

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 Page 1 of 2

1. Manufactured and certified by Prostar Manufacturing Inc., 511 Curtis Ave, Pasadena, Texas, 77502, USA  
 (Name and address of Manufacturer)

2. Manufactured for EXTERRAN, 12001, N HOUSTON ROSSLYN ROAD, HOUSTON, Texas, USA  
 (Name and address of Purchaser)

3. Location of Installation UNKNOWN  
 (Name and address)

4. Type HORIZONTAL FS-1182 N/A US-98261-01-PEQ-04-001 R4 1187 2018  
 (Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME Code, Section VIII, Division 1 2015/ N/A N/A N/A  
 [Edition and Addenda, if applicable (date)] (Code Case numbers) [Special service per UG-120(d)]

6. Shell: SA516-70N 1.125 in N/A 27.75" (ID) 12' 6"  
 (Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) [Length (overall)]

Body Flanges on Shells												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									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

7. Seams: WELDED FULL 100% N/A N/A SINGLE SPOT 85% 1  
 [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-350-LF2 (b) Material 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)	LEFT	N/A	N/A	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE
(b)	RIGHT	N/A	N/A	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE

Body Flanges on Heads												
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									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

9. MAWP 1440 psi N/A at max. temp. 120 °F N/A  
 (Internal) (External) (Internal) (External)

Min. design metal temp. -20 °F at 1440 psi . Hydro, pneu., or comb. test pressure 1872 .

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	
SUMPS	2	16"	PIPE	SA106C	HEAD SA516-70N	0.656"			UW16.1(c)		SHELL
GAS INLET	1	10" 600#	RFLWN	SA105N		1.75"			UW16.1(c)		SHELL
GAS OUTLET	1	10" 600#	RFLWN	SA105N		1.75"			UW16.1(c)		SHELL
LIQUID LEVEL CONTROL	2	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SUMP
LIQUID OUTLET	2	2" 600	RFLWN	SA105N		0.66"			UW16.1(c)		SUMP
RELIEF VALVE	1	3" 600#	RFLWN	SA105N		0.81"			UW16.1(c)		SHELL
BLOWDOWN	1	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SHELL
SUMP DRAIN	2	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SUMP

Additional Nozzles - See Attached U-4...

11. Supports: Skirt YES Lugs 2 Legs N/A Other N/A Attached SUMP HEAD/SHELL 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:

30" CL600 Horizontal Threaded closure with 1.125" Wall per dwg 99.670-C103 R3. Serial Number TH102582 from Sypris Technologies Inc. Identifying Stamp No 6319. 12'6" SM/SM

(Name of part, item number, Manufacturer's name and identifying stamp)

DESIGN BY OTHERS, IMPACT EXEMPT PER USC-66. FOR NON CORROSIVE SERVICE PER UG-46 (a) (4) . SAFETY VALVE PER UG-125

Manufactured by	Prostar Manufacturing Inc., 511 Curtis Ave, Pasadena, Texas, 77502, USA		
Manufacturer's Serial No.	FS-1182	CRN	N/A
		National Board No.	1187

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 44857 expires January 17, 2019.

Date 03/10/2018 Co. name Prostar Manufacturing Inc. (Manufacturer) Signed [Signature] (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Prostar Manufacturing Inc. at 511 Curtis Ave, Pasadena, Texas, 77502, USA

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company, of Lynn, MA

have inspected the component described in this Manufacturer's Data Report on March 10, 2018, 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 03/23/2018 Signed [Signature] (Authorized Inspector) Commissions 14513, TX1922 (National Board Authorized Inspector Commission number)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Prostar Manufacturing Inc., 511 Curtis Ave, Pasadena, Texas, 77502, USA  
(Name and address of Manufacturer)

2. Manufactured for EXTERRAN, 12001, N HOUSTON ROSSLYN ROAD, HOUSTON, Texas, USA  
(Name and address of Purchaser)

3. Location of installation UNKNOWN  
(Name and address)

4. Type HORIZONTAL N/A FS-1182  
(Horizontal, vertical, or sphere) (Tank, separator, heat exch., etc.) (Manufacturer's serial number)

N/A US-98261-01-PEQ-04-001 R4 1187 2018  
(CRN) (Drawing number) (National Board number) (Year built)

