

UNITIZATION PROCEDURES FOR STRYKER ARMOR TILE SET UNITIZED IN PALLET BOXES

ACTIVE TILES - FRONT

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U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY FIELD SUPPORT COMMAND <i>David A. Puskas</i> AMSRD-AAR-AIL-TP SFSJM-LIT		CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 6.			
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND <i>Charles J. Spoo</i> U.S. ARMY DEFENSE AMMUNITION CENTER		DO NOT SCALE		MARCH 2006	
ENGINEER OR TECHNICIAN <i>Laura A. Fieffer</i>		BASIC REV.	LAURA A. FIEFFER		
TRANSPORTATION ENGINEERING DIVISION		<i>Laura A. Fieffer</i>		TESTED	
VALIDATION ENGINEERING DIVISION		<i>Deylee Lee</i>		CLASS	DIVISION
ENGINEERING DIRECTORATE		<i>Deylee Lee</i>		DRAWING	FILE
		19	48	4221/14	20PA1009

PROJECT CA 234/14-86

GENERAL NOTES

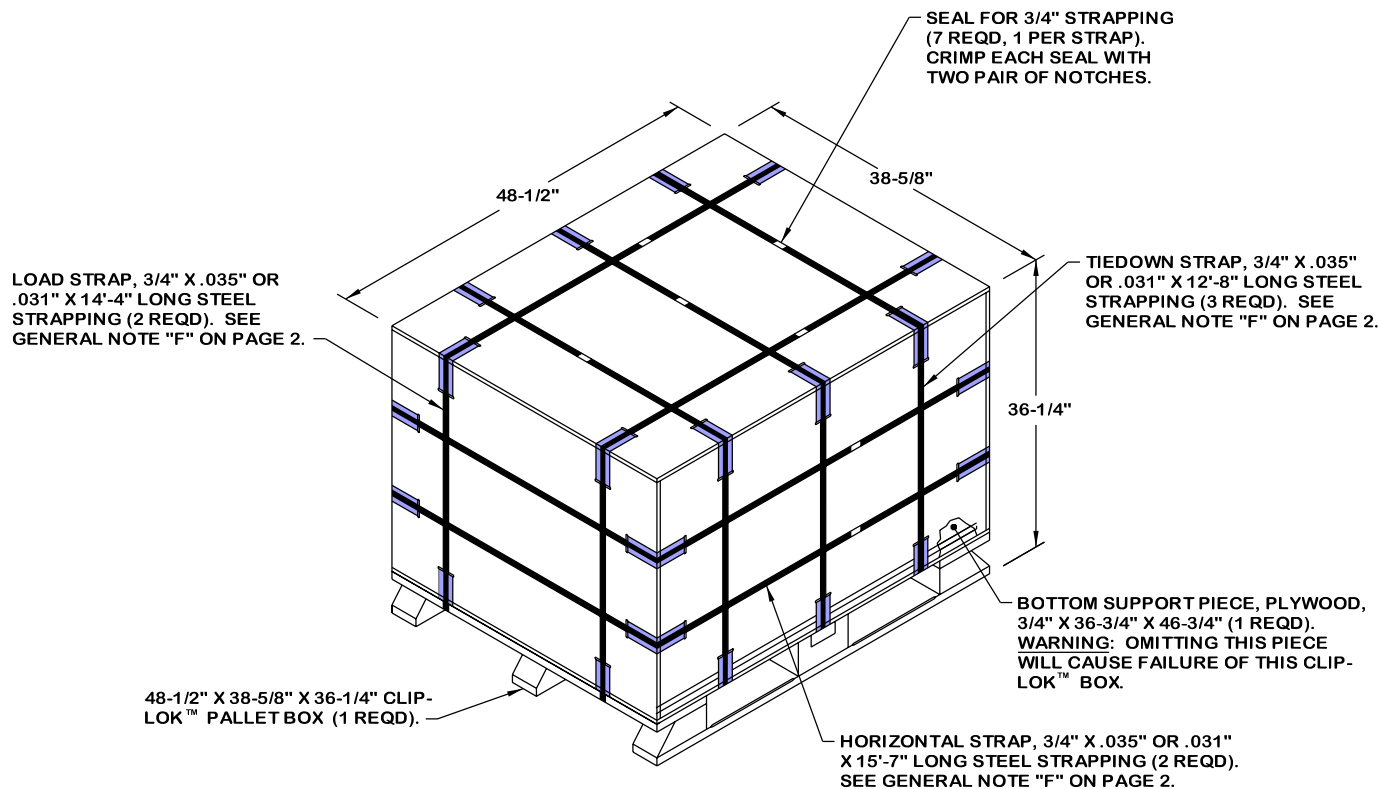
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5) AND CONFORMS TO MIL-STD-1660.
- B. FOR DETAILS OF THE FIBERBOARD BOX SEE ARDEC DRAWING 13005866-1. THE LARGE FRONT (BUMPER) AND LARGE SIDEWALL FIBERBOARD BOXES BOTH HAVE THE SAME DIMENSIONS.
 BOX DIMENSIONS: 18-5/8" LONG X 11-1/2" WIDE X 13-3/4" HIGH
 BOX CUBE: 1.7 CUBIC FEET
 BOX WEIGHT (BOTH ARMOR TILES): 70 POUNDS
- C. FOR DETAILS OF THE LOWER GLACIS WOODEN BOX SEE ARDEC DRAWING 13005869-1.
 BOX DIMENSIONS: 19-7/8" LONG X 13-3/8" WIDE X 14-3/4" HIGH
 BOX CUBE: 2.3 CUBIC FEET
 BOX WEIGHT (FULL): 98 POUNDS
 BOX WEIGHT (LIGHT): 68 POUNDS
- D. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
 CARLOADING - - - - - 19-48-4115-5PA1002
 TRUCKLOADING - - - - - 19-48-4117-11PA1003
 STORAGE - - - - - 19-48-4118-1-2-3-4-14-22PA1002
 END OPENING ISO CONTAINER - 19-48-4153-15PA1002
 MILVAN - - - - - 19-48-4166-15PA1003
 SIDE OPENING ISO CONTAINER - 19-48-4267-15PA1009
