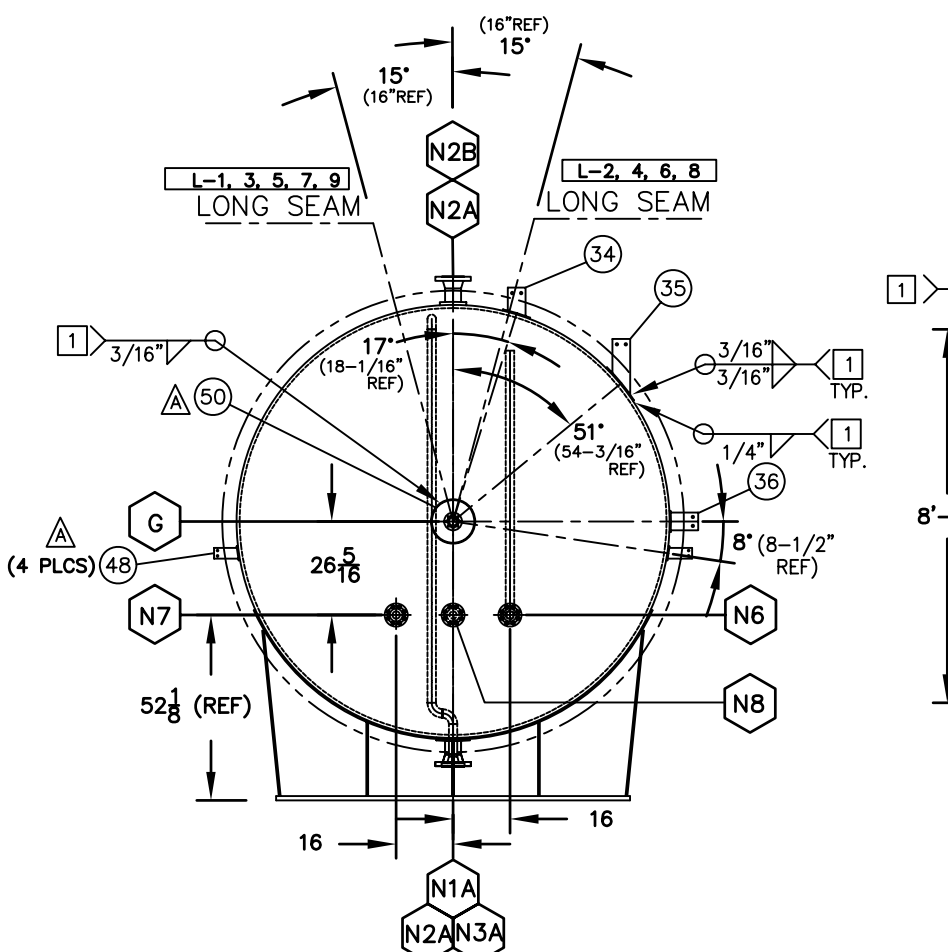


- SHOP NOTES:**
- BOLT HOLES TO STRADDLE NATURAL ϵ , EXCEPT AS NOTED.
 - FLANGE GASKET SURFACE TO BE PROTECTED FROM WELD SPATTER.
 - ALL INSIDE CONNECTIONS TO BE ROUNDED TO 1/8" R. MIN.
 - FOR VESSEL PADS, 1/4" DIA. WEEP HOLE REQ'D 3/4" FROM EDGE ON ϵ -TYPICAL.
 - SERVICE BOLTS & GASKETS NOT TO BE USED FOR HYDROTESTING.
 - AFTER FINAL HYDROTEST, VESSEL TO BE COMPLETELY DRAINED & DRIED PRIOR TO COVERING AND PROTECTING ALL OPENINGS.
 - VESSEL TO BE SHIPPED WITH SERVICE BLINDS, GASKETS AND BOLTING IN PLACE.
 - NO EXPOSED OPENINGS ALLOWED WHILE IN SERVICE OR TRANSIT. ALL FLANGE FACES TO BE PROTECTED. FIT STEEL PLUGS IN THREADED CONNECTIONS AS REQUIRED.
 - ALL NOZZLE PROJECTIONS, INTERNAL AND EXTERNAL SHALL BE MEASURED ALONG SHORTEST SIDE UNLESS OTHERWISE SPECIFIED.
 - CONTOUR PADS TO HAVE 1" RADIUS ON CORNERS.
 - CONTOUR PADS TO BE WELDED TO TANK PRIOR TO WELDING OF SADDLE. (FOR EASE OF MANUFACTURING).
 - TRACK WELDING USE PROCEDURE WPS 609.2-S-94.
 - IMPACT TESTING EXEMPTED AS PER UG20(1).
 - AT ROLLING, MARK DATUM ON 2 END CANS 2" FROM EDGE.
 - ACCEPTABLE MATERIAL SUBSTITUTIONS:
SA333 GR6 FOR SA106B
SA350-LF2 FOR SA105
ALL OTHER SUBSTITUTIONS SHALL BE APPROVED BY ENGINEERING.
 - PLATFORM CLIPS DESIGNED TO FIT PLATFORM 2002-0802D. WHEN BUILDING, LADDER CLIPS (ITEM 17) WILL NEED TO BE LENGTHENED.

