

# APPENDIX 65S

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

**GRENADE, HAND, SMOKE, VISUAL, RESTRICTED  
TERRAIN, M106, PACKED 6 PER M2 SERIES METAL  
BOX, 2 M2 SERIES METAL BOXES PER WIREBOUND  
BOX, UNITIZED 48 BOXES PER 40" X 48" PALLET;  
APPROX BOX SIZE 14-7/16" L X 12-17/32" W X  
8-1/8" H**

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

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### U.S. ARMY MATERIEL COMMAND DRAWING

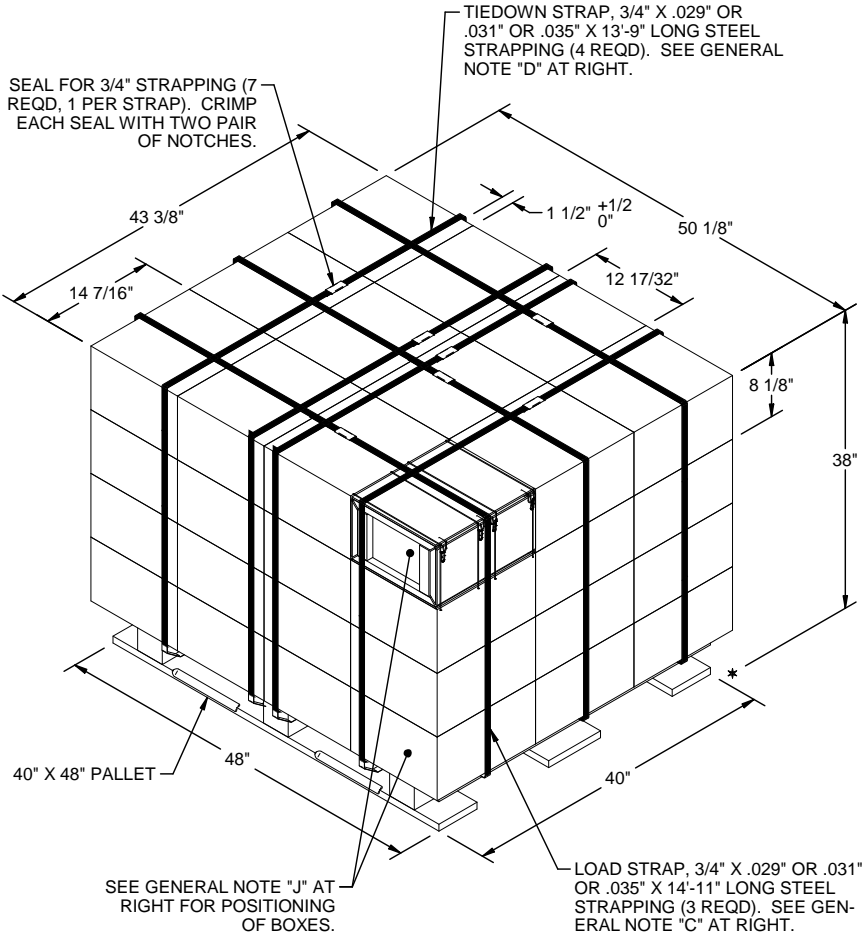
<p><b>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND</b></p> <p>REHMSTEDT.MA RK.J.1230548400</p> <p style="font-size: small;">Digitally signed by REHMSTEDT.MARK.J.1230548400 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=REHMSTEDT.MARK.J.1230548400 Date: 2014.09.16 15:53:03 -0500</p>	<p><b>CAUTION: VERIFY PRIOR TO USE AT <a href="https://MHP.REDSTONE.ARMY.MIL">HTTPS://MHP.REDSTONE.ARMY.MIL</a> THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b></p>		<p><b>DO NOT SCALE</b></p>				<p><b>OCTOBER 2014</b></p>			
<p><b>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</b></p> <p>CASILLAS.GILBE RT.J.1230393644</p> <p style="font-size: small;">Digitally signed by CASILLAS.GILBERT.J.1230393644 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=CASILLAS.GILBERT.J.1230393644 Date: 2014.09.29 11:07:31 -0500</p>	<p><b>RDAR-EIL-TP</b></p>	<p><b>DESIGN ENGINEER</b></p>	<p><b>BASIC</b></p>	<p><b>LAURA A. FIEFFER</b></p>			<p><b>CLASS    DIVISION    DRAWING    FILE</b></p>			
<p><b>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</b></p> <p>SHIMP.UPTON, R.1231257183</p> <p style="font-size: small;">Digitally signed by SHIMP.UPTON.R.1231257183 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SHIMP.UPTON.R.1231257183 Date: 2014.10.16 16:40:01 -0500</p>	<p><b>AMSJM-LIT</b></p>	<p><b>ENGINEERING DIVISION</b></p>	<p><b>FIEFFER.LAUR A.A.1230375727</b></p> <p style="font-size: x-small;">Digitally signed by FIEFFER.LAURA.A.1230375727 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FIEFFER.LAURA.A.1230375727 Date: 2013.09.03 10:27:48 -0500</p>			<p><b>19</b></p>				
<p><b>TEST ENGINEER</b></p>		<p><b>BELLIS.WILLIAM.M ORGAN.116315434 6</b></p> <p style="font-size: x-small;">Digitally signed by BELLIS.WILLIAM.MORGAN.1163154346 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BELLIS.WILLIAM.MORGAN.1163154346 Date: 2013.09.05 14:56:01 -0500</p>	<p><b>TEST REPORT</b></p>	<p><b>NA</b></p>			<p><b>19      48      4116/65S      20PA1002</b></p>			
<p><b>EXPLOSIVE SAFETY DIRECTORATE</b></p>		<p><b>TRIVITT.TERRY .F.1230872011</b></p> <p style="font-size: x-small;">Digitally signed by TRIVITT.TERRY.F.1230872011 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=TRIVITT.TERRY.F.1230872011 Date: 2013.09.03 07:39:34 -0500</p>			<p><b>19      48      4116/65S      20PA1002</b></p>					
<p><b>U.S. ARMY DEFENSE AMMUNITION CENTER</b></p>		<p><b>EXPLOSIVE SAFETY DIRECTORATE</b></p>							<p><b>19      48      4116/65S      20PA1002</b></p>	

