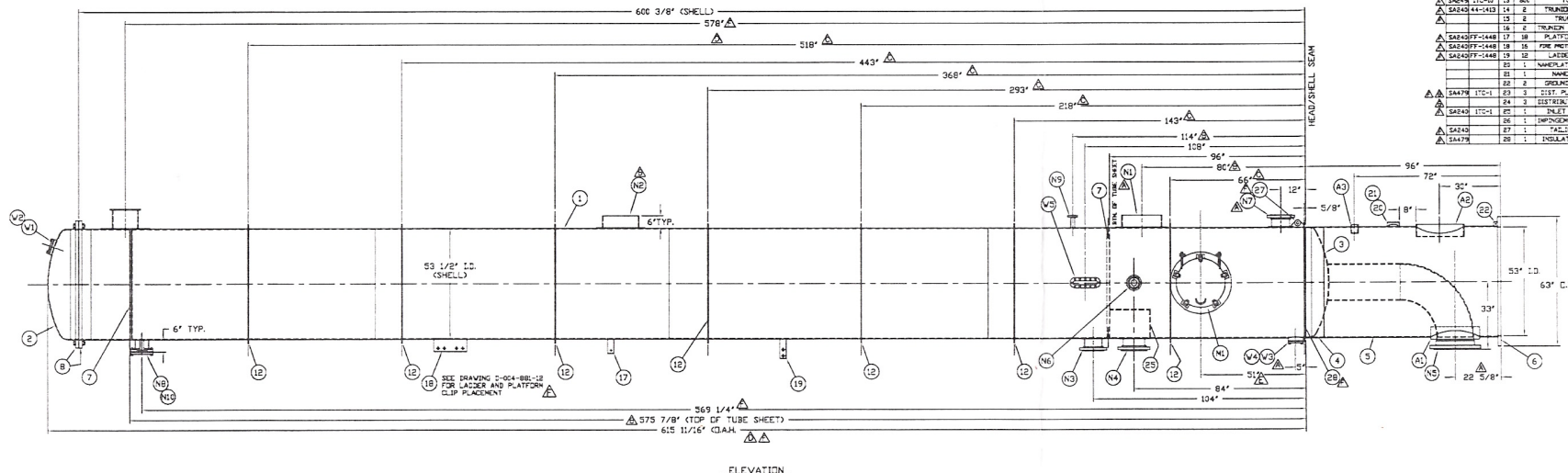


BODY FLANGE DETAIL  
SCALE 5X



ELEVATION

NATIONAL BOARD NO.

CERTIFIED BY: APACHE STAINLESS EQUIP. CORP. BEAVER DAM WI.

SHELL	TUBE	JACKET
M.A.W.P. 25 PSIG	25 PSIG	NA
DESIGN TEMP. F 250	250	NA
M.A.E.W.P. 15 PSIG	15 PSIG	NA

MIN. DESIGN SHELL METAL TEMP. -20 F F # 75 PS

MIN. DESIGN TUBES METAL TEMP. -20 F F # 25 PS

MIN. DESIGN JACKET METAL TEMP. N.A. F # N.A. PS

MFG. SERIAL NO. ET-4103-2 YEAR BUILT 2007

MODEL NO. ET-4103

Thermal Kinetics Systems, LLC Buffalo, New York

**Thermal Kinetics Systems, LLC**

Corrosion, Distillation, Chemical Reaction, Process Design & Energy Conservation

667 Huff Street Buffalo, New York 14220  
(716) 826-3836 Fax (716) 826-3853

Project No. 73338

Vessel I.D. ET-4103 CONDENSER REBOILER

THERMAL KINETICS NAMEPLATE DETAIL

- NOTES:
- FLANGE BOLT HOLES ARE TO STABLE MAJOR VERTICAL AND HORIZONTAL CENTERLINES UNLESS OTHERWISE NOTED.
  - REMOVE ALL BURRS AND SHARP EDGES.
  - WELD SEAMS IN VESSEL HEADS AND SHELL SHOULD BE LOCATED TO AVOID ALL NOZZLES, ACCESS OPENINGS AND REINFORCEMENT PADS, WHERE POSSIBLE.
  - THE CORROSION RESISTANCE OF THE EQUIPMENT IS NOT THE RESPONSIBILITY OF APACHE STAINLESS UNLESS WRITTEN ACCEPTANCE BASED ON SPECIFIC SERVICE.
  - PROTECTION TO PROVIDE PROTECTION FOR ALL NOZZLES AND FITTINGS PRIOR TO SHIPMENT.
  - SUITABLE PRESSURE RELIEF MUST BE INSTALLED BY CUSTOMER FOR VESSEL OPERATION.
  - ALL TOLERANCES ARE IN ACCORDANCE WITH THE LATEST EDITION AND ADDENDA OF APACHE STAINLESS VESSEL PRESSURE VESSEL CODE, SECTION VIII, DIVISION 1.
  - ALL NOZZLE REPAIRS OR REPAIRS CROSSING WELD SEAMS MUST BE PROVIDED WITH 6\"/>