ITEM	LOCATION	PART NO	QTY	UM	DESCRIPTION
1	HEADS	68574	2	EA	HD 21 SE 121-3/4" OD X 0.870" MN 2 SF SA516-70
2	SHELL A	63921	5	EA	PL .875" X 120" X 380" SA516-70
3	SHELL B	63921	1	EA	PL .875" X 92.5" X SA516-70
4	WEAR PAD	61289	25.5	F2	PL .500" SA516-70 2 PCS 13" X 140-3/4" LG
4	WEAR PAD ALTERNATE	66785	25.5	F2	PL .472"x118-1/8"x437"SA516-70/44WT2PCS13"x140-3/4" LG
5	SADDLES	68648	1	EA	SADDLE DETAIL 120" ID, CONTACT ANGLE 120° DWG 2004-0903C
6	DATA PLATE	61103	1	EA	PL DATA UNITS MET/IMP EXTENDED VERS DWG 9104-2A
7	DATA PLATE	65229	1	EA	BRKT DATA PL (EXT VERS) EXTRA LONG DWG 9905-09A
8	M1	62497	1	EA	FLG 20 CL300 RFWN STD BORE SA 105
9	M1 BLIND	56181	1	EA	FLG BLIND 20" CL300 RF SA105N DWG. 2003-0918B
10	M1	56181	1	EA	GASKET FLEXITALIC 20" RF CL300 304-SS
11	M1	56182	24	EA	STUD 1-1/4" NC X 8-1/4" LG SA 193-B7
12	M1	51712	48	EA	NUT HEX 1-1/4" NC SA194-2H
13	M1	54074	5.7	IN	PIPE 20" STD SMLS SA 106B 1 PCS 20-1/8" ID X 35" OD
14	M1_REPAD	59225	8.8	FT	PL .875" SA516-70
15	N1A/B,N4	53809	3	EA	FLG 4 CL300 RFWN XH BORE SA105N
16	N1A/B,N4	51564	1.4	FT	PIPE 4" XH SMLS SA 106B 2 PCS 5-9/16" LG
17	N1A/B,N4 REPAD	59225	1.7	F2	PL .875" SA516-70 3 PCS 4-5/8" ID X 8-1/2" OD
18	N3A/B,N5	51552	1.6	FT	PIPE 2" XH SMLS SA 106B 3 PCS 6-1/8" LG
19	N2A/B,N3A/B,N5,N6,N7,N8	56490	8	EA	FLG 2 CL300 RFWN XH BORE SA105N
20	N2A/B	51552	0.8	FT	PIPE 2" XH SMLS SA 106B 1 PCS 9-1/8" LG
21	N2A/B,N6	53803	5	EA	ELBOW WELD 90 LR 2 XH SA234 WPB
22	N2A/B	51554	0.7	FT	PIPE 2-1/2" STD SMLS SA 106B 2 PCS 4" LG
23	N2A/B	51411	2.4	FT	BAR FLAT 1/4" X 2" 44W 2 PCS 14 1/2" LG
24	N6	51552	1.8	FT	PIPE 2" XH SMLS SA 106B 1 PCS 21-3/8" LG
25	N6	51552	6.5	FT	PIPE 2" XH SMLS SA 106B 1 PCS 71-5/16" LG
26	N6	51411	1.3	FT	BAR FLAT 1/4" X 2" 44W 1 PCS 15-11/16" LG
27	G	17255332	1	EA	ADAPT 8 BOLT WELD FLOAT GAUGE SA181 DWG. 9802-35A