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1330-01-557-1954	GG25	1. 4	G	1, 870

\*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**

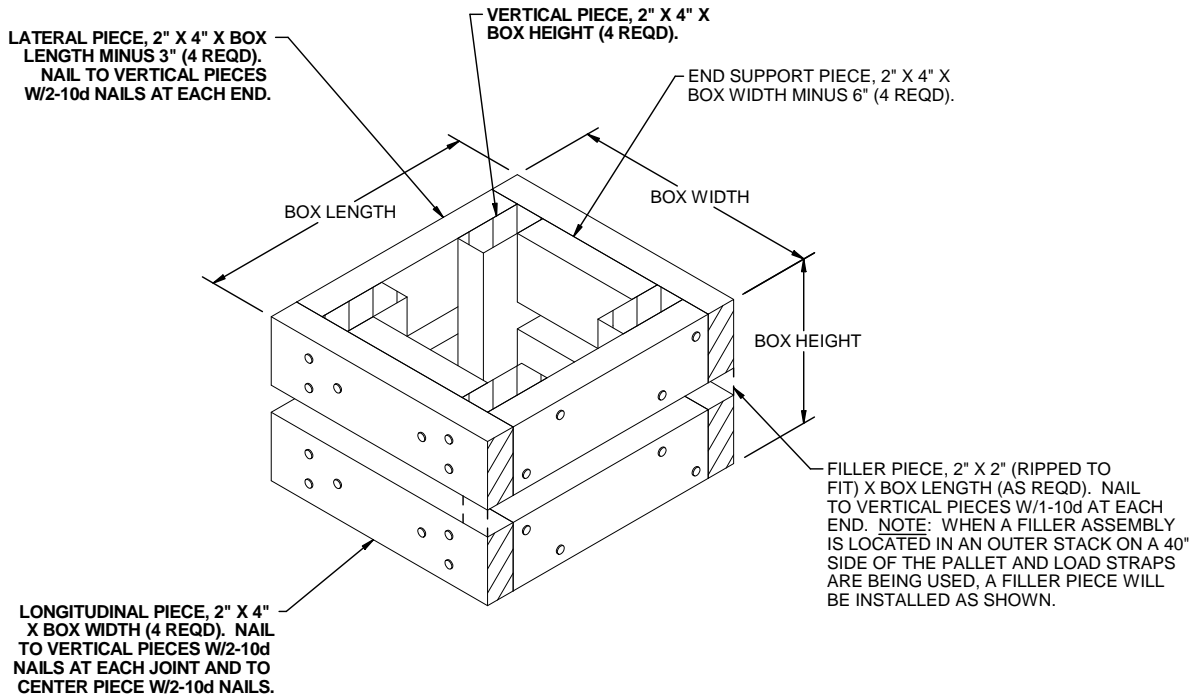
- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN 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. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, NEAR THE SIDE CLEATS OF THE END PANELS OF THE BOX. 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 SMOKE 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. POSITION THE THREE OUTBOARD BOXES ON THE 40" SIDES OF THE BOTTOM LAYER OF THE UNIT WITH THE TOPS DOWNWARD, AND THE THREE OUTWARD BOXES ON THE 40" SIDES OF THE TOP LAYER OF THE UNIT WITH TOPS UPWARDS.
- K. IF DEEMED MORE ECONOMICALLY FEASIBLE, THE ALTERNATIVE FILLER ASSEMBLY MAY BE SUBSTITUTED FOR THE FILLER ASSEMBLY TO COMPLETE A LAYER ON A PALLET.
- L. FOR DETAILS OF THE WIREBOUND BOX SEE ECBC SPECIAL PACKING INSTRUCTION P13-19-1023.



