

**MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
 (Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)  
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

JOB 31-0287  
 A# 477154

1. Manufactured and certified by MaXfield Inc. 1026 Western Drive, Crossfield, Alberta T0M 0S0  
(Name and address of manufacturer)
2. Manufactured for Ferus Gas Industries, 600,840-8<sup>th</sup> Avenue SW, Calgary, Alberta T2P 1G7  
(Name and address of purchaser)
3. Location of Installation Ferus Gas Industries, 600-840-8<sup>th</sup> Avenue SW, Calgary, Alberta T2P 1G7  
(Name and Address)
4. Type: HORIZONTAL 38240A R0870 2 2002-0801D Rev F N/A 2002  
(Horiz. or vert. tank) (Mfg's serial No.) (CRN) (Drawing No.) (Nat'l Bd No.) (Year built)
5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2001  
Addenda (Date) Code Case Nos. Year
6. Shell: SA516-70N 1.08"(27.43mm) Nil 129"(3277mm) 89' & 11 1/2"(27407mm) s/s  
Mat'l (Spec No., Grade) Nom Thk. (in.) Corr Allow (in.) Diam I.D. (ft. & in.) Length (overall) (ft. & in.)
7. Seams: TYPE No. 1 FULL 100% N/A 0F N/A TYPE No. 1 \*SPOT 9  
Long (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) Grth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial) or Full) No of Courses
8. Heads: (a) Mat'l. SA516-70N (b) Mat'l. SA516-70N  
(Spec No., Grade) (Spec. No., Grade)

Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) END	1.07"(27.18mm)	Nil			2:1 SE				Concave
(b) END	1.07"(27.18mm)	Nil			2:1 SE				Concave

If removable, bolts used (describe other fastenings) N/A  
(Mat'l., Spec. No., Gr. Size No.)

9. MAWP 325 psi. (2241 kPa) at max. temp. 115 °F (46 °C)  
 Min. design metal temp. -20°F (-29°C) at 325 psi. (2241 kPa) Hydro., pneu., or comb. test pressure 423 psi. (2917 kPa)

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom Thk.	Reinforcement Mat'l.	How Attached	Location
Manway	1	20" NPS	300# RFWN	SA105N/SA3336	0.594"(15.09mm)	SA516-70N	UW16.1(q)	Head
Liquid Inlet/Outlet	2	4" NPS	300# RFWN	SA105N/SA106B	0.531"(13.49mm)	SA516-70N	UW16.1(q)	Shell
Relief	1	4" NPS	RFSO	SA105N/SA106B	0.337"(8.56mm)	SA516-70N	UW16.1(q)	Shell
Float Gauge	1	2 1/2"	Adaptor	SA181	0.469"(11.91mm)	INHERENT	UW16.1(e)	Shell
Continued	on	Form U4						

11. Supports: Skirt No Lugs 2 Legs 0 Other 2 Saddles Attached Shell-Welded  
(Yes or No) (No.) (No.) (Describe) (Where and How)

12. Remarks: Manufacturer's Partial Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:  
(Name of part, item number, Mfg's name and identifying stamp)

63,000 USWG C02 Storage Vessel Manufacturer's Drawing No. 2002-0801D Rev F

Impact Test exempt per UG-20(f) Safety Relief Valves per UG-125 \* UW11(a)(5)(b)

Surface Area = 3348 sq.ft (311 cu.m) Non-corrosive service only

**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1, "U" Certificate of Authorization No. 13,551 expires July 24, 2005  
 Date Nov. 27, 2002 Co. name MaXfield Inc Signed Rylee Cury  
(Manufacturer) (Representative)

**CERTIFICATE OF SHOP INSPECTION**

Vessel constructed by MaXfield Inc at 1026 Western Drive, Crossfield, Alberta  
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Alberta and employed by Alberta Boilers Safety Association have inspected the component described in this Manufacturer's Data Report on NOV 27 2002 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his 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 NOV 27 2002 Signed B.S. M.L. Commissions AB #145A  
(Authorized Inspector) (National Board (incl. endorsements) State, Prov. and No.)



# Certificate of Inspection Permit

**FERUS GAS INDUSTRIES LIMITED PARTNERSHIP**  
401 9 AVENUE SW SUITE 916  
CALGARY, AB  
T2P 3C5

Max. Inspection Interval: 5.00 Yr.

