

INCH-POUND

PPP-B-1672E

March 9, 2013

SUPERSEDING

PPP-B-1672D

February 1, 1996

FEDERAL SPECIFICATION

BOXES, SHIPPING, REUSABLE WITH CUSHIONING

The General Services Administration has authorized the use of this federal specification, by all federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers shipping boxes consisting of a fiberboard box with appropriate cushioning components for the intended use (see 6.1).

1.2 Classification.

1.2.1 Types, styles, and sizes. The cushioned boxes (Fast Packs) covered by this specification are classified by the following types, styles, and sizes as specified (see 6.2). Sizes are in inches (millimeters).

Type I - Vertical star packs (see figures 1 and 2).

Style A - Regular slotted carton (RSC)

Style B - Double cover container (DBLCC)

Style C - Modified double cover container (Modified DBLCC)

Sizes - 6 x 6 x 10 (152 x 152 x 254)
 8 x 8 x 12 (203 x 203 x 305)
 10 x 10 x 12 (254 x 254 x 305)
 12 x 12 x 14 (305 x 305 x 356)
 12 x 12 x 18 (305 x 305 x 458)
 14 x 14 x 16 (356 x 356 x 406)

Beneficial Comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: AF Packaging Technology & Engineering Facility, AFSC/LOEP, 5215 Thurlow St., Ste. 5, Wright-Patterson AFB OH 45433-5540; or www.wpafb.af.mil/units/afptef/index.asp. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

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Type II, Style D - Modified triple slide (modified TS) (convoluted foam) folding packs (see figure 3).

Sizes - 6 x 5 x 2-1/2 (153 x 127 x 64)
 6 x 5 x 3-1/2 (153 x 127 x 89)
 9 x 6 x 2-1/2 (229 x 153 x 64)
 9 x 6 x 3-1/2 (229 x 153 x 89)
 9 x 6 x 4-1/2 (229 x 153 x 114)
 10 x 10 x 3-1/2 (254 x 254 x 89)
 12 x 8 x 2-1/2 (305 x 203 x 64)
 12 x 8 x 3-1/2 (305 x 203 x 89)
 13 x 13 x 3-1/2 (330 x 330 x 89)
 16 x 16 x 3-1/2 (406 x 406 x 89)
 18 x 12 x 2-1/2 (458 x 305 x 64)
 18 x 12 x 3-1/2 (458 x 305 x 89)
 24 x 16 x 3-1/2 (610 x 406 x 89)

Type II, Style E – One-piece folder (OPF) (see figure 3)

Sizes 7 x 5 x 1-1/4 (178 x 127 x 32)
 7 x 5 x 2-1/4 (178 x 127 x 57)
 9 x 6 x 1-1/4 (229 x 153 x 32)
 9 x 6 x 2-1/4 (229 x 153 x 57)
 10 x 10 x 3 (254 x 254 x 76)
 12 x 8 x 1-1/4 (305 x 203 x 32)
 12 x 8 x 2-1/4 (305 x 203 x 57)
 13 x 13 x 2-1/4 (330 x 330 x 57)
 16 x 16 x 2-1/4 (406 x 406 x 57)
 18 x 12 x 1-1/4 (458 x 305 x 32)
 18 x 12 x 2-1/4 (458 x 305 x 57)
 24 x 16 x 2-1/2 (610 x 406 x 64)

Type III, Style G - Full telescoping encapsulated (FTC) (see figure 4).

Sizes - 20 x 14 x 9 (508 x 356 x 229)
 24 x 14 x 14 (610 x 356 x 356)
 24 x 18 x 16 (610 x 458 x 406)
 25 x 14 x 14 (635 x 356 x 356)
 26 x 9 x 9 (660 x 229 x 229)
 30 x 16 x 14 (762 x 406 x 356)
 30 x 27 x 14 (762 x 686 x 356)
 30 x 30 x 9 (762 x 762 x 229)
 32 x 12 x 14 (813 x 305 x 356)
 32 x 18 x 16 (813 x 458 x 406)
 34 x 24 x 18 (864 x 610 x 458)
 40 x 40 x 9 (1016 x 1016 x 229)

Type IV, Style B - Double cover (DBLCC) horizontal star container (see figure 5)

Sizes - 20 x 14 x 14 (508 x 356 x 356)
 22 x 16 x 16 (559 x 406 x 406)

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2. APPLICABLE DOCUMENTS

2.1 Government documents. The following documents, of the issues in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

FEDERAL SPECIFICATIONS

MMM-A-1617	Adhesive, Rubber Base, General Purpose
PPP-C-795	Cushioning Material, Packaging (Flexible Closed Cell Plastic Film, For Long Distribution Cycles)

COMMERCIAL ITEM DESCRIPTIONS

A-A-1671	Tape, Gummed (Paper, Reinforced, Asphalt Laminated)
A-A-59692	Adhesive, Water-Resistant (For Closure of Fiberboard Boxes)

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-26514	Polyurethane Foam, Rigid or Flexible, for Packaging
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DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-3010	Test Procedures for Packaging Materials
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(Copies of these documents are online at <https://assist.dla.mil/quicksearch/> or from the Standardization Document Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA. 19111-5094.)

FEDERAL REGULATIONS

Federal Acquisition Regulation (FAR)

(Copies of these documents are available from the Superintendent of Documents, U.S. Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.) or online at <https://www.acquisition.gov/far/index.html>.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

ANSI/ASQ

Z1.4	Sampling Procedures and Tables for Inspection by Attributes
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(Copies of these documents are available from ANSI, 11 W. 42nd St., 13th Floor, New York, NY 10036 or ASQ, 611 E. Wisconsin Ave., P.O. Box 3005, Milwaukee, WI 53201-3005 or online at www.ansi.org.)

ASTM INTERNATIONAL

D1974/D1974M	Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
D3951	Standard Practice for Commercial Packaging
D4727/D4727M	Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes
D5118/D5118M	Standard Practice for Fabrication of Fiberboard Shipping Boxes
D5486/D5486M	Standard Specification for Pressure-Sensitive Tape for Packaging, Box Closure, and Sealing
D5749	Standard Specification for Reinforced and Plain Gummed Tape for Sealing and Securing

(Copies of these documents are available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959 or online at www.astm.org.)

IPC-Association Connecting Electronics Industries

IPC-4562	Metal Foil for Printed Board Applications
IPC J-STD-006	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications

(Copies of these standards are available from 3000 Lakeside Drive, Suite 309S, Bannockburn, IL 60015-1249 or online at www.ipc.org.)

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SAE INTERNATIONAL

AMS-QQ-A-225/6 Alloy, 2024, Bar, Rod, and Wire; Rolled, Drawn, or Cold Finished

(Copies of these documents are available from SAE World Headquarters, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or online at <http://www.sae.org>.)

3. REQUIREMENTS

3.1 Materials.

3.1.1 Boxes. Material for all boxes shall conform to ASTM D4727/D4727M, type CF, class WR. Boxes of type I, type III (except for box sizes requiring a variety DW, material grade V13c on figure 4), and type IV packs shall be a variety SW, material grade V3c. Type II packs shall be a variety SW, material grade W5c.

3.1.2 Cushioning. Cushioning material for type I, III, and IV packs shall meet the first article requirements of MIL-PRF-26514 except that use of the color coding requirement shall be optional and the material shall conform to type I, class 2, grade C. Cushioning for type II, style D packs shall conform to type III, class 2, grade A, B, or C.

3.1.2.1 Convolutions. All convolutions for cushioning shall have dimensions and tolerances as specified on figure 6. Each convoluted cushioning component shall have peaks with a uniform height of K.

3.1.2.2 Laminations. Deep or long body cushions (such as the star shaped die-cut bodies) shall be made from a whole piece or shall be built up to the specified dimension by means of laminations. All lamination pads used in a cushioning system shall be composed of material having the same cushioning characteristics. The minimum nominal thickness of lamination pads shall be 2 inches (50 mm). Thicker lamination pads may be used to minimize the number of laminations. Convoluted cushioning shall be made from a whole piece or shall be built up to the specified thickness by lamination of a nominal 2 inches (50 mm) or thicker pad, provided that the convoluted section shall be integral with a minimum 1 inch (25 mm) thick base section (see figure 6). Type II convoluted cushioning shall be cut from a single piece of foam and shall have a minimum base thickness of 1/2 inch (13 mm).

3.1.2.3 Bonding of laminations. As a minimum, laminations shall be spot bonded with a maximum of 50% coverage (see 3.2.5), using adhesive specified in 3.1.5 to sufficiently to maintain true alignment and integrity of the built-up cushioning configuration. The built-up body of type I packs may be assembled without bonding the laminations together. On type III, style G, apply adhesive to only the top half of the end and side pieces. On type IV, style B only, bond the top cushion to the container lid.

3.1.2.4 Anti-static property. The cushioning for type II packs shall be uniformly impregnated with an electrostatic agent. For style D the static dissipative material shall conform to all

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requirements for the specified type as defined in MIL-PRF-26514 when tested as specified in 5.5. For style E the static dissipative material shall conform to all requirements as defined in the static dissipative properties test (see PPP-C-795).

3.1.2.5 Corrosivity. Anti-static cushioning material shall not cause corrosion when tested as specified in 4.5.

3.1.3 Tape. Tape shall be 2 inches (48 mm) in width and shall conform to A-A-1671, type II, class 2; ASTM D5749, type II, grade B; or ASTM D5486/D5486M, types I or II, Class 2, or types III or V.

3.1.4 Metal fasteners. Metal fasteners shall be steel staples and steel stitching wire specified for use in ASTM D5118/D5118M or 1 inch (25 mm) metal stay specified for use in ASTM D1974/D1974M, as applicable.

3.1.5 Adhesive. Adhesive for bonding of the appropriate cushioning and fiberboard components shall conform to MMM-A-1617, type I, A-A-59692, type II or other materials specified in ASTM D5118/D5118M.

3.1.6 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

3.2 Design and construction.

3.2.1 Type I. The box, with appropriate cushioning components, shall be constructed in accordance with style A (RSC), style B (DBLCC), or style C (Modified DBLCC) designs shown in figures 1 and 2, and as specified herein (see 6.2).

3.2.1.1 Style A. Style A (RSC) boxes shall be in accordance with ASTM D5118/D5118M. The manufacturer's joint and the bottom flaps shall be stapled or stitched as specified therein. The cushioning components shall be placed in the box (see figures 1 and 2) and the top shall be taped closed with a minimum 2 x 2 inch (50 x 48 mm) strip of tape as specified in 3.1.3 or equivalent minimum closure to facilitate delivery and undamaged reopening.

