

1. Manufactured and certified by ROBEN mfg. Co. Inc. 760 Vassar Ave., Lakewood, NJ, 08701 XYB23500 7064213T3644
(Name and address of Manufacturer)
2. Manufactured for HOFFMAN-LaROCHE INC. 206 ROCHE DRIVE BELVIDERE, NJ 07823
(Name and address of Purchaser)
3. Location of Installation HOFFMAN-LaROCHE INC. 233 ROCHE DRIVE BELVIDERE, NJ 07823
(Name and address)
4. Vertical JACKETED TANK 96034 D-96034 REV B 9236 1996
(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 NONE
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): _____ (b) Overall length (ft & in.): _____

Course(s)			Material		Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter, in.	Length (ft. & in.)	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

7. Heads: (a) _____ (b) SA240 T304
(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, None	Eff.
(a)														
(b)	Bottom	.105"	—	36"	—	—	—	—	—	Convex	Concave	—	—	—

If removable, bolts used (describe other fastening) _____

8. Type of jacket TYPE3 Jacket closure 1/2 I.C.R. WELDED
(Mat'l Spec. No., Grade, size, No.) (Describe as ogee & weld, bar, etc.)

9. 150 FV psi at max. temp. 350 350 °F Min. design metal temp. 0 °F at FV/150 psi.
(internal) (external) (internal) (external)

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

11. Hydro., pneu., or comb. test press. 258 Proof test UG-101(m) 1040 PSI DATE 6-22-94

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.): 21"

Course(s)			Material		Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter, in.	Length (ft. & in.)	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	3'-0" ID	1'-9"	SA-240 T316L		5/16"	---	1	None	70%	1	None	70%	—	—

15. Heads: (a) SA240 T316L (b) SA240 T316L

(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, None	Eff.
(a)	Top	.2841	—	36"	3 1/2"	—	—	—	—	—	Concave	S	None	85%
(b)	Bottom	.2864	—	36"	3 1/2"	—	—	—	—	—	Concave	S	None	85%

If removable, bolts used (describe other fastening) _____

(Mat'l Spec. No., Grade, Size, No.)

RR 1026.10

16. MAWP 150 FV psi at max. temp. 350 350 °F Min. design metal temp. 0 °F at FV/150 psi.
(internal) (external) (internal) (external)

17. Impact test NO AS PER PARAGRAPH UHA-51

(Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test press. 238

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		Lc (Ins.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
(OUTLET) PBM BALL VALVE	1	2"	PAD	SA351-CF3M	---	150#	---	NONE	UW16.1(d)	---	
LIQUID INLET	1	2"	FLANGE	SA312 T316L	SA182 T316L	.154"	---	NONE	UW16.1(d)	FIG 2-4(8a)	
Vent	1	2"	FLANGE	SA312 T316L	SA182 T316L	.154"	---	NONE	UW16.1(d)	FIG 2-4(8a)	
NITROGEN	1	2"	FLANGE	SA312 T316L	SA182 T316L	.133	---	NONE	UW16.1(d)	FIG 2-4(8a)	
RUPTURE DISK	1	2"	FLANGE	SA312 T316L	SA182 T316L	.154"	---	NONE	UW16.1(d)	FIG 2-4(8a)	
SIGHT GLASS	1	2"	PAD	SA240 T316L	---	1 7/8"	---	NONE	UW16.1(d)	FIG 2-4(8a)	Top HEAD
Spare	1	2"	FLANGE	SA312 T316L	---	.133"	---	NONE	UW16.1(d)	FIG 2-4(8a)	

20. Supports: Skirt No Lugs 2 Legs -- Others (4) SUPPORT BRKTS. Attached WELDED TO SHELL WITH PAD
(Yes or 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)

22. Remarks:

UNIT WILL BE USED AS 36" OD S/S TANK. NON-LETHAL SERVICE ONLY.
SEE ATTACHED U-4 FORM

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. 24,584

Expires 01/05, 19 99

Date SEP 13 1996 Name ROSEN mfg. Co. Inc.

(Manufacturer)

Signed Ashish Mathur
(Representative)

CERTIFICATE OF SHOP INSPECTION

the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of NEW JERSEY and employed by KEMPER INSURANCE COMPANIES of LONG GROVE, IL have inspected

the pressure vessel described in this Manufacturer's Data Report on SEP 13 1996, 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 SEP 13 1996 Signed [Signature]
(Authorized Inspector)

Commissions

NB 7050AB, NJ 476

(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

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

we 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

and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel is 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
(Authorized Inspector)

Commissions

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

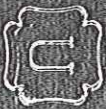
1. Manufactured and certified by	<u>ROBEN mfg. Co. Inc. 760 Vassar Ave., Lakewood, NJ, 08701</u>		
	(name and address of manufacturer)		
2. Manufactured for	<u>HOFFMAN-LaROCHE INC. 206 ROCHE DRIVE BELVIDERE, NJ 07823</u>		
	(name and address of purchaser)		
3. Location of installation	<u>HOFFMAN-LaROCHE INC. 233 ROCHE DRIVE BELVIDERE, NJ 07823</u>		
	(name and address)		
4. Type:	<u>Vertical</u>	<u>JACKETED TANK</u>	<u>96034</u>
	(horiz., vert., or sphere)	(tank, separator, heat exh., etc.)	(mfg's serial no.)
	<u>D-96034 REV B</u>	<u>9236</u>	<u>1996</u>
	(CRN)	(drawing no.)	(Nat'l. Bd. no.)
			(year built)

[illegible]

Cer No. of Authorization: Type "U" No. 24,584 Expires 01/05 ,19 99

Da P 13 1996 Name ROSEN mfg. Co. Inc. (manufacturer) Signed Robert Mathis (representative)

Date SEP 13 1996 Name [Signature] (Authorized Inspector) Commission NB 7050AB, NJ 476 (Nat'l. Board Incl. endorsement, state, province and no.)



CERTIFIED

BY **ROBEN MFG. CO. INC.**

LAKEWOOD N.J. 08701

NABL BD

9236

W

VESSEL MAWP **FV/150**

PSI AT 350

°F

MIN DESIGN METAL TEMP

0

°F

AT

FV/150

PSI

JACKET MAWP

FV/150

PSI

AT

350

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MIN DESIGN METAL TEMP

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FV/150

PSI

TUBE MAWP

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PSI

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AT

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PSI

SERIAL NO

9034

YEAR

1996

ASST NO

NO

3BRN05862

POS

NO

21313644

ASST NO

XYB2300