

**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

②436199

1. Manufactured and Certified by: Alberta Custom Pipe Bending & Manufacturing Limited, 2220-70 Ave. Edmonton, Ab. T6P 1N6
2. Manufactured for: Thermo Design Engineering Ltd, 1624-70 Avenue, Edmonton, AB.
3. Location of Installation: STOCK
4. Type: Horizontal      6431V      N-8418 2      9037-0220-201 Rev 3      1997  
(Orientation)      (Mfg's Serial No.)      (CRN Number)      (Drawing Number)      (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  
1995 Edition to 1996  
Addenda (Date)      Code Case Nos.      Special Service per UG-120 (f)
6. Shell: SA-516-70N      2.0"      1/16"      3' 8"      17' 10 1/4"  
Matl. (Spec No., Grade)      Nom. Thk. (in.)      Corr. Allow. (in.)      Diam. I.D. (ft. & in.)      Length (overall) (ft. & in.)
7. Seams: Double Butt      Full      100%      1150      2.0      Double Butt      Full      2  
Long. (Welded, DBL, Sngl., Lap, Butt)      R.T. (Spot, Partial, or Full)      E.D. (%)      H.T. Temp. (F)      Time (hr)      Grth. (Welded, DBL, Sngl., Lap, Butt)      R.T. (Spot, Partial, or Full)      No. of Courses
8. Heads: (a) Matl. SA 516-70N      (b) Matl. SA 516-70N  
(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 Ends	1.970"	0.0625"			2:1				Concave
b Sump Head	0.720"	0.0625"			2:1				Concave

If removable, bolts used (describe other fastenings)

9. MAWP 1300 psi at max. temp. 150 degree F.  
 Min. design metal temp. -20 degree F at 1300 psi. Hydro., pneu., or comb. Test pressure 1950 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
Manway	M1	20"	Nozz.	SA 516-70N	7/8"	SA 516-70N	UW 16.1(C) without BS	Head
Inlet	N1	8"	Nozz.	SA 106-B	Sch 80	SA 516-70N	UW 16.1(C) without BS	Shell
Outlet	N2	8"	Nozz.	SA 106-B	Sch 80	SA 516-70N	UW 16.1(C) without BS	Shell
Dump	N3	3"	Nozz.	SA-106-B	Sch 160	SA 516-70N	UW 16.1(C) without BS	Shell

11. Supports: Skirt- No      Lugs- Two      Legs- Yes      Other- Attached- Welded to Shell  
(Type 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: Vessel is impact tested per UCS-66  
Capacity 162 Cubic Feet. Built to drawing 9037-0220-201 Rev. 3 Radiography to UW-11(a) Inlet Separator

**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. 26,764 expires Dec. 21, 1998.  
 Date Oct 15, 97 Co. name Alberta Custom Pipe Bending & Mfg. Ltd. Signed [Signature]  
(Manufacturer)      (Representative)

Vessel constructed by Alberta Custom Pipe Bending & Manufacturing Ltd. at 2220-70 Ave. Edmonton, Ab. T6P 1N6  
 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 Alberta and employed by Alberta Boilers Safety Association have inspected the component described in this Manufacturer's Data Report on Oct 16/97, 1997, 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 97-10-16 Signed [Signature] Commissions Alberta 39R

(A)436199

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Code Rules, Section VIII, Division I

- 1 Manufactured and certified by Alberta Custom Pipe Bending & Mfg. Ltd.
- 2 Manufactured for Thermo Design Engineering Ltd. 1624-70 Avenue, Edmonton, AB
- 3 Location of Installation Stock
- 4 Type: Horizontal Separator 6431V  
(Horiz., vert. or sphere) (Tank, separator, heat exch., etc.) (Mfg. s. serial No.)  
N-8418.2 9037-0220-201 Rev 3 1997  
(CRN) (Drawing No.) (Nat'l Bd. No.) (Year Built)

Data Report Item Number		Remarks
C1	Outlet	1 1/2" 6000# NPT F.S. FULL CPLG in Shell
C2	Outlet	1 1/2" 6000# NPT F.S. FULL CPLG in Shell
C3 A/B	LC	1 1/2" 6000# NPT F.S. FULL CPLG in Shell
C4 A/B	LC	1 1/2" 6000# NPT F.S. LONG CPLG in Shell
C5	Drain	1 1/2" 6000# NPT F.S. FULL CPLG in Shell
C6 A/B	LSH	1" 6000# NPT F.S. LONG CPLG in Shell
C7 A/B	LG	3/4" 6000# NPT F.S. LONG CPLG in Shell
C8 A/B	LG	3/4" 6000# NPT F.S. LONG CPLG in Shell
C9	TI	3/4" 6000# NPT F.S. LONG CPLG in Shell
C10	PI	3/4" 6000# NPT F.S. LONG CPLG in Shell

Certificate of Authorization Type "U" No 26,764 Expires December 21, 1998

Date Oct 15, 97 Name Alberta Custom Pipe Bending & Mfg. Ltd. Signed [Signature]  
(Representative)

Date 97-10-16 Name [Signature] Commission Alberta 39R  
(Authorizing Inspector) (Nat'l Board incl. endorsement, State, province)