MIL-C-11020B(WC)

21 September 1966

SUPERSEDING

MIL-C-11020A(Ord)

4 November 1957

MILITARY SPECIFICATION

CHESTS AND CASES, METAL, GENERAL SPECIFICATION FOR

1. SCOPE

1.1 This specification covers metal chests and cases, with or without partitions, compartments, trays, drawers, or other separate storage facilities. The chests or cases are intended for protection and transportation of miscellaneous items of equipment and accessories.

2. APPLICABLE DOCUMENTS

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

SPECIFICATIONS

Federal

PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner

PPP-B-636 - Box, Fiberboard

PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple-Wall PPP-T-76 - Tape, Pressure-Sensitive Adhesive Paper (For Carton Sealing)

Military

MIL-P-116 - Preservation, Methods of MIL-P-14232 - Parts, Equipment and Tools for Ordnance Materiel, Packaging of

STANDARDS

Military

MIL-STD-8 - Dimensioning and Tolerancing

FSC 8115

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

MIL-STD-130 - Identification Marking of U.S. Military Property

MIL-STD-171 - Finishing of Metal and Wood Surfaces

(Copies of specifications, standards, drawings and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

American Welding Society Standard Welding Symbols AWS A2.0-58

(Contractors may obtain copies of the above industry standard from the American Welding Society, 345 East 47th Street, New York, New York 10017.)

(Military activities may obtain copies of the above industry standard from the Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120.)

3. REQUIREMENTS

- 3.1 Preproduction sample. When specified (see 6.1), the contractor shall furnish the Government a preproduction sample consisting of one completed chest or case for examination and tests prescribed herein. Government acceptance inspection shall be delayed pending approval of the sample. The preproduction sample, when approved, shall be considered as one unit of product under the contract.
- 3.2 Material. Materials shall conform to the material specifications referenced on the chest or case drawings.
- 3.3 Dimensions. Dimensions of chests and cases shall conform to the drawings designated in the contract or order (see 6.1). Interpretation of dimensions shall be in accordance with MIL-STD-8.
 - 3.4 Construction.

- 3.4.1 Welding. Spot welding and arc welding shall be in accordance with the specifications referenced on the applicable chest and case drawings. Interpretation of welding symbols shall be in accordance with American Welding Society Standard, AWS A2.0-58.
- 3.4.2 Assembly. The method of attaching components and their location in assembly, including hinges, holding brackets, latches, catches and other locking and retaining devices shall be in accordance with chest or case drawings.
- 3.4.3 Protective coatings. Painting, and primary inorganic coatings, shall be in accordance with the system number of MIL-STD-171 or as specified on the drawings. Parts not to be painted shall be in accordance with the same standard.
 - 3.5 Performance and product characteristics.
- 3.5.1 Fit. Accessories or equipment for which the chest or case is intended, shall fit into their respective locations manually, without the use of hand tools. Lids and covers shall close without interference when the contents are installed.
- 3.5.2 Rough handling. When rough handling is specified (see 6.1), the chest or case fitted with their intended contents, or their equally distributed weight, shall withstand the rough handling test of 4.5.3 without breakage, loosening or distortion of parts. Covers, lids, retaining or hold-down devices shall function manually without the use of hand tools after the rough handling test.
- 3.5.3 Watertightness. When chests or cases are required to be watertight or waterproof (see 6.1), the chest or case with cover or lid secured, shall not leak when submerged in water in accordance with the test of 4.5.4.
- 3.6 Marking. Marking shall be as specified on the appl-cable chest or case drawings and be in accordance with MIL-STD-130.
- 3.7 Government-loaned property. When specified (see 6.1), the contractor shall be furnished, as a loan, the tools or equipment to be used for the fit test of 4.5.2.
 - 4. QUALITY ASSURANCE PROVISIONS

- 4.1 Responsibility for inspection. Unless otherwise specified in the contract or order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.
- 4.2 Preproduction inspection. The preproduction sample of 3.1 shall be subjected to all examinations herein. Tests to be performed shall be as specified in the contract or order (see 6.1). Should the preproduction sample fail to pass all examinations and required tests, the contractor shall take corrective action satisfactory to the Government, after which inspection of the preproduction sample shall be repeated. Inspection for lot acceptance shall be delayed until corrective action has been verified.

4.3 <u>Inspection provisions</u>.

- 4.3.1 Lot formation. A lot shall consist of all chests or cases manufactured under essentially the same conditions and offered for acceptance inspection at any one time.
- 4.3.2 Sampling for examination. A random sample of chests or cases shall be taken from each lot in accordance with MIL-STD-105, Inspection Level II. Acceptable Quality Levels (AQL's) shall be as specified in Table I.
- 4.3.3 <u>Sampling for tests</u>. A random sample of chests or cases shall be taken from each lot for the test or tests specified (see 6.1). Sample shall be in accordance with Inspection Level S-2 of MIL-STD-105. The Acceptable Quality Level (AQL) shall be 2.5 percent defective.
- 4.3.4 Sampling for packaging and packing. Sampling for inspection of packaging and packing requirements of Section 5 shall be in accordance with MIL-P-14232.

