



**FORM R-2 REPORT OF ALTERATION**  
in accordance with provisions of the *National Board Inspection Code*

EM  
(Authorized Rep. initials)

JB  
(Inspectors initials)

52

(Form "R" Registration no.)

244930

(P.O. no., job no., etc.)

- 1a. DESIGN PERFORMED BY: J. Lowry, LLC  
(name of "R" organization responsible for design)  
2222 Bay Area Blvd Suite 101, Houston, Tx 77058  
(address)
- 1b. CONSTRUCTION PERFORMED BY: Premier Boiler & Combustion, LLC  
(name of "R" organization responsible for construction)  
788 Old Mill Road Ringgold, Ga 30736  
(address)
2. OWNER OF PRESSURE RETAINING ITEM: Soffix Corp.  
(name)  
101 Northgate Commercial Center, Chattanooga, Tn 37415  
(address)
3. LOCATION OF INSTALLATION: Soffix Corp.  
(name)  
2800 Riverfront Road, Chattanooga, Tn 37406  
(address)
4. ITEM IDENTIFICATION: Pressure Vessel NAME OF ORIGINAL MANUFACTURER: Alloy Fabricators  
(boiler, pressure vessel, or piping)
5. IDENTIFYING NOS: 1-136 1263 1991  
(mfg. serial no.) (National Board no.) (jurisdiction no.) (other) (year built)
6. NBIC EDITION/ADDENDA: 1989  
(edition) (addenda)
- Original Code of Construction for Item: ASME Sect VIII Div 1 1989  
(name / section / division) (edition / addenda)
- Construction Code Used for Alteration Performed: ASME Sect VIII Div 1 2023  
(name / section / division) (edition / addenda)

- 7a. DESCRIPTION OF DESIGN SCOPE: ☐ Form R-4, Report Supplementary Sheet is attached

Half pipe jacket was re-rated from a M.A.W.P. of 33 PSI at 335F to 90 PSI at 335F

- 7b. DESCRIPTION OF CONSTRUCTION SCOPE: ☐ Form R-4, Report Supplementary Sheet is attached

Liquid Pressure Test, if applied 120 psi MAWP 90 psi

52

(Form "R" Registration no.)

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(P.O. no., job no., etc.)

8. REPLACEMENT PARTS: (Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report):  
(name of part, item number, data report type or Certificate of Compliance, mfg's. name and identifying stamp)

9. REMARKS:

Half pipe jacket re-rated from a M.A.W.P. of 33 PSI at 335F to 90 PSI at 335F

DESIGN CERTIFICATION

I, Eugene Mitchem, certify that to the best of my knowledge and belief the statements in this report are correct and that the Design Change described in this report conforms to the National Board Inspection Code. National Board "R" Certificate of Authorization No. 11409 expires on 6-28-24

Date 6-28-24 Signed [Signature]  
(name of design organization) (authorized representative)

CERTIFICATE OF DESIGN CHANGE REVIEW

I, STEVE ALEXANDER, holding a valid Commission issued by The National Board of Boiler and Pressure Vessel Inspector and certificate of competency, where required, issued by the jurisdiction of TN and employed by BUREAU VERITAS of LYNN, MA

have reviewed the design change as described in this report and state that to the best of my knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

Date 6-28-24 Signed [Signature] Commissions NB-12488R  
(inspector) (National Board and jurisdiction no. including endorsement)

CONSTRUCTION CERTIFICATION

I, Eugene Mitchem, certify that to the best of my knowledge and belief the statements in this report are correct and that all material, construction, and workmanship on this Alteration conforms to the National Board Inspection Code. National Board "R" Certificate of Authorization No. 11409 expires on May, 27, 2026

Date 6/28/24 Signed Premier Boiler Signed Eugene Mitchem  
(name of alteration organization) (authorized representative)

