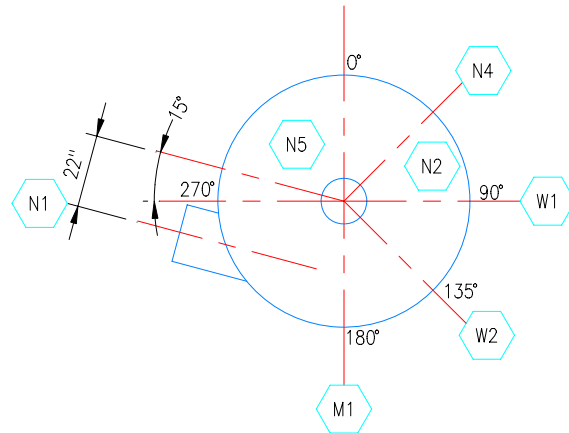
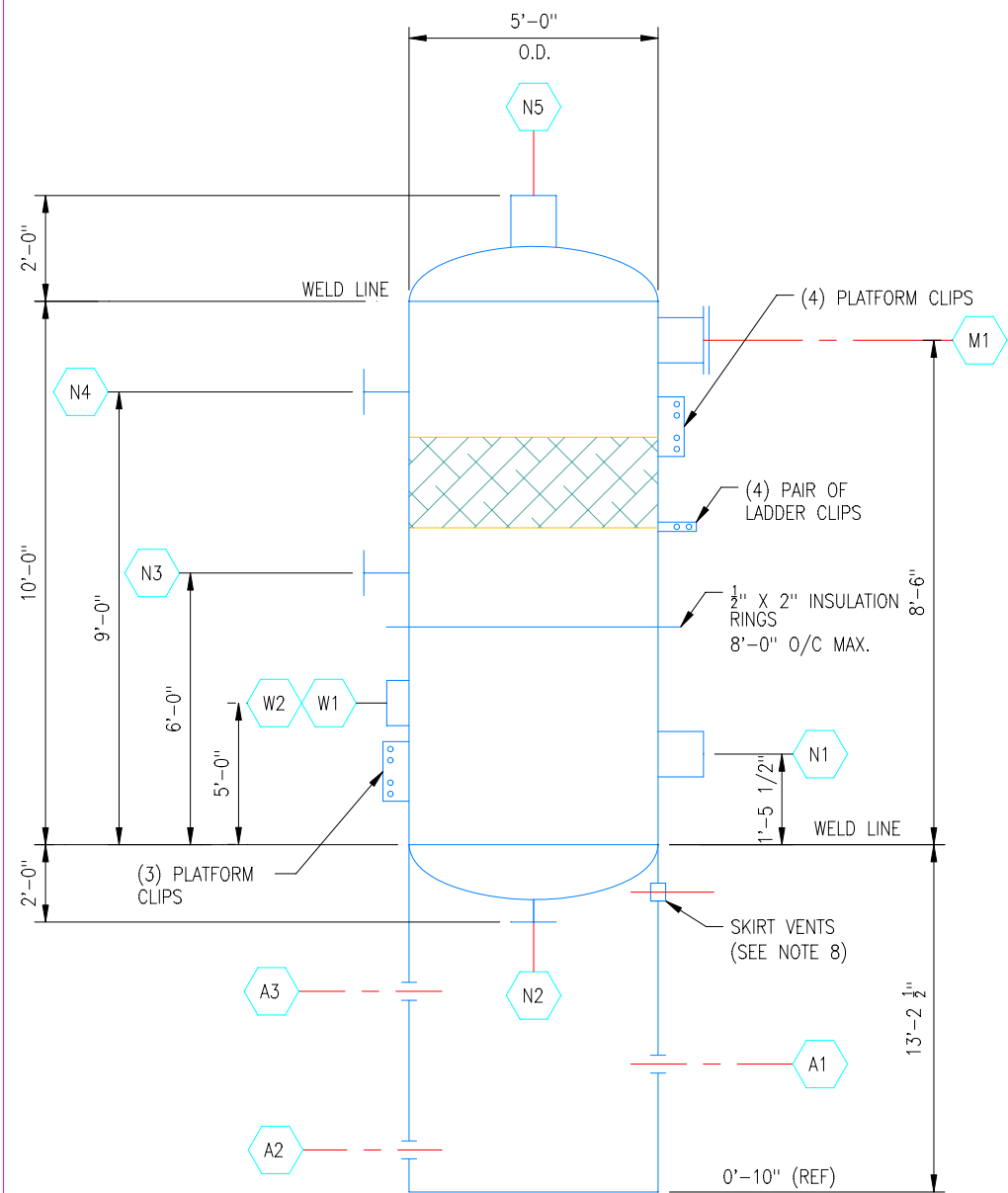