Year Built: 2002

CRN: R0870.2

Serial #: 38240A

Volume: 237 M3

Heating Surface:

Surface Area:

COMPANY CODE: C-1009

DESCRIPTION: CO2 STORAGE VESSEL

LOCATION: TYRICAN YARD, CLAIRMONT

MANUFACTURER: MAXFIELD INC

**Pressure Relief Valves**

PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	2241 KPA	46 C	-29 C	SV1	2241 KPA	148 M3/MIN	VESSEL
				SV2	2275 KPA		VESSEL

Terms and Conditions:

Permit Issued by: XIE, FLORA

Signature: Flora Xie

**NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:**

owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of. The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.



47754

RT 2  
W



CERTIFIED BY  
**MaXfield Inc.**  
CROSSFIELD, CANADA

MAWP 325 PSI AT 115 °F  
(2241 kPa) AT 46 °C

MDMT 23 °F AT 325 PSI  
(-5 °C AT 2241 kPa)

SER. NO. 38240/A BUILT 2002

C.R.N. R0870.2

VESSEL 63000 USWG CO<sub>2</sub>  
STORAGE VESSEL

I.D. 129 IN. (3277 mm)

LG. 96 FT 6 IN. (29413 mm)

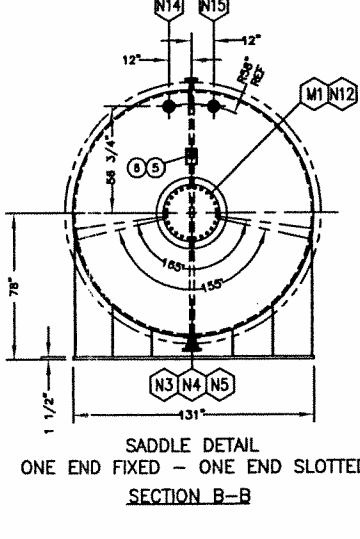
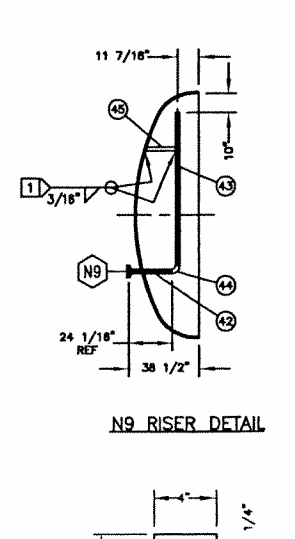
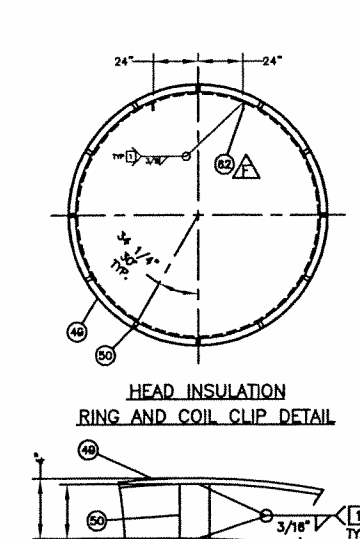
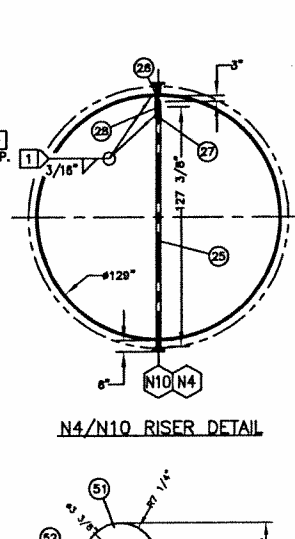
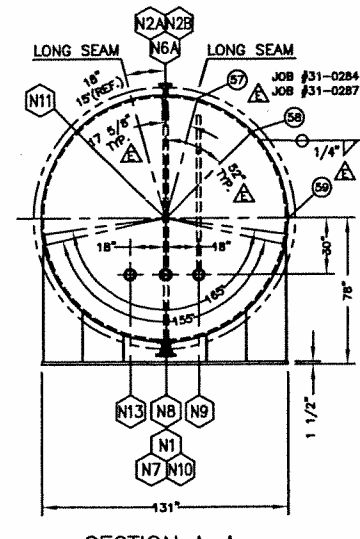
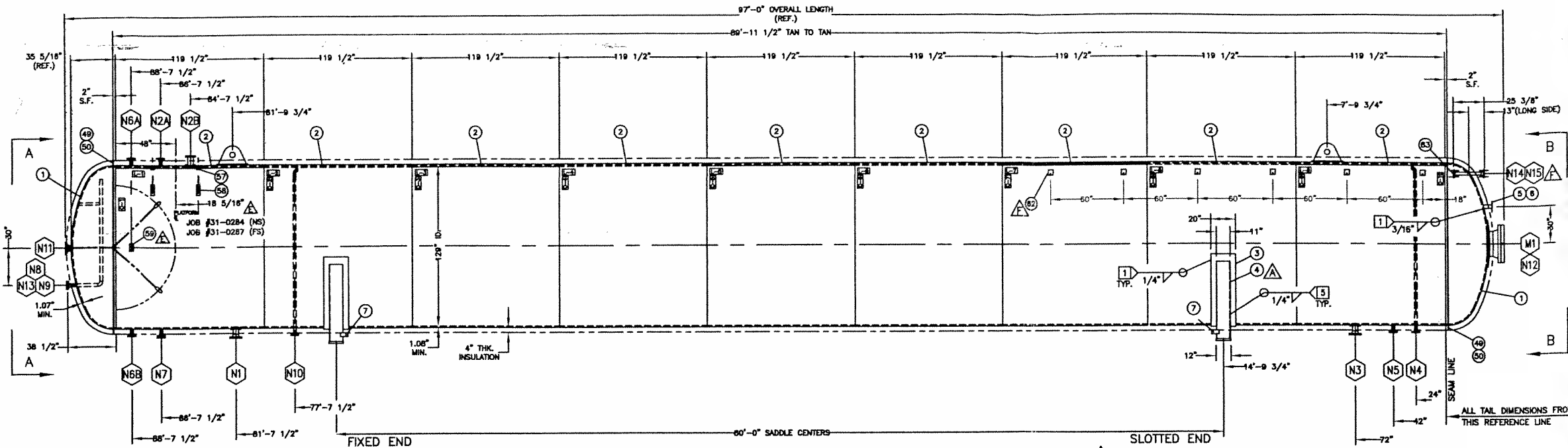
SHL. 1.08 IN. (27.43 mm) SA 316-70

