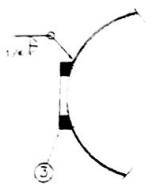
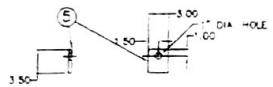
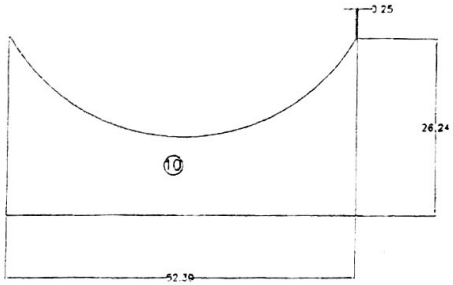


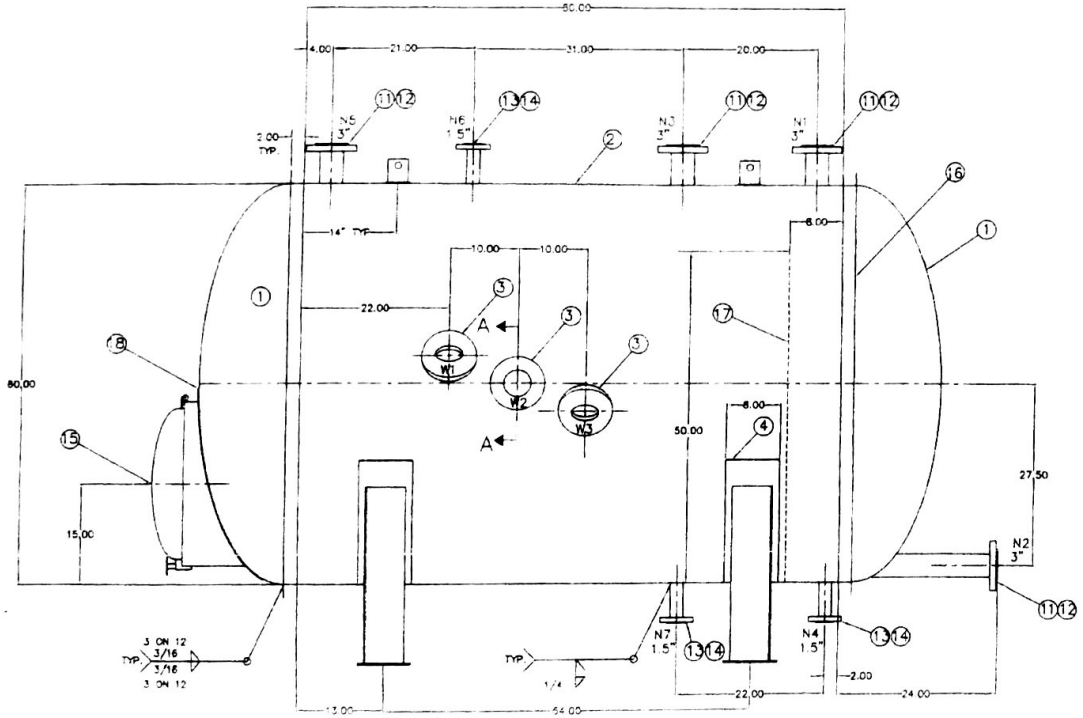
SECTION A–A

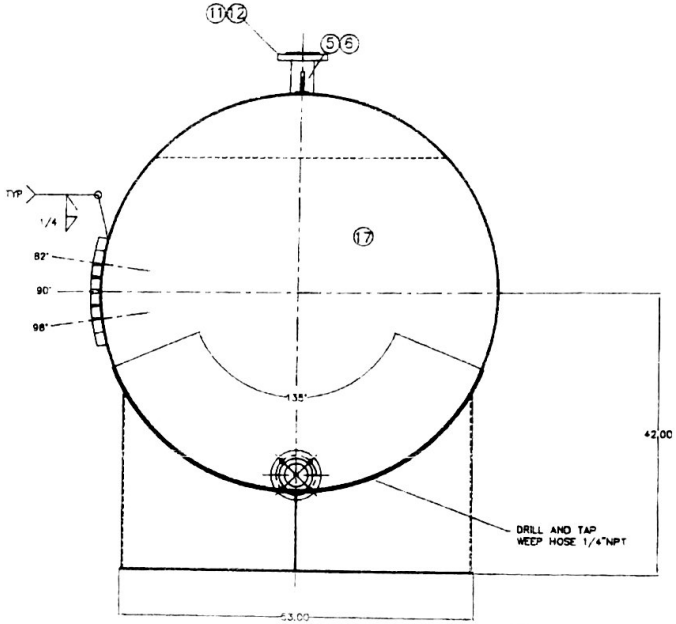


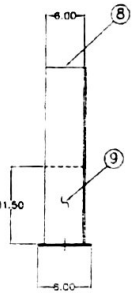
DETAIL LIFTING LUG

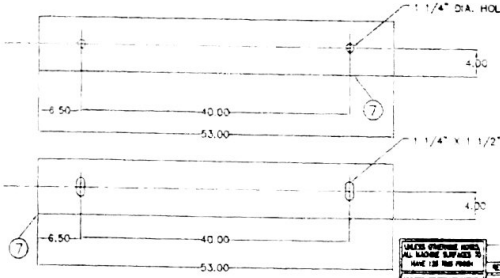
DESIGN DATA
CODE: ASME VIII DIV.1 STAMPED AND REGISTERED
SPECIFIC GRAVITY/CONTENTS: 0.98
DESIGN PRESS: 75/FV (psig)
DESIGN TEMP.: 300 (F)
OPERATING PRESS.: 40 (psig)
OPERATING TEMP.: 150 (F)
MDMT: -20 DEG. F
CORROSION ALLOWANCE: NONE
HYDRAULIC TEST PRESSURE: 97.5 PSI











