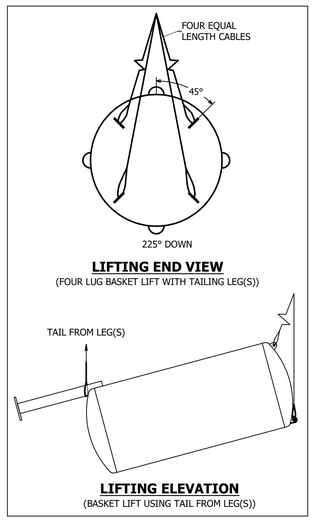
DETAIL J
(SPRAYBALL)



DETAIL H
(ANCHOR CHAIR)



VIEW H1-H1



LIFTING END VIEW
(FOUR LUG BASKET LIFT WITH TAILING LEG(S))

LIFTING ELEVATION
(BASKET LIFT USING TAIL FROM LEG(S))

A

REV	DESCRIPTION	DESIGNER	CHECKED BY	ENGINEER	DATE
A	RELEASED FOR FABRICATION, CORRECTED LIFTING SKETCH	BD	JK	JB	2/8/2021

CERTIFIED CORRECT AND
RELEASED FOR FABRICATION

FABRICATION WILL BE IN ACCORDANCE WITH THIS DRAWING. ANY FURTHER CHANGES WILL BE REVIEWED FOR COST AND DELIVERY ADJUSTMENTS.

STAINLESS FABRICATION INCORPORATED

DRAWN	BRETT DUNCAN	DATE 1/11/2021
CHECKED	DANIEL STAUFFER	DATE 1/20/2021
DES. ENGR. APPROVED	JEFF BRUNSON	DATE 1/20/2021

SHEET 3 OF 3

Stainless Fabrication, Incorporated
4455 W. Kearney
Springfield, MO 65803
(417) 865-5696

CHECKED BY
APPROVED
daniel.stauffer , 3/9/2021, 8:45:13 AM

ENGINEERED BY
APPROVED
jeff.brunson , 3/9/2021, 8:48:22 AM

DRAWING NO.
13780-1-D3
A
REVISION