CERTIFICATE OF INSPECTION

I, STEVE ALEXANDER, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of TN and employed by Bureau Veritas Insurance and Inspection Co. of Lynn, Massachusetts

have inspected the work described in this report on 6-28-24 and state that to the best of my knowledge and belief, this work complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 6-28-24 Signed [Signature] NB-12488R  
(inspector) (National Board and jurisdiction no. including endorsement)



## TRAVELER

☐ ASME "U" ☒ NB Repair / Alteration Code/NBIC Edition: 2023 Year Built: 1991  
☐ ASME "S" Original Mfg.: Alloy Fabricators S/N: 1-136 NB#: 1263

CUSTOMER: Sofix Corp JOB NO. 244930

DESCRIPTION: re-rate from 33 PSI to 90 PSI

DRAWING NO.: EQUIPMENT NO. DATE: 6/25/24

SCOPE	QUALITY CONTROL	DATE	AUTHORIZED INSPECTOR	DATE	HOLD	NCR #
DESIGN REVIEW:						
DRAWINGS						
CALCULATIONS	EM	6/25/24	P. Olson	6-28-24		
SPECIAL INSTRUCTION						
TRAVELER REVIEW						
MATERIAL INSPECTION:						
MAT'L LIST COMPLETE						
MTR'S CHECKED						
OTHER						
FABRICATION INSPECTION:						
NOZZLE FITUP						
GIRTH SEAM FITUP						
LONG SEAM FITUP						
INTERNAL PRIOR TO CLOSING						
WELDER QUALIFICATION						
PREHEAT REQUIREMENTS						
PWHT REQUIREMENTS						
PWHT RECEIVING INSPECTION						
PWHT CHARTS REVIEWED						
WELD SYMBOLS						
VISUAL INSPECTION						
OTHER						
RT: FULL ( ) SPOT ( ) _____ %						
MT ( ) PT ( ) UT ( ) VT ( )						
HYDROTEST @ <u>120</u> PSI	EM	6/28/24	P. Olson	6-28-24		
GAUGE NO. <u>PBC-008</u>	EM	6/28/24				
GAUGE CAL. DATE <u>7/13/23</u>	EM	6/28/24				
OTHER						
FINAL						
FINAL INSPECTION						
NCR's CLOSED						
DATA REPORT	EM	6/25/24	P. Olson	6-28-24		
STAMPING	EM	6/25/24	P. Olson	6-28-24		
NAME PLATE ATTACHED	EM	6/25/24	P. Olson	6-28-24		

(\*) AI HOLD POINT



# Premier Boiler & Combustion, LLC

## PRESSURE TEST REPORT

☐ Repair ☒ Alteration No. 52 Date: 6/2/24 Job Number: 244930

☐ Routine Repair ☐ Piping Install / Replacement

NBIC Edition: 2023 Addenda: N/A Other: \_\_\_\_\_

Original MFG: Alloy Fabricators Year Build: 1991

Serial No.: 1-136 Nat'l. BD. No.: 1263

Description of Work: Re-rate half pipe jacket from 33 psi to 90 psi

Location of Work: Safix - Chattanooga, TN

AIA Inspector Approval & Acceptance Req'd? YES ☒ NO ☐

Verified by: \_\_\_\_\_ Date: \_\_\_\_\_

### Requirements

Test Medium	Water	<input checked="" type="checkbox"/>	Glycol	<input type="checkbox"/>	Air	<input type="checkbox"/>	Other	<input type="checkbox"/>
Conforms to Drawings, Codes & Specifications?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		
System Cleared by Quality Control?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		
Valves Opened and/or Closed as Required?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		
Valve Orientation Correct & Verified?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		
Blinds Installed or removed as Required?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		
In Line Instruments Removed or Bypassed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>		

### Pressure Test Data

Gauge Number	PBC - <u>PBC-008</u>	Design MAWP	<u>90</u> PSI	
Gauge Make	<u>Bourdon</u>	Ambient Temperature	<u>85</u> °F	
Gauge Range	0 - <u>200</u> PSI	Required Test Pressure	<u>120</u> PSI	
Gauge Calibrated	Date <u>7/13/23</u>	Actual Test Pressure	<u>120</u> PSI	
Start Time	<u>0930, 6/27/24 - 0130, 6/28/24</u>	Hold Time Required	10 Min	
Finish Time	<u>0930, 6/28/24</u>	Actual Hold Time	<u>24 hrs</u> Min	

