

- DESIGN IN ACCORDANCE WITH ASME CODE SECTION VIII, DIV.1 (2019)
- ASME STAMP: REQUIRED
- NATIONAL BOARD REGISTRATION: REQ'D
- DESIGN PRESSURE(INTERNAL): 1440 PSIG @ 130 °F
- DESIGN PRESSURE(EXTERNAL): ATMOSPHERIC PSIG @130 °F
- MAX. ALLOWABLE WORKING PRESSURE: 1440 PSIG @ 130 °F
- HYDROSTATIC TEST PRESSURE: 1872 PSIG
- CORROSION ALLOWANCE:  
HEADS: 0.125" SHELL: 0.125" NOZZLES: 0.125"  
INTERNAL: 0.00" BOLT ON: 0.00"
- JOINT EFFICIENCY:  
RIGHT/TOP HEAD: 100%. LEFT/BTM HEAD: 100%.  
SHELL CIRC.: 100%. SHELL LONG: 100%.
- RADIOGRAPHY: RT-1
- POST WELD HEAT TREATMENT: REQUIRED
- HEATING RATE: 800F PER HOUR
- COOLING RATE: 1000F PER HOUR
- WIND CODE: ----
- SEISMIC CODE: ----
- CHARPY IMPACT TEST: REQUIRED @ -20° F 15/12 FT/LBS

**DESIGN DATA**

- HEADS: SA-516 GR 70 N
- SHELL: SA-516 GR 70 N
- FLANGES: N/A
- COUPLINGS: SA-105 N
- NOZZLE NECK (PIPE): N/A
- NOZZLE NECKS (FORGED): SA-105 N
- REINFORCING PADS: N/A
- SKIRT: N/A
- BASE PLATE: N/A
- SADDLES: SA-36
- WEAR PLATES: SA-36
- BOLTING: SA-193 Gr2/SA-194 Gr2H
- GASKETS: FLEXITALLIC STYLE "CG"
- ALL MATERIALS SHALL COMPLY WITH PERMIANLIDE STANDARDS AND CODE SPECIFICATIONS.

**MATERIAL SPECIFICATIONS**

- REINFORCING PADS SHALL BE PNEUMATIC TESTED TO 15 PSI AND INSPECTED WITH SOAP /WATER SOLUTION
- SERVICE BOLTS SHALL NOT BE USED IN TESTING. SERVICE BOLTS WILL BE SHIPPED IN PLACE
- MATERIAL IDENTIFICATION MARKING MUST BE TRANSFERRED TO ALL PRESSURE PARTS
- WELDERS STENCILS ARE REQUIRED ON ALL WELDS AND/OR RECORDED
- WHERE WELD METAL BUILD-UP IS USED IN JOINTS REQUIRING RADIOGRAPHY, THE WELD METAL BUILD - UP SHALL BE INCLUDED IN THE RADIOGRAPHIC EXAMINATION
- HYDROTEST PRESSURE SHALL BE HELD FOR A MINIMUM OF ONE HOUR USING WATER. VESSEL TO BE IMMEDIATELY DRAINED AFTER HYDROTEST.
- ONLY LEAD SCREENS AND FINE GRAIN KODAK AA FILM OR EQUAL SHALL BE USED FOR RADIOGRAPHY
- ARC STRIKES SHALL BE GROUND SMOOTH AND VISUALLY EXAMINED
- MRT'S REQUIRED PER ASME VIII CODE
- EACH NOZZLE OR MANWAY REINFORCING PAD OR SEGMENT THERE OF SHALL HAVE ONE 1/4" NPT TEST HOLE LOCATED NEAR LOW POINT OF PAD IN OPERATION POSITION. FILL TEST HOLES WITH HEAVY GREASE PRIOR TO SHIPMENT

