

National Board Number: 4  
Mfg. Representative: R.M. Date: 2-17-16  
Authorized Inspector: JA Date: 2-17-16

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

1. Manufactured and certified by Carolina Integrated Solutions, 157 Derrick Road, Spartanburg, SC 29303, USA  
(Name and address of Manufacturer)  
2. Manufactured for Dominion Tank and Vessel, 1501 Valley Rd, Richmond, VA 23222, USA  
(Name and address of Purchaser)  
3. Location of installation Evonik, 4201 Degussa Rd, Mobile County, AL 36582, USA  
(Name and address)  
4. Type Horizontal 293-06 N/A 15515-06-1 R2 4 2015  
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)  
5. ASME Code, Section VIII, Division 1 2013 Edition N/A Lethal Service  
(Edition and Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(d))  
6. Shell SA-240 316L 0.375" 0" 7'-6" 13'-3"  
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))

Body Flanges on Shells										Bolting			
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location		Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams Type 1 Full 100% N/A N/A Type 1 Full 100% 2  
(Long, welded, dbl., sngl., lap, butt) [R.T. (spot or full)] (Eff., %) (H.T. temp.) (Time, hr) [Girth (welded, dbl., sngl., lap, butt)] [R.T. (Spot or Full)] (Eff., %) (No. of courses)

8. Heads: (a) Material SA-240 316L (b) Material SA-240 316L  
(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	0.4"	0"	90" IR	5.75" IR	N/A	N/A	N/A	N/A	Concave
(b)	END	0.4"	0"	90" IR	5.75" IR	N/A	N/A	N/A	N/A	Concave

Body Flanges on Heads										Bolting			
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached		Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(b)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

9. MAWP 45 psi -14.7 psi at max. temp. 338.00 °F 338.00 °F  
(Internal) (External) (Internal) (External)

Min. design metal temp. -20.00 °F at 45 psi. Hydro., pneu., or comb. test pressure Hydro. at 60 psi  
Proof test N/A

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Manway w/Davit (M1)	1	23.25" ID	Cl. 150 WN	SA-240 316L	SA-182 F316L	0.375"	0"	SA-240 316L	UW-16.1(h)	APP 2-4(6)	Left Head
A4,B1,L1,L3,L5,L4,L6,S2,V1,V2	10	NPS 3	Cl. 150 WN	SA-312 TP316L	SA-182 F316L	0.216"	0"	N/A	UW-16.1(e)	APP 2-4(6)	Shell -01 and 02
A2,A6,A8,L2	4	NPS 4	Cl. 150 WN	SA-312 TP316L	SA-182 F316L	0.237"	0"	N/A	UW-16.1(e)	APP 2-4(6)	Shell -01 and 02
A9,A11,R1,T1	4	NPS 1.5	Cl. 150 WN	SA-312 TP316L	SA-182 F316L	0.145"	0"	N/A	UW-16.1(e)	APP 2-4(6)	Shell -01 and 02 Right Head
N1,P1	2	NPS 1	Cl. 150 WN	SA-312 TP316L	SA-182 F316L	0.133"	0"	N/A	UW-16.1(e)	APP 2-4(6)	Shell -01 and 02
Spare (S1)	1	NPS 2	Cl. 150 WN	SA-312 TP316L	SA-182 F316L	0.154"	0"	N/A	UW-16.1(e)	APP 2-4(6)	Shell -02

11. Supports: Skirt No Lugs N/A Legs N/A Other Saddles Attached Shell -01 and 02 - Welded  
(Yes or no) (Number) (Number) (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: NONE  
(Name of part, item number, Manufacturer's name and identifying stamp)

Shop test performed in the horizontal position.  
Safety Relief by others.



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Authorized Inspector: NA Date: 2-17-16

Form U-1A (Back)

**CERTIFICATE OF SHOP/FIELD 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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 51.098 expires July 1, 2018.

Date 2-17-16 Co. name Carolina Integrated Solutions Signed Ricky McRorie  
(Manufacturer) (Representative)

**CERTIFICATE OF SHOP/FIELD INSPECTION**

Vessel constructed by Carolina Integrated Solutions at 157 Derrick Road Spartanburg, South Carolina 29303  
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company

have inspected the component described in this Manufacturer's Data Report on 1-2-16 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 2-17-16 Signed [Signature] Commissions NB-14016A  
(Authorized Inspector) [National Board (incl. endorsements)]

(04/14)



CERTIFIED BY

NS 4



CAROLINA  
INTEGRATED SOLUTIONS

W  
RT-1

SERIAL NO. 293-06

YR. BLT. 2015

SHELL

MAWP 45 psi @ 338 °F

MDMT -20 °F @ 45 psi

MAEWP -147 psi @ 338 °F

JACKET

MAWP [ ] psi @ [ ] °F

MDMT [ ] °F @ [ ] psi



TANK 6

MAWP	3.1 BARG	PSIG	170°C	°F
MDMT	-29°C	°F	3.1 BARG	PSIG
MAEMP	-1.013 BARG	PSIG	170°C	°F
JKT MAWP		PSIG		°F
JKT MDMT		°F		PSIG
INSPECTOR				
PLANT	MOBILE ALABAMA			
WEIGHT	10500 LBS			
MATERIAL	SA-240 316/316L			
P.O. No.	4700984380			
EQUIP No.	V-1410			
PROC. No.	4142-00940			