### Post Pressure Test

Blinds removed and accounted for?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Spring hanger stops removed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Guides Installed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Correct bolts and gaskets reinstalled?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
High point and Low point plugs installed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Control Valves Installed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Check Valve internals installed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
System blown free of test medium?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

### Acceptance of Repair / Alteration Pressure Test:

Premier Boiler Supervisor \_\_\_\_\_ Date: \_\_\_\_\_

Quality Control Manager Craig Mc \_\_\_\_\_ Date: 6/28/24

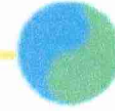
Repair Inspector \_\_\_\_\_ Date: \_\_\_\_\_



***Volunteer NDT Corporation***

Chattanooga, Tennessee

*Providing Inspection & Scaffolding Services*



**Tank Inspection C4011**



**Premier Boiler**

VNDT Job # 24131

Procedure: TST-VT-001

TST-UT-001

External Visual: Performed

Internal Visual: Not Available

Thickness: Various

Retirement: No retirement or predictions are given  
because there is no historical data on the vessel. No U1  
Manufacturers Data Sheet was found to have a comparison.  
Only a baseline was given at this time.

Volunteer Review By:

*Heath Watson*

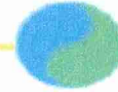
Date: 5/29/2024

Volunteer NDT Level III

# Volunteer NDT Corporation

Chattanooga, Tennessee

Providing Inspection & Scaffolding Services



Premier Boiler @ Sofix

Chattanooga, TN

5/24/2024

Tech: *Heath Watson*

TST-UT-001

SS-Wedge-SN 2298-19

GE- FH2E S/N: 23A015W5

Krautkramer DMS-2

>100 Ft Candles-Streamlight

## Summary:

### C-4011

This was a stainless steel tank with a stainless jacket of coils. The orientation of the readings of this tank were inspection ports at the following locations. The top head had 2 inspection ports. The shell had 4 shell readings with 4 jacket readings taken. The bottom head had 2 inspection ports with N, and W readings having the coil readings as well.

LOCATION	N	S	E	W	Average	Low
Top Head	.267	N/A	.276	N/A	.272	.267
Top Head Coil	.107	N/A	.105	N/A	.106	.105
Shell	.266	.259	.248	.261	.259	.248
Shell Coil	.110	.109	.112	.104	.109	.104
Bottom Head	.254	.261	.258	.257	.258	.254
Bottom Head Coil	.112	.115	.119	.114	.115	.112



FORM U-1A 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

\*\*CORRECTED\*\*  
06/05/92

1/2

1. Manufactured and certified by ALLOY FABRICATORS, INC., P. O. BOX 650, TRENTON, GA 30752  
(Name and address of manufacturer)

2. Manufactured for SOFIX CORP., 101 NORTHGATE COMMERCIAL CENTER, CHATTANOOGA, TN 37415  
(Name and address of purchaser)

3. Location of installation SOFIX CORP., 2800 RIVERPORT ROAD, CHATTANOOGA, TN 37406  
(Name and address)

4. Type VERTICAL 1-136 N/A 1-136 1263 1991  
(Name or serial, tank) (Mfg's serial No.) (CRN) (Drawing No.) (Wgt. 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 1989  
Year

to 1989 N/A N/A  
Addenda (Date) Code Case Nos. Special Service per UG-120(d)

6. Shell: SA-240-T304 .250 NONE 3' 3 1/2" 10' 4"  
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: SVBW NONE 70% N/A N/A SVBW NONE 1  
Long. (Welded, Gt., Seg., Lap, Butt) R.T. (Spot or Full) S.H. (%) H.Y. Temp. (°F) Time (hr) Girth (Welded, Gt., Seg., Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. SA-240-T304 (b) Matl. SA-240-T304  
(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)	TOP	.250	NONE	--	--	F & D	--	--	--	CONCAVE
(b)	BOTTOM	.250	NONE	--	--	F & D	--	--	--	CONCAVE