HDS. 1.07 IN. (27.18 mm) SA 516-70

C.A. — IN. ( — mm)

VOL. 8490 CU.FT. (240 CU.m)

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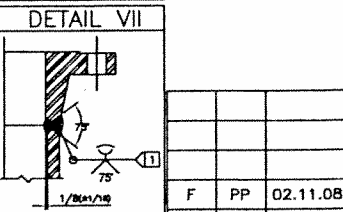
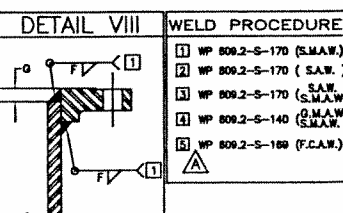
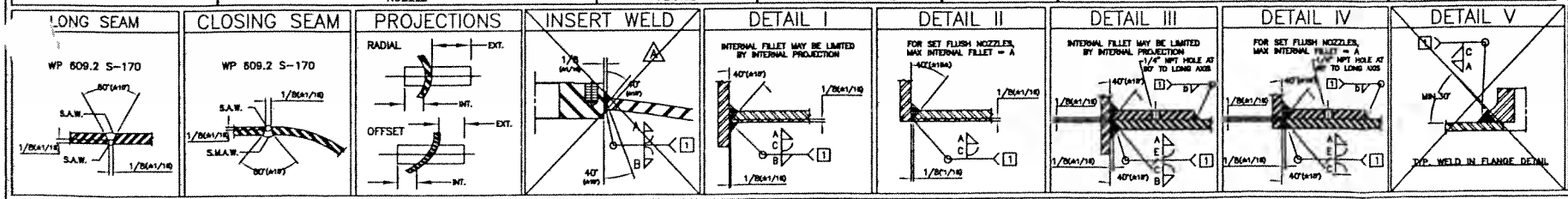