3.2.1.2 Style B. Style B (DBLCC) shall be in accordance with ASTM D5118/D5118M except that the covers shall extend to one-half the depth of the tube. The lap for the tube shall be fastened inside the adjoining panel.

3.2.1.3 Style C. Style C (Modified DBLCC) shall be in accordance with ASTM D5118/D5118M except that joints for the covers and single-piece tube shall be butted and secured with metal fasteners as specified in 3.1.4 and the covers shall extend to one-half the depth of the tube.

3.2.2 Type II.

Type II boxes with appropriate cushioning components shall be constructed at the option of the manufacturer in accordance with style D (modified TS) or style (OPF) and as specified herein (see 6.2).

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3.2.2.1 Style D.

The pack shall be constructed in accordance with figure 3. The box and cushioning shall be constructed in accordance with the triple slide box style (modified TS) and ASTM D5118/D5118M except that the middle box shall be omitted and the sleeve shall have the overlap stitched, stapled, or glued (see 3.2.4 and 3.2.5) outside the side panel. The top of the box shall be the large portion of the box where the manufacturer's joint or seam is located with the open flutes facing downward.

3.2.2.2 Style E.

The box and cushioning shall be constructed in accordance with figure 3 with the one-piece folder style OPF and ASTM D5118/D5118M, except that the inner end flaps shall meet when closed.

3.2.3 Type III, Style G. The telescoping and encapsulated packs shall be constructed in accordance with style FTC of ASTM D5118/D5118M with appropriate cushioning as shown on figure 4.

3.2.4 Type IV, Style B. The horizontal star packs shall be constructed in accordance with the DBLCC shown on figure 5. The box shall be constructed in accordance with 3.2.1.2.

3.2.5 Bonding of components. Adhesive specified in 3.1.5 shall be applied to cushioning components described herein to provide a forty-five (45) percent, +/- five (5) percent contact area to adhere the cushioning to each of the box components, to permit recyclability of boxes. For type IV, style B on figure 5, and type III, style G on figure 4, the top cushioning pads shall be centered and adhered to the inside face of the top cap. In addition, style G side and end cushioning pads shall be arranged and adhered in accordance with the applicable view on figure 4. For type II packs (see figure 3), the cushioning shall be centered and adhered to the inside faces of the slide.

3.3 Dimensions. All box sizes shall be based on and identified by the inside dimensions of the innermost shell (such as box, tube, or slide) and shall be accurate to within 1/8 inch (3 mm). These dimensions shall be cited in the sequence of length, width, and depth. The center of the die-cut star cavity for type I and type IV shall be within 1/2 inch (13 mm) of true center.

3.4 Markings. Markings shall be either printed or stenciled in black letters. All markings shall be in the upright direction and shall be clear and legible.

3.4.1 Compliance and certificate markings. Compliance and certificate markings shall be imprinted on all boxes in accordance with ASTM D5118/D5118M except as specified herein. Data markings such as the National Stock Number (NSN), inside dimensions, and any other which are required to be printed elsewhere on the box shall not be repeated in the compliance and certificate markings. The compliance and certificate markings shall be placed on the bottoms of the boxes.

3.4.1.1 Type I, type III, and type IV packs. The following markings shall be in characters of a size not less than 1/2 inch (13 mm) high, except that the National Stock Number (NSN) may be not less than 3/8 inch (10 mm). The markings shall be centered on the lower half of two opposite faces of the style A packs parallel to the closure seam formed by the outer flaps and style G pack covers. The markings shall be on two opposite faces of the bottom cap of the style B and style C packs. The markings format shall be as follows:

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Format:

REUSABLE
FAST PACK - (Enter proper pack code, see TABLE I)
(Enter proper pack size and shipping cube, see TABLE I.
(Enter proper NSN, see TABLE I)

Example:

REUSABLE
FAST PACK - XA2
8 x 8 x 12 CU 0.014
8115-00-192-1604

3.4.1.2 Type II packs. The following markings shall be in characters of a size not less than 1/4 inch (6 mm) high. The markings shall be placed within approximately the right one-third of the two narrow sides of the pack. The marking format shall be as follows:

Format:

REUSABLE - FAST PACK - (Enter proper pack code, see TABLE I)
(Enter proper size and shipping cube, see TABLE I.
(Enter proper NSN, see TABLE I)

EXAMPLE:

REUSABLE - FAST PACK - XC1
6 x 5 x 2-1/2 CU 0.001
8115-00-787-2142

The slide shall be marked with the words "PUSH OPEN" and "ANTI STATIC" visually centered on each end. The words "PUSH OPEN" and "ANTI STATIC" shall be in 3/8 inch (10 mm) characters. The words "ANTI STATIC" shall be placed a 1/4 inch (6 mm) below the words "PUSH OPEN". There shall be a 2 inch (50 mm) space between the words "PUSH" and "OPEN" and the words "ANTI" and "STATIC" as shown below.

	[2 inch (50 mm)]	
PUSH		OPEN
ANTI		STATIC

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TABLE I. Fast Pack codes, sizes, cubes, and NSN's.

PACK CODE NUMBER	Container Size ID In(mm)	Unit Cube Ft3 (m3)	Shipping Cube Ft3 (m3)	National Stock Number
(TYPE I)				
-XA1	6 x 6 x 10 (152 x 152 x 254)	0.208 (0.006)	0.241 (0.007)	8115-00-192-1603
-XA2	8 x 8 x 12 (203 x 203 x 305)	0.444 (0.013)	0.498 (0.014)	8115-00-192-1604
-XA3	10 x 10 x 12 (254 x 254 x 305)	0.694 (0.02)	0.798 (0.023)	8115-00-192-1605
-XA4	12 x 12 x 14 (305 x 305 x 356)	1.167 (0.033)	1.311 (0.037)	8115-00-134-3655
-XA5	12 x 12 x 18 (305 x 305 x 458)	1.500 (0.042)	1.673 (0.047)	8115-00-050-5237
-XA6	14 x 14 x 16 (356 x 356 x 406)	1.815 (0.051)	2.008 (0.057)	8115-00-134-3656
(TYPE II)				
-XC1	6 x 5 x 2-1/2 (153 x 127 x 64)	0.043 (0.001)	0.058 (0.002)	8115-00-787-2142
-XC2	6 x 5 x 3-1/2 (153 x 127 x 89)	0.060 (0.002)	0.078 (0.002)	8115-00-787-2147
-XC3	9 x 6 x 2-1/2 (229 x 153 x 64)	0.078 (0.002)	0.102 (0.003)	8115-00-101-7647
-XC4	9 x 6 x 3-1/2 (229 x 153 x 89)	0.109 (0.003)	0.136 (0.004)	8115-00-101-7638
-XD4	9 x 6 x 4-1/2 (229 x 153 x 114)	0.141 (0.004)	0.170 (0.005)	8115-01-499-0898
-XC5	12 x 8 x 2-1/2 (305 x 203 x 64)	0.139 (0.004)	0.180 (0.005)	8115-00-787-2146
-XC6	12 x 8 x 3-1/2 (305 x 203 x 89)	0.194 (0.005)	0.240 (0.007)	8115-00-787-2148
-XC7	18 x 12 x 2-1/2 (458 x 305 x 64)	0.313 (0.009)	0.401 (0.011)	8115-01-019-4085
-XC8	18 x 12 x 3-1/2 (458 x 305 x 89)	0.438 (0.012)	0.535 (0.015)	8115-01-019-4084
-XC9	10 x 10 x 3-1/2 (254 x 254 x 89)	0.203 (0.006)	0.255 (0.007)	8115-01-057-1244
-XD1	13 x 13 x 3-1/2 (330 x 330 x 89)	0.342 (0.010)	0.422 (0.012)	8115-01-057-1243
-XD2	16 x 16 x 3-1/2 (406 x 406 x 89)	0.519 (0.015)	0.630 (0.018)	8115-01-057-1245

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TABLE I. Fast Pack codes, sizes, cubes, and NSN's - Continued

PACK CODE NUMBER	Container Size ID In(mm)	Unit Cube Ft3 (m3)	Shipping Cube Ft3 (m3)	National Stock Number
-XD3	24 x 16 x 3-1/2 (610 x 406 x 89)	0.778 (0.022)	0.936 (0.026)	8115-01-093-3730
(TYPE III) -XE1	30 x 16 x 14 (762 x 402 x 356)	3.889 (0.110)	4.422 (0.125)	8115-00-516-0242
-XE2	32 x 12 x 14 (813 x 305 x 356)	3.111 (0.088)	3.600 (0.102)	8115-00-519-1825
-XE3	24 x 14 x 14 (610 x 356 x 356)	2.722 (0.077)	3.147 (0.089)	8115-00-550-3558
-XE4	20 x 14 x 9 (508 x 356 x 229)	1.458 (0.041)	1.695 (0.048)	8115-00-516-0251
-XE5	25 x 14 x 14 (635 x 356 x 356)	2.836 (0.080)	3.273 (0.093)	8115-00-550-3574
-XE6	32 x 18 x 16 (813 x 458 x 406)	5.333 (0.151)	6.958 (0.197)	8115-01-015-1315
-XE7	24 x 18 x 16 (610 x 458 x 406)	4.000 (0.113)	4.536 (0.128)	8115-01-015-1312
-XE8	26 x 9 x 9 (660 x 229 x 229)	1.219 (0.035)	1.453 (0.041)	8115-01-015-1313
-XE9	34 x 24 x 18 (864 x 610 x 458)	8.500 (0.241)	10.635 (0.301)	8115-01-015-1314
-XF1	30 x 27 x 14 (762 x 686 x 356)	6.563 (0.186)	7.535 (0.213)	8115-01-094-6520
-XF2	30 x 30 x 9 (762 x 762 x 229)	4.688 (0.133)	5.561 (0.157)	8115-01-499-0895
-XF3	40 x 40 x 9 (1016 x 1016 x 229)	8.333 (0.236)	9.721 (0.275)	8115-01-499-0897
(TYPE IV) -XG1	20 x 14 x 14 (508 x 356 x 356)	2.269 (0.064)	2.494 (0.071)	8115-01-010-8956
-XG2	22 x 16 x 16 (559 x 406 x 406)	3.259 (0.092)	3.545 (0.100)	8115-01-006-7257

3.5 Workmanship. In addition to meeting the requirements of the individual material specifications, the completed box and cushioning components shall be clean, free of malformed or misaligned edges, faces, scores, slots, die-cuts, and any defects which may affect durability, strength, and serviceability. All components shall be accurately dimensioned and fabricated so that the assembled components will fit closely without undue binding.