- E. UNLESS OTHERWISE SPECIFIED, A MANUFACTURING TOLERANCE OF PLUS-OR-MINUS 1/4" IS ALLOWED ON ALL DIMENSIONS. HOWEVER, SIMILAR PIECES IN AN ASSEMBLY MUST BE WITHIN 1/8" OF THE SAME DIMENSION.
- F. INSTALL EACH HORIZONTAL, LOAD OR TIEDOWN STRAP TO BE LOCATED AS SHOWN. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN AND LOAD STRAPS. LOAD STRAPS MUST BE TENSIONED AND SEALED AFTER THE HORIZONTAL STRAPS AND PRIOR TO THE TIEDOWN STRAPS.
- G. WHEN APPLYING ANY STRAP, CARE MUST BE EXERCISED TO ASSURE THAT THE END OF THE STRAP ON THE UNDERSIDE OF THE JOINT EXTENDS AT LEAST 6" BEYOND THE SEAL. THIS EXTRA MINIMUM LENGTH OF STRAP IS REQUIRED TO PERMIT SUBSEQUENT TIGHTENING OF LOOSENED STRAPPING. RETENSIONING CAN BE ACCOMPLISHED WITHOUT REPLACING STRAPPING OR SPLICING STRAPPING THROUGH THE USE OF A MANUAL OR PNEUMATIC FEEDWHEEL TYPE TENSIONING TOOL AND THE APPLICATION OF ONE ADDITIONAL SEAL.
- H. IN ORDER TO OBTAIN COMPACT AND SOUND UNITS, ALL STRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND TENSIONED UNTIL THEY CUT INTO THE EDGE OF THE PALLET BOX AND THE PALLET DECK. AFTER TENSIONING, ALL STRAPS WILL BE SECURED USING ONE SEAL AND TWO PAIR OF NOTCHES PER SEAL.
- J. CLIP-LOK™ BOXES, HARDBOARD, FIBERBOARD, AND PLYWOOD ARE MANUFACTURED WOOD AND THEREFORE DO NOT REQUIRE HEAT TREATMENT.
- K. UNIT LOAD MARKING MUST BE APPLIED IN ACCORDANCE WITH ARDEC DRAWING 13005865.
- L. ARMOR TILE BOXES MUST FIT SNUGLY WITHIN THE PALLET BOX. THE UNBLOCKED SPACE WITHIN THE PALLET BOX MUST NOT EXCEED 1/2" IN ANY DIRECTION. FILLERS SUCH AS PLYWOOD, FIBERBOARD, HONEYCOMB FILLER, FOAM CUSHIONING MATERIAL, HARDBOARD, OR EMPTY FIBERBOARD BOXES STUFFED WITH KRAFT PAPER OR SIMILAR SUPPORTING MATERIAL SHALL BE ADDED AS REQUIRED TO OBTAIN A TIGHT PACK.
- M. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454 KG.