29	INSULATION	65963	67.8	FT	BAR RND 3/8" 44W 2 PCS 33' 10-7/16" LG
30	INSULATION	51411	7.3	FT	BAR FLAT 1/4" X 2" 44W 24 PCS 3-5/8" LG
31	PLATFORM PAD	59206	0.3	F2	PL .375" SA516-70N IMPACTS @ -50F 2 PCS 6" X 3"
32	PLATFORM PAD	59206	0.5	F2	PL .375" SA516-70N IMPACTS @ -50F 2 PCS 12" X 3"
33	PLATFORM PAD	59206	0.4	F2	PL .375" SA516-70N IMPACTS @ -50F 2 PCS 8" X 3"
34	PLATFORM CLIP	51434	1.4	FT	BAR FLAT 3/8" X 5" SA 36/44W 2 PCS 7-15/16" LG
35	PLATFORM CLIP	51434	2.7	FT	BAR FLAT 3/8" X 5" SA 36/44W 2 PCS 15-11/16" LG
36	PLATFORM CLIP	51434	1.3	FT	BAR FLAT 3/8" X 5" SA 36/44W 2 PCS 7-11/16" LG
37	SKID PAD	59206	8.1	F2	PL .375" SA516-70N IMPACTS 8 PCS 18-1/8" X 8"
38	N8	51552	0.7	FT	PIPE 2" XH SMLS SA 106B 1 PCS 6-1/16" LG
39	LIFT LUG	64758	2.8	F2	PL 1.50" SA 516-70 2 PCS 16" X 12-3/16" LG
40	GROUND LUG	63343	2	EA	GROUND LUG DETAIL DWG 9603-28A
41	N3A	54690	1	EA	FLG BLIND 2 CL300 R4 SA 105
42	N3A/B,N7,N8	51710	80	EA	NUT HEX 5/8" NC SA 194-2H
43	N3A/B,N7,N8	51719	40	EA	STUD 5/8" NC X 3-1/2" LG SA 193-B7
44	N3A/B,N7,N8	54687	5	EA	GASKET FLEXITALIC 2" RF CL300/600 304 SS
45	N7,N8,N8,N3B	56427	4	EA	FLG BLIND 2 CL300 RF 3/4 NPT SA105
46	N2A/B	51552	8.8	FT	PIPE 2" XH SMLS SA 106B 1 PCS 8'-9" LG
48	PURGE PIPE CLIP	51434	2.3	FT	BAR FLAT 3/8" X 5" SA 36/44W 4 PCS 6-7/8" LG
49	PURGE PIPE PAD	59206	0.4	F2	PL .375" SA516-70N 4 PCS 3" X 4-1/4" LG
50	INSULATION	54135	0.4	FT	PIPE 12" STD SMLS SA106B 1 PCS 4" LG
51	N2B	51552	10.1	FT	PIPE 2" XH SMLS SA 106B 1 PCS 10'-0 1/8" LG
52	N8	18630050	1	EA	PLUG HEX HEAD 3/4 NPT SA105
53	N1A/B,N3A/B,N8,N7	NA	6	EA	NAMEPLATE LAMACOID "LIQUID PHASE"
54	N2A/B,N4,N5	NA	4	EA	NAMEPLATE LAMACOID "GAS PHASE"
55	N6	NA	1	EA	NAMEPLATE LAMACOID "FULL TRICOCK 95%"
56	N3B	18620461	1	EA	NIPPLE 3/4MNPT X 2 XH SMLS SA106B
57	N3B	68402	1	EA	VALVE BALL 3/4" SS/NPT-3 PC/EMICO
58	N3B	18630040	1	EA	PLUG HEX HEAD 1/2 NPT SA105