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4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the government. The government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Component and material quality conformance inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced drawings, specifications, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document. Unless otherwise specified, sampling for inspection shall be performed in accordance with ANSI/ASQ Z1.4.

4.3 Inspection of the end item. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in the applicable test method document or applicable paragraphs in this specification.

4.3.1 Classification of defects. All defects shall be classified as either a critical, major, or minor defect. A critical defect shall be justified as a defect that may cause injury to personnel or property. A major defect shall be justified as a defect that may affect performance and quality of the container. A minor defect shall be justified as a defect that is a discrepancy in this specification but does not apply to a critical or major defect. All critical and major defects shall constitute a failure of the container to meet the requirements of this specification and shall deem the container unacceptable by the Government (see 4.1). All minor defects shall be under the discretion of the contracting officer to either deem the container acceptable or unacceptable.

4.3.2 Examination of the end item. The end item shall be examined for the defects listed in 4.3.2.1 at the inspection level set forth in 4.3.2.4. A random sample of boxes of each type, style, and size offered shall be selected from each lot and examined for visual and dimensional acceptance. The lot size, for purposes of determining the sample size in accordance with ANSI/ASQ Z1.4, shall be expressed in units of boxes for examination under 4.3.2.1; in units of bundles for examination under 4.3.2.2; and in units of shipping containers fully prepared for delivery for examination under 4.3.2.3.

4.3.2.1 Examination of the end item for defects in appearance, construction, and workmanship. The sample unit for examination shall be one complete unit consisting of a box and appropriate cushioning components. Defects that require measurement shall be measured to the nearest 1/16 inch (1 mm). Measurements shall be taken using a standard English unit measuring tape with increments no greater than 1/16 inch. A standard metric unit measuring tape with increments no greater than 1 mm may be used. Shipping cube is calculated using the external dimensions. Unit cube is calculated using the internal dimensions. For unit cube measurements, measure length alongside opposite the joint from one end to the other. Measure width along end opposite the joint from one side to the other. The depth shall be the distance between inner faces of top and bottom. Dimensions are always given in this order: length x width x depth. Examination shall be as specified in Table II:

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TABLE II. Examination of sample unit for defects.

Examine	Defect	CATEGORY	
		Major	Minor
For All Styles Boxes: Type of board (3.1.1)	Material not as specified.	X	
Cushioning (3.1.2)	Material not as specified.	X	
	Dimensions not as specified (see 3.1.2.1.)	X	
Cushion and Bonding of Components	Adhesive not applied or cushioning not securely adhered to board.	X	
	Lamination pads are not composed of the same material (see 3.1.2.2).	X	
	Lamination pads are less than 2 inches (50 mm) thick (see 3.1.2.2).	X	
	Type II convoluted cushioning is not cut from a single piece of foam (see 3.1.2.2).	X	
	Laminations do not use adhesive as specified in 3.1.5 (see 3.1.2.3).	X	
	Cushioning components are not adhered to box components with 45 +/- 5 percent contact area (see 3.2.5).		X
	Cushioning is not centered and adhered into position in accordance with applicable figures (see 3.2.5).	X	
Tape (3.1.3)	Tape is not as specified.	X	
Metal Fasteners (3.1.4)	Metal fasteners are not as specified.	X	
Adhesive (3.1.5)	Adhesive is not as specified.	X	
Design and construction (3.2)	Boxes not type and style specified (6.2)	X	
	Boxes are not constructed in accordance with the applicable figures (see 3.2.1, 3.2.2, 3.2.3, & 3.2.4).	X	

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TABLE II. Examination of sample unit for defects - Continued

Examine	Defect	CATEGORY	
		Major	Minor
Style A Boxes (3.2.1.1)	Style A boxes are not in accordance with ASTM D 5118/5118M.	X	
	Manufacturer's joint and bottom flange are not stapled or stitched.	X	
	Cushioning components are not placed inside.	X	
	Top is not closed to facilitate delivery.		X
	Top is damaged when reopened after delivery.	X	
Style B Boxes (3.2.1.2)	Style B boxes are not in accordance with ASTM D 5118/5118M.	X	
	Cover does not extend to half the depth of the tube.	X	
Style C Boxes (3.2.1.3)	Style C boxes are not in accordance with ASTM D 5118/5118M.	X	
	Joints for covers and single-piece tubes are not butted and secured with metal fasteners.	X	
Style D Boxes (3.2.2.1)	Style D boxes are not in accordance with ASTM D 5118/5118M	X	
	The sleeve overlap is not stitched, stapled, or glued.	X	
Style E boxes (3.2.2.2)	Style E boxes are not in accordance with ASTM D5118/5118M	X	
Style G (3.2.3)	Style G boxes are not in accordance with ASTM D 5118/5118M.	X	
Bonding of Components (3.2.5)	Cushioning components are not adhered to box components with 45 +/- 5 percent contact area.		X
	Cushioning is not centered and adhered into position in accordance with applicable figures.	X	
Dimensions (3.3)	Length, width, or depth varies by more than $\pm 1/8$ inch (3 mm) from size specified. See paragraph for measurement details.	X	
	The center of the die-cut star cavity for type I and IV is not within 1/2 inch (13 mm) of true center.	X	

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TABLE II. Examination of sample unit for defects - Continued

Examine	Defect	CATEGORY	
		Major	Minor
Markings (3.4)	Markings are missing, illegible, incomplete, or incorrect.	X	
	Markings are not positioned as specified or of proper size.		X
Workmanship (3.5)	Improper fit of components.	X	
Condition of components (boxes, sleeves, slides, caps, tubes, and cushions)	Tear, split, or puncture (affecting serviceability).	X	
	Unduly dirty, stained, or scuffed.	X	
	Unduly ragged, uneven, or crushed edges (except crushed edge of fiberboard at manufacturer's joint).	X	

4.3.2.2 Examination of the end item for count per bundle. The sample unit for this examination shall be one bundle of one type, style, and size of assembled packs. The count per bundle shall be not less than specified.

4.3.2.3 Examination of preparation for delivery. An examination shall be made to determine that packaging, packing, and markings comply with the requirements of section 5. The sample unit for this examination shall be one shipping container or pallet load prepared for shipment.

4.3.2.4 Inspection levels for examination. The inspection levels, for determining the sample size, shall be as follows:

<u>Examination Paragraph</u>	<u>Inspection Level</u>
4.3.2.1	S - 1
4.3.2.2	S - 4
4.3.2.3	S - 1

4.4 Electrostatic properties test. Specimens shall be tested for conformance to the requirements of 3.1.2.4. The static decay time of the cushioning material specimens shall be determined in

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accordance with MIL-PRF-26514, 4.5.3.10 and MIL-STD-3010, Method 4046. Cushioning material specimen thickness shall be 1/2 inch (13 mm) + 1/8 inch (3 mm) –0 inch.

4.4.1 Electrostatic decay time test. A static decay time greater than 2 seconds shall be cause for rejection (see 3.1.2.4) when tested in accordance with MIL-STD-3010.

4.5 Corrosivity test. Anti-static cushioning material specimens shall be tested in accordance with MIL-STD-3010, Test Method 3005, Contact Corrosivity (see 3.1.2.5), except that the following four test surfaces shall be exposed for 72 hours:

- a. AMS-QQ-A-225/6 aluminum, alloy 2024, temper T6.
- b. IPC-4562A copper foil, designation 10 oz. (3050 g/m²).
- c. Silver plated copper foil (foil same as 4.5.b.), plating thickness 100-200 micro inches (2.54 x 10⁻³ mm - 5.1 x 10⁻³ mm).
- d. SN63Pb37 tin-lead eutectic solder coated copper foil (foil same as 4.5 b.), coating thickness 200-500 micro inches (5.1 x 10⁻³ mm - 12.7 x 10⁻³ mm), J-STD-006.

Plated or coated test surfaces shall not be ground or abraded, but otherwise shall be prepared in accordance with 5.3.2.4 of MIL-STD-3010. After the exposure period, the presence of corrosion shall be cause for rejection. Corrosion shall be defined as exposure of the base metal, or a visible change in the surface finish such as pitting, etching, or formation of loose or granular particles; stain alone shall not be considered corrosion.

5. PACKAGING

5.1 Packaging. All packs must be fully assembled ready to use, upon submission to the government. Style A box's shall be closed and flaps secured (see 3.2.1.1). All packs consisting of one type, style, and size shall be submitted on each palletized load or inside each shipping container. The number of packs inside each shipping container is at the discretion of the supplier. Preservation, packaging, and marking shall be as specified in the contract or order. All shipments shall conform to ASTM D3951.

5.2 Marking. Each shipping container or placard, for palletized loads, shall be marked in accordance with ASTM D3951, or as specified in the contract or purchase order.

6. NOTES

INFORMATION FOR GUIDANCE ONLY. (This section contains information of a general or explanatory nature that is helpful, but is not mandatory.)

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6.1 Intended use. These packs are intended for use as standard, exterior, reusable packing media for the packaging, preservation, handling, shipment, and storage of serviceable and repairable items as prescribed by cognizant packaging activities. Type I packs may be used for items such as meters, gauges, and instruments. Type II packs may be used for items which are essentially flat (1/4 inch to 2-1/2 inches (6 mm to 65 mm)) such as circuit boards, electronic modules, and tubes. Type III packs may be used for black-box type items, such as receiver-transmitters, amplifiers, power supply units and electronic indicators. Type IV packs may be used for electrical-electronic items generally having a small cross section relative to length, such as control generators, amplifiers, volt-meters, protection panels, transformers, and regulators. Additional information regarding weight limits and fragility range of items applicable to these packs may be found in MIL-STD-2073-1 and as referenced in Technical Order (TO) 00-85B-3.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- a. Title, number, revision letter and date of this specification.
- b. Type, style, and size of box (see 1.2.1).
- c. Units to be used in box markings (English or metric, see 3.4).
- d. Special markings (see 5.2)

6.2.1 Additional ordering data. In addition, the purchaser may include the following cushioning material requirements in procurement documents:

- a. Special color.
- b. Flexibility (procuring activity must define test).
- c. Thermal stability (see ASTM D3575, suffix S, dimensional change not greater than 2% typical value).
- d. Flammable blowing agent content (procuring activity must define test to determine lower explosive limit (LEL), typical value is 50%) (see NIPHLE 97T-002).
- e. Fire retardancy (procuring activity must define test).

