Stock #220617

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

C-300

1. Manufactured and certified by: ITT Standard / ITT Fluid Technology Corporation 175 Standard Parkway
(Name and address of Manufacturer)

2. Manufactured for: ARCO CHEMICAL CO. 3801 WEST CHESTER PIKE NEWTOWN SQUARE PA. 19073
(Name and address of Purchaser)

3. Location of installation: UNKNOWN
(Name and address)

4. Type: HORIZ. (Horiz. or vert., or sphere) | HEAT EXCHANGER (Tank, separator, jkt. vessel, heat exh., etc.) | 95A10141-01 (Mfg's serial No.)

(CRN) | 5-080-08-096-022 (Drawing No.) Rev. 1 | 57077 (Nat'l. Bd. No.) | 1995 (Year Built)

5. ASME Code, Section VIII, Division 1: 1992 A93 (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.): 102.625 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
1	8.625	102.625 IN	SA53-B	.277	.062	ERW	NONE	85%	-	NONE	-	NONE	NONE
-	NONE	-	-	-	-	-	-	-	-	-	-	-	-
-	NONE	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) SA516-70 (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (b) - (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	END	.875	.062	NONE	NONE	NONE	NONE	NONE	8.625	NONE	NONE	-	NONE	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

If removable, bolts used (describe other fastening): WELDED TO SHELL (Matl., Spec. No., Grade, size, No.)

8. Type of jacket: NONE Jacket closure: NONE (Describe as ogee & weld, bar, etc.)

If bar, give dimensions: NONE If bolted, describe or sketch.

9. MAWP 300 (internal) N/A (external) psi at max. temp. 500 (internal) N/A (external) °F. Min. design metal temp. -20 °F at 300 psi.

10. Impact test: NO PER UCS 66(A) (Indicate *yes* or *no* and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 450 Proof test: NONE

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA516-70 (Stationary (Mat'l Spec. No.)) | 11.875 (Dia., in. (subject to press.)) | 1.125 (Nom. thk., in.) | .062 (Corr. Allow., in.) | BOLTED (Attachment (welded or bolted))

NONE (Floating (Mat'l Spec. No.)) | - (Dia., in.) | - (Nom. thk., in.) | - (Corr. Allow., in.) | - (Attachment)

13. Tubes: SA214 (Mat'l Spec. No., Grade or Type) | .750 (O.D., in.) | 14 BWG. (Nom. thk., in. or gauge) | 18 (Number) | U (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.): 9.500 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
1	8.625	9.500 IN	SA53-B	.277	.062	ERW	NONE	85%	-	NONE	-	NONE	NONE
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

15. Heads: (a) SA516-70 (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (b) - (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	END	.875	.062	NONE	NONE	NONE	NONE	NONE	8.625	NONE	NONE	-	NONE	-
(b)	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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FORM U-1 (Back)

16. MAWP 150 (internal) N/A (external) psi at max. temp. 500 (internal) N/A (external) °F. Min. design metal temp. -20 °F at 150 psi.

17. Impact test NO PER UCS-66(a)
[Indicate yes or no and the component(s) impact tested]

18. Hydro., pneu., or comb. test press. 225 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	
SHELL IN/OUT	2	3" 300#	ANSI-RF	SA53-B	SA105	.216	.062		16.1(a)	APP2-4(3)	
CONN.	2	.5"		SA105		3000#	.062		16.2(L)		
VENT	1	.75"		SA105		3000#	.062		16.2(L)		
DRAIN	1	1"		SA516-70			.062		TAPPED		
TUBE IN/OUT	2	3" 300#	ANSI-RF	SA53-B	SA105	.216	.062		16.1(a)	APP2-4(3)	
VENT	2	.75"		SA516-70			.062		TAPPED		
CONN	2	.500		SA105		3000#	.062		16.2(L)		

20. Supports: Skirt NO (Yes or no) Lugs NO (No.) Legs NO (No.) Others CRADLES (Describe) Attached WELDED TO SHELL (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:

SAFETY VALVE/OVER PRESSURE PROTECTION TO BE PROVIDED BY USER/OWNER

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. 8740 Expires Feb.28 , 1998

Date 6/24/95 Name ITT STANDARD,ITT FTC (Manufacturer) Signed D. S. Marette (Representative) Q.A. Mgr.

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 New York and employed by KEMPER NATIONAL INSURANCE COMPANIES of LONG GROVE,ILLINOIS have inspected the pressure vessel described in this Manufacturer's Data Report on 6/7 , 1995 , 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 6-27-95 Signed Robert Chamness (Authorized Inspector) Commissions OHIO COMMISSIONED NB 11535A NY5138 (Nat'l Board, 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/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 (Authorized Inspector) Commissions (Nat'l Board incl. endorsement, State, Province and No.)