

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternate 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 Heatec, Inc. 5200 Wilson Rd. Chattanooga, TN 37410
(Name and address of Manufacturer)
2. Manufactured for UOP Russell Co., LLC 7050 South Yale, Ste. 210 Tulsa, OK 74136
(Name and address of Purchaser)
3. Location of installation Unknown-Ship to-Russell Warehouse 760 West Main Parkway Catoosa, OK 74015
(Name and address)
4. Type Horizontal 15-127 None 15127-ET 2788 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 None None
[Edition and Addenda, if applicable (date)] (Code Case numbers) [Special service per UG-120(d)]
6. Shell SA-516 Grade 70 .375" .0625" 53.25" 9'-5"
(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
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

7. Seams Welded, Double Butt None 70 None N/A Welded, Single/Double Butt None 65 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-516 Grade 70 (b) Material SA-516 Grade 70
(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	.3645"	.0625"	-	-	2:1	-	-	-	Concave
(b)	END	.3645"	.0625"	-	-	2:1	-	-	-	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)	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-

9. MAWP 150 psig 0 psig at max. temp. 400 F Ambient
(Internal) (External) (Internal) (External)
- Min. design metal temp. -20 F at 150 psig Hydro., pneu., or comb. test pressure 195 psig
- Proof test -

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	
Inlet / Outlet	1 ea	4" 300#	RFSO	SA-106B	SA-105	.337"	.0625"	None	Welded	Welded	Bottom
Drain	1	2" 300#	RFSO	SA-106B	SA-105	.344"	.0625"	None	Welded	Welded	Bottom
Relief Valve	1	4" 300#	RFSO	SA-106B	SA-105	.337"	.0625"	None	Welded	Welded	Top
Fill	1	3" 300#	RFSO	SA-106B	SA-105	.300"	.0625"	None	Welded	Welded	Top
Gas / Vent	1 ea	1" 3000#	Cplg.	SA-105	-	.250"	.0625"	None	Welded	-	Top
Level Switch	1	3" 300#	RFWN	SA-106B	SA-105	.300"	.0625"	None	Welded	Welded	End
Level Gauge	2	.75"	Pipe	SA-106B	-	.218"	.0625"	None	Welded	-	End

11. Supports: Skirt No Lugs 2 Legs None Other Saddle (2) Attached Welded, Shell
(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: No safety devices installed by Heatec. Safety devices by end user per UG-125. Impact testing exempt per UCS-66(b).
(Name of part, item number, Manufacturer's name and identifying stamp)

For Non-Corrosive Service.

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 20348

expires 10/01/2018

Date 12/30/15 Co. name Heatec, Inc. Signed Chin Cat
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by Heatec, Inc. at 5200 Wilson Rd. Chattanooga, TN 37410 USA

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Arise

have inspected the component described in this Manufacturer's Data Report on 12-30-15, 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 12-30-15 Signed [Signature] Commissions NB 12488A TN 3499
(Authorized Inspector) [National Board (incl. endorsements)]