6.3 Samples. Normally no samples for determining compliance with this specification will be necessary prior to award. If samples with bids are required, they should be specifically requested in the invitation for bids, and the purpose of the bid sample should be definitely stated, the specification to apply in all other respects.

6.4 Units of measure. The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard and should not generally be used for procurement purposes.

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6.4.1 Tape. Metric conversions for tape widths are, however, standard measurements used in their respective specifications and both the provided English and metric values are standard.6.5 Classification cross-reference.

TABLE III. Classification cross-reference

			Rev B/ 001672A	
Rev E	Rev D	Rev C	(USAF)	PPP-C-001672 (USAF)
Type I	Type I	Type I	Type I	Type I
Style A	Style A	Style A	Style A	Style - Regular slotted carton (RSC)
Style B	Style B	Style B	Style B	Style - Double cover container (DBLCC)
Style C	Style C	Style C	Style C	Style - Modified double cover container (Modified DBLCC)
Type II	Type II	Type II	Type II	Type II
Style D	Style D	Style D	Style D	Style - Modified triple slide (Modified TS)
Style E	-----	-----	Style E	
-----	-----	-----	Style F	
Type III	Type III	Type III	Type III	-----
Style G	Style G	Style G	Style G	-----
Type IV	Type IV	Type IV	Type IV	-----
Style B	Style B	Style B	Style B	-----

6.6 Key Word Listing.

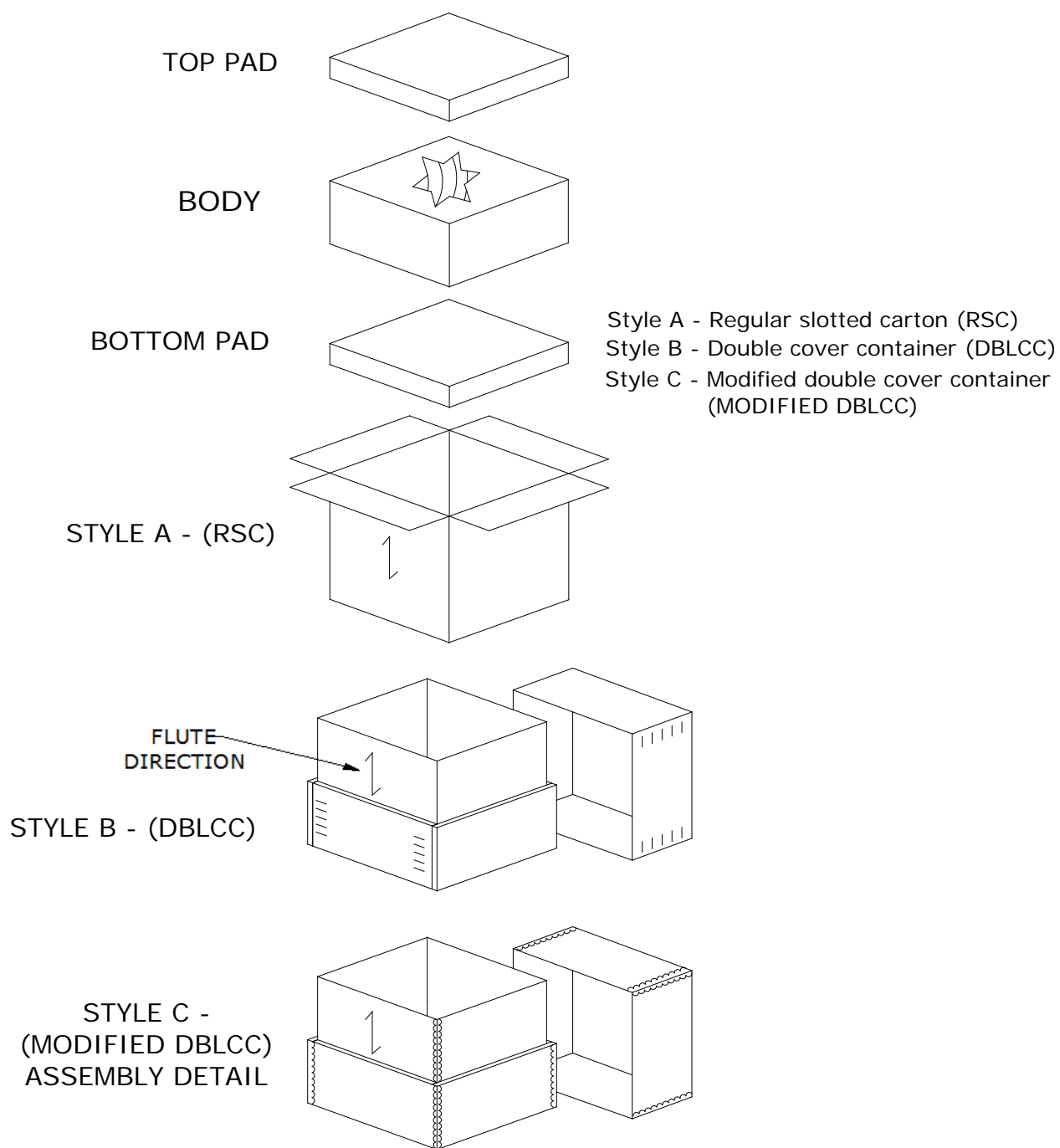
Anti-Static
Container, Reusable
Fast Pack
Slide Pack

6.7 Changes from previous issue. Asterisks (or vertical lines) are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

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FIGURE 1

TYPE I CONTAINERS

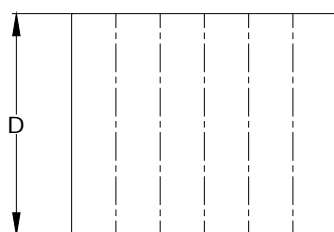
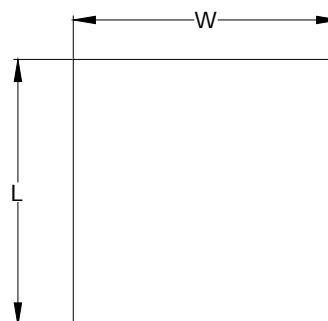
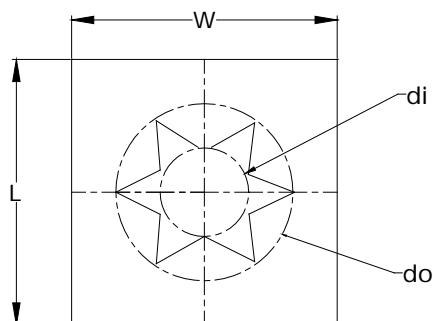


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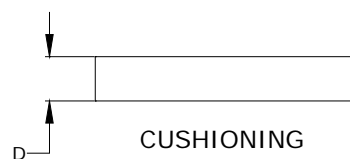
FIGURE 2

TYPE I CONTAINERS (continued)

CUSHIONED BOX DATA						
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)						
BOX SIZE (I.D) L x W x D	DETAIL No. 1					Detail No. 2 L x W x D
	L	W	D	di	do	
6 x 6 x 10 (152 x 152 x 254)	6 (152)	6 (152)	6 (152)	1.5 (38)	4.5 (114)	6 x 6 x 2 (152 x 152 x 51)
8 x 8 x 12 (203 x 203 x 305)	8 (203)	8 (203)	8 (203)	2.5 (64)	6 (152)	8 x 8 x 2 (203 x 203 x 51)
10 x 10 x 12 (254 x 254 x 305)	10 (254)	10 (254)	6 (152)	3.5 (89)	7 (178)	10 x 10 x 3 (254 x 254 x 76)
12 x 12 x 14 (305 x 305 x 356)	12 (305)	12 (305)	8 (203)	4.5 (114)	8 (203)	12 x 12 x 3 (305 x 305 x 76)
12 x 12 x 18 (305 x 305 x 458)	12 (305)	12 (305)	10 (254)	4.5 (114)	8 (203)	12 x 12 x 4 (305 x 305 x 102)
14 x 14 x 16 (356 x 356 x 406)	14 (356)	14 (356)	10 (254)	5.5 (140)	10 (254)	14 x 14 x 3 (356 x 356 x 76)



CUSHIONING
DETAIL NO.1
(BODY) SEE (3.3)

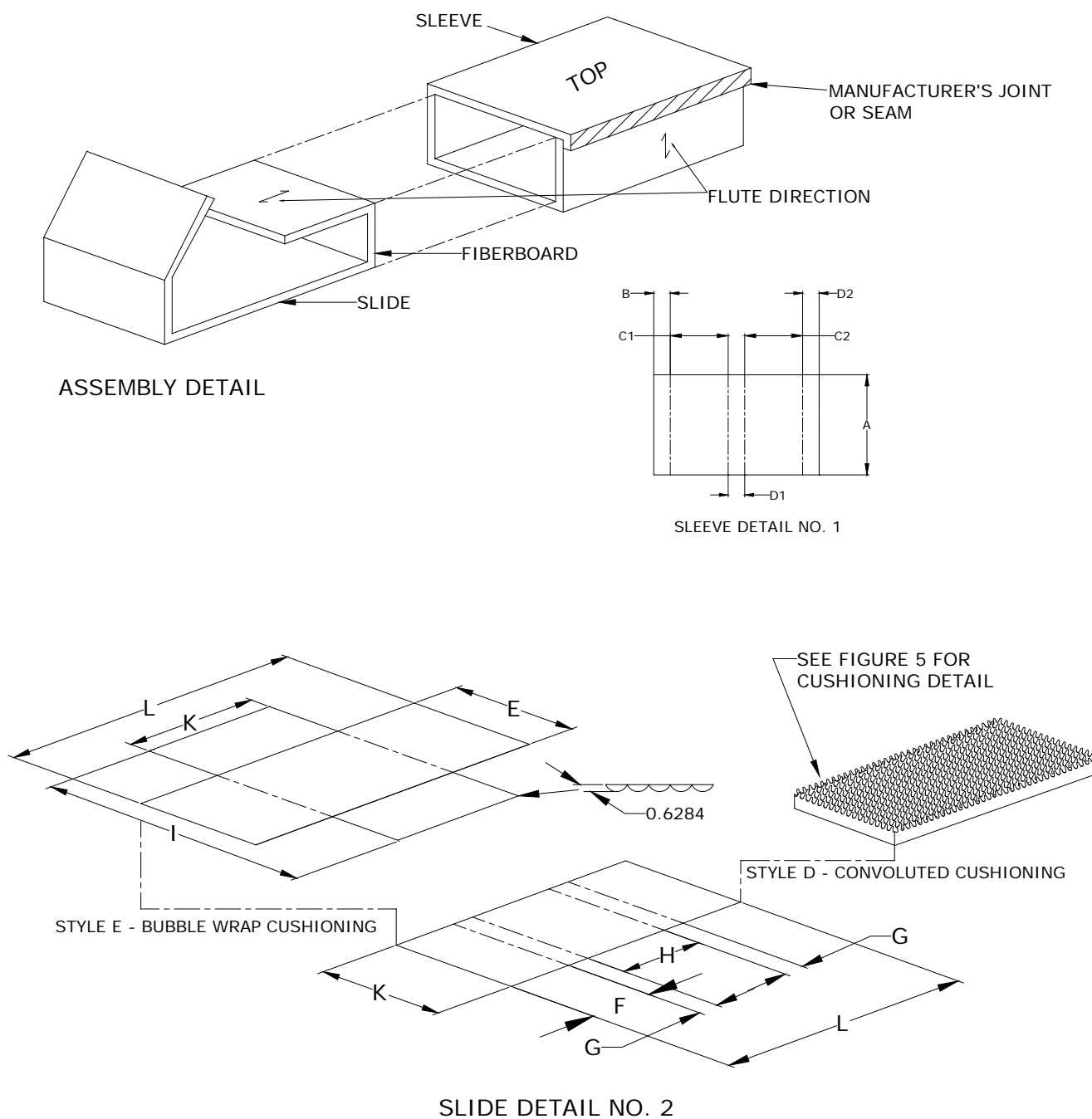


CUSHIONING
DETAIL NO.2
(TOP/BOTTOM PADS)