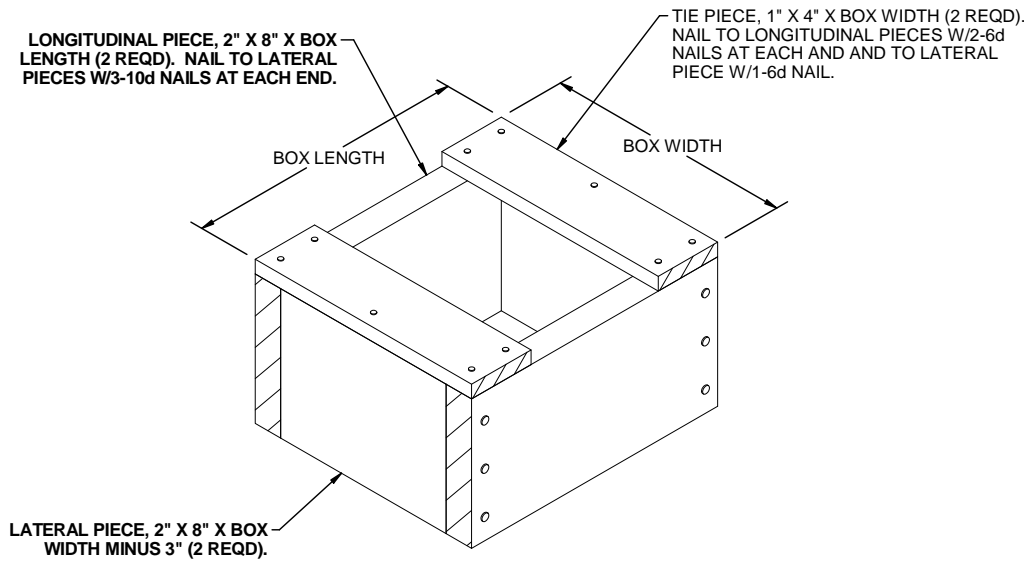
**PALLET UNIT**  
SEE GENERAL NOTE "B" AT RIGHT.

48 BOXES OF SMOKE HAND GRENADES (12 PER BOX) @ 37.1 LBS	-	1,781 LBS
DUNNAGE	-	9 LBS
PALLET	-	80 LBS
<b>TOTAL WEIGHT</b>	-	<b>1,870 LBS (APPROX)</b>
<b>CUBE</b>	-	<b>47.8 CU FT (APPROX)</b>

BILL OF MATERIAL		
PALLET, 40" X 48"	1 REQD	80 LBS
STEEL STRAPPING, 3/4"	99.75 REQD	8.91 LBS
SEAL FOR 3/4" STRAPPING	7 REQD	NIL



**FILLER ASSEMBLY**  
(FOR MINUS ONE BOX)



**ALTERNATIVE FILLER ASSEMBLY**  
(FOR MINUS ONE BOX)  
SEE GENERAL NOTE "K" ON PAGE 3.