**TESTING, INSPECTION, AND IDENTIFICATION**

- FLANGE BOLT HOLES TO STRADDLE VESSEL CENTERLINES UNLESS OTHERWISE SPECIFIED
- PERMISSIBLE OUT OF ROUNDNESS OF CYLINDRICAL OR CONICAL SHELLS SHALL NOT EXCEED 1% OF THE NOMINAL DIAMETER. TOLERANCE SHALL BE INCREASED TO 2% WHEN THE CROSS-SECTION PASSES THROUGH OR WITHIN ONE ID OF AN OPENING OR PER UG-80
- ALL OFFSETS OF BUTT WELDED JOINTS SHALL BE BLENDED, OR IF NECESSARY A WELD METAL BUILD UP, WITH A 3:1 TAPER
- CHECK APPLICABLE WELD PROCEDURE FOR PREHEAT REQUIREMENTS
- NONWELDED EDGES OF PENETRATIONS INSIDE THE VESSEL SHALL BE ROUNDED OR CHAMFERED
- BUTT JOINT EDGES ARE TO BE SMOOTH AND UNIFORM AND BE FREE OF LOOSE SCALE AND SLAG
- TACK WELDS ARE TO BE REMOVED OR THEIR ENDS GROUND SMOOTH WHEN INCORPORATED INTO THE FINAL WELD
- FLANGE RAISED FACE TO HAVE 125 RA. MIN. - 250 RA. MAX SURFACE FINISH
- INTERNAL AND EXTERNAL WELDED ATTACHMENTS SHALL BE CONTINUOUSLY WELDED TO THE VESSEL WALL UNLESS NOTED
- HEAD TOLERANCE PER UG-81
- ANCHOR BOLT TEMPLATE: NOT REQ'D

**FABRICATION NOTES**

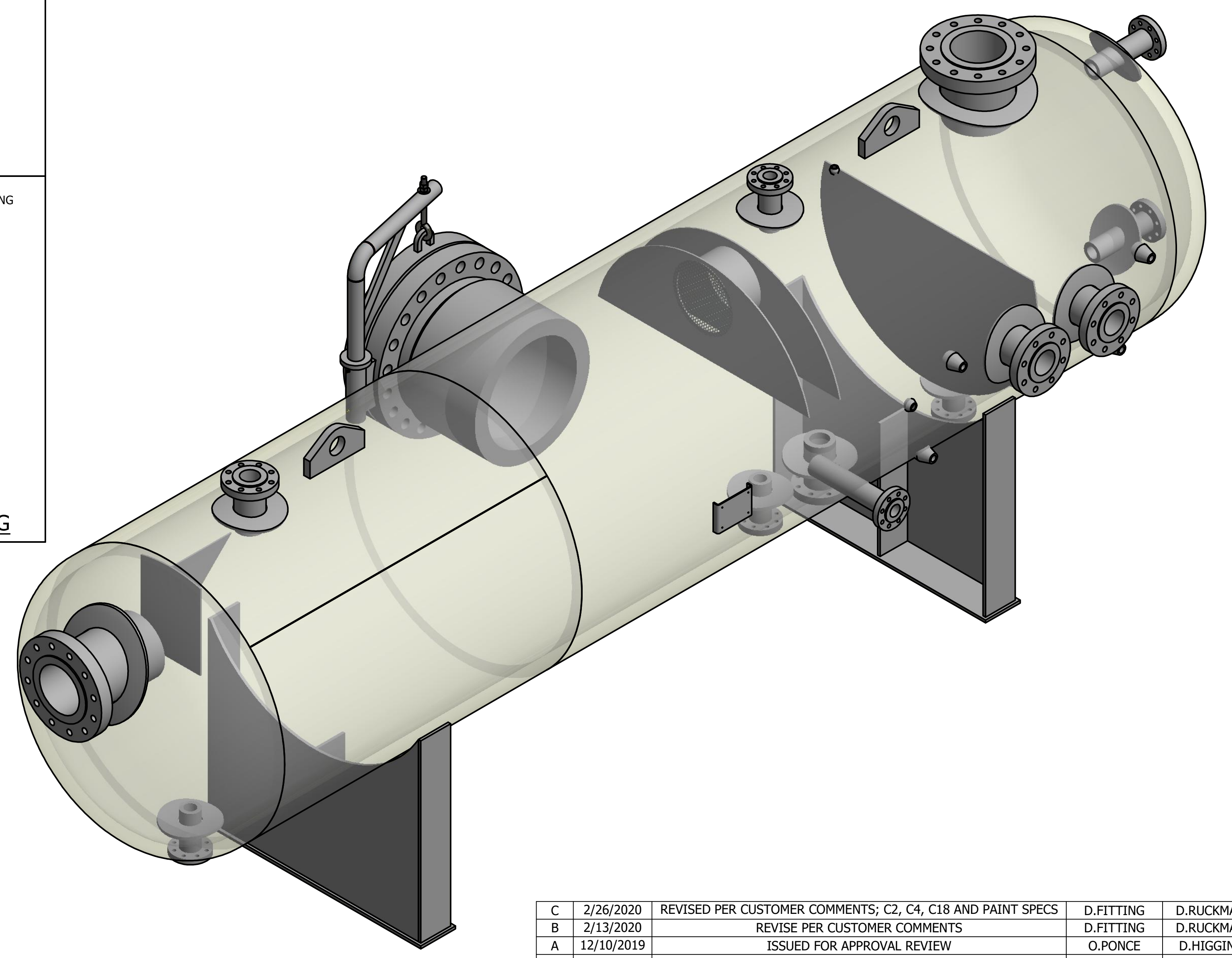
- INSIDE PROJECTIONS ARE MEASURED FROM SHORT SIDE, UNLESS OTHERWISE SPECIFIED
- WORKLINE SHALL BE MARKED BY CENTER PUNCH ON THE VESSEL 12" FROM VESSEL SEAM
- VESSEL SHALL BE CLEANED INSIDE AND OUTSIDE, FREE OF DIRECT, GREASE, DEBRIS, LOOSE MILL SCALE, WELD SPATTER, ETC.
- SHOP RECORDS REQUIRED:  
REQUIRED - P.W.H.T. CHART  
REQUIRED - NAME PLATE DUPLICATE  
REQUIRED - HYDRO CHART
- TOLERANCES, UNLESS OTHERWISE SPECIFIED:  
± 1/8" ALL DIMENSIONS  
±0.5° ALL DEGREES