- SHOP NOTES:**
- BOLT HOLES TO STRADDLE NATURAL C/L EXCEPT AS NOTED.
  - FLANGE SURFACE TO BE PROTECTED FROM WELD SPATTER.
  - ALL INSIDE CONNECTIONS TO BE REINFORCED TO 1/4" MIN. PADS TO BE RADUSED ON ALL CORNERS.
  - FOR VESSEL PADS, 1/4" DIA. WEEP HOLE NEEDS 3/4" FROM EDGE (TYPICAL).
  - AFTER FINAL 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. COPLAS TO BE FITTED WITH STEEL FLUGS.
  - ALSO SHORTEST SIDE UNLESS OTHERWISE SPECIFIED.
  - PIPE LENGTHS IN 8' IN. OVERALL, CUT LENGTH TO SUIT NOZZLE ACCORDING TO NOZZLE CHART.
  - IMPACT TEST EQUIPPED AS PER UG-20(f).
  - USE WELDING PROCEDURE WP 808.2 S-170 FOR TACK WELDING.
  - SHELL PLATES TO BE THREADED SQUARE TO WITHIN ±1/32.
  - REDUCE PLATE WIDTH IF NECESSARY.
  - ADD 1/2" TO ALL PAD DIAMETERS WHEN CUTTING.
- SHIPPING NOTES:**
- FOR SHIPPING USE TWO CRANES. MAX SLING ANGLE 5°.

