

MIL-C-44192(GL)

2 July 1985

## MILITARY SPECIFICATION

## CONTAINER, SHIPPING AND STORAGE, COAT (HANGER PACK)

This specification is approved for use by the Natick Research and Development Center, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This document covers the requirements for dress coat shipping and storage containers, plastic garment bags, hanger bars and hangers.

1.2 Classification. Containers covered by this document shall be of the following types as specified (see 6.2).

Type I	- 12 coats
Type II	- 6 coats
Type III	- 3 coats
Type IV	- 1 coat

## 2. APPLICABLE DOCUMENTS

- \* 2.1 Government Documents. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Natick Research and Development Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 8115

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## SPECIFICATIONS

## FEDERAL

- A-A-1696 - Bag, Plastic, (Garment)
- QQ-P-416 - Plating, Cadmium (Electrodeposited)
- PPP-B-636 - Boxes, Shipping, Fiberboard

## STANDARDS

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-147 - Palletized Unit Loads

(Copies of documents required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Other publications. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- A 386 - Zinc Coating (Hot Dip) on Assembled Steel Products
- D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(Technical society and technical association documents are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence.

## 3. REQUIREMENTS

3.1 Material.3.1.1 Containers.

3.1.1.1 Types I, II and III. Types I, II and III containers shall be in accordance with figure 1. Each container consists of a half slotted container (HSC) box body with a door for loading or dispensing and a partial telescoping lid. The box body shall be made of fiberboard conforming to class domestic,

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variety DW, grade 275, B and C flute, fabricated in accordance with PPP-B-636. The box body shall be scored, slotted, and stitched or glued to form a tube having four flaps of equal length with the outer flaps meeting on the bottom, and four 3 to 3 1/4 inches flaps folded to the inside on the top. If required to accommodate the hanger bar (see 3.1.1.3), a surcut notch shall be utilized at the center of each lengthwise top edge. The door shall be on the widthwise panel opposite the manufacturers joint and be produced by cutting two 18 inches vertical slits down each corner, joined by a horizontal score. The lid shall be a snug-fitting partial telescope, 20 inches in depth, fabricated in accordance with PPP-B-636 made of fiberboard conforming to class domestic, variety SW, grade 200 of PPP-B-636. When type I is closed, the outer flaps shall meet in the middle of the top with a gap not to exceed 1/4 inch. The inner flaps shall be the same length as the outer and will overlap on the inside on type I only. When type II and III containers are closed, the outer flaps will overlap across the width of the lid.

3.1.1.2 Type IV. The type IV container shall conform to figure 2 and to style OPF, variety SW, grade 200 of PPP-B-636. The inside dimensions of the container shall be 40 inches in length, 21 inches in width, and 2 inches in depth. Inner flaps shall be 3 to 3 1/4 inches in depth. One inner flap shall be provided with a hole as specified on figure 2 so that the hook of the hanger can pass through and be held within the container.

3.1.1.3 Hanger bars. Hanger bar length and style shall be in accordance with 3.1.1.3.1 and 3.1.1.3.2 and shall be fabricated from a minimum 22 gauge sheet steel. The bars shall be plated or coated in accordance with type I, class 3 of QQ-P-416, or class B-1 of ASTM A 386. The bar assembly shall consist of a 1 + 1/4 inch rectilinear tube with at least three complete sides and two end clips free of rough edges. The end clips shall measure a minimum of 4 inches in length and 1 1/2 inches in height. The bar shall be interlocked to the end clips and shall be deformed so that the end clips cannot be removed. The bar shall be provided with a locking device that will securely hold the hangers to the bar. End clips shall be mounted to the bar so that when the hanger bars are installed in the container, the bar, with locking device, is held flush with the top of the container. The end clips shall snugly cup the upper edge of the container where the edge shall be two thicknesses of doublewall corrugated fiberboard (see 3.1.1.1).