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FIGURE 3

Type II, Folding Cushioning Container
Style D Modified Triple Slide Box (Modified TS) (Table IV); Style E (see Table V)



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Table IV. Type II, Style D.

TYPE II, STYLE D - MODIFIED TRIPLE SLIDE BOX (MODIFIED TS)													
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)													
BOX SIZE (I.D.)	SLEEVE DETAIL No. 1						SLIDE DETAIL No. 1				CUSHIONING DETAIL No. 5		
L x W x D	A	B	C1	D1	C2	D2	E	F	G	H	I	K	L
6 x 5 x 2-1/2 (153 x 127 x 64)	6-3/16 (157)	1-3/8 (35)	5-5/16 (135)	3-1/8 (79)	5-5/16 (135)	3-1/16 (78)	4-7/8 (124)	3-1/16 (78)	2-5/8 (67)	6-1/8 (156)	1-9/16 (40)	1 (25)	17-1/2 (445)
6 x 5 x 3-1/2 (153 x 127 x 89)	6-3/16 (157)	1-3/8 (35)	5-5/16 (135)	4-1/8 (105)	5-5/16 (135)	4-1/16 (103)	4-7/8 (124)	3-1/16 (78)	3-5/8 (92)	6-1/8 (156)	1-9/16 (40)	1 (25)	19-1/2 (495)
9 x 6 x 2-1/2 (229 x 153 x 64)	9-3/16 (233)	1-3/8 (35)	6-5/16 (160)	3-1/8 (79)	6-5/16 (160)	3-1/16 (78)	5-7/8 (149)	4-9/16 (116)	2-5/8 (67)	9-1/8 (232)	1-9/16 (40)	1 (25)	23-1/2 (597)
9 x 6 x 3-1/2 (229 x 153 x 89)	9-3/16 (233)	1-3/8 (35)	6-5/16 (160)	4-1/8 (105)	6-5/16 (160)	4-1/16 (103)	5-7/8 (149)	4-9/16 (116)	3-5/8 (92)	9-1/8 (232)	1-9/16 (40)	1 (25)	25-1/2 (648)
9 x 6 x 4-1/2 (229 x 153 x 114)	9-3/16 (233)	1-3/8 (35)	6-5/16 (160)	5-1/8 (130)	6-5/16 (160)	5-1/16 (129)	5-7/8 (149)	4-9/16 (116)	4-3/4 (121)	9-1/8 (232)	1-9/16 (40)	1 (25)	27-1/2 (699)
10 x 10 x 3-1/2 (254 x 254 x 89)	10-3/16 (259)	1-3/8 (35)	10-5/16 (262)	4-1/8 (105)	10-5/16 (262)	4-1/16 (103)	9-7/8 (251)	5-1/16 (129)	3-5/8 (92)	10-1/8 (257)	1-9/16 (40)	1 (25)	27-1/2 (699)
12 x 8 x 2-1/2 (305 x 203 x 64)	12-3/16 (310)	1-3/8 (35)	8-5/16 (211)	3-1/8 (79)	8-5/16 (211)	3-1/16 (78)	7-7/8 (200)	6-1/16 (154)	2-5/8 (67)	12-1/8 (308)	1-9/16 (40)	1 (25)	29-1/2 (749)
12 x 8 x 3-1/2 (305 x 203 x 89)	12-3/16 (310)	1-3/8 (35)	8-5/16 (211)	4-1/8 (105)	8-5/16 (211)	4-1/16 (103)	7-7/8 (200)	6-1/16 (154)	3-5/8 (92)	12-1/8 (308)	1-9/16 (40)	1 (25)	31-1/2 (800)
13 x 13 x 3-1/2 (330 x 330 x 89)	13-3/16 (335)	1-3/8 (35)	13-5/16 (338)	4-1/8 (105)	13-5/16 (338)	4-1/16 (103)	12-7/8 (327)	6-9/16 (167)	3-5/8 (92)	13-1/8 (333)	1-9/16 (40)	1 (25)	33-1/2 (851)
16 x 16 x 3-1/2 (406 x 406 x 89)	16-3/16 (411)	1-3/8 (35)	16-5/16 (414)	4-1/8 (105)	16-5/16 (414)	4-1/16 (103)	15-7/8 (403)	8-1/16 (205)	3-5/8 (92)	16-1/8 (410)	1-9/16 (40)	1 (25)	39-1/2 (1003)
18 x 12 x 2-1/2 (458 x 305 x 64)	18-3/16 (462)	1-3/8 (35)	12-5/16 (313)	3-1/8 (79)	12-5/16 (313)	3-1/16 (78)	11-7/8 (302)	9-1/16 (230)	2-5/8 (67)	18-1/8 (460)	1-9/16 (40)	1 (25)	41-1/2 (1054)
18 x 12 x 3-1/2 (458 x 305 x 89)	18-3/16 (462)	1-3/8 (35)	12-5/16 (313)	4-1/8 (105)	12-5/16 (313)	4-1/16 (103)	11-7/8 (302)	9-1/16 (230)	3-5/8 (92)	18-1/8 (460)	1-9/16 (40)	1 (25)	43-1/2 (1105)
24 x 16 x 3-1/2 (610 x 406 x 89)	24-3/16 (615)	1-3/8 (35)	16-5/16 (414)	4-1/8 (105)	16-5/16 (414)	4-1/16 (103)	15-7/8 (403)	12-1/16 (306)	3-5/8 (92)	24-1/8 (613)	1-9/16 (40)	1 (25)	55-1/2 (1408)

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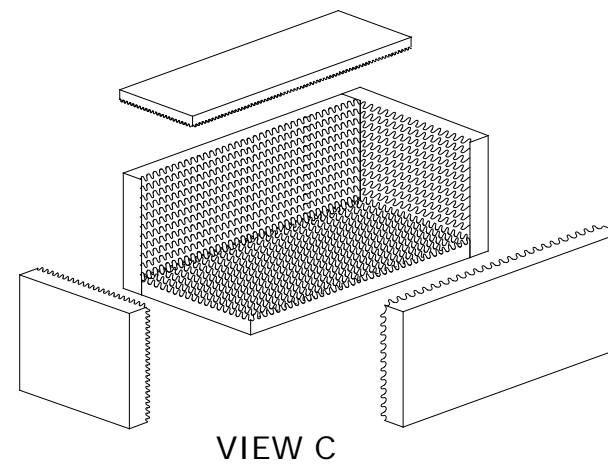
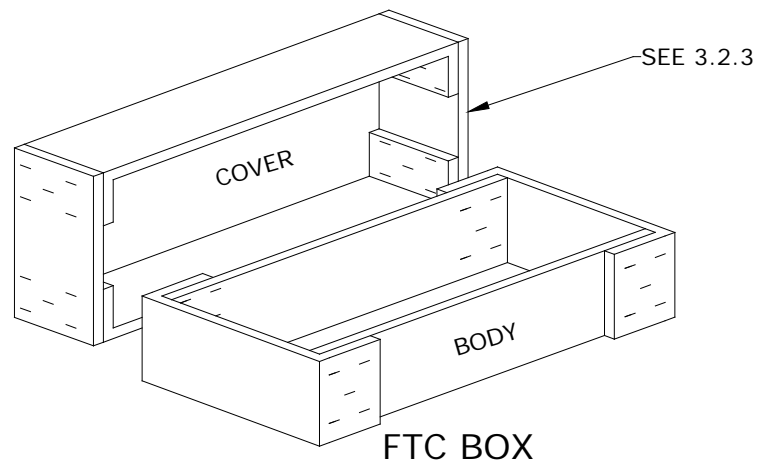
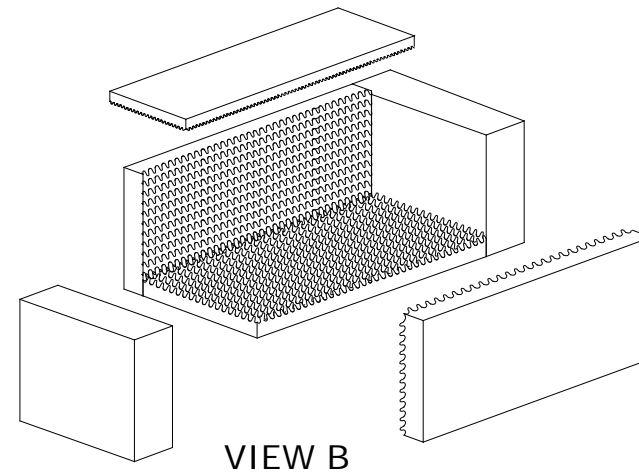
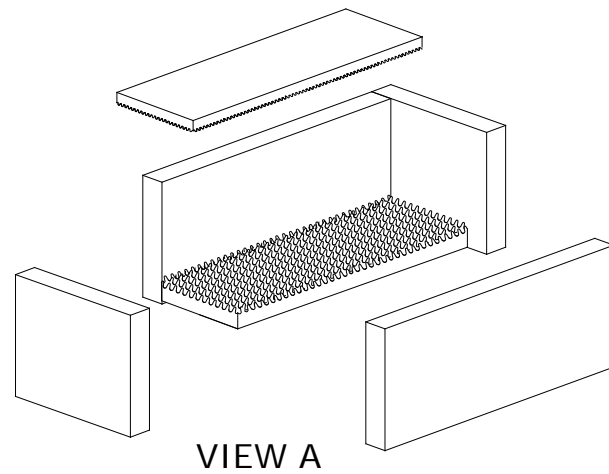
Table V. Type II, Style E.