Data Report  
Item Number

Remarks

Additional 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	
LEVEL GAUGE	4	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SUMP
TEMPERATURE INDICATOR	1	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SHELL
DIFF PRESSURE GAUGE	2	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SHELL
PRESSURE INDICATOR	1	2" 600#	RFLWN	SA105N		0.66"			UW16.1(c)		SHELL

Certificate of Authorization: Type "U" No. 44857 Expires January 17, 2019

Date 03/10/2018 Name Prostar Manufacturing Inc. Signed *Lehi Ram*  
(Manufacturer) (Representative)

Date 03/23/2018 Signed *Steve Gray* Commissions 14513, TX1922  
(Authorized Inspector) (National Board Authorized Inspector Commission number)

**FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)**  
 A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer  
 As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

*NB# 1187*

1. Manufactured and certified by Sypris Technologies, Inc. - Tube Turns Products, 2612 Howard Street, Louisville, KY 40211  
(Name and address of Manufacturer)

2. Manufactured for JAMISON PRODUCTS, 10344 SAM HOUSTON PARK DR, HOUSTON, TX 77064, USA  
(Name and address of Purchaser)

3. Location of installation Unknown  
(Name and address)

4. Type: 30" CL600 Horizontal Threaded Closure TH102582 N/A  
(Description of vessel part (shell, two-piece head, tube bundle)) (Manufacturer's serial number) (CRN)  
N/A 99.760-C103 R3 Sypris Technologies, Inc., Tube Turns Products 2017  
(National Board number) (Drawing number) (Drawing prepared by) (Year built)

5. ASME Code, Section VIII, Div. 1 2015 Edition N/A N/A  
(Edition and Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

6. Shell (a) Number of course(s): One (b) Overall length 13.500"  
(Special service per UG-120(d))

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (CAT. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
One	30.000" OD	13.500"	SA350 LF2 CL. 1		1.125"	0.000"	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Body Flanges on Shell's												
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Num & Size	Bolting Material	Washer	
											(OD, ID, thk)	Washer Material

7. Heads: (a) SA516 Grade 70N (b) N/A  
(Material spec. number, grade or type) (H.T. - time and temp.) (Material spec. number, grade or type) (H.T. - time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	Top	1.511"	0.000"	N/A	N/A	2 to 1	N/A	N/A	NA	X	X	S	N/A	N/A

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

8. MAWP 1480 PSI 15 PSI at max. temp. 250° F 250° F Min. design metal temp. -20° F at 1480 PSI Int / 15 PSI Ext  
(Internal) (External) (Internal) (External)

9. Impact test Yes; Head and Hub At a max test temperature of -50° F  
(Indicate yes or no and the component(s) impact tested)

10. Hydro., pneu., or comb. test pressure N/A Proof Test N/A

11. 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	
Pressure Warning	1	0.750"NC	N/A	N/A	N/A	N/A	0.0"	INTEGRAL	N/A	N/A	N/A

12. Identification of part(s)							
Name of Part	Quantity	Line No.	Mfr's Identification No.	Mfr's Drawing No.	CRN	National Board No.	Year Built

13. Supports: Skirt N/A Lugs 2 Legs N/A Other N/A Attached Welded to Hub  
(Yes or no) (Number) (Number) (Describe) (Where and how)

14. Remarks: Temperature rating is for metal parts only; use of an appropriate Lip Seal is the responsibility of the user. The closure is furnished with a Buna O-ring, which has a Temperature Rating Range of -30°F to +250°F.  
Parts were not pressure tested prior to shipment.  
The closure described in this report was designed by Sypris Technologies, Inc. - Tube Turns Products

Materials: Hub: SA350 LF2 CL. 1 (CA463) Head: SA516 Grade 70N (CHNZ)  
Pressure Warning Device Plug: SA479 Type 304

FORM U-2A (Back)

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization No. 4936 Expires March 16, 2020

Date 10-November-2017 Name Sypris Technologies, Inc. - Tube Turns Products  
(Manufacturer)

Signed [Signature]  
(Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut have inspected the pressure vessel part described in this Manufacturer's Data Report on 10 Nov 2017 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part 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 part 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 10 Nov 2017 Signed [Signature]  
(Authorized Inspector)

Commissions NB11531  
(National Board (incl. endorsements))