4.4 Examination.

4.4.1 Visual and manual. The preproduction sample of 4.2 and each sample chest or case taken in accordance with 4.3.2 shall be examined to verify compliance with the specifications. Examination shall be in accordance with Table I.

TABLE I - Classification of Defects

Categorie	<u>Defects</u>	Inspection Method
Critical	None defined	
Major	AQL = 2.5 percent defective	
101 102	Dimensions, as specified (3.3) Functioning of holding and locking	Measure
103 104	devices Functioning of covers or lids Welding, incomplete or defective	Manual Manual Visual
105 106	Incorrect assembly or missing parts Marking, illegible or incorrect	Visual Visual
Minor	AQL = 6.5 percent defective	
201	Painting defects, incomplete coverage, runs, sags or blisters	Visual

- 4.4.2 Packaging and packing. Inspection of packaging, packing and marking of Section 5 shall be in accordance with MIL-P-14232.
 - 4.5 Test procedures.
- 4.5.1 When one or more of the following tests are specified (see 6.1), the preproduction sample of 4.2 and samples of 4.3.3 shall be tested as follows:
- 4.5.2 Fit test. The accessories or equipment for which the chest or case is designed shall be installed in their respective locations to determine compliance with 3.5.1.
- 4.5.3 Rough handling test. The chest or case, with accessories or equipment in place, or their equally distributed weight, shall be dropped once on each of its six faces from a height of four feet to a concrete surface. The chest or case shall be inspected inside and out after rough handling to determine compliance with 3.5.2. The same chest or case shall be subjected to the watertightness test of 4.5.4 after rough handling, when watertightness is also a requirement.
- 4.5.4 Watertightness test. The chest or case with cover or lid secured shall be submerged upright with a minimum of one foot of water above the highest point of the chest or

case for a minimum period of five minutes. The interior of the chest or case shall be examined after submergence, to determine compliance with 3.5.3.

- 4.5.5 Material and protective coating. The contractor shall furnish the Government certification that materials and protective coatings, including primary, inorganic finishes and painting are in accordance with the applicable specifications and standards specified on the chest or case drawings.
 - 5. PREPARATION FOR DELIVERY
 - 5.1 Preservation and packaging.
 - 5.1.1 <u>Level A.</u>
- 5.1.1.1 Cleaning. Chests or cases shall be cleaned by cleaning process C-1 of MIL-P-116.
- 5.1.1.2 Drying. Immediately after cleaning, chests or cases shall be dried by drying procedure D-1 of MIL-P-116.
- 5.1.1.3 Preservation application. Unpainted metal surfaces shall be coated with Type P-1 preservative of MIL-P-116.
- 5.1.1.4 Unit packaging. Prior to unit packaging, interior components of chests or cases shall be immobilized to prevent damage during handling and shipment. Chests or cases shall be individually unit packaged in fiberboard boxes of PPP-B-636. Projecting hardware (locks, fasteners, handles, etc.) shall be immobilized to prevent mechanical damage. Fiberboard boxes shall be closed with two (2) strips of tape of PPP-T-76, 2 inches in width.
- 5.1.2 Level C. Cleaning, drying, preservation and packaging shall afford adequate protection against corrosion, deterioration and physical damage from supply source to first receiving activity for immediate use.

5.2 Packing.

- 5.2.1 Level A. Unit packages shall be packed in one of the following exterior shipping containers: PPP-B-636, Fiber-board Box; PPP-B-640, Style E, Grade A, Class 2, Triple-Wall Box; or PPP-B-621, Style 4, Class 2, Nailed Wood Box.
- 5.2.2 Level C. Chests or cases shall be packed to provide protection from supply source to first receiving activity for immediate use.

- 5.3 Marking. Unit packages and exterior shipping containers shall be marked as specified in accordance with MIL-P-14232.
 - 6. NOTES
- 6.1 Ordering data. Procurement documents should specify the following:
 - (a) Title, number and date of this specification.
 - Title, number and date of applicable drawing(s).

Preproduction sample, if required (3.1).

- (d) Government tools or equipment to be loaned to the contractor for fit test, if required (3.7). (e) Watertightness, if required (3.5.3).
- (f) Rough handling, if required (3.5.2).
- (g) Level of protection (5.1 and 5.2).
- International Standardization Agreements. provisions (Chest, Packing, M27, Drawing D7691521), of this specification are the subject of international standardization agreement ABC-Army-STD-57. When amendment, revision, or cancellation of this specification is proposed which will effect or violate the international agreement concerned, the preparing activity will take appropriate reconciliation action through international standardization channels including departmental standardization offices, if required.

Custodian:

Army - WC

Review activities:

Preparing activity:

Army - WC

Project No. 8115-A023

Army - WC

User activities:

Army - MI. MO



	SPECIFICATION ANA	Form Approved Budget Bureau No. 119-R004					
	INSTRUCTIONS This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. SPECIFICATION						
	ORGANIZATION						
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	3. IS THE SPECIFICATION RESTRICTIVE?						
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4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)							
	SUBMITTED BY (Printed or typed name and activ	rity)		DATE			

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