

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

1/3

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 FORSYHT PARK DRIVE CHARLOTTE NC 28273
(Name and address)

4 Type VERTICAL VESSEL 197088 ---- PC09742D REV D 27477 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 A95 2148 -----
Edition and 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, 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 (Mat'l Spec. No., Grade or Type) H.T.-Time & Temp

(b) SA240 304L (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
(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 316L	.375"	0	1	FULL	100	1	SPOT	100	----	----

15 Heads (a) SA240 316L (Mat'l Spec. No., Grade or Type) H.T.-Time & Temp

(b) SA240 316L (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 °F Min. design metal temp. -20 F at 60 psi.
 (internal) (external) (internal) (external)

17 Impact test **NO, CHARPY IMPACT TEST EXEMPT PER UHA-51(a)**

(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	Nom.	Corr.		Nozzle	Flange	
SPRAYWASH	3	3"	CL150SOFLG	SA312 316L	SA182 316L	SCH40	0	SA240 316L	UW16.1(Q)	UW16.1(K)	----
PRESS. GAS	1	1.5"	CL150SOFLG	SA312 316L	SA182 316L	SCH40	0	----	UW16.1(C)	UW16.1(K)	----
PROD. INLET	1	3"	CL150SOFLG	SA312 316L	SA182 316L	SCH40	0	SA240 316L	UW16.1(Q)	UW16.1(K)	----
PRESS. GAUGE	1	2"	CL150SOFLG	SA312 316L	SA182 316L	SCH40	0	----	UW16.1(C)	UW16.1(K)	----
PRESS. REL. UNK	1-1	6"	CL150SOFLG	SA312 316L	SA182 316L	SCH40	0	SA240 316L	UW16.1(Q)	UW16.1(K)	----
LIGHT CONN.	2	2"	CL150PADFLG	----	SA240 316L	1.835"	0	----	----	UW16.1(C)	----
SIGHT GLASS	1	6"	PADFLG	----	SA240 316L	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 11-4-97 Name Paul Mueller Company Signed [Signature]
 (Manufacturer) (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 11-4, 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 11-4-97 Signed [Signature] Commissions NB#11474A MD C254
 (Authorized Inspector) 192 (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 Signed
 (Assembler) (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 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, 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. endorsement, State, Province and No.)

2/2

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
2. Manufactured for ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
3. Location of installation ROSENMUND INC. 9110 FORSYTH PARK DRIVE CHARLOTTE NC 28273
4. Type: VERTICAL VESSEL 197088
PC09742D REV D 27477 1997

Table with columns: Purpose (Unit, Diameter or Size, Range Type, Material, Nozzle, Flange, Nozzle Thickness, Cor., Reinforcement, Material, How Attached, Location). Rows include SAMPLE, BALANCE LINE, SPARE W/BLIND, DUST FILTER, INSPECTION, H.P. OUTLET/H.P. INLET, AGITATOR, VENT, MTBE/MEOH, SIDE DISCHARGE, SLURRY OUTLET, FILTRATE OUTLET, INLET/OUTLET.

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 316L 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 1998
Date 11-4-97 Name PAUL MUELLER COMPANY
Date 11-4-97 Name Frank Hantak Commission NB# 11474A MO C254