**CONSTRUCTION NOTES**

- PROTECT NAMEPLATE AND ALL FLANGE FACES BEFORE BLASTING AND PAINTING. FLANGE BOLT HOLES AND EXTERNAL SURFACES NOT MACHINED FOR GASKET SEALING TO RECEIVE SPECIFIED SURFACE PREPARATION AND PAINT
- PAINT SHALL CONFORM TO ALL MANUFACTURES RECOMMENDATIONS REGARDING THINNING, MIXING CURING, STORAGE AND APPLICATION METHOD.
- INSULATION: NOT REQ'D TYPE: N/A THICKNESS: N/A
- FIREPROOFING: NOT REQ'D THICKNESS: N/A

- INTERNAL COATING: NONE
- BLAST SPECIFICATIONS: N/A
- EXTERNAL COATING: ENVIROLASTIC 940 DTM
- BLAST SPECIFICATIONS: SSPC-SP6
- COLOR: TAUPE #16555 US FEDERAL STANDARDS

**SURFACE PREPARATION & PAINTING**



REV	DATE	DESCRIPTION	DESIGNER	CHECKED BY
C	2/26/2020	REVISED PER CUSTOMER COMMENTS; C2, C4, C18 AND PAINT SPECS	D.FITTING	D.RUCKMAN
B	2/13/2020	REVISE PER CUSTOMER COMMENTS	D.FITTING	D.RUCKMAN
A	12/10/2019	ISSUED FOR APPROVAL REVIEW	O.PONCE	D.HIGGINS