ITEM	LOCATION	PART NO	QTY	UM	DESCRIPTION
1	HEADS	87511	2	EA	HD 2:1SE 129ID X 1.07MN 2SF SA516-70N
2	SHELL	87510	8	EA	PL 1.08" X 120" X 410" SA516-70N
3	WEAR PAD	59053	52.6	F2	PL .375" SA516-70N 2 PCS 15" 9-3/8" X 20"
4	SADDLES	87513	1	EA	SADDLE 129ID SIDE WEB 155 DEG NO PAD DWG 2002-0808C
5	DATA PLATE	81103	1	EA	PL DATA UNITS MET/IMP EXTENDED VERS DWG 9104-2A
6	DATA PLATE	85229	1	EA	BRKT DATA PL (EXTENDED VERSION) EXTRA LONG DWG 9905-09A
7	GROUND LUG	83343	2	EA	GROUND LUG DETAIL DWG 9803-28A
8	M1	56180	1	EA	FLG 20 CL300 RFWN XH BORE SA 105
9	M1/N12 BLIND	56181	1	EA	FLG BLIND 20 CL300 RF SA105N
10	M1	56118	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	67269	48	EA	NUT HEX 1-1/4" NC SA194-2H
13	M1 PIPE	51578	5.3	LN	PIPE 20" XH SMLS SA 106B 1 PCS 5-1/4" LG
14	M1 REPAD	65586A	10.6	F2	PL 1.00" SA516-70N 1 PCS 39" X 39"
15	N11	17250332	1	EA	ADAPT B BOLT WELD FLOAT GAUGE SA181 DWG 9802-35A
16	N2B	87560	1	EA	FLG 3 BORE 4.563" FFSO SA105 DWG 2002-1008A
17	N1, N3	59619	2	EA	FLG 4 CL300 RFWN SCH 180 SA105
18	N1, N3 PIPE	58210	1.0	FT	PIPE 4" SCH180 SMLS SA 106B 2 PCS 6" LG
19	N1, N3 REPAD	65586A	1.0	F2	PL 1.00" SA516-70N 2 PCS 8-1/2" X 8-1/2"
20	N1, N3	50400	2	EA	PROTECTOR FLG 4" 300# PLASTIC
21	N2A, N5, N7	54688	3	EA	FLG 2 CL300 RFWN XH BORE SA105N
22	N2A, N5, N7 PIPE	51552	1.1	FT	PIPE 2" XH SMLS SA 106B 3 PCS 4-1/2" LG
23	N2A, N5	50398	2	EA	PROTECTOR FLG 2" 300# MASONITE
24	N4, N10	54688	2	EA	FLG 2 CL300 RFWN XH BORE SA105N
25	N4, N10 RISER	51552	21.2	FT	PIPE 2" XH SMLS SA 106B 2 PCS 10' 7-3/8" LG
26	N4, N10 RISER	53803	2	EA	ELBOW WELD 90 LR 2 XH SA234 WPB
27	N4, N10 RISER	51554	0.7	FT	PIPE 2-1/2" STD SMLS SA 106B 2 PCS 4" LG
28	N4, N10 RISER	87148	0.7	F2	PL 250 SA 516-70N 2 PCS 24" X 2"
29	N4, N10	50398	2	EA	PROTECTOR FLG 2" 300# MASONITE
30	N7	54680	1	EA	FLG BLIND 2 CL300 RF SA 105
31	N8A, N8B	54688	2	EA	FLG 2 CL300 RFWN XH BORE SA105N
32	N8A, N8B PIPE	51552	0.8	FT	PIPE 2" XH SMLS SA 106B 2 PCS 4-1/2" LG
33	N8A, N8B	50398	2	EA	PROTECTOR FLG 2" 300# MASONITE
34	N8, N9, N13	54688	3	EA	FLG 2 CL300 RFWN XH BORE SA105N DWG 2002-0808D
35	N8 PIPE	51552	0.5	FT	PIPE 2" XH SMLS SA 106B 1 PCS 8" LG
36	N8, N13 PIPE	51582	1.5	FT	PIPE 2" XH SMLS SA 106B 2 PCS 9" LG
37	N8, N9, N13	56427	3	EA	FLG BLIND 2 CL300 RF 3/4NPT SA 105
38	LADDER/PLATFORM	87595	1	EA	LADDER & PLATFORM DETAIL DWG 2002-1101D
39	N7, N8, N9, N13	51719	32	EA	STUD 5/8NC X 3-1/2 LG SA 193-B7 1550381
40	N7, N8, N9, N13	51710	64	EA	NUT HEX 5/8" NC SA 194-2H
41	N7, N8, N9, N13	54687	4	EA	GASKET FLEXITALIC 2" RF CL300/600 304-SS
42	N9 PIPE	51552	1.8	FT	PIPE 2" XH SMLS SA 106B 1 PCS 21-1/4" LG
43	N9 RISER	51532	6.8	FT	PIPE 2" STD ERW SA 53B 1 PCS 81-1/2" LG
44	N9 RISER	51629	1	EA	ELBOW WELD 90 LR 2 STD SA234 WPB
45	N9 RISER	51411	1.4	FT	BAR FLAT 1/4" X 3" SA 36 1 PCS 16-1/2" LG
46	N2B	51564	0.7	FT	PIPE 4" XH SMLS SA 106B 1 PCS 8-7/8" LG
47	N2B	65586A	0.5	F2	PL 1.00" SA516-70N 1 PCS 8-1/2" X 8-1/2"
48	N2B	50398	1	EA	PROTECTOR FLG 3" 300# MASONITE
49	INSULATION	65963	72.7	FT	BAR RND 3/8" 44W 2 PCS 38" X 4"
50	INSULATION	67148	1.2	F2	PL 250 SA 516-70N 24 PCS 3-5/8" X 2"
51	LIFTLUG	84817	4.4	F2	PL 2" SA 516-70N IMPACT -50F 2 PCS 22" X 14-1/2"
52	LIFTLUG	65586A	1.9	F2	PL 1.00" SA516-70N 2 PCS 25-1/2" X 5-1/4"
53	N2B	67573	1	EA	GASKET DURLON 6000 3" CL300 FULL FACE 1/8" THK X 4 1/2" X 8 1/4" OD
54	N2B	17110009	8	EA	STUD 3/4NC X 4 LG SA 193-B7
55	N2B	17110008	16	EA	NUT HEX 3/4" NC SA 194-2H
56	N11	17250003	1	EA	GASKET FLEXITALIC 3.00" OD X 2.31" ID FLOAT GA
57	PLATFORM PAD	59206	0.4	F2	PL .375" SA 516-70N 2 PCS 3" X 8"
58	PLATFORM PAD	59206	0.5	F2	PL .375" SA 516-70N 2 PCS 3" X 12"
59	BRIDLE PAD	59206	0.2	F2	PL .375" SA 516-70N 1 PCS 3" X 6"
60	N14, N15	56179	2	EA	FLG 2 CL300 RFWN SCH180 SA105N
61	N14, N15	55077	3.7	FT	PIPE 2" SCH180 SMLS SA 106B 2 PCS 22-3/8" LG
62	CLIP	62855	1.3	F2	PL .500 SA516-70N 12 PCS 4" X 4"
63	N14, N15	58001	2	EA	FLG 2 CL300 RFSO SA105N

