

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

1/2

1 Manufactured and certified by Paul Mueller Company 1600 W. Phelps-P.O. Box 828-Springfield, MO. 65801
(Name and address of Manufacturer)

2 Manufactured for ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
(Name and address of Purchaser)

3 Location of installation ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
(Name and address)

4 Type: VERTICAL VESSEL 197080 ---- PC09757D REV E 27524 1997
(Horiz., vert., or sphere) (Tank, separator, jkt. vessel, heat exh., etc.) (Mfg's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)

5. ASME Code, Section VIII, Div. 1 1995 A96 2148 ----
Edition and Addenda (date) Code Case No. Special Service per UG-120(d)

11-26-97
PDC 11-26-97

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

6 Shell (a) No. of course(s): 8 TURNS (b) Overall length (ft & in.): 3' 2.5"

No	Course(s)		Material Spec./Grade or Type	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
	Diameter, in.	Length (ft. & in.)		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	3"	3' 2.5"	SA240 304L	.136"	0	NA	NA	NA	NA	NA	NA	NA	NA

7 Heads (a) SA312 304L (b) SA240 304L
(Mat'l Spec. No., Grade or Type) H.T.-Time & Temp (Mat'l Spec. No., Grade or Type) H.T.-Time & 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
(a) TOP	.136"	0	3"	----	----	----	----	X	X	NA	NA	NA	NA
(b) BOTTOM	.5"	0	----	----	----	----	144.875	X	X	1	FULL	100%	

If removable, bolts used (describe other fastening) _____
(Mat'l Spec. No., Grade, size, No.)

8 Type of jacket APPENDIX 9, TYPE 3 Jacket closure (D-1)
(Describe as ogee & weld, bar, etc.)

If bar, give dimensions 1.75 X 2.75 If bolted, describe or sketch

9 MAWP 150 14.7 psi at max. temp. 370 370 °F Min. design metal temp. -20 °F at 150 psi
(internal) (external) (internal) (external)

10 Impact test NO, CHARPY IMPACT TEST EXEMPT PER UHA-51(d)(e)
(Indicate yes or no and the component(s) impact tested)

11 Hydro pneu. or comb. test press 241 Proof test _____
Items 12 and 13 to be completed for tube sections.

12 Tubesheet

Stationary (Mat'l Spec. No.)	Dia., in. (subject to press.)	Nom. thk., in.	Corr. Allow., in.	Attachment (welded or bolted)
_____	_____	_____	_____	_____
Floating (Mat'l Spec. No.)	Dia., in.	Nom. thk., in.	Corr. Allow., in.	Attachment
_____	_____	_____	_____	_____

13 Tubes

* Mat'l Spec. No., Grade or Type	O.D., in.	Nom. thk., in. or gauge	Number	Type (Straight or U)
_____	_____	_____	_____	_____

Items 14 - 18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14 Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): 3' 9.6875"

No	Course(s)		Material Spec./Grade or Type	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
	Diameter in.	Length (ft. & in.)		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	144.875"	3' 9.6875"	SA240 304L	.375"	0	1	FULL	100	1	SPOT	85%	----	----

15 Heads (a) SA240 304L (b) SA240 304L
(Mat'l Spec. No., Grade or Type) H.T.-Time & Temp (Mat'l Spec. No., Grade or Type) H.T.-Time & 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
(a) TOP	.498"	0	146.125"	9"	----	----	----	X	X	1	FULL	100%	
(b) BOTTOM	.484"	0	----	----	----	----	144.875"	X	X	1	FULL	100%	

If removable, bolts used (describe other fastening) _____
(Mat'l Spec. No., Grade, Size, No.) RR 1026.10

16 MAWP 60 14.7 psi at max. temp. 370 370 of Min. design metal temp. -20 F at 60 psi.
 (internal) (external) (internal) (external)

17 Impact test NO, CHARPY IMPACT TEST EXEMPT PER UHA-51(d)(e)
 (Indicate yes or no and the component(s) impact tested)

18 Hydro. pneu. or comb. test press. 96 Proof test

19 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	Norm.	Corr.		Nozzle	Flange	
SPRAYWASH	3	3"	CL150SOFLG	SA312 304L	SA182 304L	SCH40	0	SA240 304L	UW16.1(Q)	UW16.1(K)	----
PRESS GAS	1	1.5"	CL150SOFLG	SA312 304L	SA182 304L	SCH40	0	----	UW16.1(C)	UW16.1(K)	----
PROD INLET	1	3"	CL150SOFLG	SA312 304L	SA182 304L	SCH40	0	SA240 304L	UW16.1(Q)	UW16.1(K)	----
PRESS GAUGE	1	2"	CL150SOFLG	SA312 304L	SA182 304L	SCH40	0	----	UW16.1(C)	UW16.1(K)	----
PRESS REL UNK	1-1	6"	CL150SOFLG	SA312 304L	SA182 304L	SCH40	0	SA240 304L	UW16.1(Q)	UW16.1(K)	----
LIGHT CONN.	2	2"	CL150PADFLG	----	SA240 304L	1.835"	0	----	----	UW16.1(C)	----
SIGHT GLASS	1	6"	PADFLG	----	SA240 304L	1.625"	0	----	----	UW16.1(C)	----