3.1.1.3.1 Hanger bar selection. Length of the hanger bar between end clips shall be in accordance with table I.

TABLE I

Container type	Bar length (inches $\pm$ 1/8)
I	14
II	8
III	4

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3.1.1.3.2 Styles. Styles of hanger bars shall be as specified in 3.1.1.3.2.1 and 3.1.1.3.2.2.

3.1.1.3.2.1 Style A. Style A hanger bar shall be attached to the interior side of the end clip.

3.1.1.3.2.2 Style B. Style B hanger bar shall extend through the interior side of the end clip and shall be attached to the exterior end clip. This bar shall require a surcut notch to be cut in the upper edge of each lengthwise side of the container to accomodate the bar (see figure 1).

3.1.2 Hanger. The hanger shall be a straight molded one piece body made of high impact polypropylene material. The polypropylene body shall have nominal dimensions of 14, 16 or 17 inches in length, 1/2 inch in width, and a maximum of 6 inches in height. The hanger body and hook shall not exceed 9 inches in height. The swivel type hook shall be a formed square hook, made of either a noncorrosive metal or a plated steel, of a minimum 8 gauge wire. The hook shall be firmly secured into the body of the hanger. The end of the hook shall be bent back on itself  $3/8 \pm 1/8$  inches and having no sharp edges exposed.

3.1.2.1 Fit of hanger hook on hanger bar. The hook shall fit securely over the hanger bar without being able to be removed without first moving the hanger up 3/4 of an inch.

3.1.3 Plastic bag. The plastic bag shall conform to type II of A-A-1696.

### 3.2 Markings.

3.2.1 Compliance and certificate markings. Containers made to comply with this document shall be imprinted with compliance and certificate markings in accordance with PPP-B-636.

3.2.2 Special markings. Arrow markings, as specified in MIL-STD-129, shall appear on all type I, II and III containers.

### 3.3 Workmanship.

3.3.1 Container workmanship. The completed container shall conform to the quality of product established by this document and shall be clean, free of frayed or torn edges, improperly aligned panels, improper scores and slots, and the marking shall be clear and legible. All dimensions of the container makers blank shall be accurately cut, scored, and slotted so that the assembled container parts fit closely without undue binding. No flap shall project beyond an edge of the container by more than 1/8 inch when the container is set up and closed. All metal fasteners, staples, or stitching wire shall be well clinched, flush with or below the interior and exterior surfaces of the corrugated fiberboard. The occurrence of defects shall not

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exceed the applicable acceptable quality levels.

3.3.2 Hanger and hanger bar workmanship. The finished hangers and hanger bars shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, 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 this document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certificate of compliance. When certificates of compliance are submitted, the Government reserves the right to check test such items to determine validity of the certification.

4.2 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.2.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified or qualified in this document or applicable purchase document.

#### 4.3 End item examination.

4.3.1 Visual examination of containers. The hanger pack containers shall be examined for the defects listed in PPP-B-636, the sample unit, inspection levels and AQLs shall be as required by PPP-B-636. The following defects shall be included with the PPP-B-636 list for examination for overall type of defects.

##### Examine

##### Defect

Type I, II and  
III containers

Surcut notches (when required) not as specified or not located as specified.  
Door not located as specified.  
Base of door not scored as specified.  
Base (scoring) of door not horizontal to the degree it does not serve its intended purpose.

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<u>Examine</u>	<u>Defect</u>
Type I, II and III containers (cont'd)	Door corner vertical slits less than 17 3/4 or more than 18 1/4 inches in length. Variation in length between two door corner vertical slits of more than 1/8 inch. Score at base of door located below bottom of vertical slits. Container bodies not fabricated with B&C flutes.
Type IV containers	Hanger hole missing or not located as specified $\pm$ 1/4 inch.
All containers	Length of inner flaps on container body greater or less than specified.

