

STINGER

PREPARATION OF THE COMPLETE ROUND, PACKED IN WIREBOUND AND/OR ALUMINUM CONTAINER, FOR AERIAL DELIVERY

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APPROVED, U.S. ARMY MISSILE MATERIEL READINESS COMMAND						
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APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)						
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U. S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL						
U. S. ARMY DARCOM DRAWING						
MARCH 1979						
CLASS	DIVISION	DRAWING	FILE			
19	48	5240	GM 20SR2			

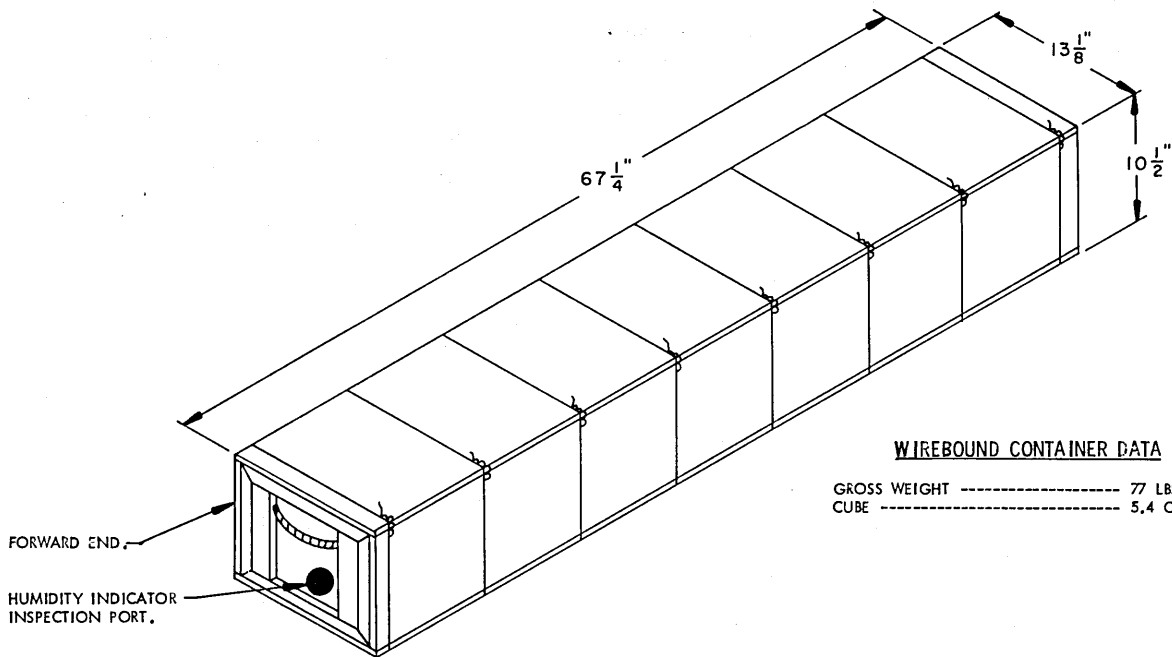
DO NOT SCALE

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE PALLETIZATION PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO THE STINGER GUIDED MISSILE PACKED IN WIREBOUND CONTAINER AND/OR ALUMINUM CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER MEANS WIREBOUND CONTAINER AND/OR ALUMINUM CONTAINER WITH CONTENTS.
- C. FOR DETAILS OF THE WIREBOUND CONTAINER, SEE US ARMY MISSILE COMMAND DRAWING NO. 11509503 AND "CONTAINER" DETAIL ON PAGE 3.
- CONTAINER DIMENSIONS-- 67-1/4" LONG X 13-1/8" WIDE X 10-1/2" HIGH
(APPROX).
GROSS WEIGHT ----- 77 POUNDS (APPROX).
CUBE ----- 5.4 CUBIC FEET.
- D. FOR DETAILS OF THE ALUMINUM CONTAINER, SEE US ARMY MISSILE COMMAND DRAWING NO. 11486952 AND "CONTAINER" DETAIL ON PAGE 3.
- CONTAINER DIMENSIONS-- 65-9/16" LONG X 13" WIDE X 13-3/8" HIGH
(APPROX).
GROSS WEIGHT ----- 85-3/4 POUNDS (APPROX).
CUBE ----- 6.6 CUBIC FEET.
- E. CAUTION: THIS ITEM MUST BE POSITIONED ON THE PALLET WITH FORWARD END OF ALL CONTAINERS POINTING IN THE SAME DIRECTION.
- F. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- G. IN ORDER TO OBTAIN COMPACT (SOUND) UNITS, ALL STRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND TENSIONED UNTIL THEY CUT INTO THE EDGE OF THE DUNNAGE/BOXES AND THE PALLET DECK.