REVISION HISTORY

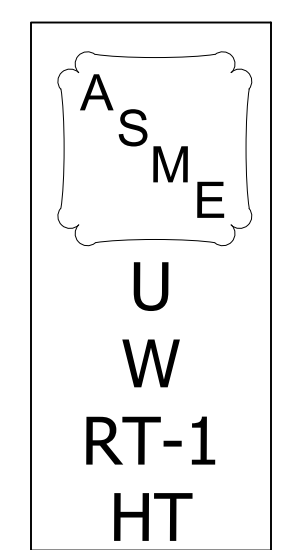
MAXIMUM ALLOWABLE MISALIGNED OF BUTT JOINTS IS LIMITED TO

SECTION THICKNESS	JOINT CATEGORY	
	JOINTS: A	JOINTS: B,C & D
UP TO & INCLUDING 1/2"	1/4" OF THICKNESS	1/4" OF THICKNESS
OVER 1/2" TO 3/4", INCLUDING	1/8" OF THICKNESS	1/4" OF THICKNESS
OVER 3/4" TO 1 1/2", INCLUDING	1/8" OF THICKNESS	3/16"
OVER 1 1/2" TO 2", INCLUDING	1/8" OF THICKNESS	1/8" OF THICKNESS
OVER 2"	LESSER OF 1/16" OF THICKNESS OR 3/8"	LESSER OF 1/8" OF THICKNESS OR 3/4"

**ISSUED FOR APPROVAL**  
2/26/2020

APPROVED  
ALEX CHIKALOFF  
03-02-2020

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**CERTIFIED BY**  
PERMIAN TANK & MFG.  
ODESSA, TX

