

# APPENDIX 65V

## UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COMPO- NENTS ON 4-WAY ENTRY PALLETS

**BODY, PRACTICE HAND GRENADE, XM112, PACKED  
50 GRENADES PER WOODEN BOX, UNITIZED 27  
BOXES PER 40" X 48" WOODEN PALLET; APPROX  
BOX SIZE 17-1/8" L X 14-15/16" W X 10-19/32" H**

**NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION  
PROCEDURES DRAWING 19-48-4116-20PA1002.**

**DISTRIBUTION STATEMENT A:**

**APPROVED FOR PUBLIC RELEASE  
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### U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, COMBAT CAPABILITIES DEVELOPMENT COMMAND ARMAMENTS CENTER  WALLS.DAVI D.MICHAEL.1 154540543  <small>Digitally signed by WALLS.DAVID.MICHA EL.1154540543 Date: 2020.03.05 07:53:03 -06'00'</small>	<b>CAUTION: VERIFY PRIOR TO USE AT <a href="https://www.dau.edu/cop/ammo/Pages/Default.aspx">https://www.dau.edu/cop/ammo/Pages/Default.aspx</a> THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b>			<b>FEBRUARY 2020</b>							
APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND  WARD.GINA. M.1369379808  <small>Digitally signed by WARD.GINA.M.1369379808 Date: 2020.03.05 10:31:48 -06'00'</small>	DO NOT SCALE	QUYEN TRAN									
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND  SMITH.THERESA. ANN.1009147639  <small>Digitally signed by SMITH.THERESA.ANN.1009147 639 Date: 2020.03.18 07:54:26 -05'00'</small>	DESIGN ENGINEER	BASIC REV.	ENGINEERING DIVISON	FIEFFER.LAUR A.A.1230375727  <small>Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2020.02.18 12:38:27 -06'00'</small>	TEST ENGINEER	TEST REPORT	FELICIANO.AD IN.1259200373  <small>Digitally signed by FELICIANO.ADIN.1259200373 Date: 2020.02.21 12:20:05 -06'00'</small>	CLASS	DIVISION	DRAWING	FILE
U.S. ARMY DEFENSE AMMUNITION CENTER	NA	EXPLOSIVE SAFETY DIRECTORATE	THOMAS.CARL.ANT HONY.1104621372  <small>Digitally signed by THOMAS.CARL.ANTHONY.110462 1372 Date: 2020.02.24 05:53:42 -06'00'</small>	19	48	4116/65V	20PA1002				

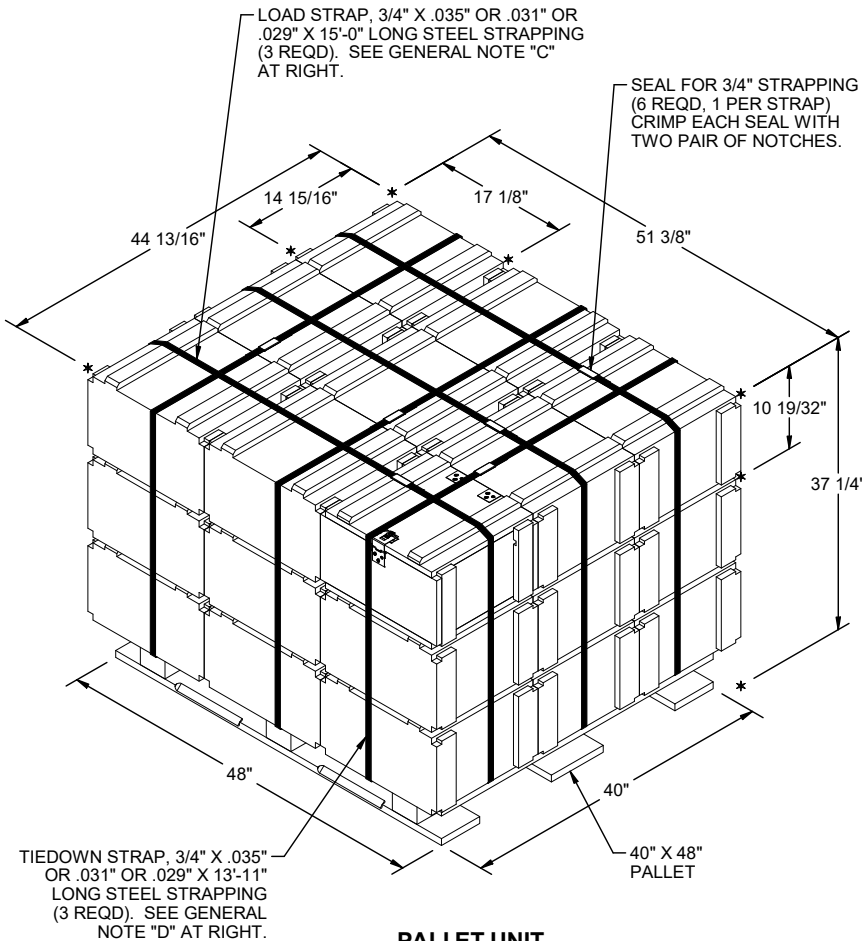
PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1330-01-651-4358	GG38	-----I NERT-----		1, 978

