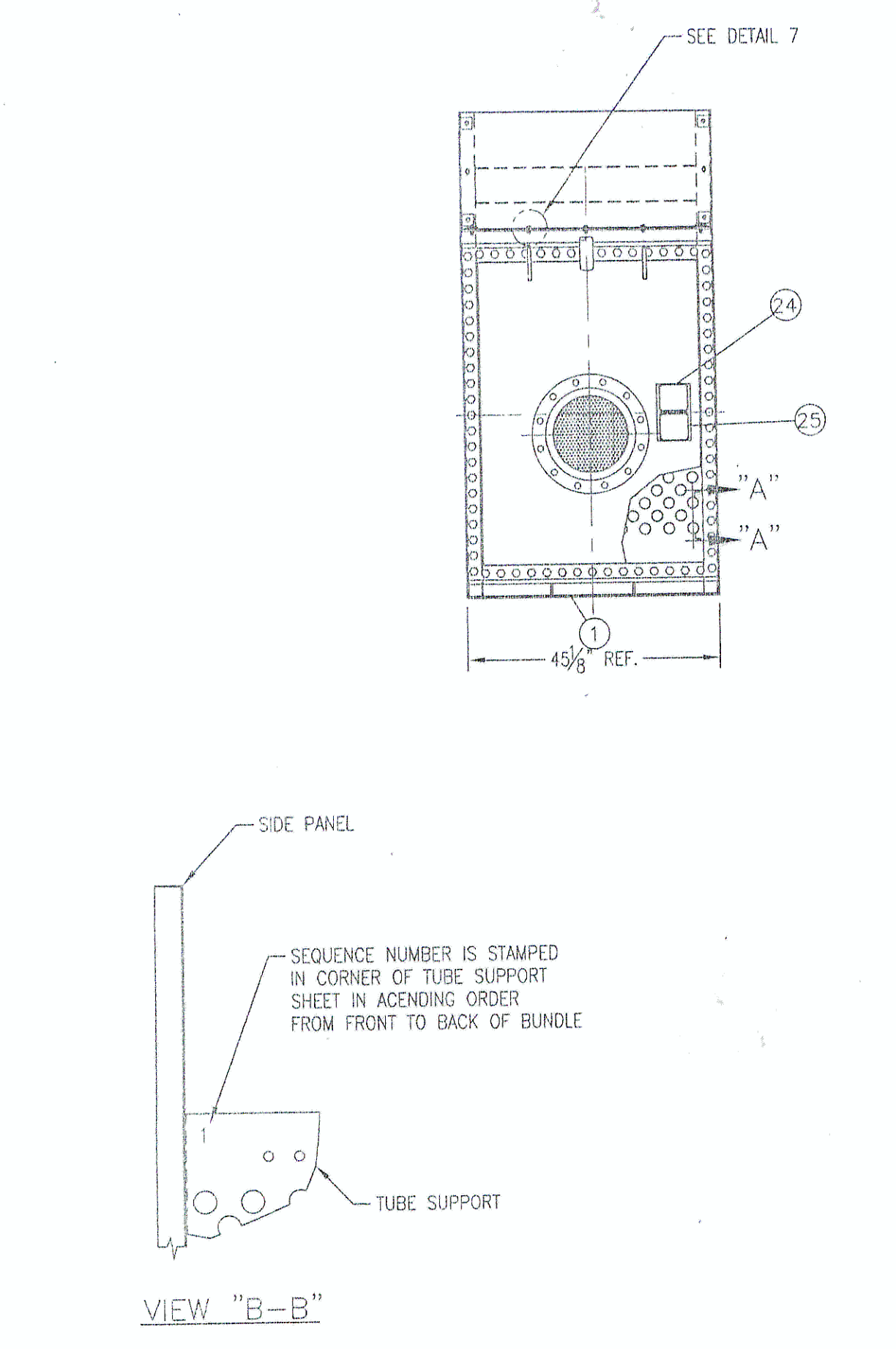


| ITEM NUMBER | NUMBER REQUIRED PER UNIT | MATERIAL | MATERIAL SPEC. | DESCRIPTION |
|-------------|--------------------------|----------|----------------|--|
| 1 | 1 | W | SEE DWG | FRONT TUBESHEET AS PER DRAWING TKSTD2-TS-2006 |
| 2 | 1 | W | SEE DWG | BACK TUBESHEET AS PER DRAWING TKSTD2-TS-2006 |
| 3 | 180 | W | A-249 | TUBE, 2" O.D. WITH 18 GA. WALL X 480 1/2" LG. (MIN.) |
| 4 | 1 | SEE DWG | SEE DWG | FRONT DOME COVER AS PER DRAWING TKSTD2-DC-2005 |
| 5 | 1 | SEE DWG | SEE DWG | FRONT GASKET AS PER DRAWING TKSTD2-GK-6003 |
| 6 | 1 | SEE DWG | SEE DWG | BACK DOME COVER AS PER DRAWING TKSTD2-DC-2006 |
| 7 | 1 | W | SEE DWG | BACK GASKET AS PER DRAWING TKSTD2-GK-6003 |
| 8 | 1 | W | SEE DWG | TUBE SUPPORT SHEET #1 AS PER DRAWING TKSTD2-SS-2006 |
| 9 | 1 | W | SEE DWG | TUBE SUPPORT SHEET #2 AS PER DRAWING TKSTD2-SS-2006 |
| 10 | 1 | W | SEE DWG | TUBE SUPPORT SHEET #3 AS PER DRAWING TKSTD2-SS-2006 |
| 11 | 1 | W | SEE DWG | TUBE SUPPORT SHEET #4 AS PER DRAWING TKSTD2-SS-2006 |
| 12 | 1 | W | SEE DWG | TUBE SUPPORT SHEET #5 AS PER DRAWING TKSTD2-SS-2006 |
| 13 | 16 | W | SEE DWG | SIDE PANEL AS PER ITEM 1 ON DRAWING TKSTD2-CP-2002 |
| 14 | 2 | W | SEE DWG | CENTER SIDE PANEL AS PER ITEM 2 ON DRAWING TKSTD2-CP-2002 |
| 15 | 2 | W | SEE DWG | FRONT AND BACK PANEL AS PER ITEM 3 ON DRAWING TKSTD2-CP-2002 |
| 16 | 8 | W | SEE DWG | SPRAY ARM SUPPORT AS PER ITEM 4 ON DRAWING TKSTD2-CP-2002 |
| 17 | 144 | B | A-191-B | BOLT, HEX HEAD 3/4" - 10 UNC X 2 3/4" LG. ZINC PLATED |
| 18 | 44 | B | B | BOLT, HEX HEAD 3/8" - 16 UNC X 1 1/2" LG. |
| 19 | 186 | B | B | BOLT, HEX HEAD 3/8" - 16 UNC X 1" LG. |
| 20 | 198 | B | B | NUT, HEX 3/8" - 16 UNC |
| 21 | 230 | B | B | WASHER, FLAT 3/8" - McMASTER-CARR NO. 92141A031 |
| 22 | 198 | B | B | WASHER, INTERNAL TOOTH 3/8" - McMASTER-CARR NO. 98449A031 |