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

9. MAWP 33 335 33 57  
Min. design metal temp. -20 °F at 33 psi. Hydro., pneu., or comb. test pressure 57 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
SEE ATTACHED U-4 FORM								

11. Supports: Skirt NO Lugs 0 Legs 4 Other N/A Attached WELDED TO SHELL  
(Yes or no) (No.) (No.) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: IMPACT EXEMPT PER UHA-51  
(Name of part, item number, Mfg's name and identifying stamp)

SAFETY VALVE INSTALLED BY OTHERS

\* SEE ADDITIONAL NOTES ON ATTACHED U-4 FORM

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. 7-251 expires 4-28, 19 93  
Date 12-18-91 Co. name ALLOY FABRICATORS, INC. Signed [Signature]  
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by ALLOY FABRICATORS, INC. at 102 SO. INDUSTRIAL DR., TRENTON, GA 30752

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 GA and employed by KEMPER NATIONAL INS. COMPANIES, LONG GROVE, ILL.

have inspected the component described in this Manufacturer's Data Report on DEC. 12, 19 91, 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 12-30-91 Signed [Signature] Commissions NB 10822 GA00268  
(Authorized Inspector) (Mat'l Board (incl. endorsement), State Prov. and Ill.)

(12/87)

This form (E00117) may be obtained from the ASME Order Dept., 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

REPRINT 5/90 (2200)

**FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET**  
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

3/0.

1. Manufactured and certified by ALLOY FABRICATORS, INC., 102 S. INDUSTRIAL DR., TRENTON, GA. 30752  
(Name and address of manufacturer)  
2. Manufactured for SOFIX CORP., 101 NORTHGATE COMMERCIAL CENTER, CHATTANOOGA, TN 37415  
(Name and address of purchaser)  
3. Location of installation SOFIX CORP., 2800 RIVERPORT ROAD, CHATTANOOGA, TN 37406  
(Name and address)  
4. Type VERTICAL 1-136 -- 1-136 1763 1991  
(Model size, inch, etc.) (Weight, pounds) (CSA) (Tag) (Net wt. lbs.) (Year built)

**Data Report**

Item Number #10

**Remarks**

PURPOSE	NO.	DIA. OR SIZE	TYPE	MATERIAL	NOM. THK	REINFORCE MAT'L	HOW ATTACHED	LOCATION
LIQUID IN	N1	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP
LIQUID OUT	N2	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	BOTTOM
30 PA INLET	N3	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP
RELIEF VALVE	N4	2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP
TG	N5	1"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	
VENT	N6	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP
LIGHT GLASS	N7	4"	KS 300	SA240 T304	--	N/A	WELDED	TOP
SIGHT GLASS	N8	1 1/2 X 12"	NW 80	SA240 T304	--	N/A	WELDED	
40S INLET	N9	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	BOTTOM/SHELL
40SC OUTLET	N10	1 1/2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	
HANDHOLE	N11	6"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	
HANDHOLE	N12	6"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP
SPARE	N13	2"	150# RFSO	SA182 F304	SCH 40	N/A	WELDED	TOP

**ITEM # 12**

HALF PIPE JACKET IS CONSTRUCTED OF 2" SCH 10 SA312 PIPE

MAWP: 44 PSI AT 335° F

MMT: -20° F AT 44 PSI

HYDROSTATICALLY TESTED AT 75 PSIG FOR A PERIOD OF 8 HRS.

Date 12-18-91 Co. name ALLOY FABRICATORS, INC. Signed [Signature]  
(Manufacturer) (Representative)  
Date 12-30-91 Signed [Signature] Commissions NB10B22, GA0026B  
(Authorized Inspector) (Notarized Seal, Endorsements, State, Prov. and No.)

(12/92)