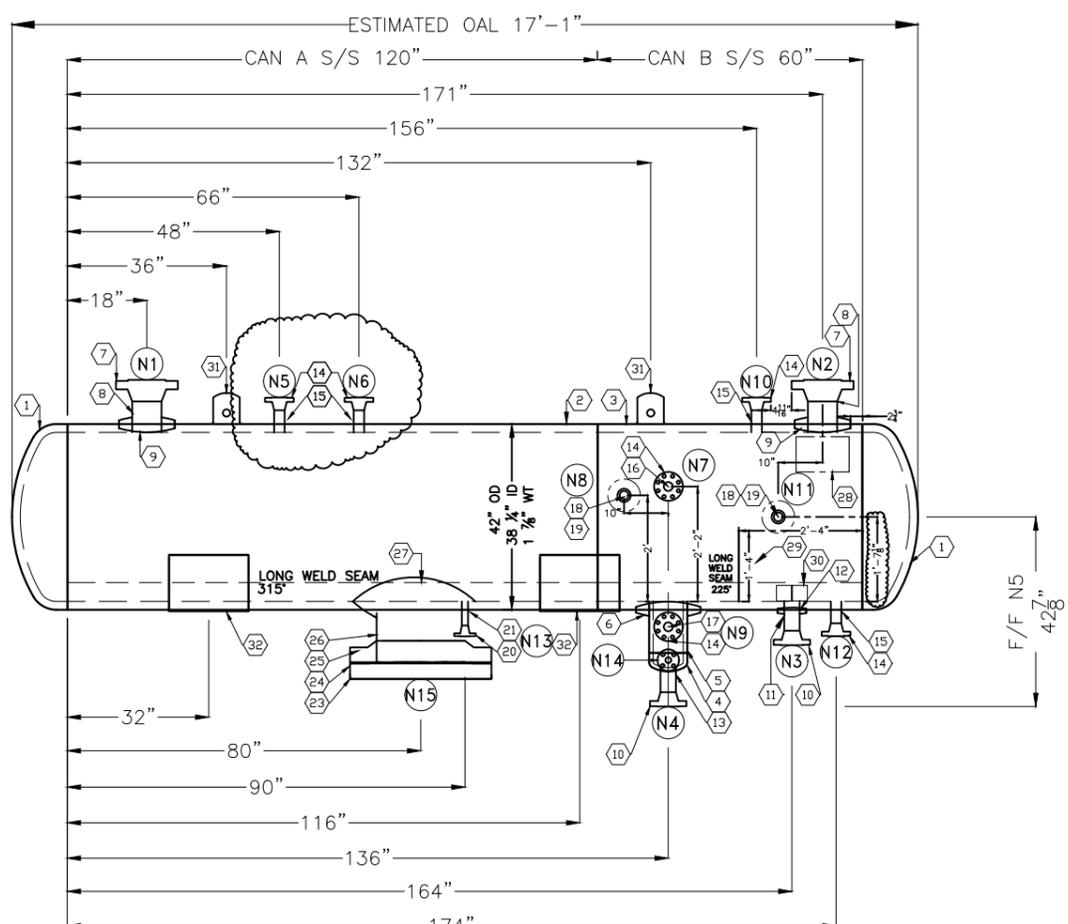
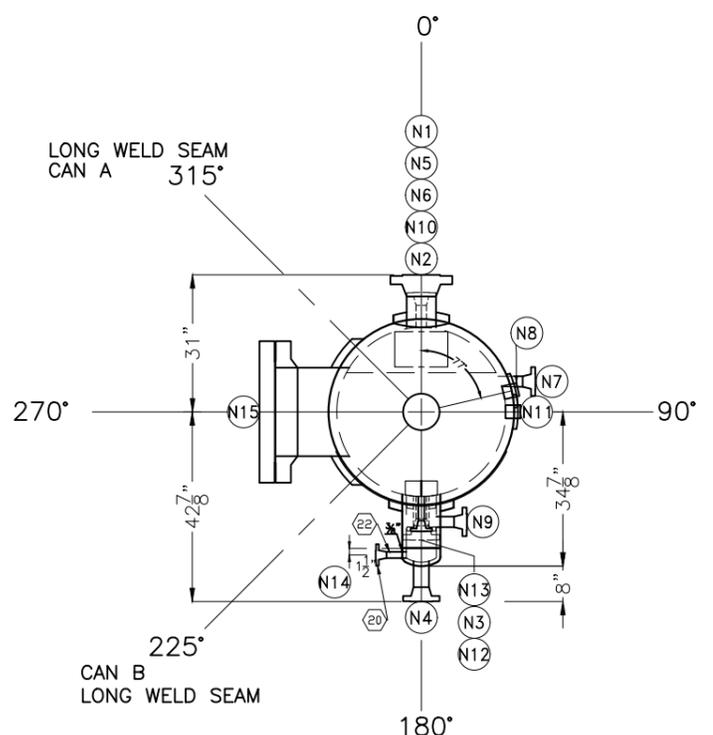
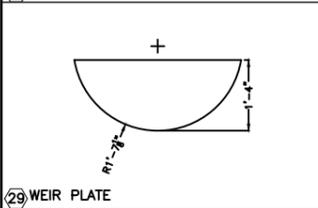
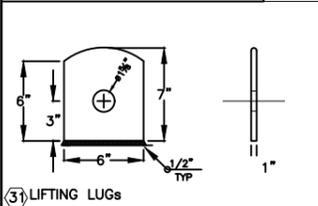
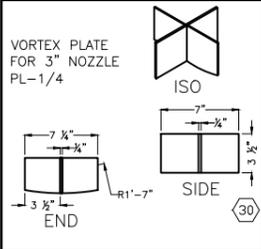


