

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Bota Welding, LLC 402 - 56th Street, Niagara Falls, NY 14304
(Name and address of manufacturer)

2. Manufactured for: Thermal Kinetics Systems, LLC 667 Tift Street Buffalo, NY 14220
(Name and address of purchaser)

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

4. Type: Vertical TP-4207 6018-MQ-4206 117 2007
(Name or vmt name) (Type or serial No.) (CRN) (Drawing No.) (Chart No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE The design, construction, and workmanship conform to ASME Rules, Section VIII, Div. 1
Year: 2004

to 2005 Code Case No. _____ Special Service per UC 118 (c) _____

6. Shell SA-240 TP-304L .25 0 3' 11-1/2" 11' 9-7/8"
(Material Spec.) (Thickness) (Corr. Allow.) (Height) (Height)

7. Seams: Type 1 None .70 N/A Type 1 None 2
(Type) (None) (Type) (None) (No. of Courses)

8. Heads: (a) Matl SA-240 TP-304L (b) Matl SA-240 TP-304L
(Spec. No. - Grade) (Spec. No. - Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knockle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	TOP	.1875	0			2:1				Concave
(b)	BOTTOM	.25	0				30			Concave

If removable, bolts used (describe other fastenings) _____

9. MAWP 25 15 psi at max temp. 200 °F
(internal) (external)
Min. design metal temp. -20 °F at 25 psi Hydro. pneu., or comb. test press. 32.5 psi
(external) (external)

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl	Nom. Thk	Reinforcement Material	How Attached	Location
Level	1	3"	stud-pad	SA-240 TP-304L	1.437	N/A	UW16.1	shell
CIP & Feed	2	6"	C1150Flg	SA-312 TP-304L	.2800	N/A	UW16.1	shell
Vapor Outlet	1	10"	W.E.	SA-312 TP-304L	.3650	SA 240tp304L	UW16.1	head
Liquid Outlet	1	10"	C1150Flg	SA-312 TP-304L	.3650	N/A	UW16.1	Cone

11. Supports: Skirt YES Lugs 2 Legs Others Attached Welded
(Yes or No) (No.) (No.) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

**Impact Test Exempt Per UHA-51(d)(8)(g) UCS 66(c), Owner/User responsible for Pressure Relief Valve
(2) 1/4" SA 240 stiffener rings welded to shell (1) to head. Cir seam 70% E. 2 Lifting Lugs welded to head.**

CERTIFICATE OF SHOP/FIELD 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. Certificate of Authorization No. 22001 Expires 7-26-2009

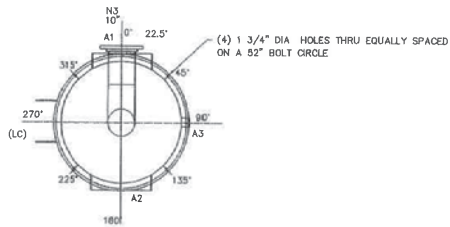
Date 1/19/07 Co. Name Bota Welding, LLC Signed [Signature]
(Date) (Name) (Signature)

CERTIFICATE OF SHOP/FIELD INSPECTION

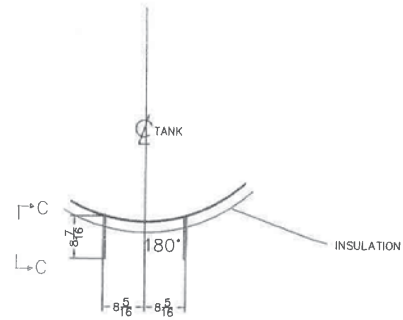
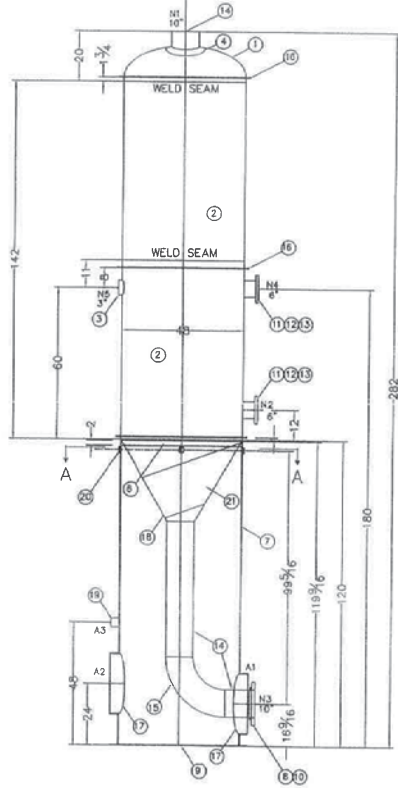
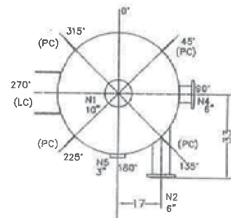
Vessel constructed by Bota Welding, LLC at 402 - 56th Street, Niagara Falls, NY 14304
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of New York and employed by HSB CT

have inspected the component described in this Manufacturer's Data Report on 1/19/07, 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 1/19/07 Signed [Signature] Commissions NB11103ANY5078
(Date) (Signature) (Commissions)

