

# APPENDIX 121S

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

**CAP, BLASTING, NON-ELECTRIC, 20 MINUTE TIME  
FUSE DELAY, M18, PACKED 40 PER WOODEN BOX,  
UNITIZED 9 BOXES PER 40" X 48" PALLET; APPROX  
BOX SIZE 43-7/8" L X 16" W X 16" 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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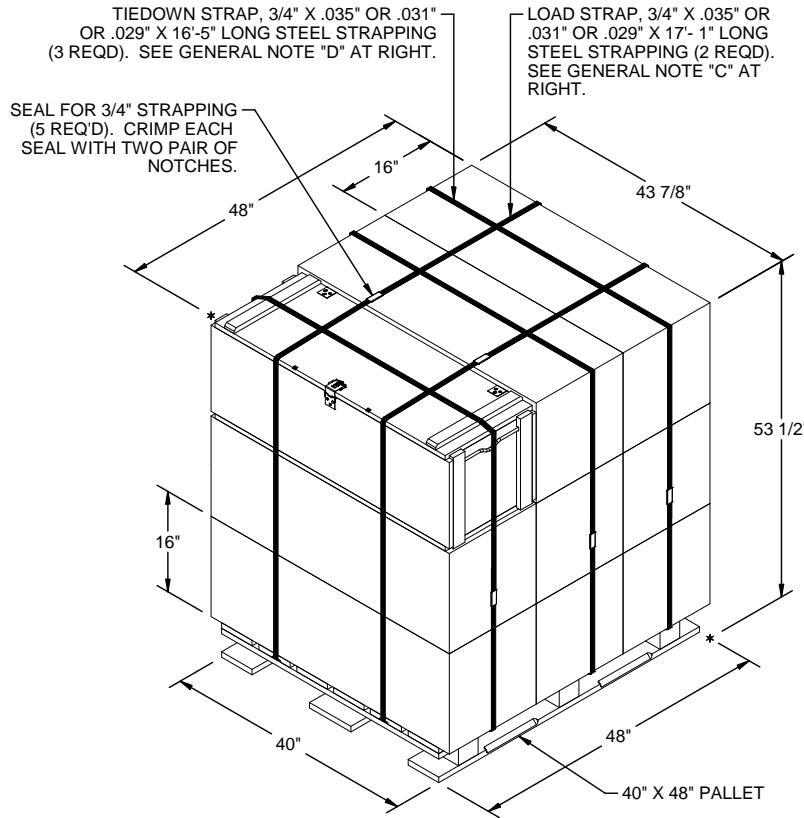
### U.S. ARMY MATERIEL COMMAND DRAWING

<p><b>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND</b></p> <p>REHMSTEDT.MA RK.J.1230548400</p> <p><small>Digitally signed by REHMSTEDT.MARK.J.1230548400 DN: c=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=REHMSTEDT.MARK.J.1230548400 Date: 2015.03.17 16:10:14 -0500</small></p> <p style="text-align: right;">RDAR-EIL-TP</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>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</b></p> <p>RUS.ALLEN.J .1230354282</p> <p><small>Digitally signed by RUS.ALLEN.J.1230354282 DN: c=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=RUS.ALLEN.J.1230354282 Date: 2015.03.25 08:47:03 -0500</small></p> <p style="text-align: right;">AMSJM-LIT</p>	<p><b>DO NOT SCALE</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">ENGINEER OR TECHNICIAN</td> <td style="width: 15%;">BASIC REV.</td> <td style="width: 70%; text-align: center;">CANH TRAN</td> </tr> </table>		ENGINEER OR TECHNICIAN	BASIC REV.	CANH TRAN	MAY 2015					
ENGINEER OR TECHNICIAN	BASIC REV.	CANH TRAN									
<p><b>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</b></p> <p>SHIMP.UPTON .R.1231257183</p> <p><small>Digitally signed by SHIMP.UPTON.R.1231257183 DN: c=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SHIMP.UPTON.R.1231257183 Date: 2015.03.25 09:41:38 -0500</small></p> <p style="text-align: center;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p>TRANSPORTATION ENGINEERING DIVISION</p> <p>FIEFFER.LAUR A.A.1230375727</p> <p><small>Digitally signed by FIEFFER.LAURA.A.1230375727 DN: c=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FIEFFER.LAURA.A.1230375727 Date: 2011.10.27 10:14:09 -0500</small></p>	<p>VALIDATION ENGINEERING DIVISION</p> <p>BARICKMAN. PHILIP.W.123 0202202</p> <p><small>Digitally signed by BARICKMAN.PHILIP.W.1230202202 DN: c=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BARICKMAN.PHILIP.W.1230202202 Date: 2011.10.28 15:22:30 -0500</small></p> <p style="text-align: center;">TESTED</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">CLASS</td> <td style="width: 15%;">DIVISION</td> <td style="width: 15%;">DRAWING</td> <td style="width: 55%;">FILE</td> </tr> <tr> <td style="text-align: center; font-weight: bold;">19</td> <td style="text-align: center; font-weight: bold;">48</td> <td style="text-align: center; font-weight: bold;">4116/ 121S</td> <td style="text-align: center; font-weight: bold;">20PA1002</td> </tr> </table>	CLASS	DIVISION	DRAWING	FILE	19	48	4116/ 121S	20PA1002
CLASS	DIVISION	DRAWING	FILE								
19	48	4116/ 121S	20PA1002								

