

Xebec

Xebec Inc.

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Sécheur No / Job #

22517

***Certificats du manufacturier inclus
Manufacturer's Certificate of Compliance
included***

FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE
COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, [SEE U-1(j)]
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by XEBEC ADSORPTION INC. 730 BOULEVARD INDUSTRIEL BLAINVILLE QUEBEC J7C 3V4 CANADA
(Name and address of Manufacturer)

2. Manufactured for UNKNOWN, USA
(Name and address of Purchaser)

3. Location of installation UNKNOWN, USA
(Name and address)

4. Type Horizontal BLOWER HOUSING 3.2 cu. ft. H033
(Horizontal, vertical, or sphere) (Tank, separator, etc.) (Capacity) (Manufacturer's serial number)
NONE 5V301713 REV.25 3531 2010
(CRN) (Drawing number) (National Board Number) (Year built)

5. ASME Code, Section VIII, Div. 1 2007 Edition, 2009 Addenda NONE
(Edition and Addenda (date)) (Code Case number)

6. Shell: (a) Number of course(s) 1 (b) Overall length 2 ft. 11 in.
(Code Case number)

No.	Course(s)		Material Spec./Grade or Type	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, and C)			Heat Treatment	
	Diameter	Length		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	14"	2 ft. 11 in.	SA 53 GR.B ERW	0.250"	0.063"	ERW	None	85	2/7	None	65	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) SA105 (b) SA516 GR.70
(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)	LEFT END	CL150	0.063"	-	-	-	-	-	14"	-	X	-	-	-
(b)	RIGHT END	0.227"	0.063"	14"	15/16"	-	-	-	-	-	X	-	-	-

If removable, bolts used (describe other fastening) 12 STUDS 1" 8 UNC SA193 B7 & 24 HEX NUTS 1" 8 UNC SA 194 2H
(Material spec. number, grade, size, number)

8. Type of Jacket - Jacket closure -
(Describe as ogee & weld, bar, etc.)

If bar, give dimensions; if bolted, describe or sketch

9. MAWP 240 PSI NONE at max. temp. 200 F NONE Min. design metal temp. -20 F at 240 PSI
(Internal) (External) (Internal) (External)

10. Impact test N/A IN ACCORDANCE WITH UG-20(f) at test temperature of -
(Indicate yes or no and the component(s) impact tested)

11. Hydro., ~~P.R.V.~~ test pressure 312 PSI Proof test -

12. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Inlet / Outlet	1	1 1/2"	PIPE	SA 106 B	-	SCH 160	0.063"	-	UW16 c)1)	-	-
Inlet / Outlet	1	1 1/2"	PIPE	SA 106 B	-	SCH 160	0.063"	-	UW16 d)	-	-
Electrical entry	1	1 1/2"	H.CPLG	SA105	-	CL.3000	0.063"	-	UW16 c)1)	-	-
Drain	1	1/2"	H.CPLG	SA105	-	CL.6000	0.063"	-	UW16 f)3)a)	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

13. Supports: Skirt NONE Lugs NONE Legs 3 SADDLES Others 1 HANDLE + 1 BRKT Attached WLD TO SHELL & HEADS
(Yes or no) (No.) (No.) (Describe) (Where and how)

14. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name and identifying number):
-
-

15. Remarks HYDRO TEST IN HORIZONTAL POSITION; P.R.V. IS PROVIDED ELSEWHERE IN THE SYSTEM BY THE END USER;
14" CLASS 150 ASME B16.5 RF SO FLANGE, MAT'L SA 105, WELDED TO SHELL;

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

UM Certificate of Authorization Number 23,542 Expires 07/15/11

Date 23 SEP 2010 Name XEBEC ADSORPTION INC. Signed [Signature]
(Manufacturer) (Representative)

Signed [Signature]
(Certified Individual)

FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE
COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, [SEE U-1(j)]
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by XEBEC ADSORPTION INC. 730 BOULEVARD INDUSTRIEL BLAINVILLE QUEBEC J7C 3V4 CANADA
(Name and address of Manufacturer)

2. Manufactured for W. CLAIRE ENERGY CORP., 401, 100 - 4TH AVENUE SW, CALGARY, ALBERTA, T2P 3N2, CANADA
(Name and address of Purchaser)

3. Location of installation UNKNOWN, SASKATCHEWAN, CANADA
(Name and address)

4. Type Vertical HEATER HOUSING 0.78 cu. ft. H034
(Horizontal, vertical, or sphere) (Tank, separator, etc.) (Capacity) (Manufacturer's serial number)
NONE V209588 R.00 3527 2010
(CRN) (Drawing number) (National Board Number) (Year built)