W3	SIGHT GLASS 4" VIEW			W/PAD	
W2	SIGHT GLASS 4" VIEW			W/PAD	
W1	SIGHT GLASS 4" VIEW			W/PAD	
M1	MANWAY	24"			
N7	OUTLET TO COVER	1.5"	150#	RFSO	TO PC-4108
N6	VENT TO COLUMN	1.5"	150#	RFSO	TO TW-4102
N5	LIQUID INLET	3"	150#	RFSO	FR EP-4108
N4	FUSEL OIL OUTLET	1.5"	150#	RFSO	TO PC-4109
N3	INTERFACE TRANS.	3"	150#	RFSO	LT-024
N2	LEVEL TRANS. CONN.	3"	150#	RFSO	LT-026
N1	LEVEL TRANS. CONN.	3"	150#	RFSO	LT-026
NOZZ.	SERVICE	SIZE	RATING	TYPE	REMARKS

NOTES:

1) ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES UNLESS NOTED OTHERWISE.
2) ALL STAINLESS STEEL TO BE L GRADE AND CERTIFIED.
3) FOR ALL INTERIOR AND EXTERIOR SURFACES SEE THERMAL KINETICS CLEANING AND BLASTING SPEC. CF-1.8.0 CLASS 1
4) ALL TOLERANCES PER ASME PRESSURE VESSEL CODE LASTEST EDITION, SECTION VIII, DIVISION 1
5) WIND 80 MPH, EXP. C W/F = 1.0
6) ALL FILLET WELDS TO BE 3/16" UNLESS NOTED

AS BUILT DRAWING

UNLESS OTHERWISE NOTED ALL MACHINE SURFACES TO HAVE 125 RMS FINISH	NO.	BY	DATE
UNLESS OTHERWISE NOTED TOLERANCES ARE:			
ANGLES ± 1/2°			
FRACTIONS ± 1/64"			
DECIMAL .X ± .03			
.XX ± .010			
.XXX ± .005			

DRAWN BY: MJE	10/12/18	
CHECKED BY:		
INSTRU. APPR:		
PIPING APPR:		

BOTA WELDING

Customer: THERMAL KINETICS

Title: EQUIPMENT TP-4108 FABRICATION

Drawing Scale:	Plot Scale:
Customer Dwg. Number:	5018-MQ-4110
SIZE: D	Dwg Number:
Sheet	Con't On / Rev.

MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

Corrected Copy 1/19/07

(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 Tifft Street Buffalo, NT 14220 (Name and address of purchaser)
3. Location of installation Unknown (Name and address)
4. Type: Horizontal (Horiz. or vert. tank) | TP-4108 (Mfg's serial No.) | - (CRN) | 6018-MQ-4110 Rev 3 (Drawing No.) | 112 (Nat'l Bd. No.) | 2007 (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 to 2005 (Addenda (Date)) - (Code Case No.) 2004 Year
6. Shell SA-240 TP-304L (Mat'l Spec. No. Grade) | .25 (Nom. Thk (in.)) | 0 (Corr. Allow (in.)) | 5' 11-1/2" (Diam., I.D. (ft. & in.)) | 6' 7-7/8" (Length (overall) (ft. & in.))
7. Seams: Type 1 (Long (Welded, Dbl. Butt, Sgl., Lap, Butt)) | None (R.T. (Spot or Full)) | 70 (Eff. (%)) | N/A (H.T. Temp. (°F)) | - (Time (hr)) | Type 1 (Girth (Welded, Dbl. Butt, Sgl., Lap, Butt)) | None (R.T. (Spot or Full)) | 1 (No. of Courses)
8. Heads: (a) Mat'l SA-240 TP-304L (Spec. No., Grade) (b) Mat'l SA-240 TP-304L (Spec. No., Grade)

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

If removable, bolts used (describe other fastenings) (Mat'l Spec. No., Grade, Size, No.)

9. MAWP 75 (internal) 15 (external) psi at max temp. 300 (internal) 300 (external) °F
Min. design metal temp. -20 °F at 75 psi. Hydro. pneu., or comb. test press. 97.5 psi
10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l	Nom. Thk	Reinforcement Material	How Attached	Location
Vent	3	2"	Cl150Flg	SA-312 TP-304L	.1450	N/A	UW16.1©	shell
Level & Spare	4	3"	Cl150Flg	SA-312 TP-304L	.2160	N/A	UW16.1©	head-shell
Manway	1	24.6875	------	SA-240 TP-316	.2500	SA-240 TP-304L	UW16.1©	head

11. Supports: Skirt (Yes or No) Lugs (No.) Legs (No.) Others 2 saddle (Describe) Attached Welded (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: Manway,#10,Betts Industries Inc,ser# 9566-052 (Name of part, item number, Mfg's name and Stamp)

Impact Test Exempt Per UHA-51(d) UCS 66(c), Owner/User responsible for Pressure Relief Valve
Cir seam 70% E. 2 Lifting Lugs welded to shell.

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. U Certificate of Authorization No. 32,004 Expires 7-26-2009

Date 1/19/07 Co. Name Bota Welding, LLC (Manufacturer) Signed (Authorized Representative)

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 (Authorized Inspector) Commissions NB11103ANY5078 (Nat'l Board (incl. endorsements), State, Prov., and No.)