**NOTES:**

1. FLANGE BOLT HOLES TO STRADDLE VESSEL CENTERLINES.
2. DIMENSIONAL TOLERANCES SHALL BE AS PER VEFV 1102.
3. GROOVE AND FILLET WELDS TO BE DYE PENETRANT TESTED PER ASME SEC VIII DIV 1
4. FULL PENETRATION WELDS SHALL BE DP/MP TESTED (MP PREFERRED) AT BACK CHIPPED AND FINISHED WELD SURFACES AFTER HYDRO TEST.
5. WELD PROCEDURE: 002A
6. DRILL AND TAP 1/4" N.P.T. HOLE IN REINFORCING PADS.
7. REFER SEPRO NACE SPEC FOR OTHER REQUIREMENTS.

**BILL OF MATERIAL**

NO	QTY	UNITS	DESCRIPTION	MATERIAL SPEC	NO	QTY	UNITS	DESCRIPTION	MATERIAL SPEC
1	2	EA	38 1/4" ID 2:1 ELLIP HEAD, 1 7/8" THK (1 3/4" MIN) W/ 2" SF, 30° O/S BEVEL AND 1/8" LAND	SA-516-GR60N, IT	10	2	EA	3" 600# RFWN FLG, SCH XXS	SA-105N
2	1	EA	CAN A 38 1/4" ID x 1 7/8" THK x 119 1/8" L ROLLED AND TACKED SHELL W/ 30° O/S BEVEL, 1/8" LAND @ ENDS AND LONG SEAM CAN A	SA-516-GR60N, IT	11	1	EA	NPS 3 SCH XXS SMLS PIPE, CUT LENGTH 6 3/4"L	SA-106BN
3	1	EA	CAN B 38 1/4" ID x 1 7/8" THK x 59 1/8" L ROLLED AND TACKED SHELL W/ 30° O/S BEVEL, 1/8" LAND @ ENDS AND LONG SEAM CAN B	SA-516-GR60N, IT	12	1	EA	3 1/2" ID x 6 1/2" OD 1" THK REPAD BENT ON 21" I/S RAD.	SA-516-GR60N
4	1	EA	8" SCH 160 ASME B16.9 PIPE CAP	SA-234 WPB N	13	1	EA	NPS 3 SCH XXS SMLS PIPE, CUT LENGTH 5 1/2"L	SA-106BN
5	1	EA	NPS 8 SCH 160 SMLS PIPE, CUT LENGTH 12 1/2"L	SA-106BN, IT	14	6	EA	2" 600# RFWN FLG, SCH XXS	SA-105N
6	1	EA	8 5/8" ID x 14 5/8" OD 1 7/8" THK REPAD BENT ON 21" I/S RAD.	SA-516-GR60N, IT	15	4	EA	NPS 2 SCH XXS SMLS PIPE, CUT LENGTH 5"L	SA-106BN
7	2	EA	6" 600# RFWN FLG, SCH XXS	SA-105N	16	1	EA	NPS 2 SCH XXS SMLS PIPE, CUT LENGTH 5 3/8"L	SA-106BN
8	2	EA	NPS 6 SCH XXS SMLS PIPE, CUT LENGTH 6 7/8"L	SA-106BN	17	1	EA	NPS 2 SCH XXS SMLS PIPE, CUT LENGTH 4"L	SA-106BN
9	2	EA	6 5/8" ID x 12 5/8" OD 1 3/4" THK REPAD BENT ON 21" I/S RAD.	SA-516-GR60N, IT	18	2	EA	NPS 2 6000# THRD CPLG	SA-105N