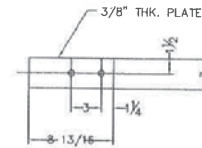


SECTION A-A

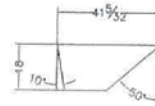


LADDER SUPPORT CLIP

3 SETS REQ'D (23)

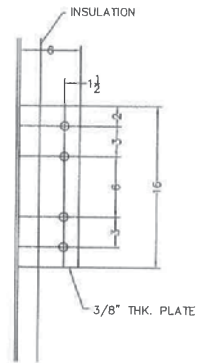


SECTION C-C



(21)

DESIGN DATA	
CODE:	ASME VIII DIVI STAMPED AND REGISTERED
SPECIFIC GRAVITY/CONTENTS:	1.03
DESIGN PRESS:	25/FV (psig)
DESIGN TEMP:	200 (F)
OPERATING PRESS:	8.38 (psig)
OPERATING TEMP:	185 (F)
MDMT:	-20 DEG. F
CORROSION ALLOWANCE:	NONE
HYDRAULIC TEST PRESSURE:	32.5 PSI



PLATFORM SUPPORT CLIP

5 PCS REQ'D (24)

- NOTES:
- 1) ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES UNLESS NOTED OTHERWISE.
 - 2) ALL STAINLESS STEEL TO BE 1 GRADE AND CERTIFIED.
 - 3) FOR ALL INTERIOR AND EXTERIOR SURFACES SEE THERMAL KINETICS CLEANING AND BLASTING SPEC. QE-1.8.0 CLASS 1
 - 4) ALL TOLERANCES PER ASME PRESSURE VESSEL CODE LATEST EDITION, SECTION VIII, DIVISION 1
 - 5) WIND 80 MPH, EXP. C W/F = 1.0

AS BUILT DRAWING

(PC) PLATFORM CLIP
(LC) LADDER CLIP

BOTA WELDING
Customer: THERMAL-KINETICS
File: TP-4207

REV	BY	DATE	DESCRIPTION
1	MP	11/25/08	ISSUE FOR FABRICATION

Drawing Size:	Plot Scale:
Customer Dwg. Number: 6018-MQ-4208	Sheet: 2 of 2
Drawn By: D.	Checked By: D.
Design Appr.:	Scale:
Project Appr.:	File:

A3	FIRE PROTECTION	3"	ATMO	PLAIN		90°
A2	SKIRT ACCESS	24"	ATMO	PLAIN		180°
A1	SKIRT PENETRATION FOR N3	24"	ATMO	PLAIN		0°
N5	LEVEL TRANSMITTER	3"	150#	W/P	LT-011	180°
N4	CIP	6"	150#	LJ		90°
N3	LIQUID OUTLET	10"	150#	LJ	TO PC-4207	0°
N2	FEED	6"	150#	LJ	FR PC-4103	180°
N1	VAPOR OUTLET	10"		BW	TO ET-4201	
NOZZ.	SERVICE					DEGREE

BOTA WELDING

BILL OF MATERIAL
JOB NO. 4206
TANK NO. TP-4207

NO.	QTY.	DESCRIPTION	MATERIAL
1	1	48" OD. 2:1 ELLIPTICAL HEAD 3/16" NOM. THK.	SA-240 304L
2	2	PLATE 150" x 71" x 1/4" THK.	SA-240 304L
3	1	3" STUD PAD 150#	SA-240 304L
4	1	PLATE 14-34"OD x 3/16" THK.	SA-240 304L
6	1	PLATE 2" x 150" x 1/4" THK.	SA-240 304L
7	1	PLATE 93 1/4" x 150" x 1/4" THK.	A-36
8	1	10" STUB END SCH 40	SA-403 304L
9	2	PLATE 54"OD x 46"ID x 1/4" THK.	A-36
10	1	10"-150# LAP JOINT FLANGE	SA-105
11	2	6" SCH 40 PIPE	SA-312 304L
12	2	6" STUB END SCH 40	SA-403 304L
13	2	6"-150# LAP JOINT FLANGE	SA-105
14	2	10" SCH STD PIPE	SA-312 304L
15	1	10" 90° LR BW EL SCH STD	SA-403 304L
16	3	PLATE 52"OD x 48-1/8"ID x 1/4" THK.	SA-240 304L
17	2	PLATE 6" x 74-3/4" x 3/16" THK.	A-36
18	1	CONE 48" X 10-3/4" X 35-1/2" HIGH X 1/4" THK	SA-240 304L
19	1	3" SCH 40 PIPE	A-53 GR-B
20	4	2" SCH 40 PIPE	A-53 GR-B
21	1	PLATE 18" x 41-5/32" x 3/16" THK.	SA-240 304L
23	6	PLATE 3" x 8-7/16" x 3/8" THK.	SA-240 304L
24	5	PLATE 6" x 16" x 3/8" THK.	SA-240 304L

FIELD USE

08018
CIE: ETHANOL
Carlton, Illinois
03.20.07
171 TP4207
0180002083

117

CERTIFIED BY **BOTA WELDING LLC**

U

W

	SHELL	TUBES	JACKET
BLA.WR.	25	X	X
DESIGN TEMP. °F	200	X	X
MAX.WR.	15	X	X

MIN. DESIGN SHELL METAL TEMP. -20 °F @ 25

MIN. DESIGN TUBES METAL TEMP. X °F @ X

MIN. DESIGN JACKET METAL TEMP. X °F @ X

SERIAL NO. **TP-4207** YEAR BUILT **2007**

Thermal Kinetics Systems, LLC BUFFALO, NEW YORK