**NOZZLE SCHEDULE** Note: All dimension are in English units

NOZZLE	IDENTIFIER	SIZE	DESCRIPTION	ID	OD	ORNDT	NECK MAT'L	T	SIZE	TYPE	CLASS	FLG MAT'L	MATERIAL	PAD THICK.	EXT. DIA.	INT. THICK.	EXT. PROJ.	INT. PROJ.	DETAIL	A	B	C	D	E	F	G	REMARKS					
M1/N12 MANNING C/W BLIND/ROTO GA	20	SCH 40		18.81	20.00	0	SA-108 B	N	N	20	WN	300	SA105	SA-516 70	1.0000	35.00	N	Y	0.584	10.00	0.00	IV, VII	0.375	-	FULL	0.563	FULL	-	-	-	ITEM #8,9,10,11,12,13,14	
N1 LIQUID INLET	4	SCH 160		3.44	4.50	180	SA-108 B	N	N	4	WN	300	SA105	SA-516 70	1.0000	8.50	N	Y	0.531	8.00	0.00	IV, VI	0.375	-	FULL	0.563	FULL	-	-	-	ITEM #17,18,19,20	
N2A RELIEF	2	SCH 80 (XH)		1.94	2.38	0	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	ITEM #21,22,23	
N2B RELIEF	2	SCH 80 (XH)		3.83	4.50	0	SA-108 B	N	N	2	SO	N/A	SA105	SA-516 70	1.0000	8.50	N	Y	0.337	8.00	0.00	IV, VII	0.375	-	FULL	0.563	FULL	0.337	0.337	-	-	ITEM #16,46,47,48
N3 LIQUID OUTLET	4	SCH 160		3.44	4.50	180	SA-108 B	N	N	4	WN	300	SA105	SA-516 70	1.0000	8.50	N	Y	0.531	8.00	0.00	IV, VI	0.375	-	FULL	0.563	FULL	-	-	-	-	ITEM #17,18,19,20
N4 VAPOUR RETURN C/W RISER	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	28.0	I, VI	0.250	0.250	FULL	-	-	-	-	-	-	ITEM #23,25,26,27,28,29
N5 PUMP BYPASS RETURN	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	-	ITEM #32,22,23
N6A BRIDLE	2	SCH 80 (XH)		1.94	2.38	0	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	-	ITEM #31,32,33
N6B BRIDLE	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	-	ITEM #21,22,30,38,40,41
N7 DRAIN C/W BLIND	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	-	ITEM #21,22,30,38,40,41
N8 TEMP INDICATOR C/W BLIND	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	SHOWN	15.5	III, VI	0.250	0.250	FULL	-	-	-	-	-	-	ITEM #34,37,38,40,41,42,43,44
N9 PRESS INDICATOR C/W BLIND	2	SCH 80 (XH)		1.94	2.38	148	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	SHOWN	15.5	III, VI	0.250	0.250	FULL	-	-	-	-	-	-	ITEM #34,37,38,40,41,42,43,44
N10 VAPOUR TO CO2 C/W RISER	2	SCH 80 (XH)		1.94	2.38	180	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	8.00	28.0	II, VI	0.250	0.250	FULL	-	-	-	-	-	-	ITEM #24,25,26,27,28,29
N11 FLOAT GAUGE	2.5	2.3125 ID X 0.4688 WALL		2.31	3.25	0	SA-181 60	N	N/A	BR	N/A	N/A	N/A	0.0000	0.00	-	-	0.489	2.50	0.00	II	0.375	-	FULL	-	-	-	-	-	-	ITEM #15	
N13 THERMOWELL C/W BLIND	2	SCH 80 (XH)		1.94	2.38	211	SA-108 B	N	N	2	WN	300	SA105	N/A	0.0000	0.00	-	-	0.218	SHOWN	0.00	II, VI	0.250	-	FULL	-	-	-	-	-	-	ITEM #34,36,37,39,40,41
N14,15 COIL	2	SCH 160		1.89	2.38	SHOWN	SA-108 B	N	N	2	WN	300	SA 105	N/A	0.0000	0.00	-	-	0.343	SHOWN	SHOWN	I, VI	0.375	0.375	FULL	-	-	-	-	-	-	ITEM #80,81,83



**WELD PROCEDURES**

1	WP 808.2-S-170 (S.M.A.W.)
2	WP 808.2-S-170 (S.A.W.)
3	WP 808.2-S-170 (S.M.A.W.)
4	WP 808.2-S-140 (S.M.A.W.)
5	WP 808.2-S-188 (F.C.A.W.)