1440 PSI AT 130 °F  
MAXIMUM ALLOWABLE WORKING PRESSURE

-20 °F AT 1440 PSI  
MINIMUM DESIGN METAL TEMPERATURE

MFG. SER. NO. XXXX YEAR BUILT 2020

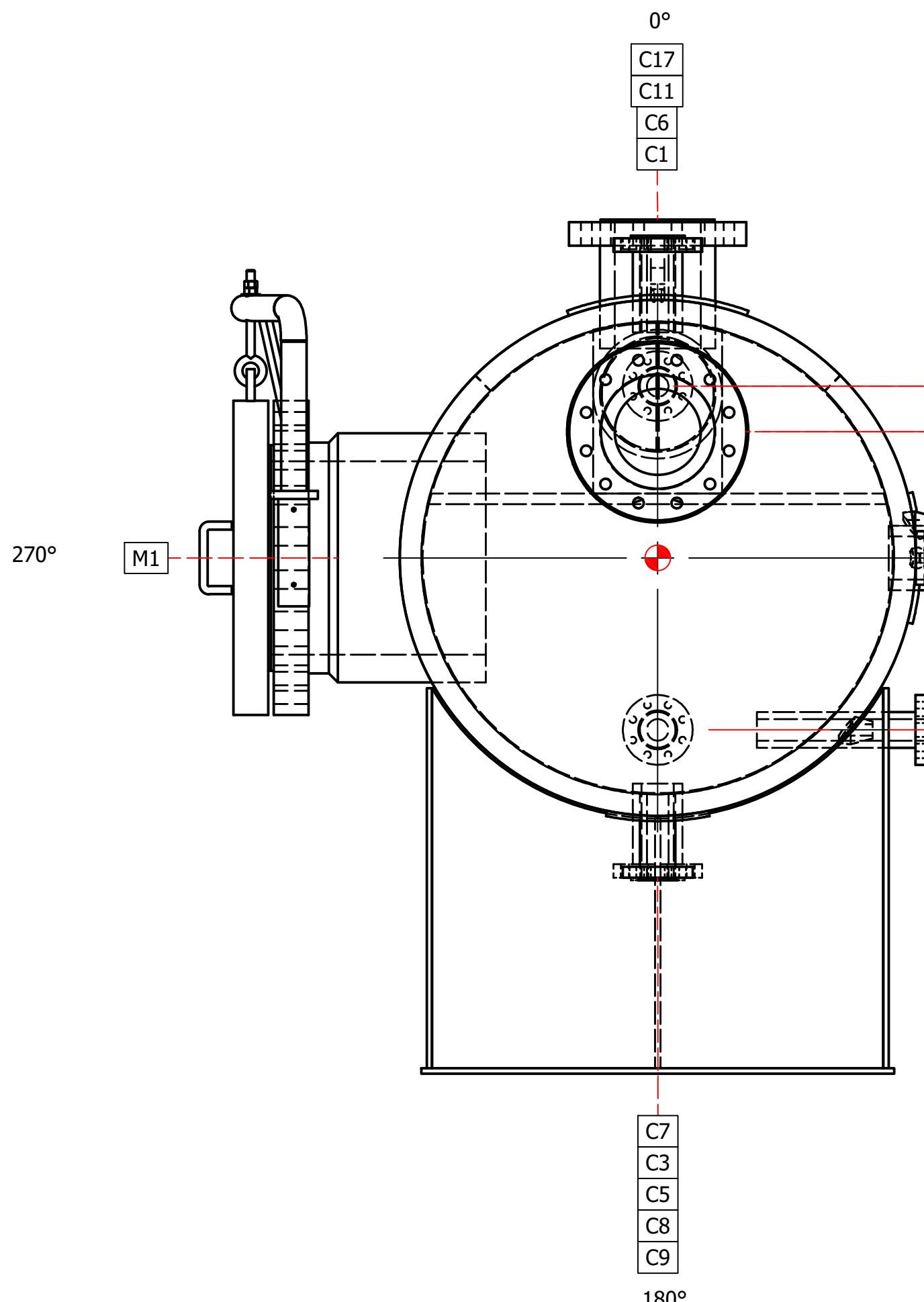
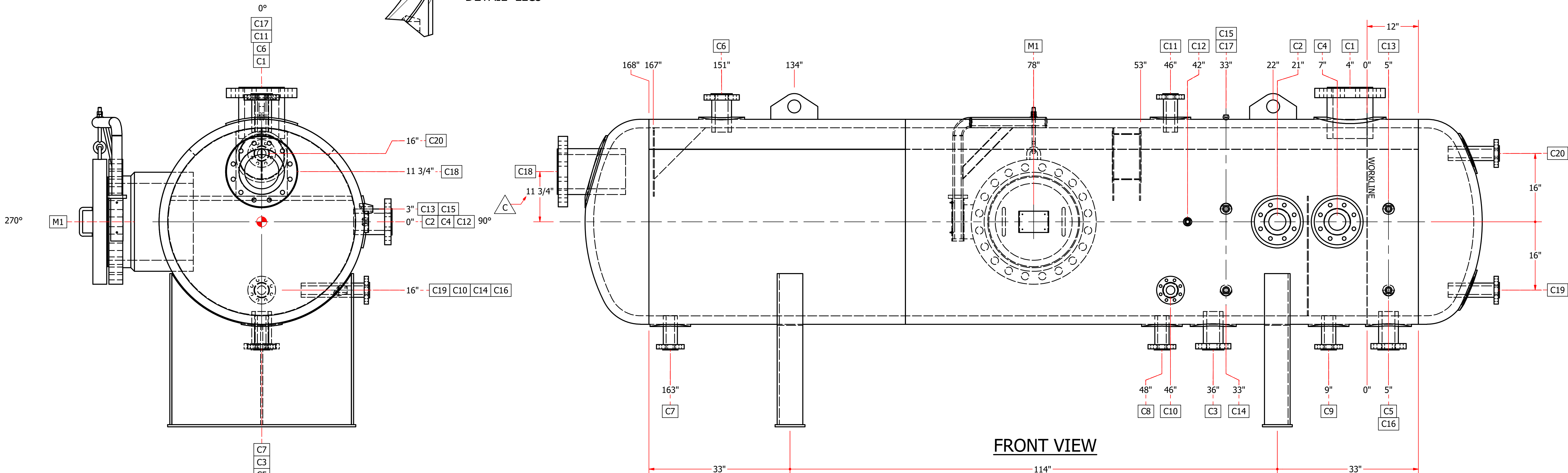
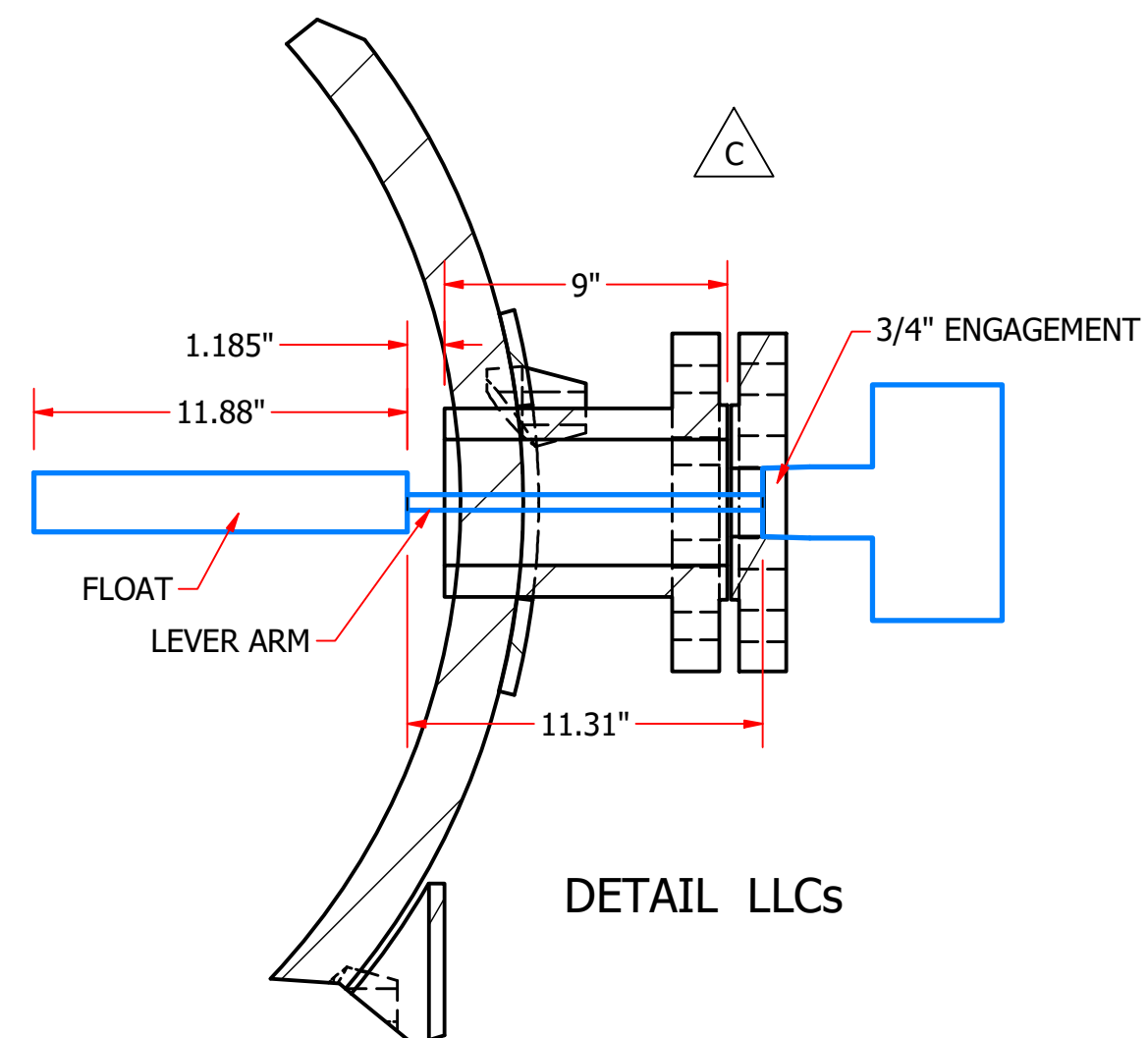
NOM. DIAMETER 48" NOM. LENGTH 15'