5. ASME Code, Section VIII, Div. 1 2007 Edition, 2009 Addenda NONE
(Edition and Addenda (date)) (Code Case number)

6. Shell: (a) Number of course(s) 1 (b) Overall length 5 ft.6.250 in.
(Code Case number)

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, and C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	5.563	5 ft.6.250 in.	SA106 GR.B		0.258"	0.063"	SMLS	None	85	1/7	None	70	-	-
2	-	-	-		-	-	-	-	-	-	-	-	-	-
3	-	-	-		-	-	-	-	-	-	-	-	-	-

7. Heads: (a) SA105 (FOR HYDROTEST ONLY)* (b) SA234 WPB
(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)	BOTTOM	CL150	0.063"	-	-	-	-	-	5"	-	X	-	-	-
(b)	TOP	0.226"	0.063"	-	-	2:1	-	-	-	-	X	-	-	-

If removable, bolts used (describe other fastening) _____

8. Type of Jacket _____ Jacket closure _____
(Material spec. number, grade, size, number) (Describe as ogee & weld, bar, etc.)

If bar, give dimensions; if bolted, describe or sketch _____

9. MAWP 150 PSI NONE at max. temp. 500 F NONE Min. design metal temp. -20 F at 150 PSI
(Internal) (External) (Internal) (External)

10. Impact test NO, IN ACCORDANCE WITH UG-20 f at test temperature of _____
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test pressure 195 PSI Proof test _____

12. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Inlet/Outlet	1	1 1/2"	PIPE	SA106 B	-	SCH 80	0.063"	-	UW16 c)1)	-	-
Inlet/Outlet	1	1 1/2"	H.CPLG	SA105	-	CL.3000	0.063"	-	UW16f)3)a)	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

13. Supports: Skirt No Lugs - Legs - Others 1 INS. RING & 2 BRAKETS Attached WLD TO CPLG & SO FLG 5"
(Yes or no) (No.) (No.) (Describe) (Where and how)

14. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name and identifying number):

15. Remarks HYDRO TEST IN HORIZONTAL POSITION; P.R.V. IS PROVIDED ELSEWHERE IN THE SYSTEM BY THE END USER;
5" CLASS 150 ASME B16.5 RF SO FLANGE MAT'L SA-105, WLD TO SHELL; 1 1/2" CLASS 150 ASME B16.5 RF SW FLANGE SA-105 WELDED TO NOZZLES;

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

UM Certificate of Authorization Number 23,542 Expires 07/15/11

Date 23 SEP. 2010 Name XEBEC ADSORPTION INC.

Signed [Signature]
(Representative)

Signed [Signature]
(Certified Individual)

**FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE
COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, [SEE U-1(j)]
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1**

1. Manufactured and certified by XEBEC ADSORPTION INC. 730 BOULEVARD INDUSTRIEL BLAINVILLE QUEBEC J7C 3V4 CANADA
(Name and address of Manufacturer)

2. Manufactured for W. CLAIRE ENERGY CORP., 401, 100 - 4TH AVENUE SW, CALGARY, ALBERTA, T2P 3N2, CANADA
(Name and address of Purchaser)

3. Location of installation UNKNOWN, SASKATCHEWAN, CANADA

4. Type Horizontal Seperator 1.46 cu.ft H035
(Horizontal, vertical, or sphere) (Tank, separator, etc.) (Capacity) (Manufacturer's serial number)
N/A 5V301975 REV.13 3525 2010
(CRN) (Drawing number) (National Board Number) (Year built)

5. ASME Code, Section VIII, Div. 1 2007 Edition, 2009 Addenda NONE
(Edition and Addenda (date)) (Code Case number)

6. Shell: (a) Number of course(s) 1 (b) Overall length 2 ft. 2.000 in.
(Code Case number)

Course(s) No.	Diameter	Length	Material Spec./Grade or Type	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, and C)			Heat Treatment	
				Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	10.750"	2 ft. 2.000 in.	SA53 GR.B	0.250"	0.063"	ERW	None	85	2	None	65	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) SA516 GR.70 (b) SA516 GR.70
(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) RIGHT END	0.180"	0.063"	10 3/4"	3/4"	-	-	-	-	-	X	-	-	-
(b) LEFT END	0.180"	0.063"	10 3/4"	3/4"	-	-	-	-	-	X	-	-	-

If removable, bolts used (describe other fastening)

8. Type of Jacket _____ Jacket closure _____
(Material spec. number, grade, size, number) (Describe as ogee & weld, bar, etc.)