MATERIAL SPECIFICATIONS

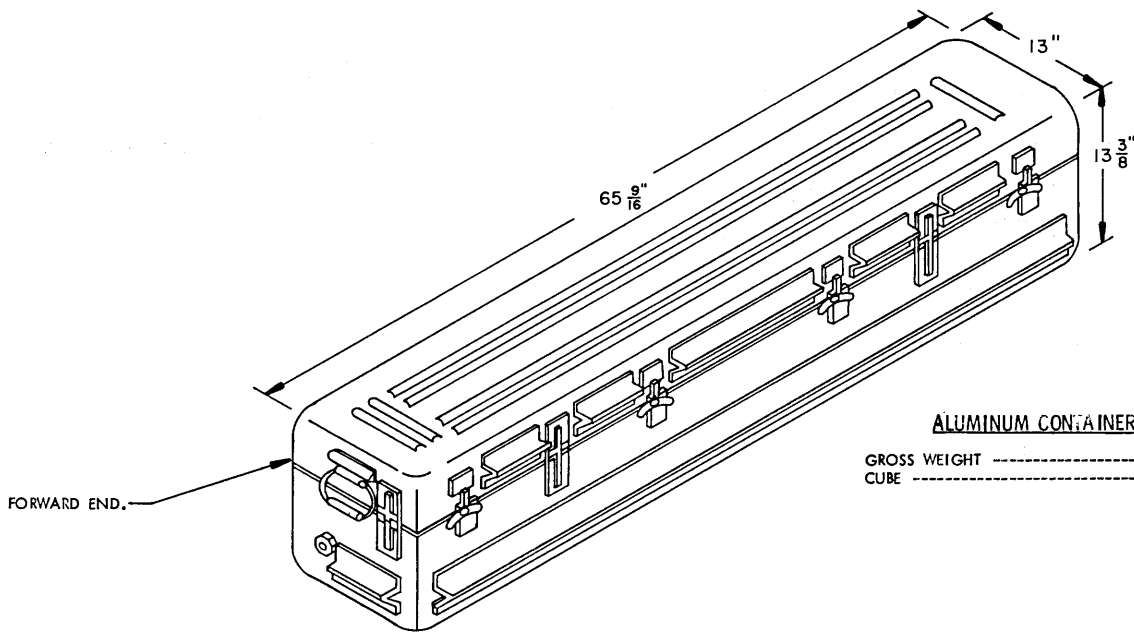
- PLYWOOD ----- : GROUP B OR C, GRADE C-D. FED SPEC NN-P-530.
- HONEYCOMB PAD ----- : MIL SPEC MIL-H-9884.
- FIBERBOARD PAD ----- : TYPE I, FED SPEC PPP-F-320.
- STRAPPING, STEEL ----- : CLASS I, TYPE I OR IV, HEAVY DUTY, FINISH A OR B (GRADE 2), FED SPEC QQ-5-781.
- SEAL, STRAP ----- : TYPE D, STYLE I, II, OR IV, CLASS H, FED SPEC QQ-5-781.
- ADHESIVE, SYNTHETIC RUBBER ----- : TYPE, COLD BONDING, FED SPEC MMM-A-189.



WIREBOUND CONTAINER DATA

GROSS WEIGHT ----- 77 LBS (APPROX).
 CUBE ----- 5.4 CU FT (APPROX).

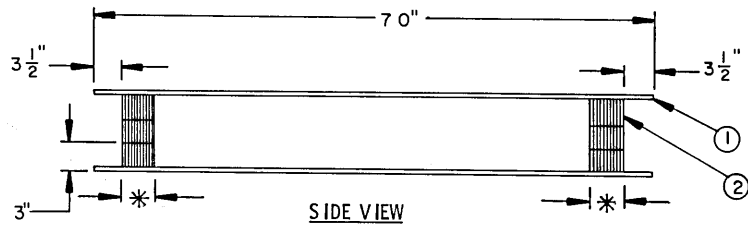
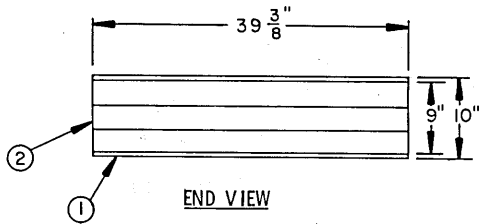
WIREBOUND CONTAINER



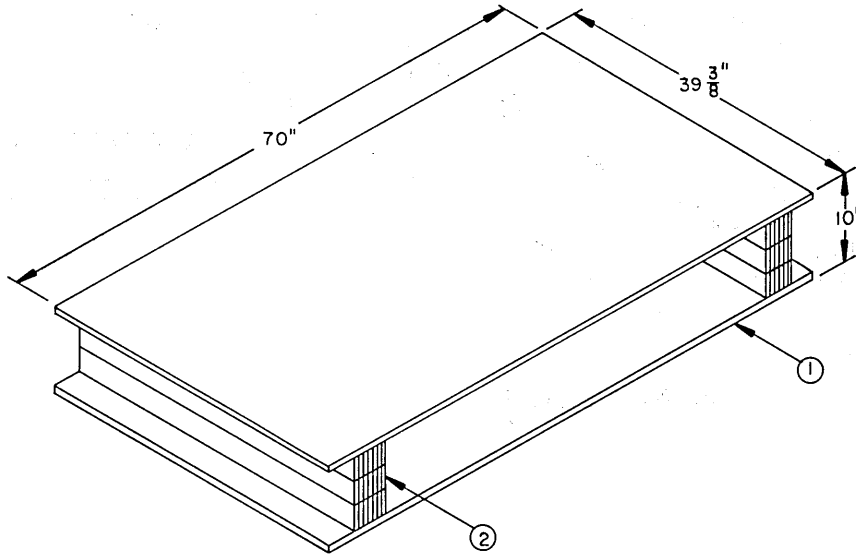
ALUMINUM CONTAINER DATA

GROSS WEIGHT ----- 85-3/4 LBS (APPROX).
 CUBE ----- 6.6 CU FT (APPROX).