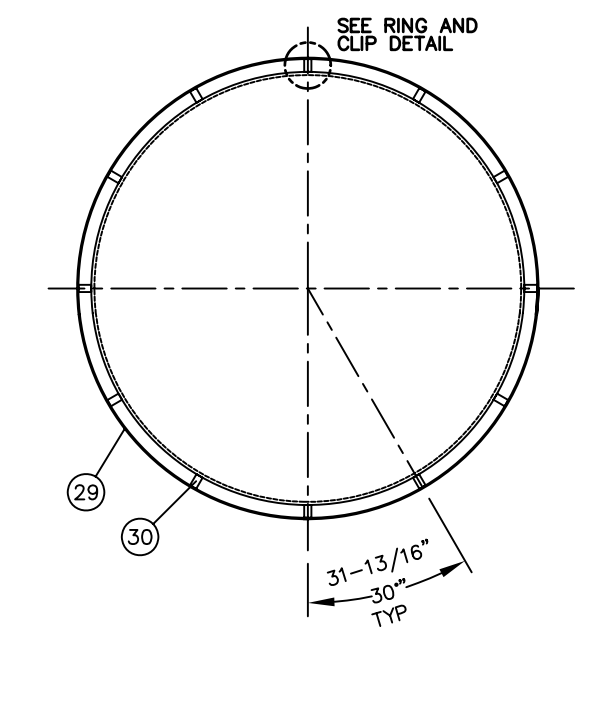
ELEVATION VIEW



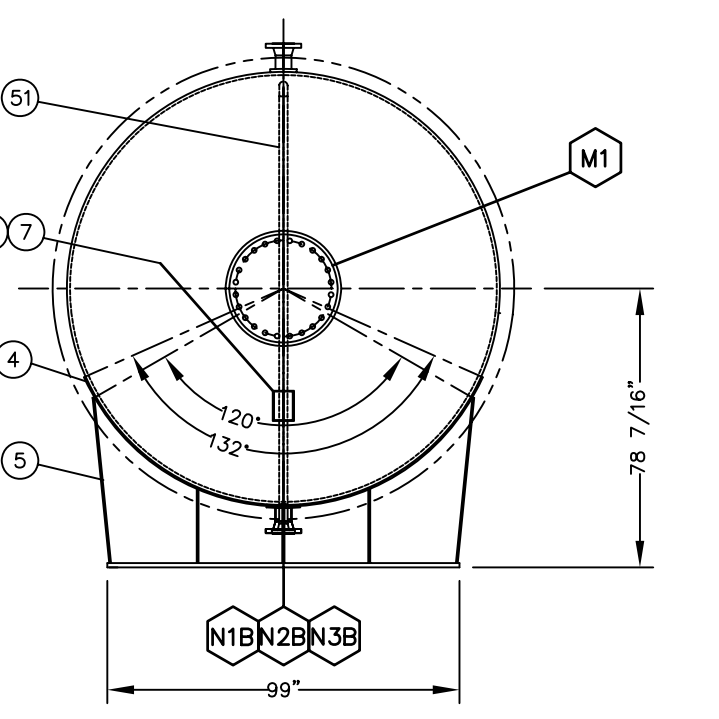
SECTION A-A

N2A/B & N6 RISER DETAIL

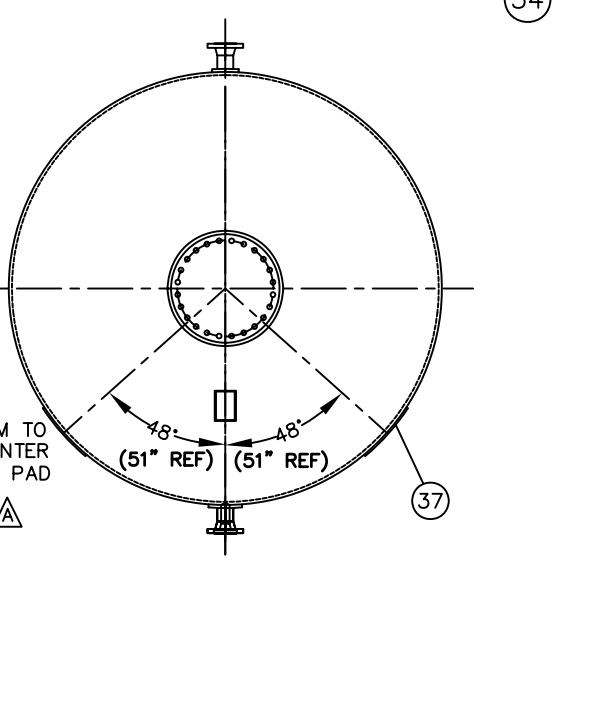
NOTE: N2A RISER HAS BEND TO CLEAR FLOAT GAUGE, N2B IS STRAIGHT.



