

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

ITEM NO.: AC-5802-01A
P.O. NO.: 9290

1. Manufactured and certified by: GEA RAINEY CORPORATION, 5202 WEST CHANNEL ROAD, CATOOSA, OK 74015-3017
(Name and address of manufacturer)

2. Manufactured for: Turbine Air Systems, 4300 Dixie Dr., Houston, TX 77021-2704 United States

3. Location of installation: Turbine Air Systems (Unknown)
HORIZONTAL AIRFIN (Name and address)

4. Type RECTANGULAR VESSEL R-5421-1-C N/A 5190010HDR 6202 2006
(Horiz. Or vert., tank) (Mfgr'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. 2004
Year

to: 0 N/A N/A
Addenda (Date) Code Case Nos. Special Service per UG-120 (d)
Tube & Plug Sheet: RT: 1' 3/8" x 15' 9-3/4"

6. Shell: SA516-70 1" 1/8" SPAN: 0' 4-3/8" / 0' 6-5/8" FLAT: FT: 1' 5/8" x 15' 9-3/4"
Mat'l (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: CORNER JOINT NONE 100% 1150 1 Hr. N/A N/A N/A
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (F) Time (hr.) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial, of Full) No. of Courses

8. Heads: (a) Mat'l SA516-70 (b) Mat'l SA516-70
(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	TOP & BOTTOM	1/2"	1/8"	SPAN:	0' 4"	N/A	N/A	N/A	*	N/A
b	END PLATES	1/2"	1/8"	SPAN:	0' 4"	N/A	N/A	N/A	**	N/A

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

9. MAWP 381 PSI AT MAX. TEMP. 200
Min. design metal temp. -20 F at 381 psi. Hydro., pneu. Or comb. test pressure 496 psi.

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Material	Nom. Thk.	Reinforcement Material	How Attached	Location (Header)
INLET/ OUTLET	4 / 4	4"-300#	RFWN / PIPE	SA105 / SA106-B	SCH.160	INTEGRAL	UW16.1(a)	FRONT HEADER
VENT / DRAIN	1 / 1	1"-6000#	COUPLING	SA105	-----	INTEGRAL	UW16.1(a)	REAR HEADER

11. Supports: Skirts N/A LUGS N/A LEGS N/A OTHER CLAMPED Attached: BOLTED TO FRAME
(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: _____
(Name of part, item number, Mfgr's. name, and identifying stamp)

TUBES: (358) SA-214 1" O.D. x 0.083" M.W. x 60' 0" --STRAIGHT
BUNDLE: (5) ROWS (4) PASS 0' 3-3/4" x 15' 9-3/4"
"CHARPY IMPACT EXEMPT PER: UG-20(f) & UCS-66(c)" **FT: 0' 3-3/4" x 0' 11-3/8" **RT: 0' 3-3/4" x 0' 11-1/8"
"CONSTRUCTED IN ACCORDANCE WITH APPENDIX 28" "UT PER CUSTOMER SPECIFICATIONS"

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. 12007 expires 3-Jun 2008
Date: 5/16/06 Co. name: GEA RAINEY CORPORATION Signed Renee Weeks
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by GEA RAINEY CORP., 5202 W. CHANNEL RD. at PORT OF CATOOSA, OK 74015-3017
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 OKLAHOMA and employed by SENECA INSURANCE COMPANY OF TEXAS
have inspected the component described in this Manufacturer's Data Report on 5/19/06 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: 6/16/06 Signed: [Signature] Commissions N.B. 12736A OK914
(Authorized Inspector) (Nat'l Board (incl. endorsements,) State, Prov. and No.)