BOX SIZE (LD) L x W x D	SLEEVE DETAIL No. 1						SLIDE DETAIL No. 2				CUSHIONING DETAIL No. 5		
	A	B	C1	D1	C2	D2	E	F	G	H	I	K	L
7 x 5 x 1-1/4 (178 x 127 x 32)	7-1/4 (184)	1-3/8 (35)	5-5/16 (135)	1-11/16 (43)	5-1/4 (133)	1-9/16 (40)	5 (127)	3-9/16 (90)	1-3/8 (35)	7-1/8 (181)	14-1/2 (368)	7 (178)	17 (432)
7 x 5 x 2-1/4 (178 x 127 x 57)	7-1/4 (184)	1-3/8 (35)	5-5/16 (135)	2-11/16 (68)	5-1/4 (133)	2-9/16 (65)	5 (127)	3-9/16 (90)	2-3/8 (60)	7-1/8 (181)	16-1/2 (419)	7 (178)	19 (483)
9 x 6 x 1-1/4 (229 x 153 x 32)	9-3/16 (233)	1-3/8 (35)	6-5/16 (160)	1-11/16 (43)	6-1/4 (159)	1-9/16 (40)	6 (152)	4-9/16 (116)	1-3/8 (35)	9-1/8 (232)	16-1/2 (419)	9 (229)	21 (533)
9 x 6 x 2-1/4 (229 x 153 x 57)	9-3/16 (233)	1-3/8 (35)	6-5/16 (160)	2-11/16 (68)	6-1/4 (159)	2-9/16 (65)	6 (152)	4-9/16 (116)	2-3/8 (60)	9-1/8 (232)	18-1/2 (470)	9 (229)	23 (584)
10 x 10 x 3 (254 x 254 x 76)	10-3/16 (259)	1-3/8 (35)	10-5/16 (262)	3-7/16 (87)	10-1/4 (260)	3-5/16 (84)	10 (254)	5-1/16 (129)	3-1/8 (79)	10-1/8 (257)	28 (711)	10 (254)	26-1/2 (673)
12 x 8 x 1-1/4 (305 x 203 x 32)	12-3/16 (310)	1-3/8 (35)	8-5/16 (211)	1-11/16 (43)	8-1/4 (210)	1-9/16 (40)	8 (203)	6-1/16 (154)	1-3/8 (35)	12-1/8 (308)	20-1/2 (521)	12 (305)	27 (686)
12 x 8 x 2-1/4 (305 x 203 x 57)	12-3/16 (310)	1-3/8 (35)	8-5/16 (211)	2-11/16 (68)	8-1/4 (210)	2-9/16 (65)	8 (203)	6-1/16 (154)	2-3/8 (60)	12-1/8 (308)	22-1/2 (572)	12 (305)	29-1/2 (749)
13 x 13 x 2-1/4 (330 x 330 x 57)	13-3/16 (335)	1-3/8 (35)	13-5/16 (338)	2-11/16 (68)	13-1/4 (337)	2-9/16 (65)	13 (330)	6-9/16 (167)	2-3/8 (60)	13-1/8 (333)	32-1/2 (826)	13 (330)	31 (787)
16 x 16 x 2-1/4 (406 x 406 x 57)	16-3/16 (411)	1-3/8 (35)	16-5/16 (414)	2-11/16 (68)	16-1/4 (413)	2-9/16 (65)	16 (406)	8-1/16 (205)	2-3/8 (60)	16-1/8 (410)	38-1/2 (978)	16 (406)	37 (940)
18 x 12 x 1-1/4 (458 x 305 x 32)	18-3/16 (462)	1-3/8 (35)	12-5/16 (313)	1-11/16 (43)	12-1/4 (311)	1-9/16 (40)	12 (305)	9-1/16 (230)	1-3/8 (35)	18-1/8 (460)	28-1/2 (724)	18 (457)	39 (991)
18 x 12 x 2-1/4 (458 x 305 x 57)	18-3/16 (462)	1-3/8 (35)	12-5/16 (313)	2-11/16 (68)	12-1/4 (311)	2-9/16 (65)	12 (305)	9-1/16 (230)	2-3/8 (60)	18-1/8 (460)	30-1/2 (775)	18 (457)	41 (1041)
24 x 16 x 2-1/2 (610 x 406 x 64)	24-3/16 (614)	1-3/8 (35)	16-5/16 (414)	2-5/16 (59)	16-1/4 (413)	2-13/16 (71)	16 (406)	12-1/16 (306)	2-5/8 (67)	24-1/8 (613)	39 (991)	24 (610)	53-1/2 (1359)

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FIGURE 4

TYPE III, STYLE G – Full Telescope Box (FTC) (see Table VI)



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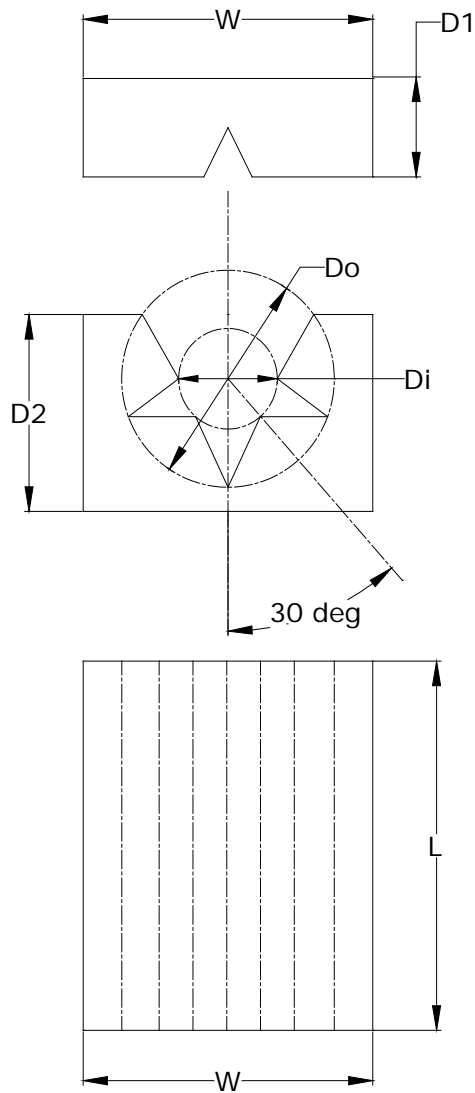
Table VI. Type III, Style G.

BOX SIZE (Inner Dimensions)	ASSY VIEW	CUSHIONED BOX DATA NOTE: Pads are convoluted unless noted as flat.				END PADS ONLY *		CUSHION DETAIL *	
		TOP (1 EACH)	BOTTOM (1 EACH)	SIDE (2 EACH)	END (2 EACH)	L	K	L	K
20 x 14 x 9 (508 x 356 x 229)	A	15.5 x 9.5 x 2.75 (394 x 241 x 70)	16 x 10 x 2.75 (406 x 254 x 70)	16 x 9 x 2 (FLAT) (406 x 229 x 51)	14 x 9 x 2 (FLAT) (356 x 229 x 51)	----	---	2.75 (70)	1.5 (38)
24 x 14 x 14 (610 x 356 x 356)	C	16 x 6 x 3.75 (406 x 152 x 95)	16.5 x 14 x 3.75 (419 x 356 x 95)	16.5 x 10.25 x 3.75 (419 x 260 x 95)	14 x 14 x 3.75 (356 x 356 x 95)	----	---	3.75 (95)	1.5 (38)
24 x 18 x 16 (610 x 458 x 406)	C	16 x 10 x 3.75 (406 x 254 x 95)	16.5 x 18 x 3.75 (419 x 457 x 95)	16.5 x 12.25 x 3.75 (419 x 311 x 95)	18 x 16 x 3.75 (457 x 406 x 95)	----	---	3.75 (95)	1.5 (38)
25 x 14 x 14 (635 x 356 x 356)	B	12.5 x 4 x 4.75 (317 x 102 x 121)	13 x 14 x 4.75 (330 x 356 x 121)	13 x 9.25 x 4.75 (330 x 235 x 121)	14 x 14 x 6 (FLAT) (356 x 356 x 152)	----	---	4.75 (121)	1.5 (38)
26 x 9 x 9 (660 x 229 x 229)	C	18 x 3 x 2.75 (457 x 76 x 70)	18.5 x 9 x 2.75 (470 x 229 x 70)	18.5 x 6.25 x 2.75 (470 x 159 x 70)	9 x 9 x 3.75 (229 x 229 x 95)	3.75 (95)	3.75 (95)	2.75 (70)	1.5 (38)
30 x 16 x 14 (762 x 406 x 356)	C	22 x 8 x 3.75 (559 x 203 x 95)	22.5 x 16 x 3.75 (572 x 406 x 95)	22.5 x 10.25 x 3.75 (572 x 260 x 95)	16 x 14 x 3.75 (406 x 356 x 95)	----	---	3.75 (95)	1.5 (38)
30 x 27 x 14 (762 x 686 x 356)	C	22 x 19 x 3.75 (559 x 483 x 95)	22.5 x 27 x 3.75 (572 x 686 x 95)	22.5 x 10.25 x 3.75 (572 x 260 x 95)	27 x 14 x 3.75 (686 x 356 x 95)	----	---	3.75 (95)	1.5 (38)
30 x 30 x 9 (762 x 762 x 229)	C	24.5 x 24.5 x 2.75 (622 x 622 x 70)	24.5 x 30 x 2.75 (622 x 762 x 70)	24.5 x 6.25 x 2.75 (622 x 159 x 70)	30 x 9 x 2.75 (762 x 229 x 70)	----	---	2.75 (70)	1.5 (38)
32 x 12 x 14 (813 x 305 x 356)	C	24 x 4 x 3.75 (610 x 102 x 95)	24.5 x 12 x 3.75 (622 x 305 x 95)	24.5 x 10.25 x 3.75 (622 x 260 x 95)	12 x 14 x 3.75 (305 x 356 x 95)	----	---	3.75 (95)	1.5 (38)
32 x 18 x 16 (813 x 458 x 406)	C	22 x 10 x 3.75 (559 x 254 x 95)	22.5 x 18 x 3.75 (572 x 457 x 95)	22.5 x 12.25 x 3.75 (572 x 311 x 95)	18 x 16 x 4.75 (460 x 406 x 121)	4.75 (121)	1.5 (38)	3.75 (95)	1.5 (38)
34 x 24 x 18 (864 x 610 x 458)	C	24 x 16 x 3.75 (610 x 406 x 95)	24.5 x 24 x 3.75 (622 x 610 x 95)	24.5 x 14.25 x 3.75 (622 x 362 x 95)	24 x 18 x 4.75 (610 x 457 x 121)	4.75 (121)	1.5 (38)	3.75 (95)	1.5 (38)
40 x 40 x 9 (1016 x 1016 x 229)	C	34.5 x 34.5 x 2.75 (876 x 876 x 70)	34.5 x 40 x 2.75 (876 x 1016 x 70)	34.5 x 6.25 x 2.75 (876 x 159 x 70)	40 x 9 x 2.75 (1016 x 229 x 70)	----	---	2.75 (70)	1.5 (38)