					19	2	EA	3" ID x 7 3/4" OD 7/8" THK REPAD BENT ON 21" I/S RAD.	SA-516-GR60N
					20	2	EA	1" 600# RFWN FLG, SCH XXS	SA-105N
					21	1	EA	NPS 1 SCH XXS SMLS PIPE, CUT LENGTH 5 1/8"	SA-106BN
					22	1	EA	NPS 1 SCH XXS SMLS PIPE, CUT LENGTH 4 9/16"	SA-106BN
					23	1	EA	20" 600# BLIND FLG	SA-105N
					24			NUTS/BOLTS/ CNAF GASKET	SA-193 B7 / SA-194 2H
					25	1	EA	20" 600# RFSO FLG	SA-105N
					26	1	EA	NPS 20 SCH 120 SMLS PIPE, CUT LENGTH 16 1/2"L	SA-106BN, IT
					27	1	EA	20" ID x 33" OD 1 3/4" THK REPAD BENT ON 21" I/S RAD.	SA-516-GR60N, IT
					28	1	EA	MIST ELEMATOR	SS 316
					29	1	EA	WEIR PLATE, 16" L x 1/2" THICK	SA-516-GR60N
					30	1	EA	VORTEX BREAKER, SEE DETAILS THIS PAGE	SA-516-GR60N
					31	2	EA	LIFTING LUGS	SA-36
					32	2	EA	SADDLE LOCATION (SEE DETAIL SHEET FOR SADDLES)	



**W** MAWP 1442 PSIG @ 122 °F  
 1333 PSIG @ 250 °F  
 MDMT -20 °F @ 1442 PSIG  
**RT-1** MAWP 1442 PSIG @ 122 °F  
 1333 PSIG @ 250 °F  
**HT** MAWP 1442 PSIG @ 122 °F  
 1333 PSIG @ 250 °F  
 1928-V1 YR BUILT 2018

**DESIGN DATA**  
 CONSTRUCTION IN ACCORDANCE WITH 2017 EDITION OF  
 A.S.M.E. CODE SECTION VIII DIVISION 1 (ADDENDA)  
 CODE STAMP YES REQ'D.  
 DESIGN PRESS. (INT) 1440 P.S.I.G. TEMP. 122 °F  
 DESIGN PRESS. (EXT) 1330 P.S.I.G. TEMP. 250 °F  
 M.A.W.P. 1333 P.S.I.G. @ 250 °F FV @ TEMP. 250 °F  
 M.A.W.P. 1442 PSIG @ 122 °F LIMITED BY N2  
 M.A.P. (N.A.C.) 1480 PSIG @ 70 °F LIMITED BY NOZZLES  
 HYDROSTATIC TEST (N.A.C.) 1875 P.S.I.G.  
 CORROSION ALLOW. SHELL 1/8" HEAD 1/8" NOZZ. 1/8"  
 P.W.H.T. (STRESS RELIEVE) YES MINUTES PER CODE °F  
 RADIOGRAPH FULL JOINT EFF. 100 %  
 INSPECTION BY CODE INSPECTOR  
 EST. WEIGHT EMPTY 20,000 LBS.  
 EST. OPERATING WEIGHT 24,000 LBS.  
 EST. WEIGHT FULL OF WATER 26,000 LBS.