20 Supports: Skirt YES Lugs --- Legs --- Others --- BASE RING Attached --- BY WELD TO SHELL
 (Yes or No) (No.) (No.) (No.) (Describe) (Where and How)

21 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, mfg's. name and identifying number)

NONE

22 Remarks: SEE ATTACHED U-4.

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. 5594 Expires OCTOBER 27, 19 98

Date 11/26/97 Name Paul Mueller Company
 (Manufacturer)

Signed Russell D. Corpe Land
 (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of MISSOURI and employed by COMMERCIAL UNION INSURANCE COMPANY of BOSTON MA have inspected the pressure vessel described in this Manufacturer's Data Report on 11-26, 19 97, 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 11-26-97 Signed Frank Hamtch
 (Authorized Inspector)

Commissions NB#11474A MOC254
 (Nat'l Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1,

U Certificate of Authorization No. _____ Expires _____, 19 _____

Date _____ Name _____
 (Assembler)

Signed _____
 (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 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 to the best of my knowledge was inspected and subjected to a hydrostatic test of _____ psi. By signing this certificate neither the Inspector nor his employer makes any warranty, and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel 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 _____
 (Authorized Inspector)

Commissions _____
 (Nat'l Board incl. endorsement, State, Province and No.)

7/2

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by PAUL MUELLER COMPANY 1600 W PHELPS PO BOX 828 SPRINGFIELD MO 65801
(Name and address of Manufacturer)

2. Manufactured for ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
(Name and address of Purchaser)

3. Location of installation ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
(Name and address)

4. Type: VERTICAL VESSEL 197080
(Name, vert. or sphere) (Tank, separator, heat exch., etc.) (Mfg. serial No.)

--- PC09757D REV E 27524 1997
(CRN) (Drawing No.) (Ver'l. Ed. No.) (Year built)

RD 11/26/97
26-97

Data Report Item Number	Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Metals	How Attached		Location (Inlet, Outlet)
					Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
SAMPLE		2	2"	PADFLG	--	SA479 304L	.69	0	---	--	UW16.1(C)	--
BALANCE LINE		1	1.5"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	---	UW16.1(C)	UW16.1(K)	--
SPARE W/BLIND		1	4"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	SA240 304L	UW16.1(Q)	UW16.1(K)	--
DUST FILTER		1	12"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	SA240 304L	UW16.1(Q)	UW16.1(K)	--
INSPECTION		1	26"	MANWAY	SA240 304L	--	.50"	0	SA240 304L	UW16.1(Q)	--	TOP HEAD
H. P. OUTLET/H.P. INLET		2-2	3"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	---	UW12(1)	UW16.1(K)	--
AGITATOR		1	13.75"	PADFLG	--	SA240 304L	2.86"	0	---	--	UW16.1(C)	--
VENT		1	2"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	---	UW16.1(C)	UW16.1(K)	--
MTBE/MEOH		1	2"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	---	UW16.1(C)	UW16.1(K)	--
SIDE DISCHARGE		1	15.748"	PADFLG	--	SA182 304L	3.070"	0	---	--	UW16.1(C)	--
SLURRY OUTLET		1	3.856"	PADFLG	--	SA479 304L	2.822"	0	---	--	UW16.1(C)	--
FILTRATE OUTLET		10	1.5"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	---	UW16.1(C)	UW16.1(K)	--
INLET/OUTLET		2-2	3"	CL150SOF LG	SA312 304L	SA182 304L	SCH40	0	SA240 304	UW16.1(Q)	UW16.1(K)	--

VESSEL IS A 10M2 SIDE DISCHARGE FILTER DRYER WITH HALF PIPE HTS ON SHELL AND TOP HEAD AND HTS JACKET ON BOTTOM HEAD. VESSEL WAS HYDROSTATICALLY TESTED IN THE VERTICAL POSITION. ONE THERMOWELL SA479 304L WELDED IN THE SHELL. BOTTOM HEAD SA240 304L IS FLAT SUPPORTED BY 6, SA36 I-BEAMS WELDED TO HEAD AND SHELL EXT. *SIGHT GLASS IS WELDED IN MANWAY COVER. BOTTOM HEAD WELDED TO SHELL FULL PENETRATION CORNER JOINT, SIMILAR TO UW13.2(f). PROOF TEST FOR TOP HEAD BY BURST - 3/24/86. PROOF TEST FOR SHELL BY BURST - 2/2/90.

Certificate of Authorization: Type U No. 5594 Expires OCTOBER 27 19 98

Date 11/26/97 Name PAUL MUELLER COMPANY Signed Russell D Copeland
(Manufacturer) (Representative)

Date 11-26-97 Name Frank Hamtak Commission NB#11474A MOCAS4
(Authorized Inspector) (Not in Board incl. endorsement, State, Province and Nat.)