PALLET UNIT DATA			
ITEMS INCLUDED		HAZARD CLASS AND DIVISION	COMPATIBILITY GROUP
NSN	DODIC		
1375-			
01-523-4531	MP05	1.1	D
01-528-9600	MP07	1.1	D
01-523-4519	MP10	1.1	D

● HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

MATERIAL SPECIFICATIONS

- PALLET BOX - - - - -: CLIP-LOK™ REFERENCE NUMBER CL-13005863-2; CLIP-LOK SIMPAK™ USA, INC.
- PLYWOOD - - - - -: COMMERCIAL ITEM DESCRIPTION A-A-55057, INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- STRAPPING, STEEL - -: ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH B (GRADE 2), SIZE 3/4" OR 1-1/4" X .035" OR .031", NOTE: BRITTE OR SLIT EDGES SHALL HAVE FINISH A OVERLAY.
- SEAL, STRAP - - - -: ASTM D3953; CLASS H, FINISH B (GRADE 2), DOUBLE NOTCH TYPE, STYLE I, II, III, OR IV. ALTERNATIVE SEAL FINISH: SIGNODE OR DELTA PAINTED SEALS MAY BE USED AS AN ALTERNATIVE IF ALL SURFACES ARE PAINTED. GRITTED BACKING IS NOT PERMITTED.
- HARDBOARD - - - - -: ANSI/AHA A135.4, CLASS 1.
- FIBERBOARD - - - - -: ASTM D4727.
- HONEYCOMB FILLER - -: FIBERBOARD, FACING PAPER WEIGHT 69 POUNDS/1,000 SQUARE FEET, CORE PAPER WEIGHT 33 POUNDS/1,000 SQUARE FEET, 1/2" CORE CELL CENTERS, PACTIV CORPORATION (OR EQUAL).
- FOAM CUSHIONING MATERIAL - - - - -: COMMERCIAL ITEM DESCRIPTION A-A-59136, CLASS 1, TYPE III, GRADE A, OR COMMERCIAL EQUIVALENT.
- PAPER - - - - -: COMMERCIAL ITEM DESCRIPTION A-A-203.