\*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).

**GENERAL NOTES**

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE BOXES AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE LOAD STRAPS MAY BE THREADED THROUGH THE STRAP SLOTS OF A PALLET OR PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING THE BOXES ON THE PALLET. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. 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
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING PRACTICE HAND GRENADES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE BOX PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- H. THE STYLE 1 PALLET DELINEATED IN THE DETAIL AT LEFT NEED NOT HAVE CHAMFERS OR STRAP SLOTS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-DTL-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS APPENDIX.
- J. FOR DETAILS OF THE WOOD BOX SEE ARDEC DRAWING 13059163.



**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

27 BOXES OF XM112 GRENADES (50 PER BOX) @ 70 LBS	- - - -	1,890 LBS
DUNNAGE	- - - -	8 LBS
PALLET	- - - -	80 LBS
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TOTAL WEIGHT	- - - -	1,978 LBS (APPROX)
CUBE	- - - -	49.7 CU FT (APPROX)

BILL OF MATERIAL			
PALLET, 40" X 48"	- - - -	1 REQD	- - - - 80 LBS
STEEL STRAPPING, 3/4"	- - - -	86.75' REQD	- - - - 8 LBS
SEAL FOR 3/4" STRAPPING	- - - -	7 REQD	- - - - NIL

TIE PIECE, 1" X 4" X BOX WIDTH (2 REQD).  
NAIL TO LONGITUDINAL PIECES W/2-6d  
NAILS AT EACH END AND TO LATERAL  
PIECE W/1-6d NAIL.

VERTICAL PIECE, 2" X 4" X BOX  
HEIGHT MINUS 3/4" (4 REQD).

BOX WIDTH

BOX LENGTH

SUPPORT PIECE, 2" X 4" (RIPPED  
TO FIT) BY BOX LENGTH. NAIL TO  
THE VERTICAL PIECES W/2-10d  
NAILS AT EACH JOINT. **NOTE:**  
WHEN A FILLER ASSEMBLY OR  
ASSEMBLIES ARE LOCATED IN  
AN OUTER STACK ON THE 48"  
SIDE OR SIDES OF THE PALLET,  
IT WILL REQUIRE A SUPPORT  
PIECE AS SHOWN.

BOX HEIGHT

3/4"

LONGITUDINAL PIECE, 2" X 4" X BOX  
LENGTH (4 REQD). NAIL TO VERTICAL  
PIECES W/2-10d NAILS AT EACH JOINT.

LATERAL PIECE, 2" X 4" X BOX WIDTH  
MINUS 3" (4 REQD). NAIL TO VERTICAL  
PIECES W/2-10d NAILS AT EACH END.

**FILLER ASSEMBLY**

(FOR MINUS ONE BOX)