| 23 | 116 | B | B | WASHER, SQUARE STRUCTURAL 3/8" - McMASTER-CARR NO. 91122A115 |
| 24 | 1 | W | SEE DWG | NAMEPLATE, THERMAL KINETICS ASME |
| 25 | 1 | W | SEE DWG | NAMEPLATE, THERMAL KINETICS EQUIPMENT ID AND PROJECT NO. |
| 26 | 5 | RED | SEE DWG | TAPE, SEALANT 3M WEATHERBOND, 5354, 3/8" WIDE |
| 27 | AS REQ | SEE DWG | SEE DWG | CAULK, SEALANT, 3M MARINE, 08029, CLEAR |



- NOTES:
- TUBE BUNDLE SHALL BE DESIGNED, CONSTRUCTED AND STAMPED PER ASME SECTION VIII, DIV. 1 CODE, LATEST ADDENDA.
DESIGN PRESSURE: 35 PSIG AND FULL VACUUM
DESIGN TEMPERATURE: 250° F
MDMT: -20° F
HEAT TREATMENT: NONE
NDE: PER CODE
 - REMOVE SHARP CORNERS OF ANY EXPOSED SHEET METAL EDGES
 - PRIOR TO APPLICATION OF TAPE AND CAULK, FLANGED SURFACES SHALL BE CLEAN AND DRY. USE SOLVENT CLEANER AS REQUIRED.
 - TAPE SHALL BE APPLIED AS SHOWN TO FORM A CONTINUOUS SEAL. TAPE JOINTS SHALL BE EXPANDED TO CRISS - CROSS AT LEAST 1" BEYOND ENDS.

ISSUED FOR CONSTRUCTION

DO NOT SCALE THIS DRAWING

THERMAL KINETICS
Engineering, PLLC & Systems, LLC
Evaporation/Distillation/Chemical Reaction/Process Design & Energy Conservation
667 Tift Street Buffalo, NY 14220

| | | | |
|--------------|----------------|----------|----------|
| SIZE | PROJECT NUMBER | DRAWN BY | DATE |
| D | TKSTD2 | JC | 07/17/06 |
| SCALE: | CHECKED BY | DATE | |
| 1/2" = 1'-0" | SCL | 07-19-06 | |

CONFIDENTIAL

TK STANDARD TUBE BUNDLE
CORE ASS'Y FOR 18T/ØR X 10DR X 40'
BUNDLE (2" OD. TUBES) W/ 304L SS
TUBES, TUBESHEET, DOMES & PANELS

DWG. No. **TKSTD2-BC-7003** SHT. No. **1 of 1**

DATE: 9/23/06 BY: (CA) J. D. COUSINS INC.

| REV | REVISION | DATE ISSUED | OWN BY | CHK BY | CLIENT APPR |
|-----|---------------------------------|-------------|--------|--------|-------------|
| 1 | REVISED SIDE PANELS & 35 WAS 25 | 09-28-06 | JC | SCL | |
| 0 | ISSUED FOR CONSTRUCTION | 07-19-06 | JC | SCL | |

D-SIZE (24x36)