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATI-BILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1375-01-449-9602	MN41	1. 4	S	1, 015

\*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**



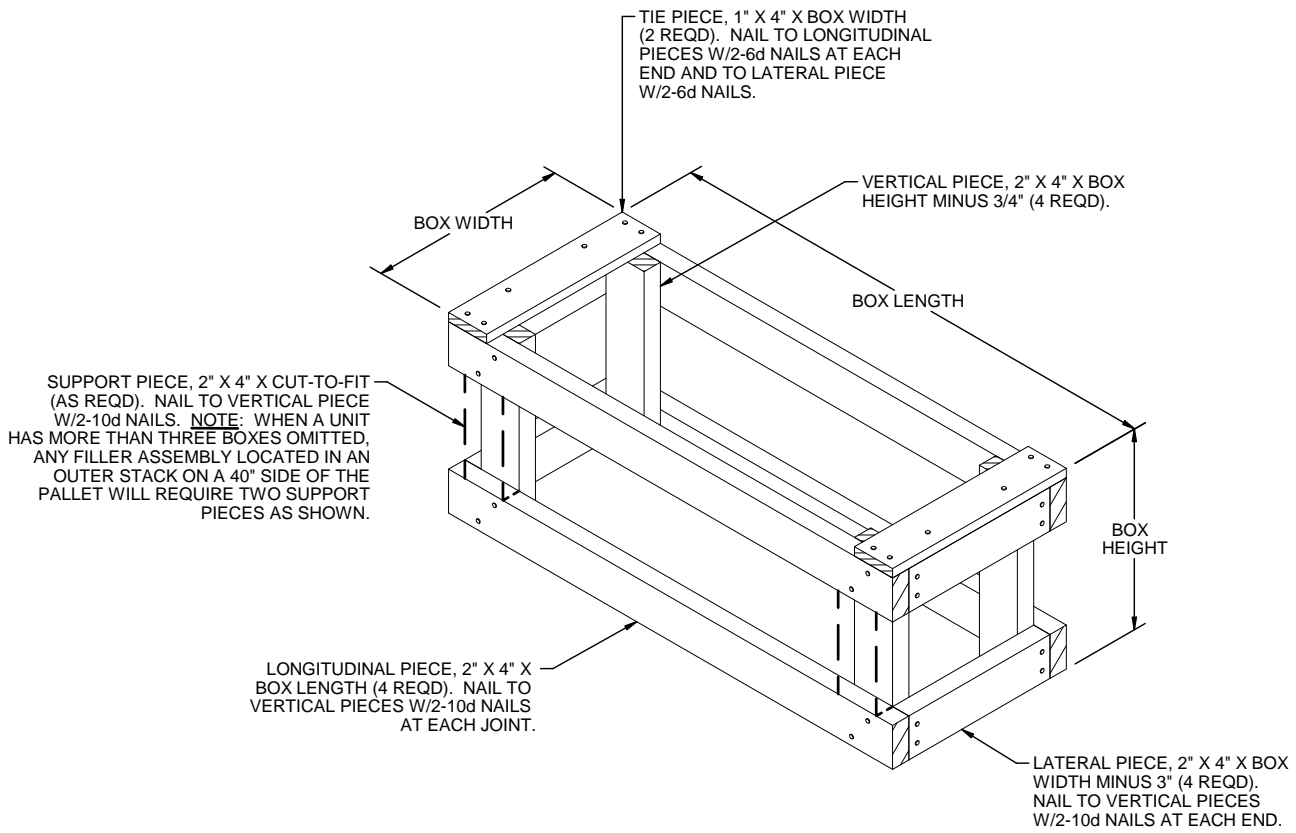
**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

- 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 BLASTING CAPS 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 MIL-DTL-2427 WOODEN BOX DEPICTED ABOVE SEE ARDEC DRAWING 12997517. **CAUTION:** THE PROCEDURES DEPICTED HEREIN WILL NOT BE USED TO UNITIZE THE FIBERBOARD OUTER PACK (ARDEC DRAWING 12983047) WITHOUT THE WOODEN OVERPACK.

9 BOXES OF BLASTING CAPS (40 PER BOX) @ 103 LBS	- - - -	927 LBS
DUNNAGE	- - - -	8 LBS
PALLET	- - - -	80 LBS
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TOTAL WEIGHT	- - - -	1,015 LBS (APPROX)
CUBE	- - - -	65.2 CU FT (APPROX)

BILL OF MATERIAL		
PALLET, 40" X 48"	- - - - - 1 REQD	- - - - - 80 LBS
STEEL STRAPPING, 3/4"	- 83.35' REQD	- - - - - 7.44 LBS
SEAL FOR 3/4" STRAPPING	- - - 5 REQD	- - - - - NIL



**FILLER ASSEMBLY**

(FOR MINUS ONE BOX)