

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

As required by the Provisions of the ASME Code Rules, Section VIII, Division I

1. Manufactured by THE PFAUDLER CO., ROCHESTER, NEW YORK, U. S. A.
 (Name and address of Manufacturer)
 2. Manufactured for Martin Marietta Chemicals, Sodyeco Div., Mount Holly, (Charlotte)
 (Name and address of Purchaser) N.C
 3. Type Vertical Kind Jacketed Vessel No. RL74-0146 Natl. Bd. No. 34776 Yr. Built 1974
 (Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfrs. Serial) (State & State No.)

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. SHELL: Material SA515GR65 T.S. 65000 Nominal Thickness 9/16 Corrosion Allowance 0 In. In. Diam. 9 Ft. 2 In. Length 11 Ft. 1 In.
 (Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.) (In. Allowance) (In. Diam.) (Ft. In.) (Length)

5. SEAMS: Long DBFW H.T. No R.T. No Sectioned No Efficiency 70 %
 (Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
 Girth DBFW H.T. No R.T. No Sectioned No No. of Courses 2

If riveted describe seams fully on reverse side of form.

6. HEADS: (a) Material SA515GR65 T.S. 65000 (b) Material _____ T.S. _____
 Location _____ Thickness _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Pressure _____
 (a) Bottom 5/8" 102" 6-5/8" _____ _____ _____ _____ _____ _____
 (b) _____ _____ _____ _____ _____ _____ Concave

If removable, bolts used _____ Other fastening _____
 (Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

7. STAYBOLTS: _____ If hollow _____ Attachment _____ Pitch _____ X _____ Diam. _____
 (Material) (Size of Hole) (Threaded, Welded) (Horiz) (Vert.) (Nominal)

8. JACKET CLOSURE: Pfaudler sealer welded per figure UA-104 (b-2).
 (Describe as over & weld, but, etc. If bar, give dimensions, if bolted describe or sketch.)

9. Constructed for max. allowable working press. 2 90 psi at max. temp. 350 °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Test Press 105 ps
 (Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary Material _____ Diam. _____ In. Thickness _____ In. Attachment _____
 (Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)
 Floating Material _____ Diam. _____ In. Thickness _____ In. Attachment _____
 (Kind & Spec. No.)

11. TUBES: Material _____ O.D. _____ In. Thickness _____ Inches or Gage Number _____ Type _____
 (Kind and Spec. No.) (Straight or U)

Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

12. SHELL: Material SA515GR65 T.S. 65000 Nominal Thickness 3/16 Corrosion Allowance 0 In. In. Diam. 8 Ft. 6 In. Length 10 Ft. 1 In.
 (Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.) (In. Allowance) (In. Diam.) (Ft. In.) (Length)

13. SEAMS: Long DBFW H.T. No R.T. No Sectioned No Efficiency 70 %
 (Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
 Girth DBFW H.T. No R.T. No Sectioned No No. of courses 1

If riveted describe seams fully on reverse side of form.

14. HEADS: (a) Material SA515GR65 T.S. 65000 (b) Material SA515GR65 T.S. 65000 (c) Material _____ T.S. _____
 Location _____ Thickness _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Pressure _____
 (a) Top, bottom ends 1-1/16" _____ _____ _____ _____ _____ _____ _____ _____
 (b) Channel Bot. 1-1/16" _____ _____ _____ _____ _____ _____ _____ _____
 (c) Floating _____ _____ _____ _____ _____ _____ _____ _____ Both

If removable, bolts used (a) _____ (b) _____ (c) _____
 (Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

15. Constructed for max. allowable working press. 2 100 psi at max. temp. 650 °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Test Press 100 ps
 (Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number Over pressure prot. to be installed in connecting piping.

17. NOZZLES:

Purposes (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet	10	4" 6" 10"	L.J. Flg.	Case1251	150#300#	-	Welded
Outlet	1	6"	L.J. Flg.	Case1251	150#	-	Welded
Jacket	15	1/2" 1 1/2" 2" 3" 4"	Cplg.	SA216WCA	X-Hvy.	-	Welded
Drive	1	6"	L.J. Flg.	Case1251	300#	-	Welded

FORM U-1' (back)

CUSTOMER ORDER NO. 43001 Tag: GLK-259/A-259

PFAUDLER ORDER NO. R174-0146

18. INSPECTION: Manholes, No. 2 Size 18"36" Location Top head 18" w/4" obs. gl.

OPENINGS: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

19. SUPPORTS: Skirt No Lugs No Legs 6 Other None Attached Welded to jacket shell.
(Yes or No) (Number) (Number) (Describe) (Where and How)

20. REMARKS: Divided jacketed glassed steel vessel for amination and quench reactors. Jacket also rated for 90 psi with full vacuum in tank @ 350°F. Temperature requirements greater than 350°F. necessitate a reduction in jacket design pressure. Jacket for non-corrosive service.

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

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.

Date December 19, 1974 Signed THE PFAUDLER CO. By Ira Semmler
(Manufacturer)

Certificate of Authorization Expires #408 12-31-76

N.B.#34776

CERTIFICATE OF SHOP INSPECTION

VESEL MADE BY THE PFAUDLER CO. at ROCHESTER, NEW YORK

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province New York and employed by Hartford Steam Boiler I & I of Hartford, Conn. have inspected the pressure vessel described in this manufacturer's data report on MAY 23 1975, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

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 May 28, 1975
Russell B. Miller Commissions N.B.#6658, Ohio, Pa. #WC1849
Inspector's Signature Nat'l. Board, State, or Province and No.

Location	Thickness	Radius	Studs	Welds	Flanges	Drugs	Comments
(a) Top, bottom ends	<u>1-1/16"</u>			<u>2:1</u>			<u>Checked</u>
(b) Channel Bot.	<u>1-1/16"</u>			<u>2:1</u>			<u>Each</u>

(c) Hoisting

If removable, bolts used (a) _____

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 _____ 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 that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. 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 _____, 19_____
Inspector's Signature _____ Commissions _____ Nat'l. Board, State, or Province and No.