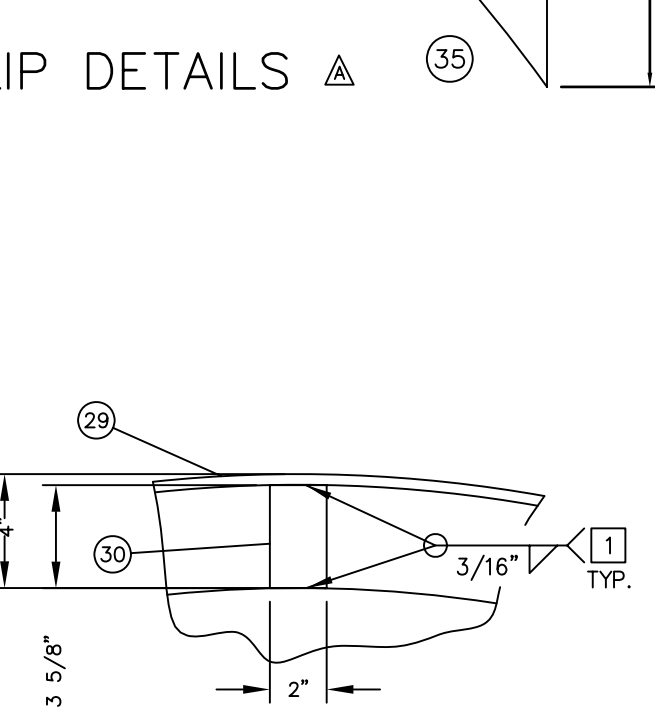
HEAD INSULATION RING



SECTION B-B

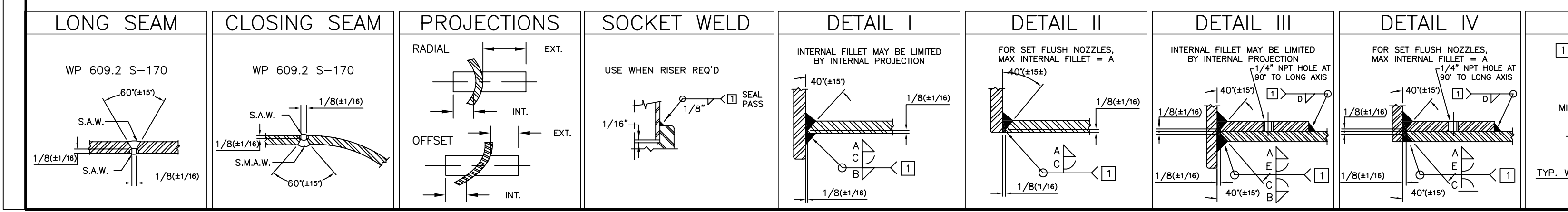


SKID PAD PLACEMENT



RING AND CLIP DETAIL (NTS)

NOZZLE MK #	SERVICE	NO REQD	SIZE	RATING	TYPE	BORE	EXTERNAL PROJ.	MINIMUM INTERNAL PROJ. (REF)	REINFORCING PAD THICKNESS	PAD OD.	WELD DETAILS	WELD SIZES							REMARKS	
												A	B	C	D	E	F	G		
N1A/B	LIQUID INLET / LIQUID OUTLET	2	4"	300#	RFWN	XH	8"	0"	0.875	8.50	IV, VI	0.375	.	FULL	0.563	FULL	.	.	.	ITEMS # 15,16,17
N2A	VAPOR - CO2 C/W RISER	2	2"	300#	RFWN	XH	8"	3"	0.000	0.00	I, VI	0.25	0.25	FULL	.	.	.	.	.	ITEMS # 19,20,21,22,23,46,47
N2B	VAPOR - CO2 C/W RISER	2	2"	300#	RFWN	XH	8"	114	0.000	0.00	I, VI	0.25	0.25	FULL	.	.	.	.	.	ITEMS # 19,21,22,23,51
N3A	DRAIN C/W BLIND	2	2"	300#	RFWN	XH	8"	0"	0.000	0.00	II, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 18,19,41,42,43,44
N4	RELIEF	1	4"	300#	RFWN	XH	8"	0"	0.875	8.50	IV, VI	0.375	.	FULL	0.563	FULL	.	.	.	ITEMS # 15,16,17
N5	RELIEF	1	2"	300#	RFWN	XH	8"	0"	0.000	0.00	II, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 18,19
N6	FULL TRICOCK 95%	1	2"	300#	RFWN	XH	SHOWN	15-5/16"	0.000	0.00	I, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 19,21,24,25,26,42-45
N7	THERMOWELL W/BLIND	1	2"	300#	RFWN	XH	SHOWN	0"	0.000	0.00	II, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 19,38,42,43,44,55
N8	LIQUID PHASE W/BLIND	1	2"	300#	RFWN	XH	SHOWN	0"	0.000	0.00	II, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 19,38,42-45
M1	MANWAY C/W BLIND	1	20"	300#	RFWN	STD	10-5/8"	0"	0.875	35.0	IV, VII	0.375	.	FULL	0.563	FULL	.	.	.	ITEMS # 8,9,10,11,12,13,14
G	FLOAT GAUGE	1	2-1/2"				2-1/2"	0"	0.000	0.00	II	0.375	.	FULL	.	.	.	.	.	ITEMS # 27
N3B	LIQUID PH./W NPT BLIND	2	2"	300#	RFWN	XH	8"	0"	0.000	0.00	II, VI	0.25	.	FULL	.	.	.	.	.	ITEMS # 18,19,42,43,44,45,56,57,58