ALUMINUM CONTAINER



* SEE SPECIAL NOTE 2 ON THIS PAGE.



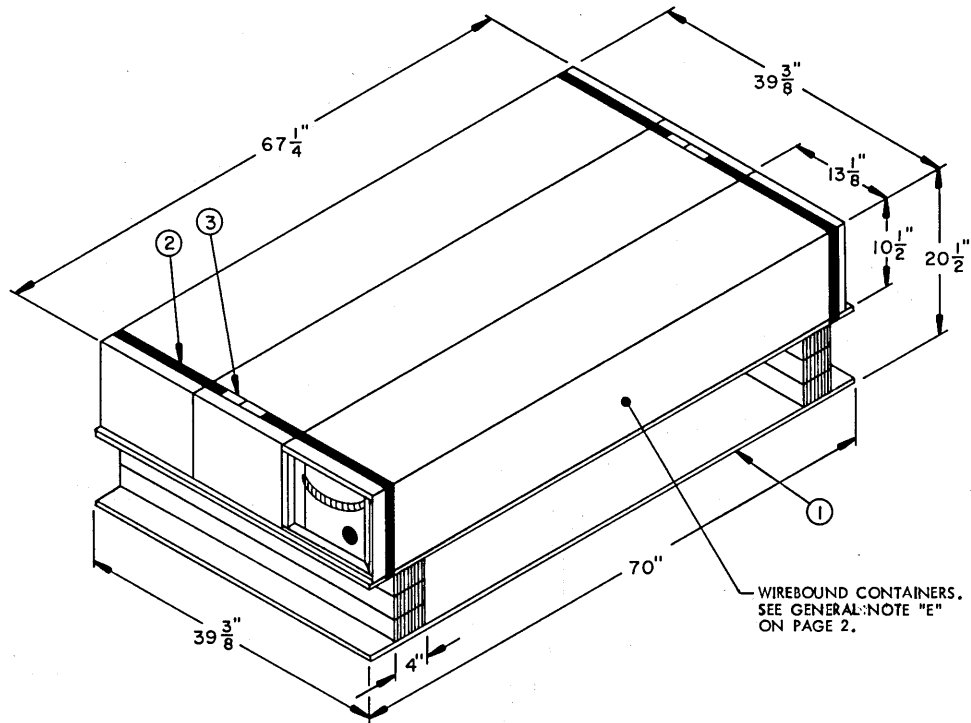
ISOMETRIC VIEW

SPECIAL NOTES:

1. THE PALLET SHOWN ABOVE IS TO BE USED FOR THE WIREBOUND CONTAINERS ONLY.
2. EACH 9" HIGH BY 39-3/8" LONG HONEYCOMB PAD WILL BE FABRICATED FROM THREE (3) 3" HIGH BY 39-3/8" LONG HONEYCOMB CELLS PLACED IN VERTICAL ALIGNMENT AND SECURED WITH SYNTHETIC RUBBER ADHESIVE. NOTE: THE WIDTH OF THE HONEYCOMB PADS WILL VARY WITH THE QUANTITY OF WIREBOUND CONTAINERS TO BE POSITIONED ON THE PALLET (4" FOR A THREE CONTAINER LOAD, 5" FOR A SIX CONTAINER LOAD, AND 7" FOR A NINE CONTAINER LOAD). SEE PAGES 5, 6, AND 7.
3. EACH HONEYCOMB PAD, SHOWN AS PIECE MARKED (2), WILL BE SANDWICHED BETWEEN THE TOP AND BOTTOM PLYWOOD PANELS AT THE LOCATIONS SHOWN ABOVE. ASSURE THAT EACH PAD IS PERPENDICULAR TO THE PLYWOOD PANELS PRIOR TO SECURING WITH SYNTHETIC RUBBER ADHESIVE.

KEY NUMBERS

- (1) PLYWOOD PANEL, 1/2" X 39-3/8" X 70" (2 REQD).
- (2) HONEYCOMB PAD, 9" HIGH BY 39-3/8" LONG BY WIDTH-TO-SUIT (2 REQD). SEE SPECIAL NOTE 2 ON THIS PAGE FOR WIDTH OF PAD.