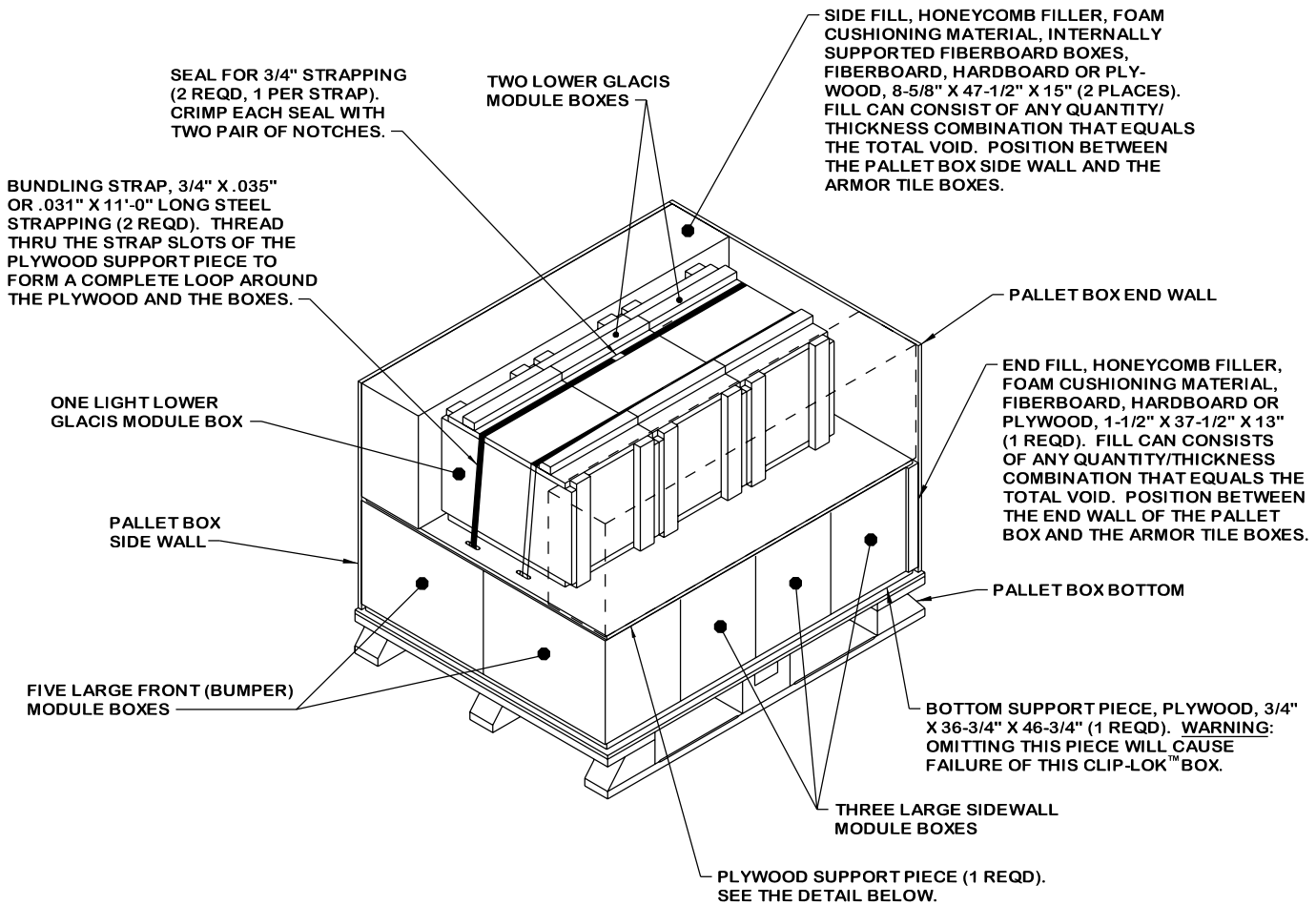
PALLET UNIT

3 BOXES OF LARGE SIDEWALL MODULES @ 70 LBS	- - - -	210 LBS (APPROX)
5 BOXES OF LARGE FRONT (BUMPER) MODULES @ 70 LBS	- - - -	350 LBS (APPROX)
2 BOXES OF LOWER GLACIS MODULES @ 98 LBS	- - - -	196 LBS (APPROX)
1 BOX OF LIGHT LOWER GLACIS MODULES @ 68 LBS	- - - -	68 LBS (APPROX)
DUNNAGE	- - - -	47 LBS
PALLET BOX	- - - -	175 LBS
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TOTAL WEIGHT	- - - -	1,046 LBS (APPROX)
CUBE	- - - -	39.3 CU FT (APPROX)

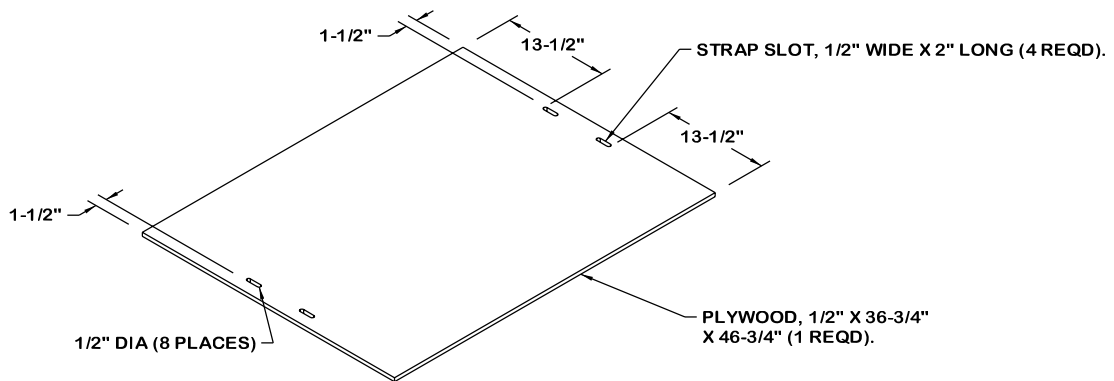
BILL OF MATERIAL		
PALLET BOX, CLIP-LOK™	- - - - 1 REQD	- - - 175 LBS
STEEL STRAPPING, 3/4"	- - 119.83 ¹ REQD	- - 10.70 LBS
SEAL FOR 3/4" STRAPPING	- - - - 9 REQD	- - - NIL
PLYWOOD, 1/2"	- - - - 11.93 SQ FT REQD	- - 16.41 LBS
HONEYCOMB, 5/8"	- - - - 9.90 SQ FT REQD	- - 1.33 LBS
HONEYCOMB, 1-1/2"	- - - - 3.39 SQ FT REQD	- - 1.10 LBS
HONEYCOMB, 4"	- - - - 19.79 SQ FT REQD	- - 17.06 LBS