MARK	REQUIRED	NPS SIZE	RATING AND TYPE	SERVICE	SEAMLESS PIPE SPEC	FLANGE	NECK SCHEDULE	PROJECTION OUT INCLUDING RF	PROJECTION IN	REINFORCEMENT PAD SIZE OD x THK	WELD DETAIL NUMBER	41	R41	43	R43	44	45	BOM ITEM NO.'S
N1	1	6"	600# RFWN	FEED	SA 106BN	SA 105N	SCH XXS	10"	FLUSH	12 5/8" x 1 3/4"	IV,VI	1/2	-	3/4	-	-	-	7,8,9
N2	1	6"	600# RFWN	GAS OUT	SA 106BN, IT	SA 105N	SCH XXS	10"	FLUSH	12 5/8" x 1 3/4"	IV,VI	1/2	-	3/4	-	-	-	7,8,9
N3	1	3"	600# RFWN	OIL OUT	SA 106BN	SA 105N	SCH XXS	8"	FLUSH	6 1/2" x 1"	IV,VI	1/2	-	3/4	-	-	-	10,11,12,32
N4	1	3"	600# RFWN	WATER OUT	SA 106BN	SA 105N	SCH XXS	8"	FLUSH	-	II,VI	3/8	-	-	-	-	-	10,13
N5	1	2"	600# RFWN	PSV	SA 106BN	SA 105N	SCH 160	6"	FLUSH	-	IV,VI	3/8	-	-	-	-	-	14,15
N6	1	2"	600# RFWN	PSV	SA 106BN	SA 105N	SCH 160	6"	FLUSH	-	IV,VI	3/8	-	-	-	-	-	14,15
N7	1	2"	600# RFWN	LG	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	IV,V1	3/8	-	3/4	-	-	-	14,16
N8	1	2"	6000# THRD CPLG	LC	-	SA 105N	-	1 1/2"	FLUSH	7 3/4" x 3/4"	IV,VIII	3/8	-	3/4	-	-	-	18,19
N9	1	2"	600# RFWN	LG	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	II,VI	3/8	-	-	-	-	-	14,17
N10	1	2"	600# RFWN	LG	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	II,VI	3/8	-	-	-	-	-	14,15
N11	1	2"	6000# THRD CPLG	LC	-	SA 105N	-	1 1/2"	FLUSH	7 3/4" x 3/4"	IV,VIII	3/8	-	3/4	-	-	-	18,19
N12	1	2"	600# RFWN	LG	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	II,VI	3/8	-	-	-	-	-	14,15
N13	1	1"	600# RFWN	DRAIN	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	II,VI	3/8	-	-	-	-	-	20,21
N14	1	1"	600# RFWN	DRAIN	SA 106BN	SA 105N	SCH XXS	6"	FLUSH	-	II,VI	3/8	-	-	-	-	-	20,22
N15	1	20"	600# RFSO	MW	SA 106BN, IT	SA 105N	SCH 120	12"	FLUSH	33" x 1 3/4"	IV,V	1	-	1	-	1 15/16	7/16	23,24,25,26,27

NO.	BY	REVISION	DATE	CHECKED BY	APPROVED BY
A	BT	ISSUED FOR REVIEW	7-16-18	JT/KK	
B	BT	COMMENTS FROM KK	7-16-18	KK	
C	BT	MOVED LG/LC NOZs, CHG N1/N2 TO 8"	10-4-18	RH	
D	BT	ADDED KK REMARKS, REPADS AND LUG CHANGES	10-8-18	KK	
E	BT	CHANGED N1_2 TO 6", MOVED N2,N10 & N11, LOWERED WEAR PLATE	10-11-18	RH	
F	BT	CHG NOZs 5 AND 6 TO 2"	10-16-18	RH	
G	JM	ADD WEAR PL.(29) DETAIL, RELOC. ITEM 28, CLOCKED N14 90 DEG.	12-10-18	JM	