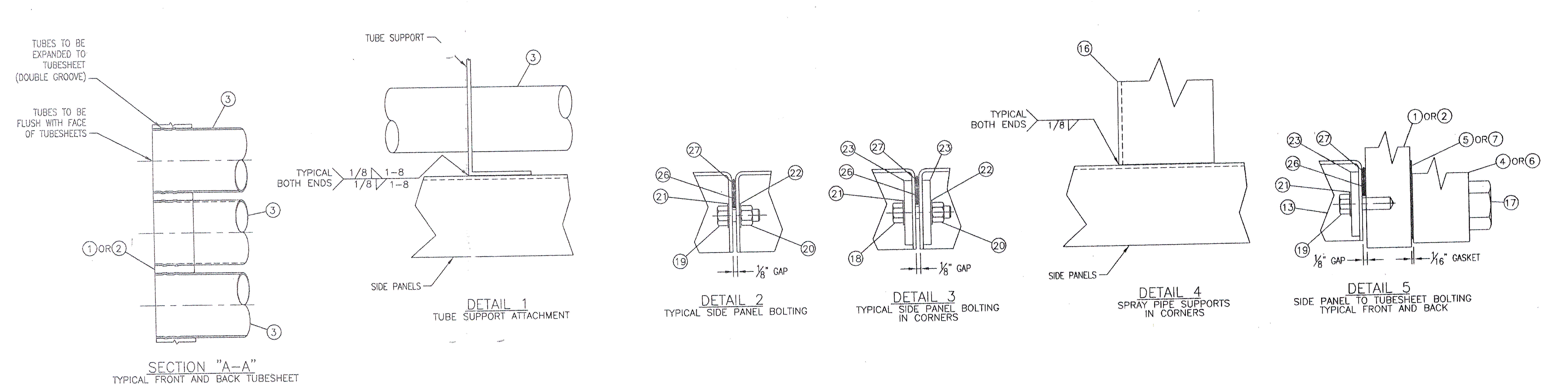
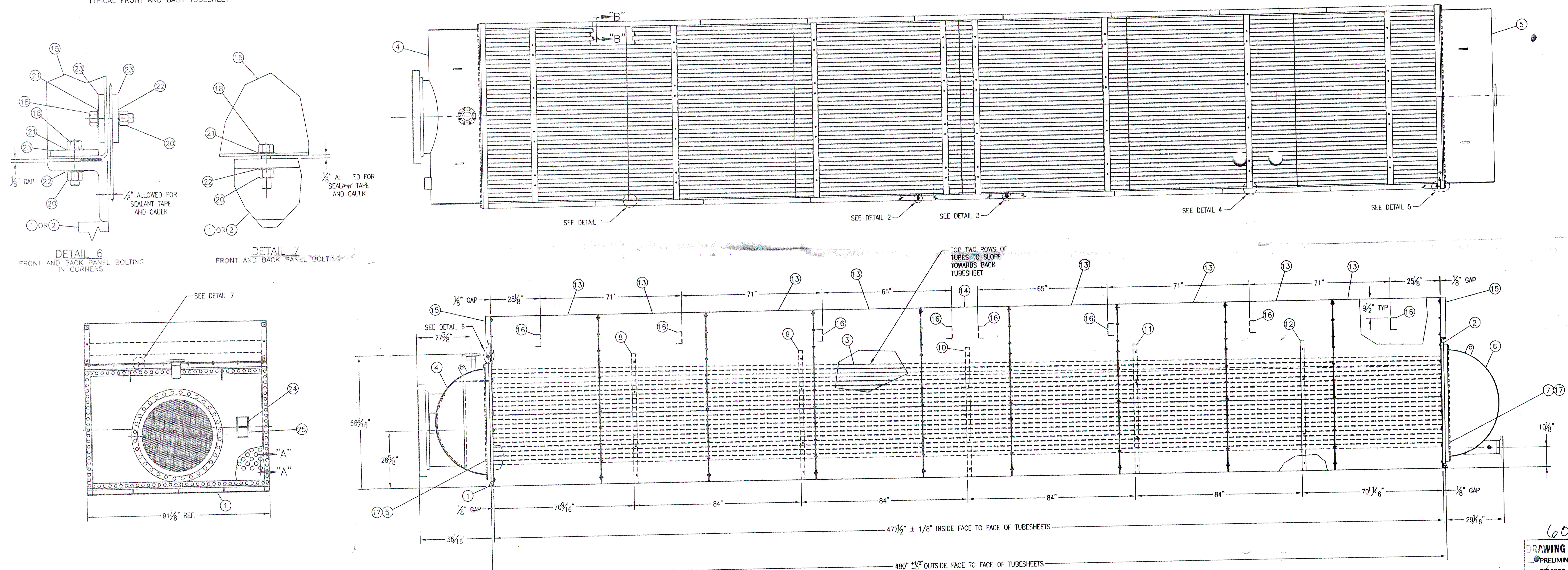