DO NOT SCALE THIS DRAWING



PLAN



ELEVATION

| NOZZLE SCHEDULE |      |        |           |       |                          | DESIGN DATA |                                                                                                                    |
|-----------------|------|--------|-----------|-------|--------------------------|-------------|--------------------------------------------------------------------------------------------------------------------|
| MK              | SIZE | RATING | FACING    | PROJ. | SERVICE                  | REMARKS     | CODE: ASME V111 DIV 1 STAMPED AND REGISTERED                                                                       |
| N1              | 20"  |        | BUTT WELD | 6"    | VAPOR INLET              | FR ET-4103  | SPECIFIC GRAVITY/CONTENTS: 1.09                                                                                    |
| N2              | 6"   | 150 LB | LJ FLG    | 6"    | LIQUID RETURN            | TO PC-4104  | DESIGN PRESS.: 75/FV (psig) DESIGN TEMP.: 250 (°F)                                                                 |
| N3              | 6"   | 150 LB | LJ FLG    | 6"    | LOWER CIP                | FR TP-4105  | OPERATING PRESS.: 12.26 (psia) OPERATING TEMP.: 203 (°F)                                                           |
| N4              | 6"   | 150 LB | LJ FLG    | 6"    | UPPER CIP                | FR TP-4105  | MDMT: -20°F                                                                                                        |
| N5              | 20"  |        | BUTT WELD | 6"    | VAPOR DISCH              | TO TW-4101  | CORROSION ALLOWANCE: NONE                                                                                          |
| M1              | 24"  |        |           |       | MANWAY W/HINGE OR DAVIT  |             | No. & TYPE OF TRAYS: 8" THICK MIST ELIMINATOR                                                                      |
| W1              |      |        | WELD PAD  | N/A   | SIGHTGLASS W/4" VIEW     |             | STRESS RELIEF:                                                                                                     |
| W2              |      |        | WELD PAD  | N/A   | SIGHTGLASS W/4" VIEW     |             | TESTS:                                                                                                             |
| A1              | 14"  | ATMO   | PLAIN     | 3"    | SKIRT PENETRATION FOR N2 |             | WIND: BASIC WIND SPEED: 80 MPH SEISMIC: A <sub>y</sub> = 0.05<br>WIND IMPORTANCE FACTOR: 1.0 A <sub>o</sub> = 0.05 |
| A2              | 24"  | ATMO   | PLAIN     | 3"    | SKIRT ACCESS             |             |                                                                                                                    |
| A3              | 3"   | ATMO   | PLAIN     | 3"    | FIRE PROTECTION          |             |                                                                                                                    |

NOTES:

- THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN & STRUCTURAL INTEGRITY OF THE TANK.
- WIND AND SEISMIC LOAD PER BOCA 1996  
SNOW LOAD, P<sub>s</sub> = 20 PSF
- ALL NON CONTACT SURFACES TO BE CARBON STEEL
- FABRICATOR TO SUPPLY BRACKETS FOR VENDOR NAMEPLATE AND THERMAL KINETICS SYSTEMS NAMEPLATE
- ALL CARBON STEEL PARTS ATTACHED TO STAINLESS STEEL PARTS SHALL BE ATTACHED USING 304L STAINLESS STEEL SCAB PLATES SHALL BE USED WITH ATTACHMENTS FOR VESSEL WALL THICKNESS OF 3/16" OR LESS. 304L STAINLESS STEEL PARTS MAY BE USED INSTEAD OF CARBON STEEL AT THE VENDORS OPTION.
- ALL NOZZLES SHALL BE SQUARE, PLUMB, AND ACCURATELY LOCATED TO THE FOLLOWING TOLERANCES:
  - A) OVERALL DIAMETER AND HEIGHT: ± 1/2"
  - B) FLATNESS: ± 1/4"
  - C) NOZZLE LOCATION: ± 1/4" FROM CENTERLINES
  - D) PROJECTION: ± 1/8" FROM OUTSIDE SHELL TO FACE OF NOZZLE
  - E) FLANGE FACES: 1/2" IN ANY PLANE
- FABRICATOR TO PROVIDE VESSEL COMPLETE WITH LIFTING AND TRAILING LUGS FOR HANDLING AND ERECTION
- FABRICATOR SHALL PROVIDE AND ORIENT (4) EA. 2" SCH. 40 SKIRT VENTS APPROX. EQUAL SPACING AND TO CLEAR ALL SKIRT OPENINGS, SEAMS, SUPPORT CLIPS, ETC.