**DESIGN DATA - ENGLISH (METRIC) UNITS**

ASME SEC. VIII DIV 1, 2001 EDITION, NO ADDENDA	SYMBOL UH12 (a) & (d)
DESIGN INT: 325psi (224kPa) EXT: N/Apsi (N/AkPa)	DIAMETER 129.00" ID ( 3277mm)
MAWP INT: 325psi (224kPa) EXT: N/Apsi (N/AkPa)	LENGTH O/A 95'-6" ( 29413mm)
DESIGN TEMP. - INT & EXT: 115°F ( 46°C) & N/A°F/N/A°C	CAPACITY: 8490ft³ ( 240m³)
MDMT: -20°F @ 325psi	SURFACE AREA: 3348ft² ( 311m²)
PRAY SHELL LONG FULL UN-11(A) CIRC SPOT UN-11(A)(5)B	HEAD TYPE: 2:1 ELLIPSOIDAL
PRAY HEAD LONG: N/A CIRC SPOT UN-11(A)(5)B	HEAD MATERIAL: SA516-70N
JOINT EFF. - HEAD: 1.00 SHELL: 1.00	HEAD THICKNESS: 1.0700" MIN ( 27.18mm)
STRESS RELIEVED: NO	HEAD CORROSION ALLOWANCE: NIL ( 0mm)
HYDRO TEST NEW & COLD: 423psi ( 2917kPa)	SHELL MATERIAL: SA516-70N
LIMITED BY: DP	SHELL THICKNESS: 1.0800" ( 27.43mm)
EST. SHIPPING WEIGHT: 159700lb ( 72400kg)	SHELL CORROSION ALLOWANCE: NIL ( 0mm)
EST. HYDRO TEST WEIGHT: 715700lb ( 324700kg)	STUDS: SA193-B7
	NUTS: SA194-2H
	MW GASKETS: GASKET FLEXITALIC RF CL300 304-SS
	SANDBLAST: SSPC-SP8
	PRIMER: DEV/RAN 201
	PAINT: UNINSULATED SURFACES - URETHANE WHITE 2 COMP 369
	INSULATION: 4" URETH BRD INSUL - 0.020" CLAD'G
	CRN R 0870.2