WELD PROCEDURES

- 1 609.2-S-170 SMAW
- 2 609.2-S-170 SAW
- 3 609.2-S-140 SMAW
- 4 609.2-S-160 FCAW

DESIGN DATA - ENGLISH (METRIC) UNITS

ASME SEC. VIII DIV 1, 2001 EDITION, 2003 ADDENDA	SYMBOL UW12 (a) & (d)
DESIGN INT: 285psi(1965kPa) EXT: N/Apsi(N/AkPa)	DIAMETER 120" ID(3048 mm)
MAWP INT: 285 psi(1965kPa) EXT: N/Apsi(N/AkPa)	LENGTH O/A 64'-4"(19,609 mm)
DESIGN TEMP. - INT & EXT: 150°F(65.5°C)&N/A°F(N/A°C)	CAPACITY: 4798 ft³(135.9 m³)
MDMT: -20 °F @ 285 psi (-28.9 °C @ 1965 kPa)	SURFACE AREA: 2043ft²(189.8m²)
XRAY SHELL LONG: FULL UW-11(a)	HEAD TYPE: 2:1 ELLIPSOIDAL
XRAY HEAD LONG: N/A	HEAD MATERIAL: SA516-70
JOINT EFF. - HEAD: 1.00	HEAD THICKNESS: 0.870" MIN(22.10mm)
STRESS RELIEVED: NO	HEAD CORROSION ALLOWANCE: NIL(NIL mm)
HYDRO TEST NEW & COLD: 371psi(2558kPa)	SHELL MATERIAL: SA516-70
LIMITED BY: DESIGN	SHELL THICKNESS: 0.875" (22.49 mm)
EST. SHIPPING WEIGHT: 80,000lb(36,370kg)	SHELL CORROSION ALLOWANCE: NIL(NIL mm)
EST. HYDRO TEST WEIGHT: 379,270lb(172,395kg)	STUDS: SA193-B7
	NUTS: SA194-2H
	MW GASKETS: GASKET FLEXITALIC RF CL300 304-SS
	FLANGES: SA-105N PIPE: SA106B
	SANDBLAST: SSPC-SP6
	PRIMER: DEVRAN 201
	PAINT: UNINSULATED SURFACES-URETHANE WHITE 2 COMP 369
	INSULATION: 4" URETH BRD INSUL - 0.020" CLAD'G
	SUPPORT MTL: SA516-70
	REINFORCING MTL: SA516-70
	REG DRAWING 2004-0902D

DESIGN DATA - ENGLISH (METRIC) UNITS

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	REG DRAWING 2004-0902D

REV NO.	DRWN	DATE	CHECKED BY	APPROVED BY	DESCRIPTION
D	DR	04.11.23			CHANGED N3B TO NPT BLIND FLG & VALVE
C	DR	04.11.15			ADDED LAMECOIDS, UPDATED BoM & SERVICE NAMES
B	DR	04.10.05			UPDATED ITEM#25 LENGTH, REMOVED 3" PIPE FROM N2A CHG #23836 TO 44W MAT'L, UPDATED NOZZLE SCHD
A	DR	04.09.19			ADDED ALT. WEAR PAD, ADDED FLOAT GAUGE, LIFT LUGS REVISED RISER DESIGN, MOVED PLTFM
0	DR	06.09.16			ADDED BLIND TO N3A/B

Maxfield Inc.

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36,000 USWG/140 TONNE - 120" ID
57' 5-1/2" S/S CO2 SKIDDED STORAGE VESSEL

THIRD ANGLE PROJECTION

FOR APPLICABLE TOLERANCES UNLESS OTHERWISE STATED

JOB: #31-0830 to 0832
DRAWING No. 2004-0902D
SHEET 1 OF 1