9. MAWP 240 PSI NONE at max. temp. 200 F NONE Min. design metal temp. -20 F at 240 PSI
(Internal) (External) (Internal) (External)

10. Impact test NO, IN ACCORDANCE WITH UG-20(f) at test temperature of _____
(Indicate yes or no and the component(s) impact tested) Proof test

11. Hydro., ~~penet.~~ or ~~radiog.~~ test pressure 312 PSI
Proof test

12. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Inlet / Drain	2	3/4"	F.CPLG	SA105	-	CL3000	0.063"	-	UW16 f(3)a)	-	SHELL
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

13. Supports: Skirt NONE Lugs NONE Legs 2 SADDLES Others NONE Attached WELDED TO SHELL
(Yes or no) (No.) (No.) (Describe) (Where and how)

14. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name and Commissioning number):

15. Remarks HYDRO TEST IN HORIZONTAL POSITION; P.R.V. IS PROVIDED ELSEWHERE IN THE SYSTEM BY THE END USER;

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

UM Certificate of Authorization Number 23,542 Expires 07/15/11

Date 09/20/10 Name XEBEC ADSORPTION INC. Signed _____
(Manufacturer) (Representative)

Signed *Erich...*
(Certified Individual)

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

1. Manufactured and certified by XEBEC ADSORPTION INC. 730 BOULEVARD INDUSTRIEL BLAINVILLE QUEBEC J7C 3V4 CANADA
(Name and address of Manufacturer)

2. Manufactured for W. CLAIRE ENERGY CORP., 401, 100 - 4TH AVENUE SW, CALGARY, ALBERTA, T2P 3N2, CANADA
(Name and address of Purchaser)

3. Location of installation UNKNOWN, SASKATCHEWAN, CANADA
(Name and address)

4. Type Vertical H032 NONE V209514 REV.00 3530 2010
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board 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
2007 Edition
Year

to 2009 Addenda NONE NONE
[Addenda (date)] (Code Case numbers) [Special service per UG-120(d)]

6. Shell SA 53 GR.B 0.250" 0.063" 1 ft. 11.500 in. 4 ft. 5.375 in.
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) [Length (overall)]

7. Seams ERW None 85 NONE - TYPE 2 None 65 1
[Long. (welded, dbl., snl., lap, butt)] [R. T. (spot or full)] (Eff. %) (H. T. temp.) (Time, hr) [Girth (welded, dbl., snl., lap, butt)] [R. T. (spot or full)] (Eff. %) (No. of courses)

8. Heads: (a) Material SA 516 GR.70 (b) Material SA 516 GR.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	0.221"	0.063"	-	-	2:1	-	-	-	CONCAVE
(b) BOTTOM	0.221"	0.063"	-	-	2:1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) NONE
(Material spec. number, grade, size, number)

9. MAWP 150 PSI NONE at max. temp. 500 °F NONE
(Internal) (External) (Internal) (External)

Min. design metal temp. -20 °F at 150 PSI Hydro., ~~proof~~ or ~~snatch~~ test pressure 195 PSI
Proof test

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	Number	Diameter or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached	Location
Inlet / Outlet	2	2"	H.CPLG	SA 105	CL.3000	NONE	UW16 f)3)a)	-
Fill / Drain	2	2"	H.CPLG	SA 105	CL.3000	NONE	UW16 f)3)a)	HEADS
Instrument	1	1/2"	H.CPLG	SA 105	CL.6000	NONE	UW16 f)3)a)	-

11. Supports: Skirt No Lugs 2 LIFTING LUGS Legs 2 Other 2 INSULATION RINGS Attached WELDED TO HEADS
(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: -
(Name of part, item number, Manufacturer's name and identifying stamp)

HYDRO TEST IN VERTICAL POSITION; P.R.V. IS PROVIDED ELSEWHERE IN THE SYSTEM BY THE END USER ; IMPACT TEST NOT REQ'D PER UG-20(f);

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 23,541

expires 07/15/12
 Date 24 SEP 2010 Co. name XEBEC ADSORPTION INC. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by XEBEC ADSORPTION INC. at 730 BOULEVARD INDUSTRIEL BLAINVILLE, QUEBEC J7C 3V4 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 Québec and employed by Régie du Bâtiment du Québec

have inspected the component described in this Manufacturer's Data Report on 09/22/10, 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 24 SEP 2010 Signed [Signature] Commissions G. NOEL DE TILLY QC # 12633
(Authorized Inspector) (National Board (incl. endorsements), State, Province, and number)