**Maxfield Inc.**

83,000 USWG - 129" ID CO2 STORAGE VESSEL

SEE DRAWING 2002-0707D FOR APPLICABLE TOLERANCES UNLESS OTHERWISE STATED

JOB #31-0284  
DRAWING NO. 2002-0801D  
SHEET 1 OF 1



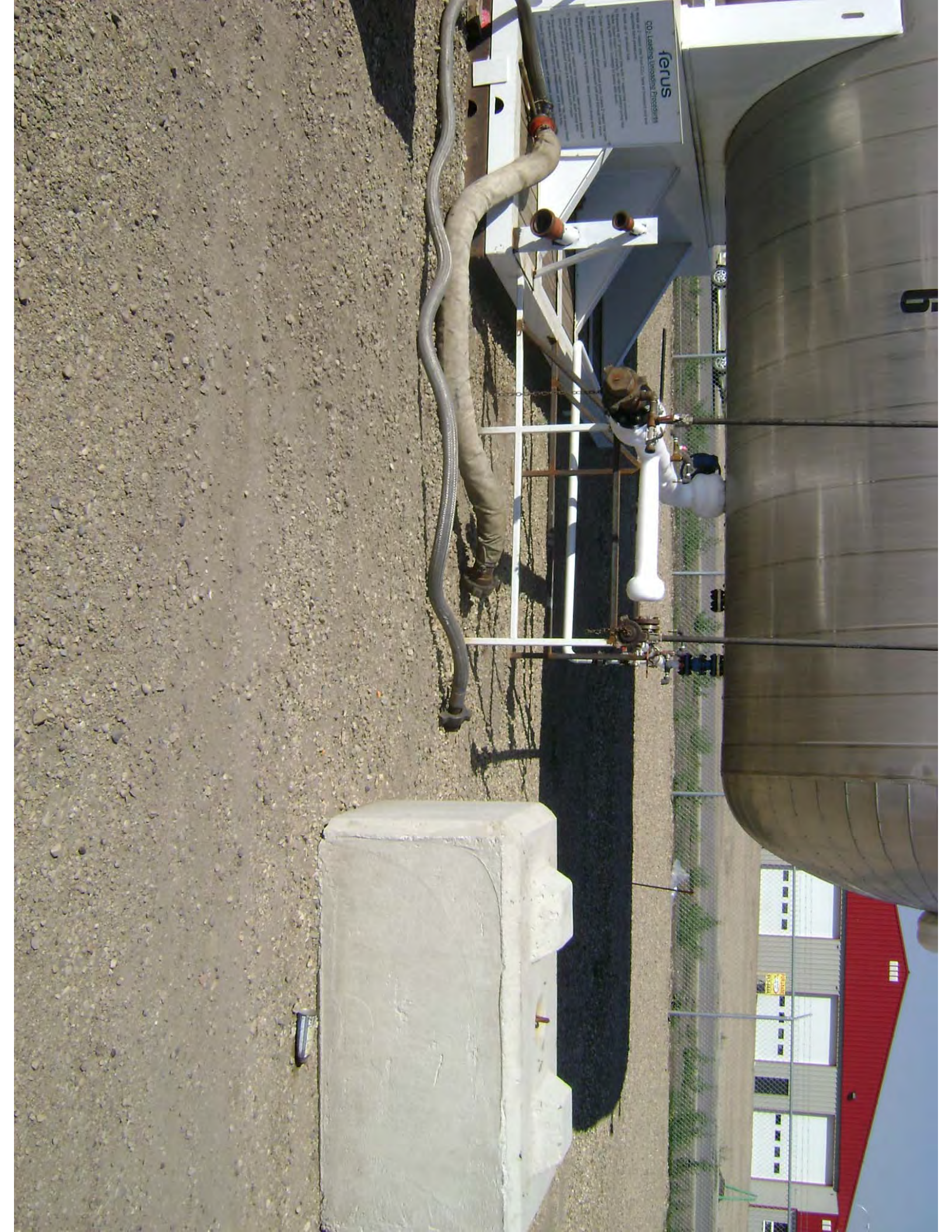












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CO<sub>2</sub> Loading Unloading Procedures

WARNING: This equipment is designed to handle high pressure CO<sub>2</sub> gas. Improper use can result in serious injury or death. Read and understand the safety instructions before operating this equipment. Only trained personnel should operate this equipment. Do not use this equipment if you are unsure of its proper use. Do not use this equipment if it is damaged or if the safety instructions are not followed. Do not use this equipment if you are under the influence of alcohol or drugs. Do not use this equipment if you are wearing loose clothing or jewelry. Do not use this equipment if you are not wearing proper eye protection. Do not use this equipment if you are not wearing proper hearing protection. Do not use this equipment if you are not wearing proper respiratory protection. Do not use this equipment if you are not wearing proper fall protection. Do not use this equipment if you are not wearing proper safety shoes. Do not use this equipment if you are not wearing proper safety glasses. Do not use this equipment if you are not wearing proper safety harness. Do not use this equipment if you are not wearing proper safety helmet. Do not use this equipment if you are not wearing proper safety vest. Do not use this equipment if you are not wearing proper safety gloves. Do not use this equipment if you are not wearing proper safety boots. Do not use this equipment if you are not wearing proper safety glasses. Do not use this equipment if you are not wearing proper safety harness. Do not use this equipment if you are not wearing proper safety helmet. Do not use this equipment if you are not wearing proper safety vest. Do not use this equipment if you are not wearing proper safety gloves. Do not use this equipment if you are not wearing proper safety boots.





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CO<sub>2</sub> Liquefaction Procedure  
The CO<sub>2</sub> liquefaction procedure is a critical step in the production of liquid CO<sub>2</sub>. It involves the compression and cooling of gaseous CO<sub>2</sub> to a liquid state. The process is controlled by a pressure gauge and a valve, ensuring that the CO<sub>2</sub> is liquefied at the correct pressure and temperature. The liquefied CO<sub>2</sub> is then collected in a storage tank for further use.



# ferus

C1009

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DO NOT  
BLow DOWN  
TOWARD ANY  
CO<sub>2</sub> VESSEL

ferus  
CO<sub>2</sub> LIFTING, LOWERING, POSITIONING  
OPERATION MANUAL