SPECIAL NOTES:

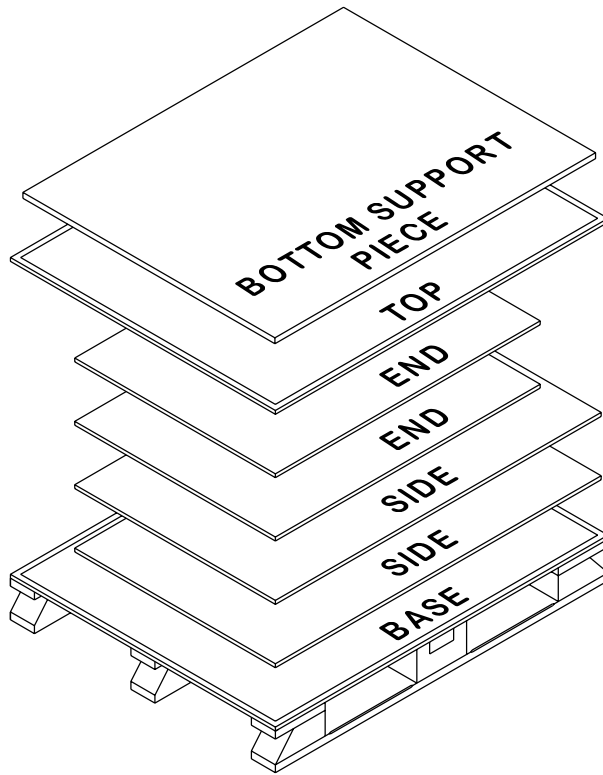
1. SOURCE OF SUPPLY: THE CLIP-LOK™ REFERENCE NUMBER CL-13005863-2 IS APPROVED FOR USE. THIS PALLET BOX CAN BE OBTAINED FROM CLIP-LOK SIMPAK™ USA, INC., 1-800-448-CLIP.
2. OTHER VENDERS' PALLET BOXES MAY BE QUALIFIED FOR USE BY SUBMITTING SAMPLE BOXES TO THE DEFENSE AMMUNITION CENTER, 1 C TREE ROAD, MCALESTER, OK 74501-9053. CONTACT THE TACOM-ARDEC PACKAGING OFFICE, AMSTA-AR-WEP-RP, TELEPHONE 309-782-8205, E-MAIL WEP-R@RIA.ARMY.MIL, OR THE DAC TRANSPORTATION ENGINEERING DIVISION, SJMAC-DET, TELEPHONE 918-420-8927, E-MAIL SJMAC-DET@DAC.ARMY.MIL.