PALLETIZED UNIT

UNIT DATA

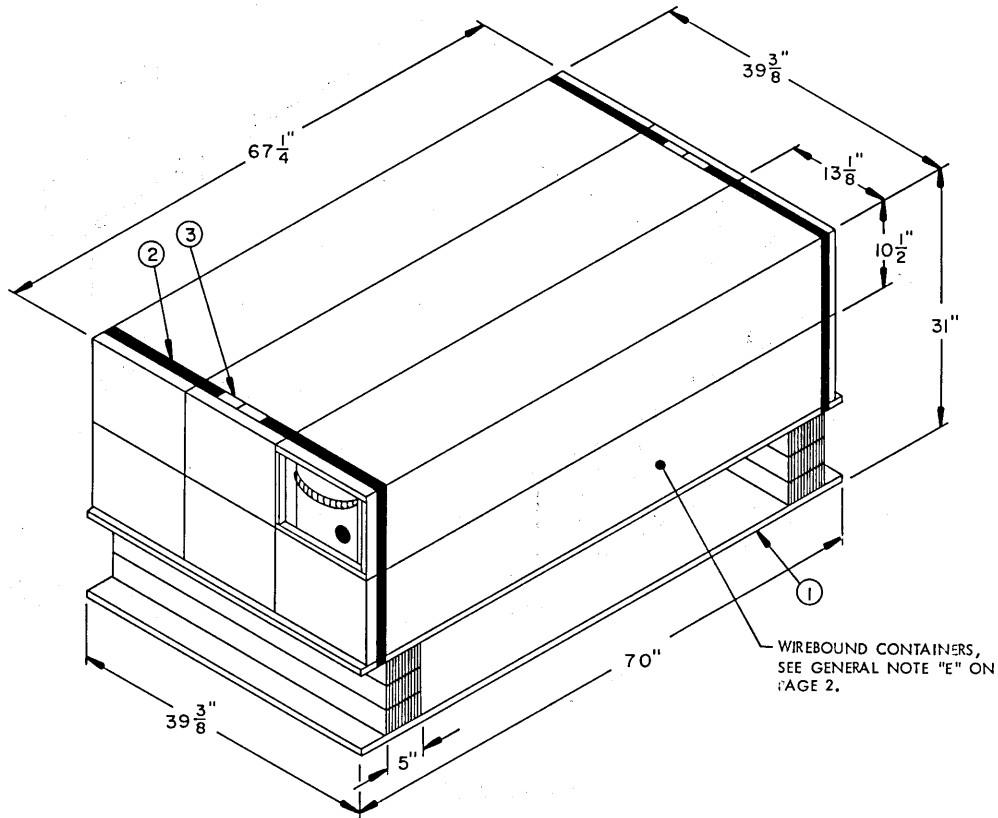
WIREBOUND (WOODEN) BOX ---3 EACH @ 77 POUNDS ---	231 LBS
DUNNAGE (STRAPPING ONLY)-----	3 LBS
PALLET (PLYWOOD ONLY)-----	53 LBS
TOTAL WEIGHT -----	287 LBS (APPROX)
CUBE-----	32.70 CU FT (APPROX)

KEY NUMBERS

- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR WIREBOUND CONTAINERS" ON PAGE 4.
- ② STEEL STRAPPING, 1-1/4" X .035" X 10'-0" LONG (2 REQD). POSITION NEAR EACH END OF THE WIREBOUND CONTAINER AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (4 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	38.28 SQ FT	52.06
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	20 FT	2.85
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL



PALLETIZED UNIT

UNIT DATA

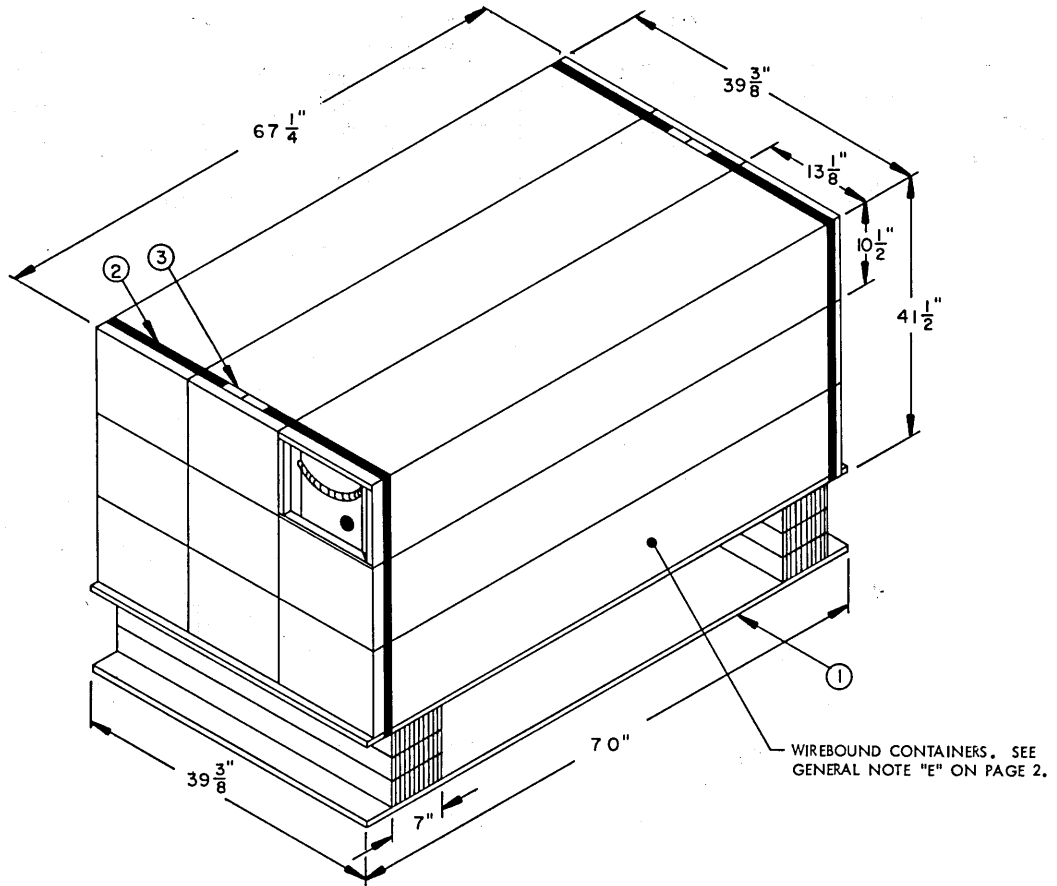
WIREBOUND (WOODEN) BOX - 6 EACH @ 77 POUNDS	-----	462 LBS
DUNNAGE (STRAPPING ONLY)	-----	4 LBS
PALLET (PLYWOOD ONLY)	-----	53 LBS
TOTAL WEIGHT	-----	519 LBS (APPROX)
CUBE	-----	49.50 CU FT (APPROX)