4.3.2 Visual examination of hanger bars. The hanger bars shall be examined for the following list of defects. The lot size shall be expressed in units of hanger bar assemblies. The sample unit shall be one hanger bar assembly. The inspection level shall be S-4 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

<u>Examine</u>	<u>Defect</u>
Hanger bar assembly	Material other than as specified. Width of any side of bar less than 3/4 inch or more than 1 1/4 inch (measured with locking device removed). Bar length from inside top of end clip to inside of end clip not as specified, including tolerance. Bar not fabricated with a minimum of three complete sides. Any end clip less than 4 inches long. Any end clip overhang less than 1 1/2 inches. Any part of assembly fabricated from sheet steel less than the minimum gage specified. Top of locking device more than 1/8 inch above tops of end clips (when assembled without hangers). Any burr or rough edge on any component. Any part of assembly missing.

4.3.3 Visual examination of hangers. The hangers shall be examined for the following list of defects. The lot size shall be expressed in units of one hanger. The sample unit shall be one hanger. The inspection level shall be S-4 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

<u>Examine</u>	<u>Defect</u>
Hanger	Material not as specified (hook or body). Hook configuration is not formed square.

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<u>Examine</u>	<u>Defect</u>
Hanger (cont'd)	Hook does not swivel. End of hook not bent back as specified. Hook not formed to require a minimum 3/4 inch lift from hanger bar. Hook not formed from a minimum 8 gage wire. Any flash or sharp edge on hanger body or hook. Any hanger body more than 6 inches in height. Any hanger exceeding 9 inches in height, including the hook.

4.4 Testing of hangers. Hangers shall be tested as specified in 4.6 for security of attachment of the hook into the body of the hanger. The sample unit shall be one hanger and the lot size shall be expressed in units of individual hangers. The inspection level shall be S-1, and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

4.5 Palletization examination. When palletization is specified for complete container assemblies or components when procured separately (see 5.2 and 6.2), an examination will be made to determine that the palletization complies with the requirements of MIL-STD-147. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot shall be the number of palletized unit loads in the inspection lot. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width or height exceeds specified maximum requirements.
Palletization	Pallet pattern not as specified. Load not bonded with required straps or film as specified.
Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.

4.6 Hanger end item test. The hanger samples to be tested shall be suspended from a one inch squared metal bar by the metal hook. The specimens shall be subjected to a test load of 25 lbs (including the clamping device) for 24 hours. The test load shall be attached to the hanger by means of a clamp or jig which shall be placed to distribute the weight uniformly between the left and right shoulder area immediately adjacent to the point where the shaft of the hook enters the body of the hanger. Any separation of the metal

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hook from the body of the hanger shall be considered a failure for the sample unit on which it occurs.

## 5. PACKAGING

5.1 Packing. Packing shall be Commercial.5.1.1 Commercial.

5.1.1.1 Complete container assemblies. Complete container assemblies shall be packed in accordance with ASTM D 3951.

5.1.1.2 Components when procured separately. When components are procured separately (see 6.2) they shall be packed in accordance with ASTM D 3951.

5.2 Palletization. When specified (see 6.2), complete container assemblies or components when procured separately (see 5.1.1.1 and 5.1.1.2) shall be palletized in accordance with MIL-STD-147.

5.3 Marking. In addition to any special marking required by the contract or purchase order, complete container assemblies, components when procured separately and palletized unit loads shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The containers covered by this document are for the shipment and storage of dress coats.

6.2 Ordering data.

- (a) Title, number, and date of this document.
- (b) Type and quantity of containers (see 3.1.1.1 and 3.1.1.2).
- (c) Length and style of hanger bar (see 3.1.1.3.1 and 3.1.1.3.2).
- (d) Hanger length (see 3.1.2).
- (e) When hanger bar is style B, surcut notches are necessary in the shipping container (see 3.1.1.3.2.2 and 3.1.1.1).
- (f) When palletization is required (see 5.2).

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## APPENDIX

## USE CRITERIA, ASSEMBLY AND CLOSURE REQUIREMENTS

## 10. SCOPE

10.1 Scope. This appendix covers requirements for use, assembly, closure, contents, and palletization of filled containers.