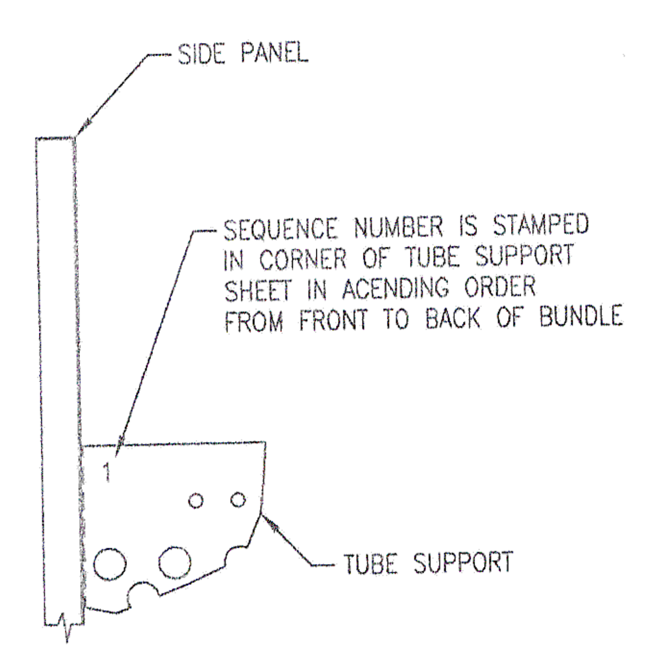


