

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

CO/N: 7892

1. Manufactured and certified by CHIL-CON PRODUCTS LTD., 54 SPALDING DR., BOX 1385, BRANTFORD, ONT. N3T 5T6
(Name and address of manufacturer)

2. Manufactured for ARCTIC REFRIGERATION INC., 4930 LITTLE COURT, ELLICOTT CITY, MD 21043
(Name and address of purchaser)

3. Location of installation SAME @ 2330 HOLLINS ST., BALTIMORE, MD 21223
(Name and address)

4. Type HORIZ C-910339A-1 C-910339A REV.0 2733 1991
(Horiz. or vert., tank) (Mfr's serial No.) (CRN) (Drawing) (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 1989
Year

A 90 --- ---
Addenda (date) Code Case No. Special service per UG-120(d)

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers

6. Shell: SA 53B 1/4" NIL 12-3/4" O.D. 142-1/8"
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft & in.) (Length (Overall))(ft & in.)

7. Seams: ERW PIPE NONE 85% ---
Long. (Dbl., Sngl.) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F)

--- SNGL. BUTT C/W BACKING NONE 1
Time Girth (Dbl., Sngl.) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. --- (b) Matl. ---
(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)	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---

If removable, bolts used (describe other fastenings) ---
(Matl., Spec. No., Gr., Size, No.)

9. Type of Jacket --- Proof Test ---

10. Jacket Closure --- If bar, give dimensions --- If bolted, describe or sketch. ---
(Describe as ogee & weld, bar, etc.)

11. MAWP 250 psi at max. temp. 200 °F. Min. design metal temp. -20 °F at 250 psi.
 Hydro., ~~XXXXXX~~ test press. 375 psi.

Items 12 and 13 to be completed for tube sections

12. Tubesheets: SA 240 304 L 12-1/4" 3/4" NIL WELDED
Stationary Matl. (Spec. No., Gr.) Diam. (in.) (Subject to pressure) Nom. Thk. (in.) Corr. Allow. (in.) Attach. (Welded, Bolted)

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Floating Matl. (Spec. No., Gr.) Diam. (in.) Nom. Thk. (in.) Corr. Allow. (in.) Attach.

13. Tubes: SA 249 TP 304 L 3/4" .049" 101 STRAIGHT
Matl. (Spec. No., Gr.) O.D. (in.) Nom. Thk. (in. or Gauge) Number Type (Straight or "U")

Items 14-17 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers

14. Shell: --- --- --- --- ---
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft & in.) Length (Overall)(ft & in.)

15. Seams: --- --- --- --- ---
Long. (Dbl., Sngl.) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F)

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Time Girth (Dbl., Sngl.) R.T. (Spot, Partial, or Full) No. of Courses

16. Heads: (a) Matl. --- (b) Matl. ---
(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)	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---

If removable, bolts used (describe other fastenings) ---
(Matl., Spec. No., Gr., Size, No.)

17. MAWP --- psi at max. temp. --- °F. Min. design metal temp. --- °F at --- psi.
 Hydro., pneu., or comb. test press. --- psi.

Form U-1 (Back)

18. Nozzles, Inspection and Safety Valve Openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matd.	How Attached	Location
OUTLET	3	5"	W.E.	SA 106B	SCH.40	---	WELD	---
INLET	2	1-1/4"	SCRD CPLG	SA 105	3000 LB	---	WELD	---
FLOAT	2	1"	SCRD CPLG	SA 105	3000 LB	---	WELD	---
DRAIN	1	3/4"	SCRD CPLG	SA 105	3000 LB	---	WELD	---

19. Supports: Skirt --- Lugs --- Legs --- Other SADDLES (2) Attached BOTTOM/WELD
(Yes or no) (No.) (No.) (Describe) (Where and how)

20. 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, mfg's. name and identifying stamp)

UG-46 (a)

NO IMPACT TESTS REQ'D AS PER UCS-66 (a)

TUBE SIDE: WATER, BRINE OR GLYCOL SERVICE NON-CODE

TUBE SIDE: MAWP: 150 PSIG @ 150°F MDMT: -20°F @ 150 PSIG

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. 17101 expires NOVEMBER 16, 19 93
 Date Sept 30/91 Co. name CHIL-CON PRODUCTS LTD. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by CHIL-CON PRODUCTS LTD. at BRANTFORD, ONTARIO, CANADA

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 ONTARIO and employed by M.C.C.R.

of _____ have inspected the pressure vessel described in this Manufacturer's Data Report on 27/9/91, 19 91, 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 the 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 7/10/91 Signed Robert E. Blakemore Commissions 59 NB 8944
(Authorized Inspector) (Nat'l Board, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.

"U" Certificate of Authorization No. _____ expires _____, 19 _____.

Date _____ Co. name _____ Signed _____
(Assembler that certified and constructed field assembly) (By Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

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 _____ and employed by _____

of _____ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the

certificate of shop inspection, have been inspected by me and that, to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi. 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 _____ Signed _____ Commissions _____
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov., and No.)