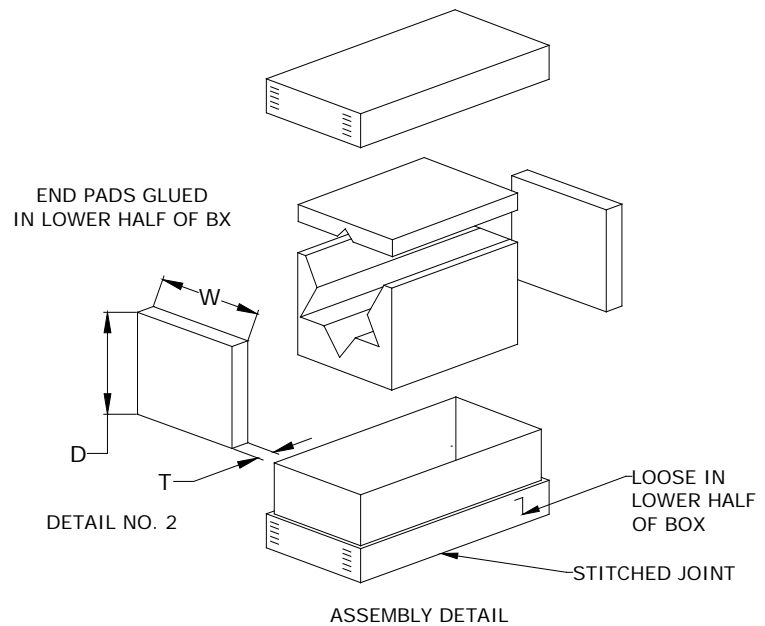
PPP-B-1672E

FIGURE 5

TYPE IV, STYLE B

BODY-DETAIL NO. 1
SEE 3.3

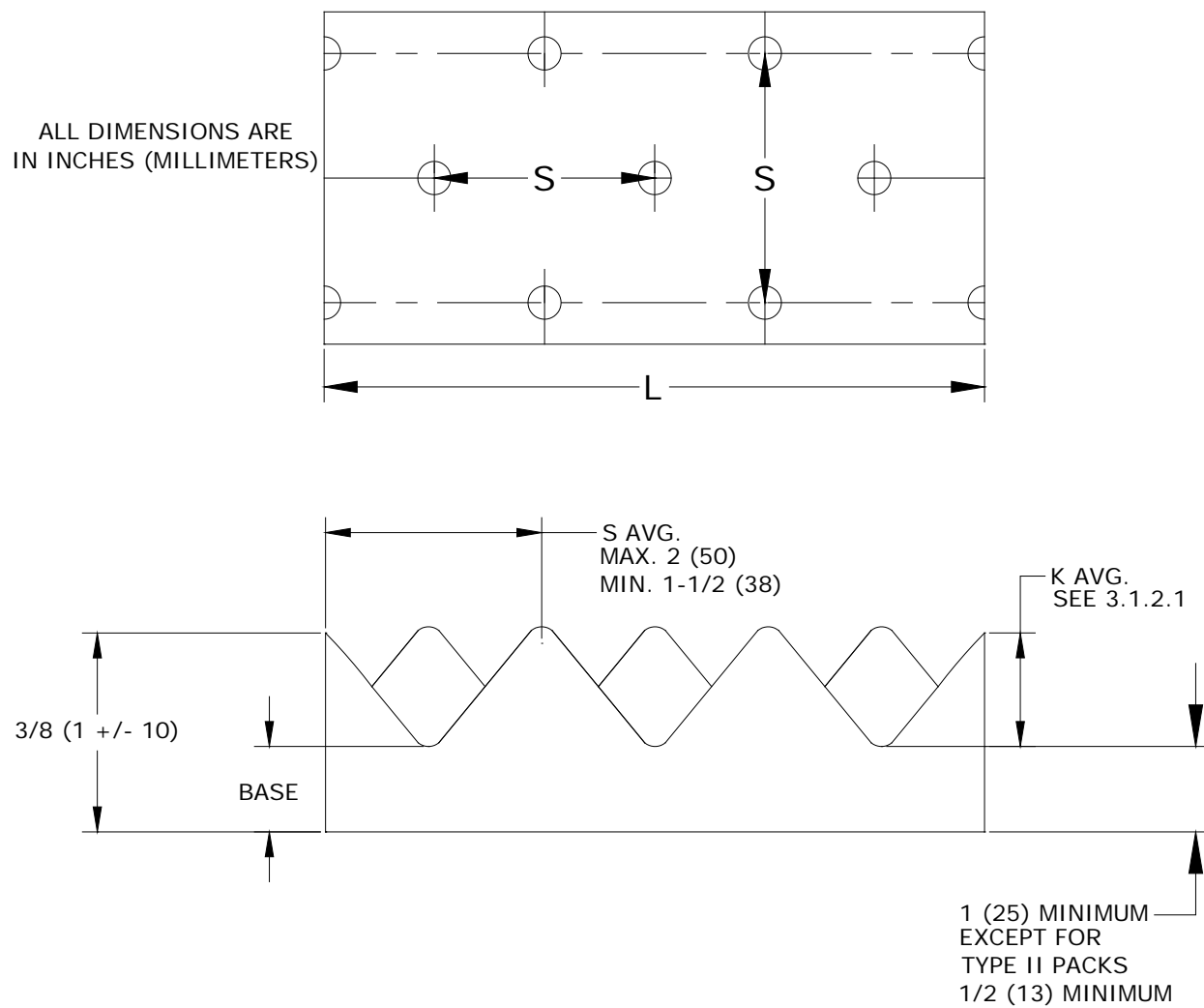
CUSHIONED BOX DATA							
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)							
BOX SIZE (I.D.) L x W x D	DETAIL No. 1						DETAIL No. 2 W x D x T
	L	W	D1	D2	di	do	
20 x 14 x 14 (508 x 356 x 356)	14 (356)	14 (356)	4.5 (114)	9.5 (241)	5.5 (140)	10 (254)	14 x 14 x 3 (356 x 356 x 76)
22 x 16 x 16 (559 x 406 x 406)	16 (406)	16 (406)	5 (127)	11 (279)	6.5 (165)	12 (305)	16 x 16 x 3 (406 x 406 x 76)



