

APPENDIX 121Q

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

**CAP, BLASTING, M6 OR M7, PACKED 10 PER M19A1
METAL CONTAINER, 4 CONTAINERS PER WIRE-
BOUND BOX, UNITIZED 50 BOXES PER 42" X 53"
PALLET; APPROX BOX SIZE 17-1/2" L X 11-1/2" W
X 8-1/4" 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
DISTRIBUTION IS UNLIMITED.

U.S. ARMY MATERIEL COMMAND DRAWING

<p>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND HANSSSEN.JO SEPH.W.1376 495538</p> <p><small>Digitally signed by HANSSSEN.JOSEPH.W.1 376495538 Date: 2019.02.19 08:55:59 -06'00'</small></p> <p style="text-align: right;">RDAR-EIL-TP</p>	<p>CAUTION: VERIFY PRIOR TO USE AT https://www.dau.mil/cop/ammo/Pages/Default.aspx THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</p>			DECEMBER 1990				
<p>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND RUS.ALLEN.J .1230354282</p> <p><small>Digitally signed by RUS.ALLEN.J.1230354282 Date: 2019.03.06 08:18:44 -06'00'</small></p> <p style="text-align: right;">AMSJM-MMT</p>	<p>DO NOT SCALE</p>	<p>LAURA A. FIEFFER</p>		<p>REVISION NO. 5 FEBRUARY 2019</p>				
<p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND THOMAS.CARL.AN THONY.110462137 2</p> <p><small>Digitally signed by THOMAS.CARL.ANTHONY.1104 621372 Date: 2019.03.06 12:14:10 -06'00'</small></p> <p style="text-align: center;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p>DESIGN ENGINEER</p>	<p>BASIC</p>	<p>REV.</p>		<p>SEE THE REVISION LISTING ON PAGE 2</p>			
<p>TEST ENGINEER</p>	<p>ENGINEERING DIVISON</p>		<p>FIEFFER.LAUR A.A.1230375727</p> <p><small>Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2019.01.16 12:13:05 -06'00'</small></p>		<p>CLASS</p>	<p>DIVISION</p>	<p>DRAWING</p>	<p>FILE</p>
<p>TEST REPORT</p>	<p>EXPLOSIVE SAFETY DIRECTORATE</p>		<p>FELICIANO.AD IN.1259200373</p> <p><small>Digitally signed by FELICIANO.ADIN.1259200373 Date: 2019.01.17 06:23:55 -06'00'</small></p>		<p>19</p>	<p>48</p>	<p>4116/ 121Q</p>	<p>20PA1002</p>
<p>EXPLOSIVE SAFETY DIRECTORATE</p>	<p>FAIRHURST.ROBE RT.JOHN.10157668 80</p> <p><small>Digitally signed by FAIRHURST.ROBERT.JOHN.101 5766880 Date: 2019.01.17 07:33:15 -06'00'</small></p>		<p>REV.</p>					

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1375-				
01-316-1229	M130	1.4	B	1,721
01-501-5446	M130	1.4	B	1,721
01-315-1335	M131	1.4	B	1,721

*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).

REVISIONS

REVISION NO. 1, DATED SEPTEMBER 1993, CONSISTS OF:

1. CHANGING BOX SIZE.
2. CHANGING PALLET SIZE.
3. CHANGING PALLET WEIGHT ON "PALLET UNIT DATA" CHART.

REVISION NO. 2, DATED FEBRUARY 2003, CONSISTS OF:

1. ADDING ITEM BY NSN TO THE "PALLET UNIT DATA" CHART.
2. ADDING GENERAL NOTE WITH BOX DRAWING REFERENCE AND ELIMINATING STRAP CUTTER GENERAL NOTE.

REVISION NO. 3, DATED NOVEMBER 2004, CONSISTS OF:

1. UPDATING SPACER ASSEMBLY TO INCLUDE THREE HORIZONTAL PIECES.
2. CHANGING COMPATIBILITY GROUP INFORMATION IN "PALLET UNIT DATA" CHART.