KEY NUMBERS

- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR WIREBOUND CONTAINERS" ON PAGE 4.
- ② STEEL STRAPPING, 1-1/4" X .035" X 12'-0" LONG (2 REQD). POSITION NEAR EACH END OF THE WIREBOUND CONTAINERS AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (4 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	38.28 SQ FT.	52.06
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	24 FT	3.43
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL



PALLETIZED UNIT

UNIT DATA

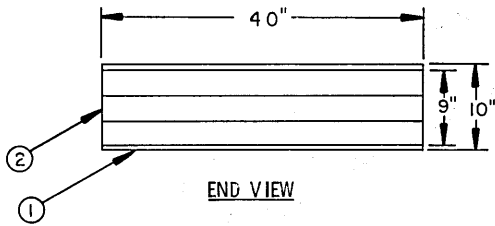
WIREBOUND (WOODEN) BOX - 9 EACH @ 77 POUNDS	--	693 LBS
DUNNAGE (STRAPPING ONLY)	-----	4 LBS
PALLET (PLYWOOD ONLY)	-----	53 LBS
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TOTAL WEIGHT	-----	750 LBS (APPROX)
CUBE	-----	66,20 CU FT (APPROX)

KEY NUMBERS

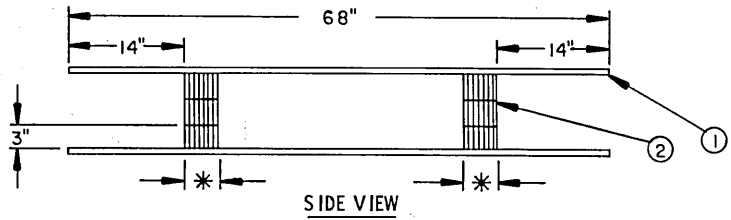
- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR WIREBOUND CONTAINERS" ON PAGE 4.
- ② STEEL STRAPPING, 1-1/4" X .035" X 14'-0" LONG (2 REQD). POSITION NEAR EACH END OF THE WIREBOUND CONTAINERS AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (4 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	38,28 SQ FT	52,06
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	28 FT	4,00
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL

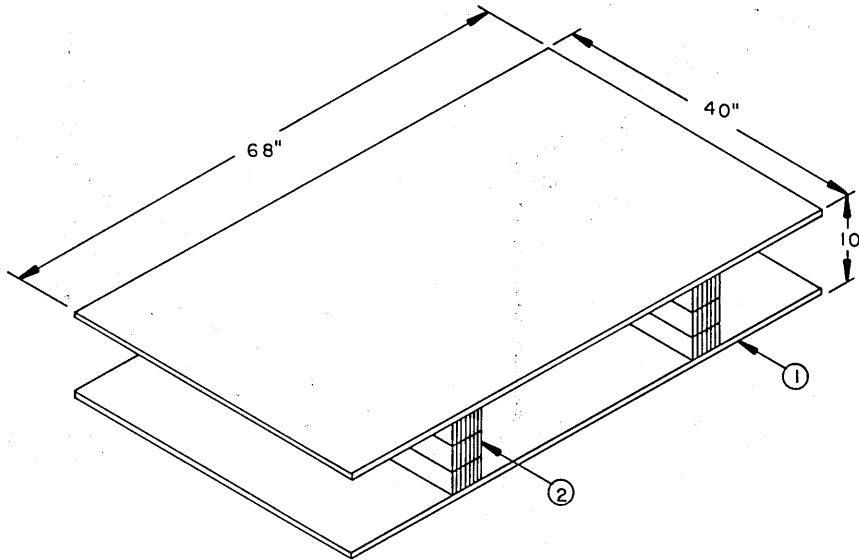


END VIEW



SIDE VIEW

* SEE SPECIAL NOTE 2 ON THIS PAGE.