BILL OF MATERIAL

ITEM NUMBER	NUMBER REQUIRED PER UNIT	MATERIAL	MATERIAL SPEC.	DESCRIPTION
1	1	SEE DWG.	SEE DWG.	FRONT TUBESHEET AS PER DRAWING TKSTD2-TS-2004
2	1	SEE DWG.	SEE DWG.	BACK TUBESHEET AS PER DRAWING TKSTD2-TS-2004
3	400	T-304L SS	SA-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-2001
5	1	SEE DWG.	SEE DWG.	FRONT GASKET AS PER DRAWING TKSTD2-GK-6001
6	1	SEE DWG.	SEE DWG.	BACK DOME COVER AS PER DRAWING TKSTD2-DC-2002
7	1	SEE DWG.	SEE DWG.	BACK GASKET AS PER DRAWING TKSTD2-GK-6001
8	1	SEE DWG.	SEE DWG.	TUBE SUPPORT SHEET #1 AS PER DRAWING TKSTD2-SS-2004
9	1	SEE DWG.	SEE DWG.	TUBE SUPPORT SHEET #2 AS PER DRAWING TKSTD2-SS-2004
10	1	SEE DWG.	SEE DWG.	TUBE SUPPORT SHEET #3 AS PER DRAWING TKSTD2-SS-2004
11	1	SEE DWG.	SEE DWG.	TUBE SUPPORT SHEET #4 AS PER DRAWING TKSTD2-SS-2004
12	1	SEE DWG.	SEE DWG.	TUBE SUPPORT SHEET #5 AS PER DRAWING TKSTD2-SS-2004
13	16	SEE DWG.	SEE DWG.	SIDE PANEL AS PER ITEM 1 ON DRAWING TKSTD2-CP-2001
14	2	SEE DWG.	SEE DWG.	CENTER SIDE PANEL AS PER ITEM 2 ON DRAWING TKSTD2-CP-2001
15	2	SEE DWG.	SEE DWG.	FRONT AND BACK PANEL AS PER ITEM 3 ON DRAWING TKSTD2-CP-2001
16	8	SEE DWG.	SEE DWG.	SPRAY ARM SUPPORT AS PER ITEM 4 ON DRAWING TKSTD2-CP-2001
17	212	CAR. ST.	SA-193-B7	BOLT, HEX HEAD 3/4" - 10 UNC X 2 3/4" LG. ZINC PLATED
18	56	SS	18-8	BOLT, HEX HEAD 3/8" - 16 UNC X 1 1/2" LG.
19	180	SS	18-8	BOLT, HEX HEAD 3/8" - 16 UNC X 1" LG.
20	204	SS	18-8	NUT, HEX 3/8" - 16 UNC
21	236	T-316 SS	18-8	WASHER, FLAT 3/8" - McMASTER-CARR NO. 92141A031
22	204	T-410 SS		WASHER, INTERNAL TOOTH 3/8" - McMASTER-CARR NO. 98449A031
23	116	T-316 SS	18-8	WASHER, SQUARE STRUCTURAL 3/8" - McMASTER-CARR NO. 91122A115
24	1	SS		NAMEPLATE, THERMAL KINETICS ASME
25	1	SS		NAMEPLATE, THERMAL KINETICS EQUIPMENT ID AND PROJECT NO.
26	AS REQ,D			TAPE, SEALANT 3M WEATHERBAN, 5354, 3/8" WIDE
27	AS REQ,D			CAULK, SEALANT, 3M MARINE, 08029, CLEAR





VIEW "B-B"

606-5

DRAWING CERTIFIED FOR:
PRELIMINARY APPROVAL
REVISED FOR FABRICATION
✓ APPROVED FOR FABRICATION
DATE 7/28/06 BY [illegible]
J. D. COUSINS INC.

ET-4204

NOTES:

1) TUBE BUNDLE SHALL BE DESIGNED, CONSTRUCTED AND STAMPED PER ASME SECTION VIII, DIV. 1 CODE, LATEST ADDENDA.
   - DESIGN PRESSURE: 25 PSIG AND FULL VACUUM
   - DESIGN TEMPERATURE: 250° F
   - MDMT: -20° F
   - HEAT TREATMENT: NONE
   - NDE: PER CODE
2) REMOVE SHARP CORNERS OF ANY EXPOSED SHEET METAL EDGES
3) PRIOR TO APPLICATION OF TAPE AND CAULK, FLANGED SURFACES SHALL BE CLEAN AND DRY. USE SOLVENT CLEANER AS REQUIRED.
4) TAPE SHALL BE APPLIED AS SHOWN TO FORM A CONTINUOUS SEAL. TAPE [illegible]ICES S[illegible]L BE EXTENDED TO CRISS - CROSS AT LEAST 1" BEYOND ENDS.

ISSUED FOR CONSTRUCTION

CONFIDENTIAL

REV	REVISION	DATE ISSUED	DWN BY	CHK BY	CLIENT APPD
0	ISSUED FOR CONSTRUCTION	07-19-06	JC	SCL	

DO NOT SCALE THIS DRAWING

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

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

SIZE: D	PROJECT NUMBER: TKSTD2	DRAWN BY: JC	DATE: 07/12/06		DWG. No. TKSTD2-BC-7001	SHT.No. 1 of 1
	SCALE: 1/2" = 1'-0"	CHECKED BY: SCL	DATE: 07-19-06			REV. 0

D-SIZE (24x36)

[illegible]\TK COND\Design\2-Fab [illegible]\Bundle Core\TKSTD2 BC 7001-01 0.dwg, 7/27/2006 4:26:44 PM