SPECIFICATIONS:

GF-1-73338: GENERAL FABRICATION STANDARDS FOR PRESSURE VESSELS & HEAT EXCHANGERS

REF. DWG'S:

- 6018-MD-4001

|                    |       |                 |       |
|--------------------|-------|-----------------|-------|
| WEIGHT EMPTY:      | (lbs) | WEIGHT FLOODED: | (lbs) |
| VOLUME:            | (gal) |                 |       |
| WEIGHT INSULATION: |       |                 |       |

NOZZLE LOADS

| MK | F <sub>R</sub> (lbs) | M <sub>R</sub> (ft/lbs) | MK | F <sub>R</sub> (lbs) | M <sub>R</sub> (ft/lbs) |
|----|----------------------|-------------------------|----|----------------------|-------------------------|
| N1 | 5700                 | 10068                   | N4 | 1500                 | 2394                    |
| N2 | 1500                 | 2394                    | N5 | 5700                 | 10068                   |
| N3 | 1500                 | 2394                    |    |                      |                         |

MATERIALS OF CONSTRUCTION

| ITEM              | MATERIAL                 | COMMENTS              |
|-------------------|--------------------------|-----------------------|
| SHELL             | 304L SS                  |                       |
| HEADS             | 304L SS                  | 2:1 ELLIPTICAL        |
| JACKET            | NONE                     |                       |
| CLADING/LINER     | NONE                     |                       |
| INTERNAL SUPPORTS | 304LSS                   | DEMISTER SUPPORT RING |
| GASKETS           | IFG 5500                 |                       |
| BOLTING           | SEE SPEC GF-1-73335      |                       |
| LADDER            | CS                       | CLIPS ONLY            |
| PLATFORMS         | CS                       | CLIPS ONLY            |
| VESSEL SUPPORTS   | CS                       | SKIRT                 |
| PAINT:            | SEE SPEC GF-1-73335 CL-1 |                       |
| SURFACE PREP:     | SEE SPEC GF-1-73335 CL-1 |                       |
| INSULATION:       | 2" FG-TOP HEAD Ca Si     | PURCHASER TO PROVIDE  |

**CONFIDENTIAL**

SEPARATOR - RC COND./BC REBOILER



Evaporation/Distillation/Chemical Reaction/Process Design & Energy Conservation  
667 Tiftt Street Buffalo, NY 14220

|                |                  |
|----------------|------------------|
| EQUIPMENT No.: | TP-4103          |
| PROJECT No.:   | 73338            |
| PROJECT NAME:  | CENTRAL ILLINOIS |
| SHEET No.:     | 1 of 1           |
| DRAWING No.:   | 6018-MQ-4105     |
| REV.:          | B                |

|     |                             |             |        |        |             |
|-----|-----------------------------|-------------|--------|--------|-------------|
| B   | ISSUED FOR REVIEW & COMMENT | 7-14-06     | KAR    | JL     | -           |
| A   | ISSUED FOR BID              | 06-26-06    | RJS    | -      | -           |
| REV | REVISION                    | DATE ISSUED | DWN BY | CHK BY | CLIENT APPR |

THIS DRAWING IN DESIGN AND DETAIL IS THE PROPERTY OF THERMAL KINETICS AND MUST NOT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SPECIFICALLY FURNISHED. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. COPYRIGHT 2006

SPEC. No.: GF-1-73338 SCALE: NONE SIZE: B

DRAWN BY: JEM DATE: 5-23-06 CHECKED BY: DATE: REV.:

B-SIZE (11x17)