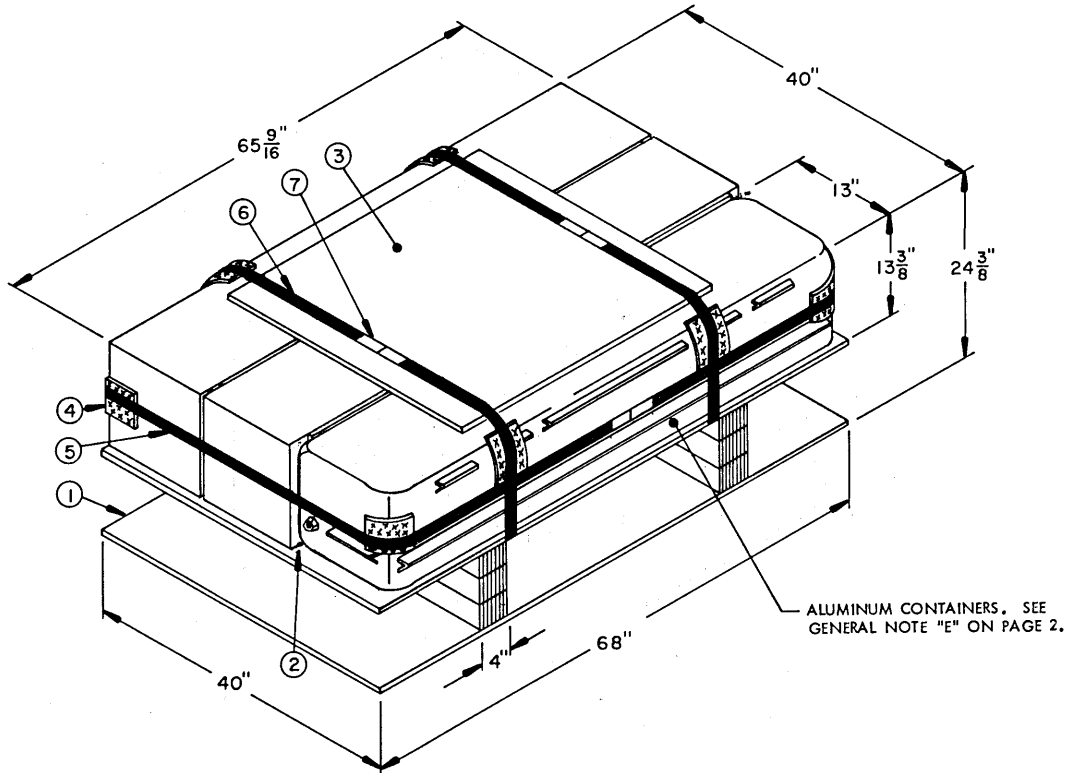
ISOMETRIC VIEW

SPECIAL NOTES:

1. THE PALLET SHOWN ABOVE IS TO BE USED FOR THE ALUMINUM CONTAINERS ONLY.
2. EACH 9" HIGH BY 40" LONG HONEYCOMB PAD WILL BE FABRICATED FROM THREE 3" HIGH BY 40" LONG HONEYCOMB CELLS PLACED IN VERTICAL ALIGNMENT AND SECURED WITH SYNTHETIC RUBBER ADHESIVE. **NOTE:** THE WIDTH OF THE HONEYCOMB PADS WILL VARY WITH THE QUANTITY OF ALUMINUM CONTAINERS TO BE POSITIONED ON THE PALLET (4" WIDE FOR A THREE CONTAINER LOAD, 5" WIDE FOR A SIX CONTAINER LOAD, AND 7" WIDE FOR A NINE CONTAINER LOAD). SEE PAGES 9, 10, AND 11.
3. EACH HONEYCOMB PAD, SHOWN AS PIECE MARKED ②, WILL BE SANDWICHED BETWEEN THE TOP AND BOTTOM PLYWOOD PANELS AT THE LOCATIONS SHOWN ABOVE. ASSURE THAT EACH PAD IS PERPENDICULAR TO THE PLYWOOD PANELS PRIOR TO SECURING WITH SYNTHETIC RUBBER ADHESIVE.

KEY NUMBERS

- ① PLYWOOD PANEL, 1/2" X 40" X 68" (2 REQD).
- ② HONEYCOMB PAD, 9" HIGH BY 40" LONG BY WIDTH-TO-SUIT (2 REQD). SEE SPECIAL NOTE 2 ON THIS PAGE FOR WIDTH OF PAD.