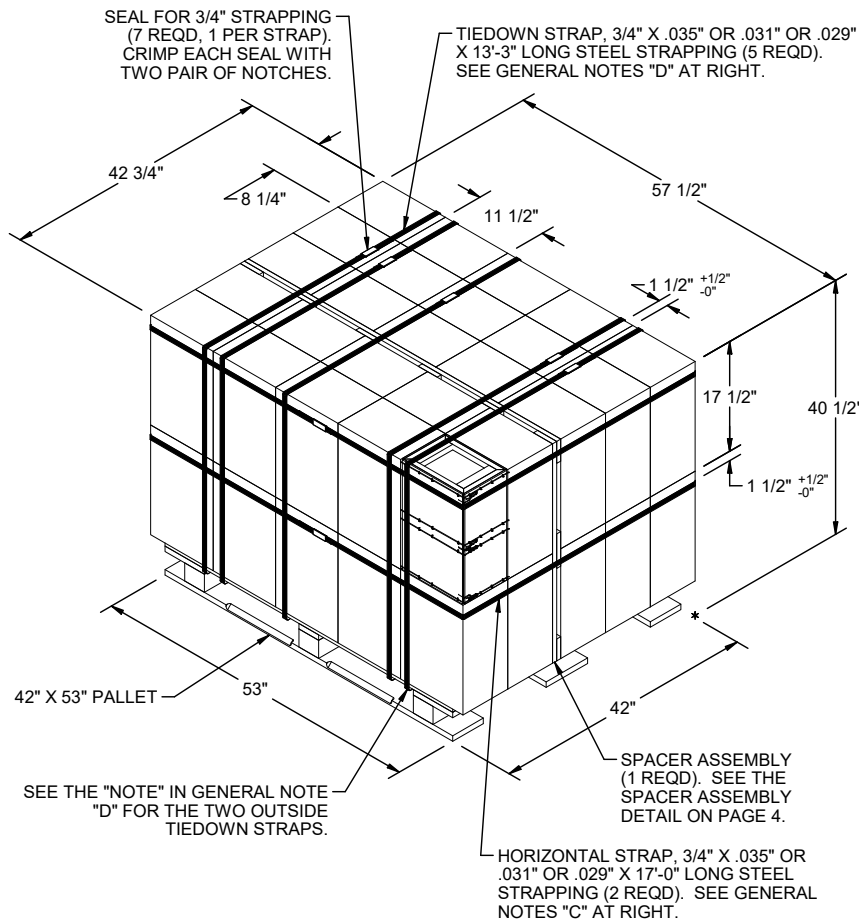
REVISION NO. 4, DATED OCTOBER 2005, CONSISTS OF:

UPDATING SPACER ASSEMBLY TO MODIFY CENTER HORIZONTAL PIECE.

REVISION NO. 5, DATED FEBRUARY 2019, CONSISTS OF CHANGES PER ECP R16K3026 INCLUDING:

1. CHANGING THE WEIGHT OF ITEM BY NATIONAL STOCK NUMBER IN THE "PALLET UNIT DATA" CHART.
2. UPDATING STRAPPING THICKNESSES.
3. UPDATING GENERAL NOTE "J" (CHAMFERS) ON PAGE 3.
4. DELETING GENERAL NOTE "H" (OUTBOARD BOX POSITION) ON PAGE 3.

GENERAL NOTES

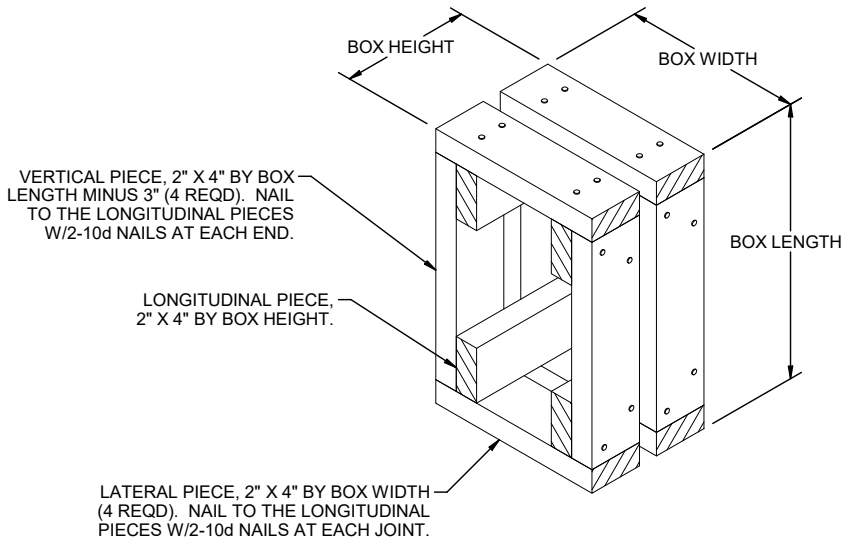


- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN 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. INSTALL EACH HORIZONTAL STRAP TO ENCIRCLE A LAYER OF BOXES ON THE PALLET. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, NEAR THE TOP OF EACH LAYER. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE 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 DIMENSIONED, NEAR THE SIDE CLEATS OF THE END PANELS OF THE BOX. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL STRAPS HAVE BEEN TENSIONED AND SEALED. **NOTE:** DIMENSIONS FOR THE TWO OUTSIDE TIEDOWN STRAPS WILL BE 1" +1/2"-0" FROM STRAP TO BOX EDGE.
- 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 REVISION TO THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- 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. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES.
- J. THE STYLE 1B 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.
- K. FOR DETAILS OF THE WIREBOUND BOX SEE DRAWING 5581378.