10.2 Use. Containers are to be used for the shipment and storage of dress coats on coat hangers.

## 20. APPLICABLE DOCUMENTS

20.1 The following documents, of the issue in effect on date of invitation for bids or request for proposal, form a part of this appendix to the extent specified herein:

## SPECIFICATIONS

## FEDERAL

- |          |  |
|----------|--|
| A-A-1460 | - Label, Paper, Pressure Sensitive Adhesive (General Purpose with Marginal Slot Feed Perforations) |
| PPP-T-45 | - Tape, Gummed, Paper, Reinforced Plain, For Sealing and Securing                                  |

## MILITARY STANDARD:

- |             |                                    |
|-------------|------------------------------------|
| MIL-STD-129 | - Marking for Shipment and Storage |
| MIL-STD-147 | - Palletized Unit Loads            |

## 30. REQUIREMENTS

30.1 Container assembly. The container shall be assembled in accordance with 3.1.1, and figures 1 and 2. When style A hanger bar is used, it shall be centered on the lengthwise panel  $\pm 1/8$  inch.

30.2 Loading of containers. Each coat shall be placed on a hanger (see 3.1.2) of the longest specified appropriate length for the shoulder of the coat without protruding into the sleeve cap and then covered with a plastic garment bag (see 3.1.3). Container types I, II and III may be loaded via the loading and dispensing door, and the coats shall be suspended from the hanger bar and secured with the locking cap (see 3.1.1.3). Container type IV loading shall be by securing the hanger hook through the hole (see figure 2) located in the container. Each container shall hold garments, of one NSN only, in the following quantities:

- |          |            |
|----------|------------|
| Type I   | - 12 coats |
| Type II  | - 6 coats  |
| Type III | - 3 coats  |
| Type IV  | - 1 coat   |

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30.3 Bagged unit packs. Bagged unit packs shall have the required identification information legibly printed or stamped on a white paper label conforming to A-A-1460, located on the shoulder area of the bag so as to permit ready identification.

30.4 Container closure. The container shall be closed by the use of 3-inch wide tape conforming to type II, class 2 of PPP-T-45. The tape shall be centered over all exposed edges including the dispensing door, and extend a minimum of 2-inches over bottom and top edges. The manufacturers joint need not be taped.

30.5 Palletization of loaded containers. Coats, packed as specified in 30.2 shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet type shall be type I (4-way entry), type IV or type V in accordance with MIL-STD-147. Each prepared load shall be bonded with straps in accordance with bonding means K and L, or film bonded by means O or P, as specified in MIL-STD-147. Pallet patterns shall be in accordance with the appendix of MIL-STD-147 as follows:

Type I - pallet pattern #95  
 Type II - pallet pattern #36  
 Type III - pallet pattern #76  
 Type IV - pallet pattern #89

30.6 Marking. In addition to any special markings required by the contract or purchase order, bagged unit packs, filled containers and palletized unit loads shall be marked in accordance with MIL-STD-129.

## 40 INSPECTION

40.1 Packaging inspection. An examination shall be made to determine that the preservation, packing and marking comply with the specified requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one hanger pack container fully packaged. The lot size shall be the number of hanger pack containers in the inspection lot. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

<u>Examine</u>	<u>Defect</u>
Marking (Exterior and Interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components, such as incomplete closure of container flaps, loose strapping, improper taping, inadequate stapling. Hanger bar not centered on lengthwise panel as specified.

