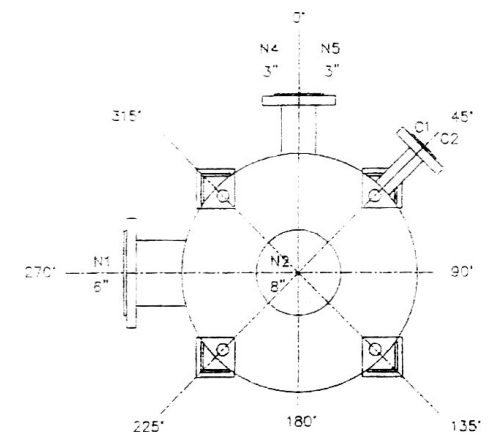
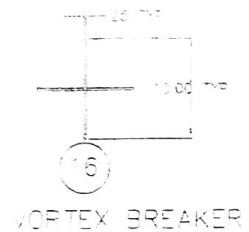
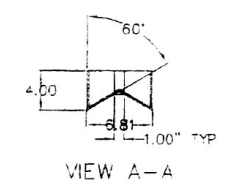
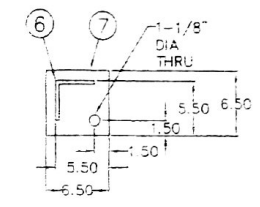
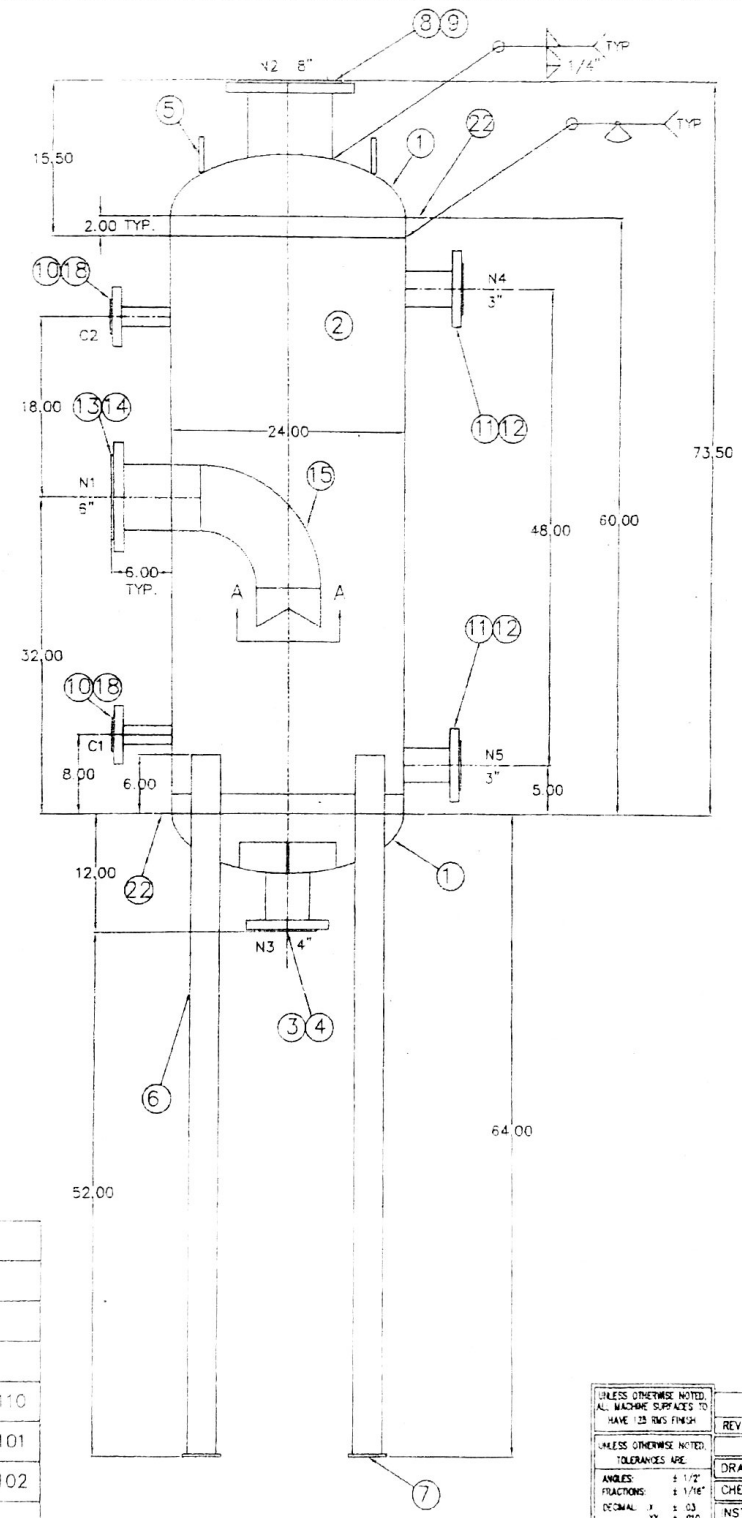


