

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. Manufactured and certified by Precision Stainless, Inc., 3300 E. Pythian, Springfield, MO 65802
(Name and address of Manufacturer)
2. Manufactured for Genentech, Inc., 460 Point San Bruno Blvd., S. San Francisco, CA 94080
(Name and address of Purchaser)
3. Location of installation Genentech, Inc., 530 Forbes Blvd., Bldg. 19, S. San Francisco, CA 94080
(Name and address)
4. Type: Vertical Jacketed Vessel 6771, 10-11
(Horn, vert., or sphere) (Tank, separator, etc. vessel, heat exch., etc.) (Mfg's serial No.)
-- 47619D, Rev. A 4855-4856 1993
(CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)
5. ASME Code, Section VIII, Div. 1 1992 -- --- ---
(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): 1 (b) Overall length (ft & in.): 2' 3"

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	38"	1' 11"	SA240 304L		.0625"	0	5	None	50%	5	None	50%	-	-

7. Heads: (a) SA240 304L (b) --
(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)	Bottom	.0625"	0	38"	-	-	-	-	-		Concave	5	None	50%
(b)														

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

8. Type of jacket Dimple Jacket closure Ogee Weld
(Describe as ogee & weld, ber., etc.)

If bar, give dimensions -- If bolted, describe or sketch.
9. MAWP 100 15 psi at max. temp. 300 300 °F Min. design metal temp. -20 °F at 100 psi.
(internal) (external) (internal) (external)

10. Impact test --
(Indicate yes or no and the component(s) impact tested)

11. Hydro. ~~XXXXXX~~ test press. 164 Proof test Per UG101, Max. Test Pressure 800 psi

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' 5"

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	38"	2' 2"	SA240 316L		.187"	0	1	None	70%	1	None	70%	-	-

15. Heads: (a) SA240 316L (b) SA240 316L
(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	.155"	0	38"	3"	-	-	-	-		Concave	1	None	70%
(b)	Bottom	.155"	0	38"	3"	-	-	-	-	Convex	Concave	1	None	70%

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

FORM U-1 (Back)

16. MAWP 45 15 psi at max. temp. 300 300 °F. Min. design metal temp. -20 °F at 45 psi.
(internal) (external)
17. Impact test ---
(Indicate yes or no and the temperature(s) impact tested)
18. Hydro., ~~XXXXXX~~ test press. 71 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 (Prop. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
				SEE ATTACHED U-4							

20. Supports: Skirt No Lugs - Legs 4 Others --- Attached Bottom Head - Weld
(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: 600 liter tank with dimple heat transfer surface. Hydro tested in vertical position.
Customer to install suitable pressure and/or vacuum relief valves.
Exempt from impact testing per UHA-51.

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. 24003 Expires April 6, 19 95
Date 9-22-93 Name Precision Stainless, Inc. Signed Douglas W. Morgan
(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/or the State or Province of Tenn. and employed by Commercial Union Insurance Co. of Boston, MA have inspected the pressure vessel described in this Manufacturer's Data Report on Sept 3, 19 93, 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 9-22-93 Signed Ottis A. Cooper Commissions NB8293A Tenn. 2445
(Authorized Inspector) (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/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 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. endorsement, State, Province and No.)

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Certificate of Authorization: Type U No. 24003 Expires April 6, 19 95
 Date 9-22-93 Name Precision Stainless, Inc. Signed Douglas W. Morgan
(Manufacturer) (Representative)
 Date 9-22-93 Name Otto A. Cooper Commission NB 8293-A-Tenn 2445
(Authorized Inspector) (Not a Record, not a Disposition, State, Province and No.)