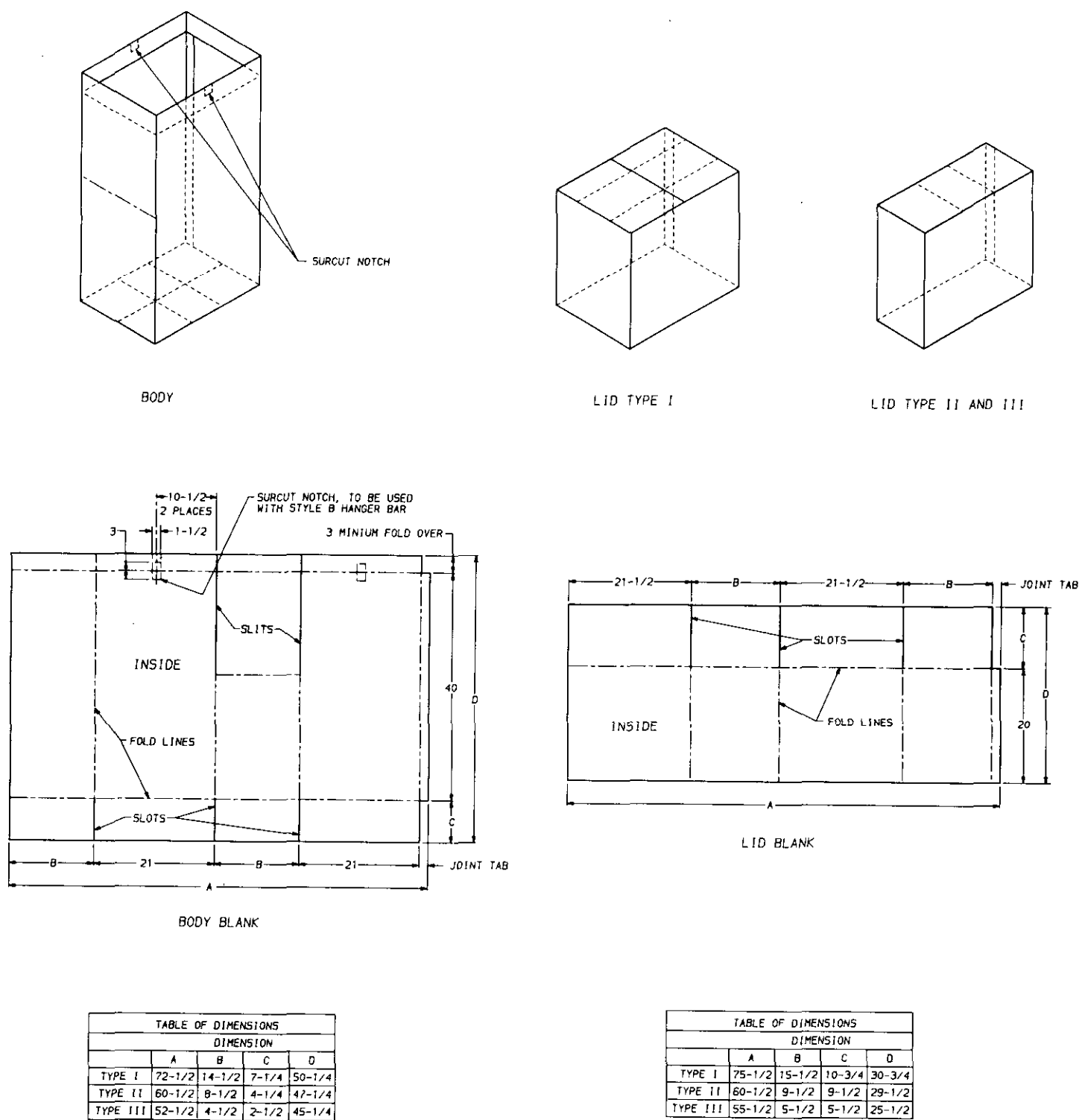
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<u>Examine</u>	<u>Defect</u>
Content	Number of coats per container is more or less than required. Size shown on one or more coats not as specified on container.