PALLETIZED UNIT

UNIT DATA

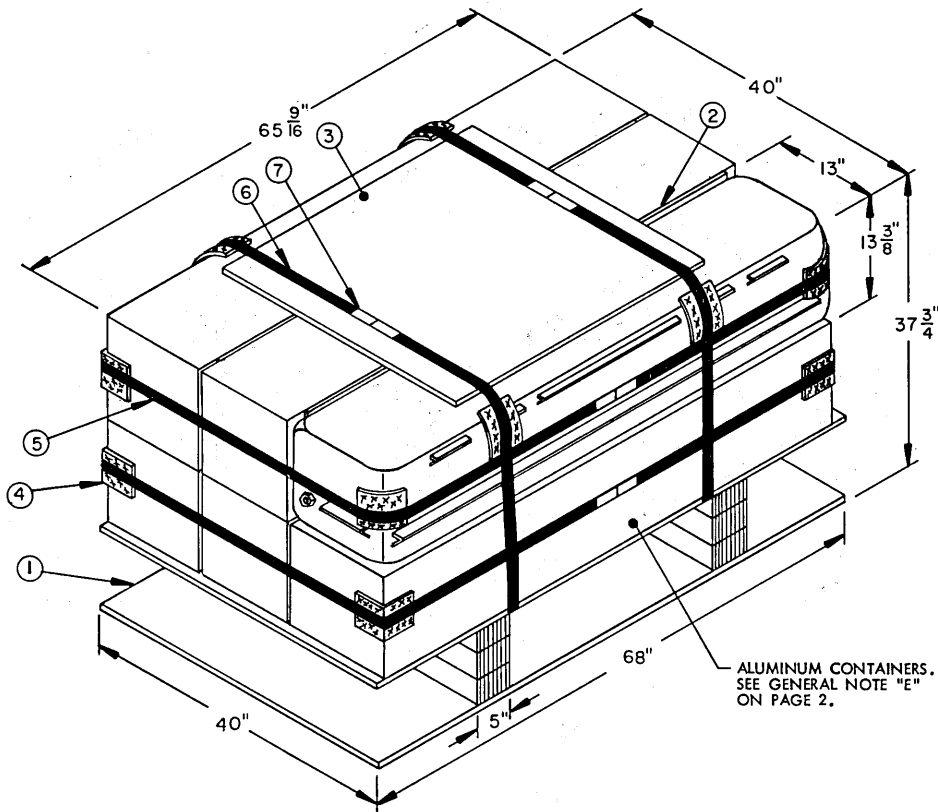
ALUMINUM CONTAINER - 3 EACH @ 86 POUNDS	-----	258 LBS
DUNNAGE (STRAPPING, SPACERS, AND FIBERBOARD)	--	34 LBS
PALLET (PLYWOOD ONLY)	-----	52 LBS
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TOTAL WEIGHT	-----	344 LBS (APPROX)
CUBE	-----	38.37 CU FT (APPROX)

KEY NUMBERS

- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR ALUMINUM CONTAINERS" ON PAGE 8.
- ② SPACER, PLYWOOD, 1/2" X 13" X 60" (2 REQD). POSITION ON EDGE BETWEEN CONTAINERS AS SHOWN.
- ③ FIBERBOARD PAD, 1" X 34" X 36" (1 REQD). POSITION ON TOP OF CONTAINERS AS SHOWN ABOVE.
- ④ FIBERBOARD PAD, 1/2" X 4" X 6" (8 REQD). POSITION UNDER STEEL STRAPPING AT THE LOCATIONS SHOWN ABOVE.
- ⑤ STEEL STRAPPING, 1-1/4" X .035" X 19'-0" LONG (1 REQD). POSITION TO ENCIRCLE ALL THREE CONTAINERS AS SHOWN ABOVE.
- ⑥ STEEL STRAPPING, 1-1/4" X .035" X 10'-0" LONG (2 REQD). POSITION AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑦ SEAL FOR 1-1/4" STRAPPING (6 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	48.61 SQ FT	66.11
FIBERBOARD, 1" THICK	8.50 SQ FT	12.75
FIBERBOARD, 1/2" THICK	AS REQD	NIL
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	39 FT	5.50
SEAL FOR 1-1/4" STRAPPING	6 REQD	NIL



PALLETIZED UNIT

UNIT DATA

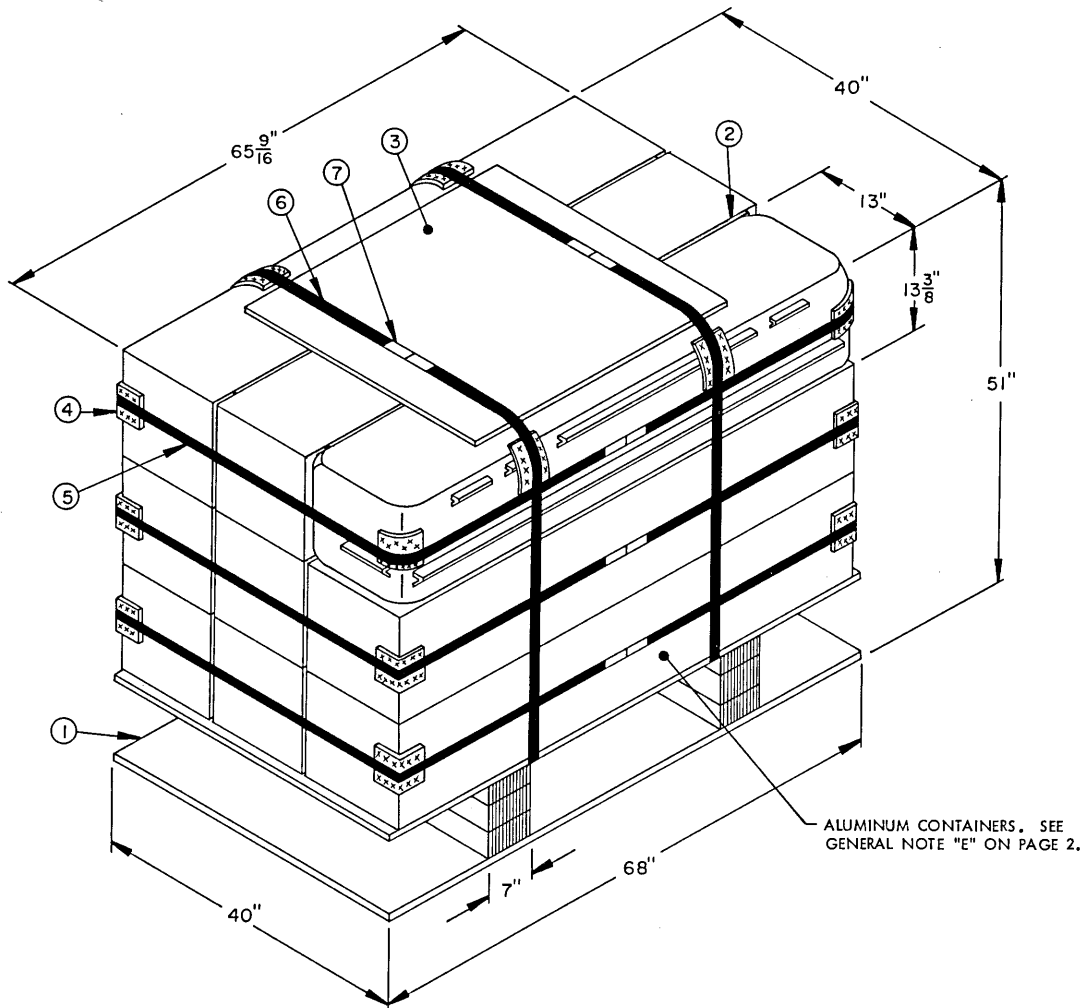
ALUMINUM CONTAINER --6 EACH @ 86 POUNDS -----	516 LBS
DUNNAGE (STRAPPING, SPACERS, AND FIBERBOARD) -----	51 LBS
PALLET (PLYWOOD ONLY) -----	52 LBS
TOTAL WEIGHT -----	619 LBS (APPROX)
CUBE -----	59.42 CU FT (APPROX)