PALLET UNIT
SEE GENERAL NOTE "B" AT RIGHT.

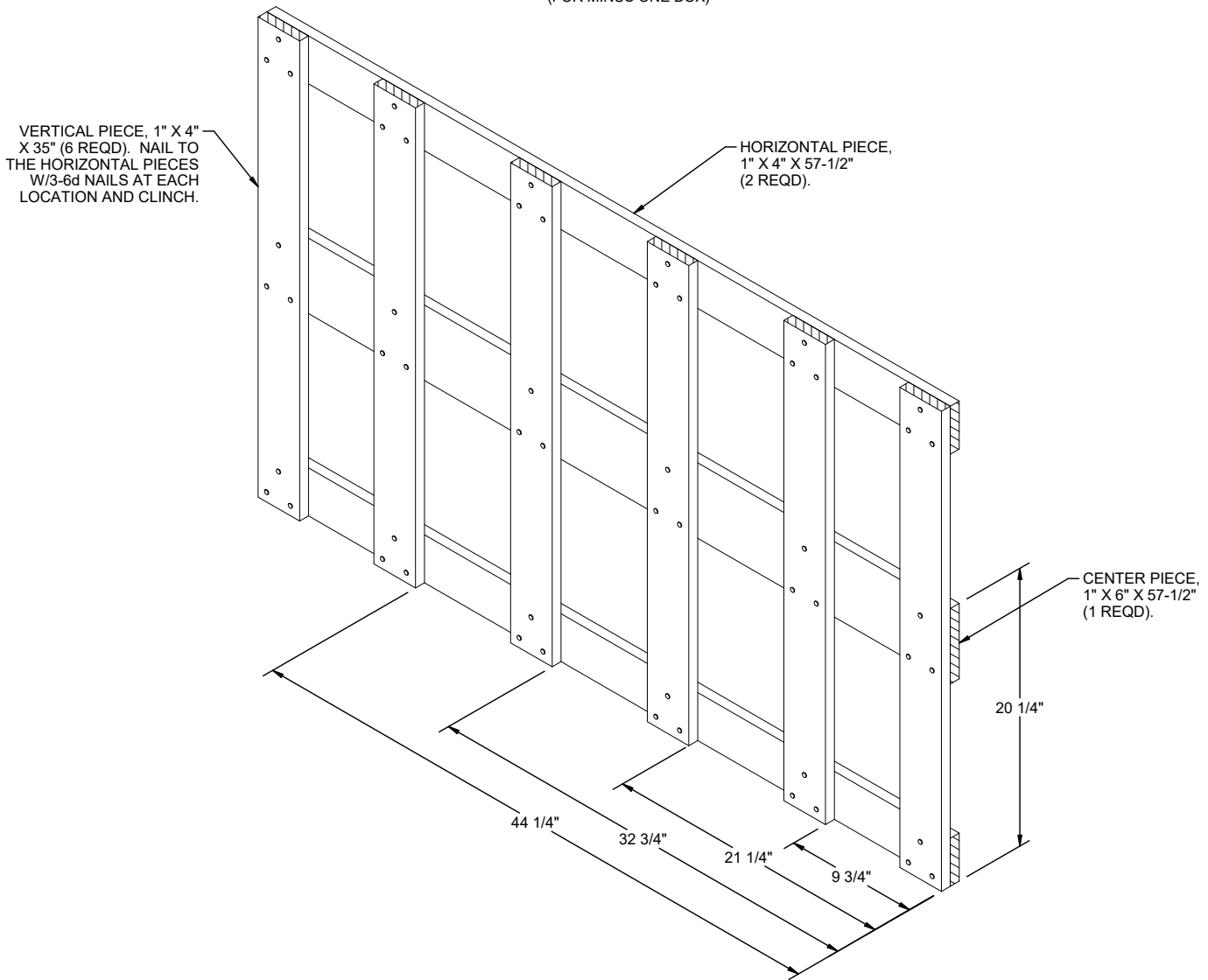
50 BOXES OF BLASTING CAPS (40 PER BOX) @ 32 LBS	- - - -	1,600 LBS
DUNNAGE	- - - -	31 LBS
PALLET	- - - -	90 LBS
TOTAL WEIGHT	- - - -	1,721 LBS (APPROX)
CUBE	- - - -	57.6 CU FT (APPROX)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	27	9.25
1" X 6"	5	2.5
NAI LS	NO. REQD	POUNDS
6d (2")	54	1/2
PALLET, 42" X 53" - - - - 1 REQD - - - - 90 LBS		
STEEL STRAPPING, 3/4" - 100.25' REQD - - - - 8.95 LBS		
SEAL FOR 3/4" STRAPPING - - - 7 REQD - - - - NIL		



FILLER ASSEMBLY

(FOR MINUS ONE BOX)



SPACER ASSEMBLY

(1 REQD)