MATERIAL	INTERIOR FINISH	EXTERIOR FINISH
SHELL: T304L S/S	NEL/PLATE	NEL/PLATE
TOP: T304L S/S	NEL/PLATE	NEL/PLATE
BOTTOM: T304L S/S	NEL/PLATE	NEL/PLATE
JACKET: N.A.	N.A.	N.A.
TOP: N.A.	N.A.	N.A.
BOTTOM: N.A.	N.A.	N.A.
INSULATION SHROUDI: N.A.	N.A.	N.A.
TOP: N.A.	N.A.	N.A.
BOTTOM: N.A.	N.A.	N.A.
GASKET: GARLOCK IFS 5500		
INSULATION: 2\"/>		

WELD FINISHES

INTERIOR: WF-1

EXTERIOR: SEE NOTE #18

JACKET: N.A.

SPECIFICATION	SHELL SIDE	TUBE SIDE
ASME CODE, SECT. VIII, DIV. 1	YES	YES
CODE YEAR-ADDENDA	2004/2005	2004/2005
INSPECTION & STAMP	U1	U1
MINIMUM TEMPERATURE °F	-20	-20
MAX. ALLOWABLE TEMP. °F	250	220
MAX. ALLOWABLE PRESS.-PSIG	75	25
CORROSION ALLOWANCE (INCH)	NONE	NONE
HYDROSTATIC TEST-PSIG	101	34
DESIGN VACUUM-PSI:	FULL	FULL
HEATING MEDIUM	N.A.	STEAM
COOLING MEDIUM	N.A.	WATER
RADIOGRAPH	N.A.	N.A.
SPECIFIC GRAVITY	0.795	1.09
WORKING CAPACITY:	5,500 GALLONS APPROX.	
EMPTY VESSEL WEIGHT:	33,500 LBS. APPROX.	
FULL TANK WEIGHT:	72,700 LBS. APPROX.	

QTY.	FUNCTION	MATERIAL
1	SHELL	1/4\"/>

QTY.	FUNCTION	MATERIAL
1	SLEEVE	3/4\"/>

FILESPECK\1103\LOT 2 ET-4103 Condenser & Reboiler.dwg

WELDING STANDARDS	X-RAY STANDARDS	FINISH STANDARDS
XL-SPOT-HEAD TO SHELL SEAMS (FULL-LENGTH SEAMS) XS-SPOT-SHELL LONG SEAMS (1 SPOT EACH 5\"/>		

REV.	DESCRIPTION	BY	DATE	REV.	DESCRIPTION	BY	DATE
1	REVISED PER CUSTOMER'S RETURNED APPROVAL DATED 12/31/06	SSS	12/31/06	1	REVISED PER APACHE AS-BUILT VESSEL	SSS	02/20/07
2	REVISED PER CUSTOMER'S E-MAIL DATED 11/07/06 & APACHE REVIEW	SSS	11/08/06				
3	REVISED PER APACHE REVIEW	LWL	01/08/07				
4	REVISED MANWAY ELEVATION WITH CUSTOMER APPROVAL	DTS	01/19/07				
5		DTS	01/25/07				

**APACHE STAINLESS EQUIPMENT CORP.**

200 WEST INDUSTRIAL DRIVE - P.O. BOX 538  
BEAVER DAM, WISCONSIN 53011

PH: 920-887-3721 FAX: 920-887-0206 EMAIL: info@apachestainless.com

APPROVED FOR ASME CONSTRUCTION

CERTIFIED AS-BUILT

CUSTOMER: THERMAL KINETICS SYSTEMS BUFFALO NY

EQUIPMENT: ET-4103 CONDENSER REBOILER (QTY. 1)

PROJECT NUMBER: 73338-02

SHEET NO: 1 OF 2

DATE: 02/20/07

DWG NUMBER: 004-881-02