TEST PRESSURE 1872 EMPTY WEIGHT 23411

**PERMIANLIDE**  
TANK AND VESSEL MANUFACTURING  
2701 INTERSTATE 20 SERVICE RD.  
ODESSA TEXAS  
(432) 580-1050


TITLE <b>ENCANA</b>			
SEPARATOR - 48" X 15' 1440# HORZ. 3PH - ASME			
PART NO USEP48X15H1440#3PHC-D5078			
DWG NO D5078	EST. WEIGHT 23411 LBS	SHEET 1 OF 2	REV C





MARK	SERVICE	SIZE	RATING	TYPE CONN.	TYPE MATERIAL	SCH.	PROJECTION I.S. MINIMUM	PROJECTION O.S.	WELD FIG. NO.	WELD A	WELD B	WELD C	ITEM NO.
C19	BTM OIL LEVEL BRIDLE	2"	600#	RFLWN	SA-105 N	----	1 1/2"	6"	10	3/4"	3/4"	3/8"	15
C20	TOP OIL LEVEL BRIDLE	2"	600#	RFLWN	SA-105 N	----	1 1/2"	6"	10	3/4"	3/4"	3/8"	15
C18	INLET	8"	600#	RFLWN	SA-105 N	----	2"	7"	10	3/4"	3/4"	3/8"	15
M1	MANWAY	18"	600#	RFHB	SA-105 N	----	2 1/4"	10"	4	1"	1"	----	15
C17	PI	1/2"	6000#	T.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	12
C16	GAUGE GLASS	3/4"	6000#	E.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	4
C15	GAUGE GLASS	3/4"	6000#	E.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	3
C14	GAUGE GLASS	3/4"	6000#	E.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	2
C13	GAUGE GLASS	3/4"	6000#	E.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	1
C12	TEMPERATURE	3/4"	6000#	T.O.L.	SA-105 N	----	N/A	SET ON	12	1/2"	----	----	13
C11	TOP WATER LEVEL BRIDLE	2"	600#	RFLWN	SA-105 N	----	1"	6"	4	1"	3/4"	----	31
C10	BTM WATER LEVEL BRIDLE	2"	600#	RFLWN	SA-105 N	----	5/8"	6"	4	1/2"	1/2"	----	30
C9	DRAIN	2"	600#	RFLWN	SA-105 N	----	FLUSH	MAX	11	1/2"	1/2"	----	29
C8	DRAIN	2"	600#	RFLWN	SA-105 N	----	FLUSH	MAX	11	1/2"	1/2"	----	28
C7	DRAIN	2"	600#	RFLWN	SA-105 N	----	FLUSH	MAX	11	1/2"	1/2"	----	27
C6	RELIEF	3"	600#	RFLWN	SA-105 N	----	5/8"	6"	10	1/2"	1/2"	1/2"	26
C5	OIL OUTLET	3"	600#	RFLWN	SA-105 N	----	5/8"	6"	10	1/2"	1/2"	1/2"	25
C4	OIL LLC	4"	600#	RFLWN	SA-105 N	----	FLUSH	6 1/2"	11	7/8"	1/2"	----	24
C3	WATER OUTLET	3"	600#	RFLWN	SA-105 N	----	5/8"	6"	10	1/2"	1/2"	1/2"	23
C2	WATER LLC	4"	600#	RFLWN	SA-105 N	----	FLUSH	6 1/2"	11	7/8"	1/2"	----	22
C1	GAS OUTLET	8"	600#	RFLWN	SA-105 N	----	1 1/2"	7 1/2"	10	1/2"	1/2"	1/2"	21

SCHEDULE OF OPENINGS AND WELDING DETAILS



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PART NO	
USEP48X15H1440#3PHC-D5078	
DWG NO	EST. WEIGHT
D5078	23411 LBS
SHEET 2 OF 2	REV C

**ISSUED FOR APPROVAL**  
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**ALEX CHIKALOFF**  
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