40.2 Palletization examination. An examination shall be made to determine that palletization complies with the requirements specified in 30.5. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot shall be the number of palletized unit loads in the inspection lot. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

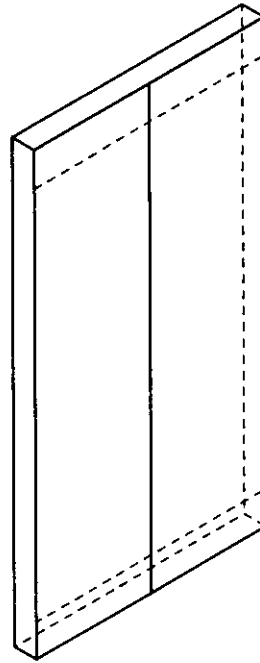
<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width or height exceeds specified minimum requirements.
Palletization	Pallet pattern not as specified. Load not bonded with required straps or film as specified.
Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

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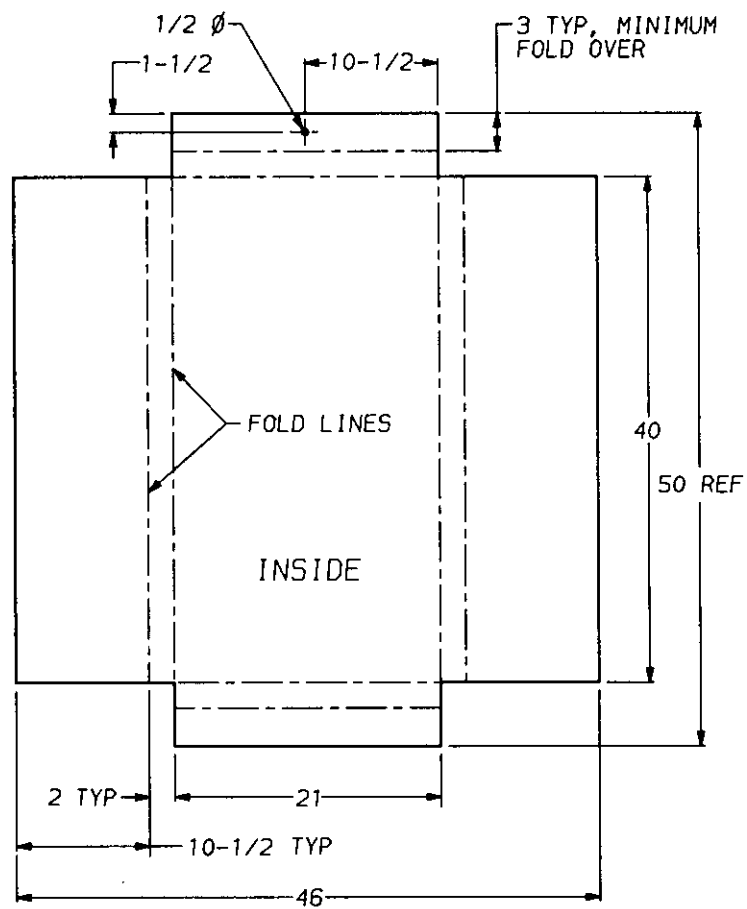
FIGURE 1. CONTAINER, SHIPPING AND STORAGE  
COAT (HANGER PACK)

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BODY TYPE IV



BODY BLANK

FIGURE 2. CONTAINER, SHIPPING AND STORAGE COAT (HANGER PACK), TYPE IV

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Container, Shipping and Storage, Coat (Hanger Pack)**3a. NAME OF SUBMITTING ORGANIZATION****4. TYPE OF ORGANIZATION (Mark one)**☐ **VENDOR**☐ **USER**☐ **MANUFACTURER**☐ **OTHER (Specify):** \_\_\_\_\_**b. ADDRESS (Street, City, State, ZIP Code)****5. PROBLEM AREAS****a. Paragraph Number and Wording:****b. Recommended Wording:****c. Reason/Rationale for Recommendation:****6. REMARKS****7a. NAME OF SUBMITTER (Last, First, MI) - Optional****b. WORK TELEPHONE NUMBER (Include Area Code) - Optional****c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional****8. DATE OF SUBMISSION (YYMMDD)**