DESIGN DATA

CODE: ASME VIII DIV. 1 STAMPED AND REGISTERED
SPECIFIC DRAWING/CONTENTS: 6018
DESIGN PRESS.: 75 PSIG (psig)
DESIGN TEMP.: 300 (F)
OPERATING PRESS.: 12.25 (psig)
OPERATING TEMP.: 288.7 (F)
MDMT: -20 DEG. F
CORROSION ALLOWANCE: NONE
HYDRAULIC TEST PRESSURE: 97.5 PSI



TOP VIEW



VIEW A-A

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. GF-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 WF = 1.0
- 6) ALL FILLET WELDS 3/16" UNLESS NOTED.

AS BUILT DRAWING

NOZZ.	SERVICE	SIZE	RATING	TYPE	REMARKS
C2	PRESS. INDICATOR	1.5"	150#	RFSO	PI-030
C1	TEMP. INDICATOR	1.5"	150#	RFSO	TI-031
N5	LEVEL TRANSMITTER	3"	150#	RFSO	LT-032
N4	LEVEL TRANSMITTER	3"	150#	RFSO	LT-032
N3	PC BOTTOMS	4"	150#	RFSO	TO PC-4110
N2	PC BOTTOMS FLASH	8"	150#	RFSO	TO TW-4101
N1	PC BOTTOMS	6"	150#	RFSO	FR TW-4102

REV	BY	DATE	DESCRIPTION

UNLESS OTHERWISE NOTED, ALL MACHINE SURFACES TO HAVE 125 RMS FINISH.	
UNLESS OTHERWISE NOTED, TOLERANCES ARE:	
ANGLES: ± 1/2°	
FRACTIONS: ± 1/16"	
DECIMAL: ± 0.03	

BOTA WELDING

Customer: THERMAL-KINETICS

Title: TP-4110

Drawing Scale: Plot Scale:

Customer Dwg. Number: 6018-MQ-4111

SIZE: Dwg. Number: Sheet: 1 of 1 Rev: 0

FORM U-1 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-4110 6018-MQ-4111 113 2007
(Type) (Design No.) (Drawing No.) (Material 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
 2004
(Year)

to: 2005
(Year)

6. Shell: SA-240 TP-304L 1875 0 1' 11-5/8" 4' 7-7/8"
(Material Grade) (Length) (Height) (Nom. Thickness) (Height of Head)

7. Seams: Type 1 None 70 N/A Type 1 None J
(Type) (Type) (Type) (Type) (Type) (Type) (Type)

8. Heads: (a) Matl SA-240 TP-304L (1) Matl SA-240 TP-304L
(Material Grade) (Material 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	1275	0			2:1				Concave
(b)	Left	1275	0			2:1				Concave

If removable bolts used (describe other fastenings):
(Material No., Grade, Size, etc.)

9. MAWP: 75 15 psi at max temp. 300 300
(Internal) (External) (Internal) (External)
 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.	Diarn. or Size	Type	Matl	Nom. Thk.	Reinforcement Material	How Attached	Location
Temp & Press Level	2	1.5"	CI150Flg	SA-312 TP-304L	.1450	N/A	UW16. (E)	shell
RC Bottoms	1	3"	CI150Flg	SA-312 TP-304L	.2160	N/A	UW16. (E)	shell
RC Bottoms	1	4"	CI150Flg	SA-312 TP-304L	.2370	N/A	UW16. (E)	shell
RC Bottoms	1	6"	CI150Flg	SA-312 TP-304L	.2800	N/A	UW16. (E)	head
RC Bottoms Flash	1	8"	CI150Flg	SA-312 TP-304L	.3220	N/A	UW16. (E)	head

11. Supports: Skirt Lugs 2 Legs 4 Others Attached Welded
(Number) (Number) (Number) (Number) (Number) (Number)

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(c) UCS 66(c), Owner/User responsible for Pressure Relief Valve
 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. 37004 Expires 12/31/2009

Date: 1/17/07 To Name: Bota Welding, LLC Signed: *[Signature]*
(Date) (Name) (Manufacturer) (Inspector)

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: NSBCT

have inspected the component described in this Manufacturer's Data Report on 1/17/07 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: 1/17/07 Signed: *[Signature]* Commissions: NB11103, ANY5078