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FIGURE 6

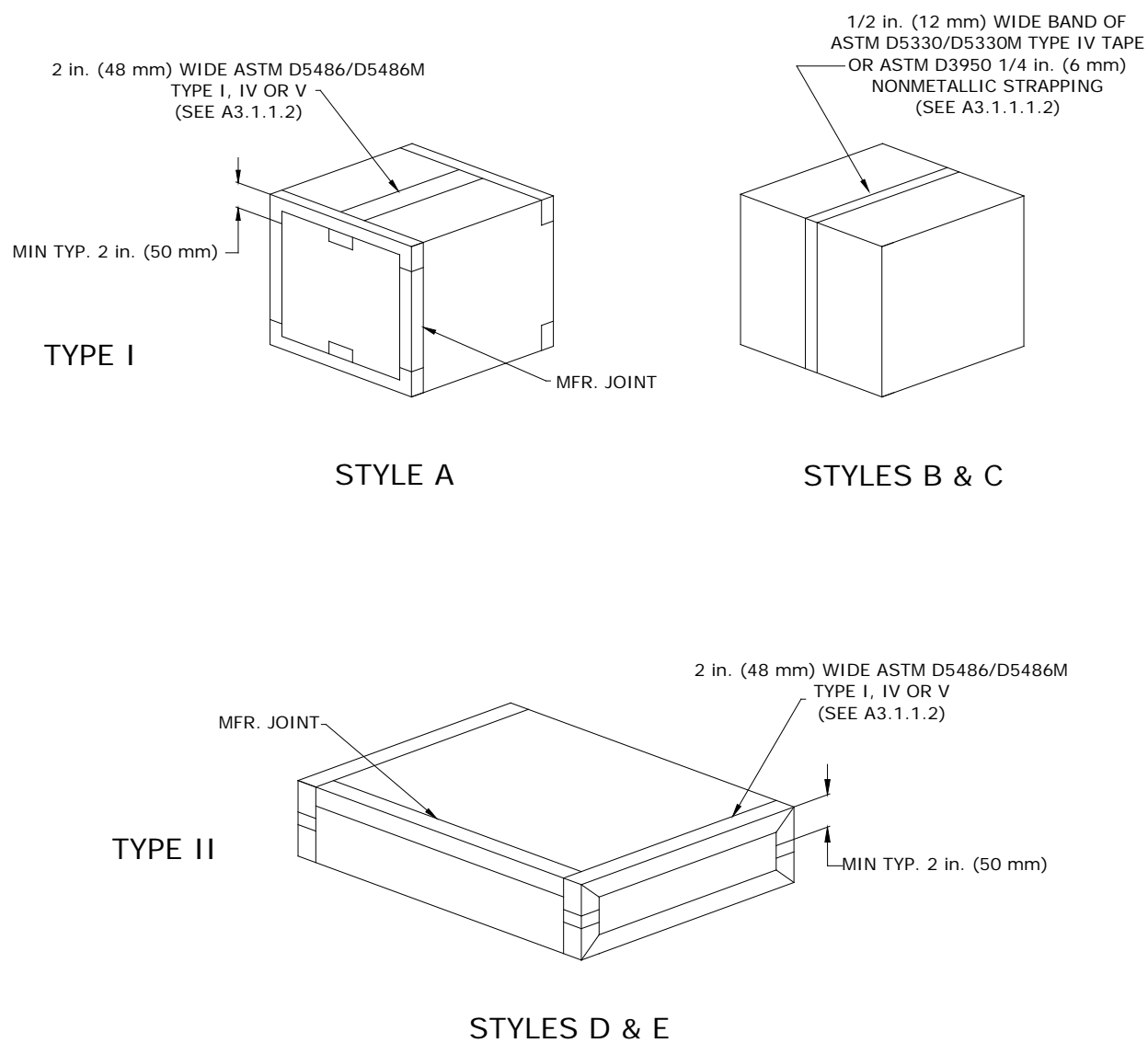
STANDARD CONVOLUTED CUSHIONING DETAIL



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FIGURE 7

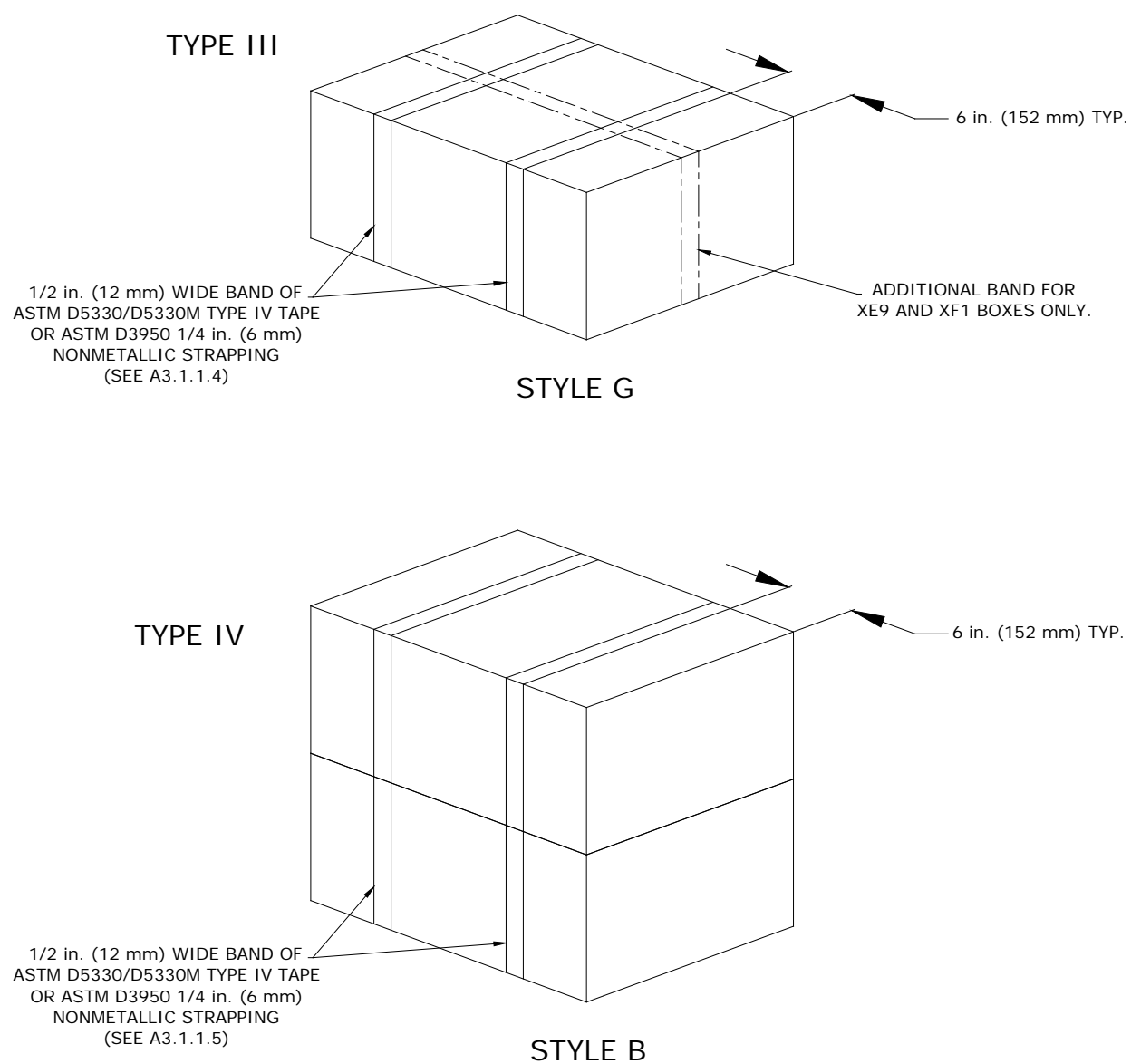
CLOSURE OF FAST-PACK BOXES FOR LEVEL B PACKING
TYPE I, STYLES A, B & C, and TYPE II, STYLES D and E



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FIGURE 8

CLOSURE OF FAST-PACK BOXES FOR LEVEL B PACKING TYPE III, STYLE G and TYPE IV, STYLE B



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APPENDIX A

CLOSURE, OPENING, AND INSPECTION REQUIREMENTS

A1. SCOPE

A1.1 This appendix covers requirements for closure, reinforcing, opening, reuse, and inspection of Fast Packs.

A2. APPLICABLE DOCUMENTS

A2.1 Federal Documents. The following documents and those documents which are listed in this section are those in effect on date of invitation for bids or request for proposal, form a part of this appendix to the extent specified herein:

Federal Standard

FED-STD-123 - Marking for Shipment (Civil Agencies)

Military Standard

MIL-STD-129 - Military Marking for Shipment and Storage

A2.2 Other Publications

ASTM International

D3950	Standard Specification for Strapping, Plastic (and Seals)
D5330/D5330M	Standard Specification for Pressure-Sensitive Tape for Packaging, Filament-Reinforced
D5486/D5486M	Standard Specification for Pressure-sensitive Tape for Packaging, Box Closure, and Sealing

A3. REQUIREMENTS

A3.1 Closure and marking of Fast Packs. Closure of fast pack shall be effected when item is placed therein and packed for shipment and storage. Marking for military shipment and storage of packs shall comply with MIL-STD-129. Marking of packs for civil agencies shall be in accordance with FED-STD-123. The tape used for reinforcement and sealing shall be of the specification, type, and size as specified for each type and style of box to provide level B and level C packing (see A3.1.1). Insofar as practical, no preprinted markings, except container certification marking, shall be obscured by taping or reinforcement. Obscured or obliterated markings that are preprinted on reused boxes need not be remarked except for the pack code (see TABLE I).

A3.1.1 Level B packing (see figures 7 and 8).

A3.1.1.1 Type I

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APPENDIX A

A3.1.1.1.1 Style A. Type I, style A packs shall be sealed with a minimum of 2 inch (48 mm) wide tape conforming to ASTM D5486/D5486M, types I, IV or V applied over all seams, corners, and manufacturer's joints. The tape shall be centered over the seams and joints and shall extend over all the corners and edges of the box a minimum of 2 inches (50 mm) onto the adjacent box panels. Tape shall be applied over the lengthwise seam of the outer flaps, sealing the opening of the box and over the manufacturer's joint prior to tape being applied to the edge seams of the box. The tape applied to the manufacturer's joint shall cover the joint but not extend over the corners of the box onto the adjacent panels. This method also serves as the closure.

A3.1.1.1.2 Styles B and C. Type I, styles B and C packs shall be centrally reinforced with one fully encircling band of 1/2 inch (12 mm) wide tape conforming to ASTM D5330/D5330M, type IV, or 1/4 inch (6 mm) nonmetallic strapping conforming to ASTM D3950 with a minimum tensile strength of 400 lbf (1790 N). This method serves as the closure. Sealing is not required.

A3.1.1.2 Type II, style D. In the manner specified in A3.1.1.1.1 for style A, seal all open seams and manufacturer's joints with 2 inch (48 mm) wide tape conforming to either ASTM D5486/D5486M, types I, IV or V. This method also serves as the closure.

A3.1.1.3 Type II, style E.

A3.1.1.4 Type III, style G. Type III, style G packs shall be reinforced with fully encircling bands of 1/2 inch (12 mm) wide tape conforming to ASTM D5330/D5330M, type IV or 1/4 inch (6 mm) nonmetallic strapping conforming to ASTM D3950 with a minimum tensile strength of 400 lbf (1790 N). Two bands shall be positioned 6 inches (155 mm) from the ends over the top, bottom, and sides. Add one lengthwise band over the top, bottom, and ends for XE9 and XF1 Fast Packs. This method serves as the closure. Sealing is not required.

A3.1.1.5. Type IV, Style B. Reinforcement shall be as specified in A3.1.1.3, except the lengthwise band shall not apply. This method serves as the closure. Sealing is not required.

A3.2 Opening of Fast Packs. To open the Fast Pack boxes, the closure and reinforcing tape shall be cut with a shallow knife at a minimum number of seam locations which will permit opening and preclude any damage to the box. Do not remove totally adhered tape.

A3.3 Reuse of Fast Packs. In reusing of Fast Packs, the following procedures should be observed:

- a. Surfaces to which tape for closure or reinforcement is to be applied must be free of loose soil, oil, or grease. These surfaces should be wiped clean prior to application of tape.
- b. Tape applied to reused containers should be applied directly over the existing tape.
- c. Loose ends of existing tape should be cut off, not torn loose. Tearing the tape from the box damages the box surface and weakens the container walls.

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APPENDIX A

A4. INSPECTION

A4.1 New and reused boxes for shipment and storage shall be inspected only to determine compliance with the tape closure and reinforcing (tape banding) requirements of this appendix. Sampling shall be conducted in accordance with the provisions of ANSI/ASQ Z1.4.

A4.1.1 Inspection for tape closure and banding. Classification of defects shall be as specified in TABLE VII Sample unit for this examination shall be one complete box. Lot size shall be expressed in terms of sample units. The inspection level shall be S-3.

TABLE VII. Examination for tape closure and banding.

Examine	Defect
Taping (sealing or banding, as applicable)	No type, class, or size specified (A3.1)
	Not applied as specified.
	Missing strip
	Loose strip.
	Torn or cut strip (permitted on reused boxes)

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MILITARY INTERESTS:

CIVIL AGENCY COORDINATING
ACTIVITY:

GSA-FAS

Custodians:

Army - SM

Navy - AS

Air Force - 69

DLA - DH

Preparing Activity:

Air Force – 69

Reviewers:

Army – CR

Navy - SA

Air Force - 99

(Project 8115-2013-001)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil> .