PALLET UNIT INTERNAL DUNNAGE



PLYWOOD SUPPORT PIECE

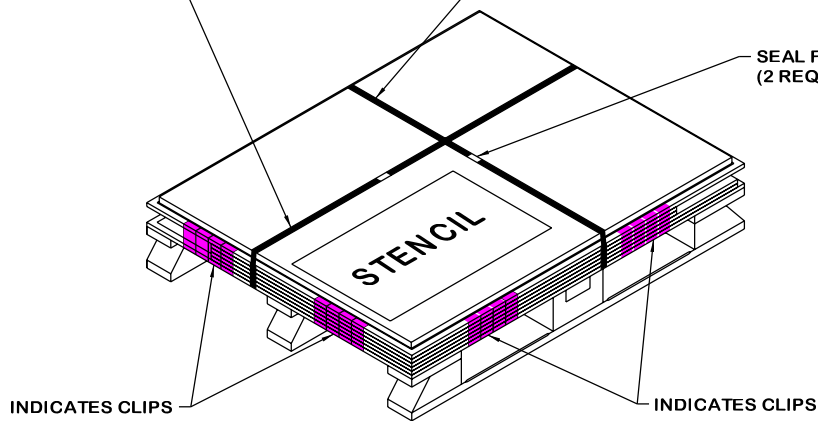


STACKING FOR COLLAPSED CLIP-LOK™ BOX

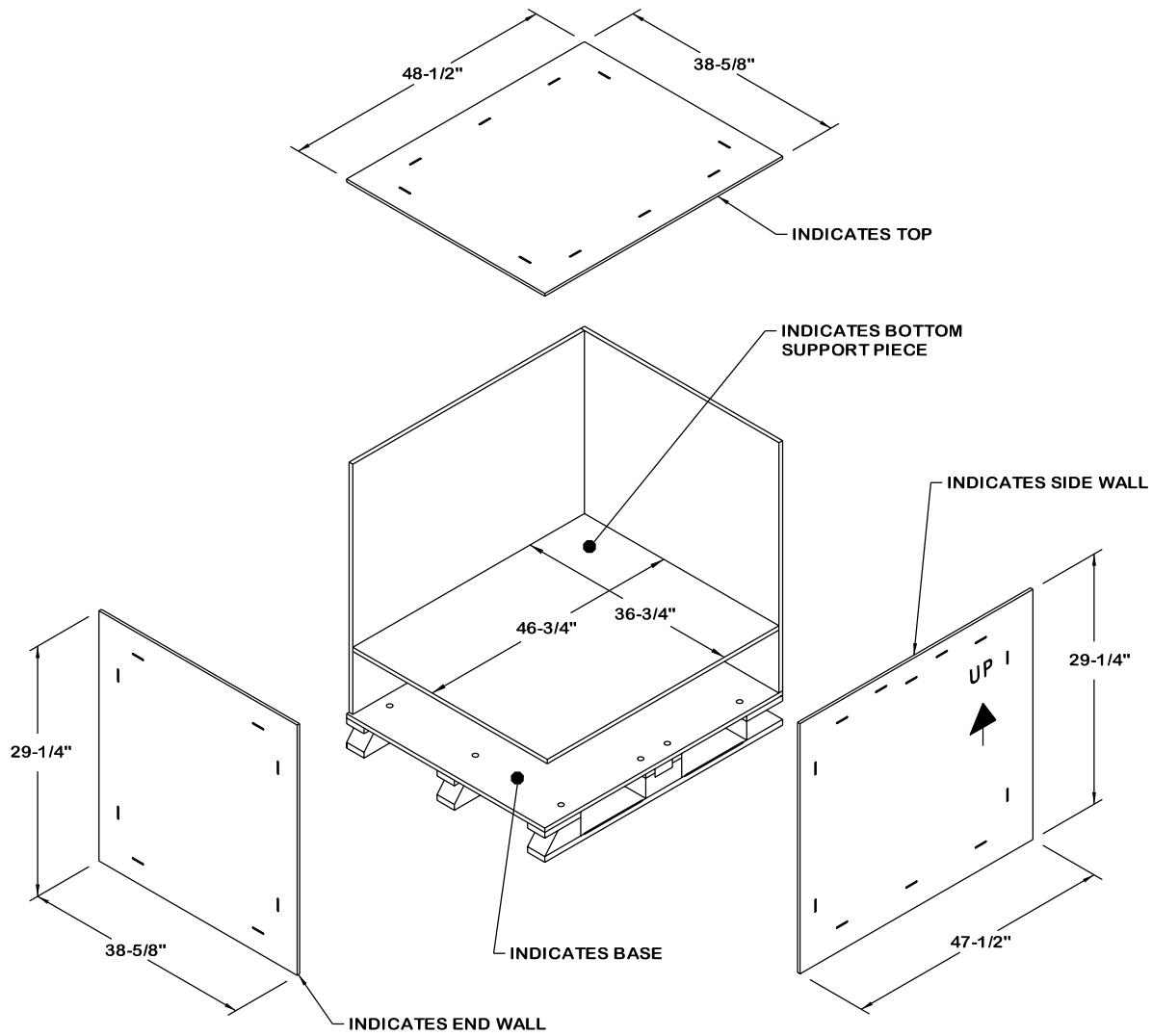
BUNDLING LOAD STRAP, 3/4" X .035" OR .031" X 9'-10" LONG STEEL STRAPPING (1 REQD).

BUNDLING TIEDOWN STRAP, 3/4" X .035" OR .031" X 8'-9" LONG STEEL STRAPPING (1 REQD).

SEAL FOR 3/4" STRAPPING (2 REQD, 1 PER STRAP).



COLLAPSED BOX



STENCIL (FOR APPLICATION TO BOTTOM SUPPORT PIECE)

SPECIAL NOTES:

1. THE DETAIL DEPICTED ABOVE WILL BE STENCILED ON THE BOTTOM SUPPORT PIECE TO SHOW ASSEMBLY INSTRUCTIONS. SEE THE "COLLAPSED BOX" DETAIL ON PAGE 5.
2. AN ARROW WITH UP WILL BE STENCILED ON THE SIDE PIECES AS SHOWN TO ENSURE THE STACKING SLOTS ARE ON TOP.