KEY NUMBERS

- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR ALUMINUM CONTAINERS" ON PAGE 8.
- ② SPACER, PLYWOOD, 1/2" X 26" X 60" (2 REQD). POSITION ON EDGE BETWEEN CONTAINERS AS SHOWN.
- ③ FIBERBOARD PAD, 1" X 34" X 36" (1 REQD). POSITION ON TOP OF CONTAINERS AS SHOWN ABOVE.
- ④ FIBERBOARD PAD, 1/2" X 4" X 6" (12 REQD). POSITION UNDER STEEL STRAPPING AT THE LOCATIONS SHOWN ABOVE.
- ⑤ STEEL STRAPPING, 1-1/4" X .035" X 19'-0" LONG (2 REQD). POSITION EACH STRAP TO ENCIRCLE THREE CONTAINERS AS SHOWN ABOVE.
- ⑥ STEEL STRAPPING, 1-1/4" X .035" X 12'-0" LONG (2 REQD). POSITION AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑦ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	60.14 SQ FT	81.80
FIBERBOARD, 1" THICK	8.50 SQ FT	12.75
FIBERBOARD, 1/2" THICK	AS REQD	NIL
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	62 FT	8.86
SEAL FOR 1-1/4" STRAPPING	8 REQD	NIL



ALUMINUM CONTAINERS. SEE GENERAL NOTE "E" ON PAGE 2.

PALLETIZED UNIT

UNIT DATA

ALUMINUM CONTAINER - 9 EACH @ 86 POUNDS -----	774 LBS
DUNNAGE (STRAPPING, SPACERS, AND FIBERBOARD) -----	69 LBS
PALLET (PLYWOOD ONLY) -----	52 LBS
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TOTAL WEIGHT -----	895 LBS (APPROX)
CUBE -----	80,30 CU FT (APPROX)

KEY NUMBERS

- ① PALLET (1 REQD). SEE THE "PALLET DETAIL FOR ALUMINUM CONTAINERS" ON PAGE 8.
- ② SPACER, PLYWOOD, 1/2" X 39" X 60" (2 REQD). POSITION ON EDGE BETWEEN CONTAINERS AS SHOWN.
- ③ FIBERBOARD PAD, 1" X 34" X 36" (1 REQD). POSITION ON TOP OF CONTAINERS AS SHOWN ABOVE.
- ④ FIBERBOARD PAD, 1/2" X 4" X 6" (16 REQD). POSITION UNDER STEEL STRAPPING AT THE LOCATIONS SHOWN ABOVE.
- ⑤ STEEL STRAPPING, 1-1/4" X .035" X 19'-0" LONG (3 REQD). POSITION EACH STRAP TO ENCIRCLE THREE CONTAINERS AS SHOWN ABOVE.
- ⑥ STEEL STRAPPING, 1-1/4" X .035" X 14'-0" LONG (2 REQD). POSITION AS SHOWN ABOVE. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑦ SEAL FOR 1-1/4" STRAPPING (10 REQD, 2 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "F" ON PAGE 2.

BILL OF MATERIAL

ITEM	REQUIRED	POUNDS
PLYWOOD, 1/2" THICK	70,30 SQ FT	95,60
FIBERBOARD, 1" THICK	8,50 SQ FT	12,75
FIBERBOARD, 1/2" THICK	AS REQD	NIL
HONEYCOMB CELL	6 REQD	NIL
STEEL STRAPPING, 1-1/4"	85 FT	12,14
SEAL FOR 1-1/4" STRAPPING	10 REQD	NIL

