

MIL-C-36570
18 December 1968

MILITARY SPECIFICATION

CHAIR

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers a lightweight folding chair designed for field use by nurses in wards of field military hospitals.

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 the specification to the extent specified herein:

SPECIFICATIONS

Federal

V-T-276	Thread Cotton.
QQ-A-250/8	Aluminum Alloy, 5052, Plate and Sheet.
TT-E-491	Enamel, Gloss, Synthetic, for Metal and Wood Hospital Furniture.
WW-T-700/6	Tube, Aluminum Alloy, Drawn Seamless, 6061.
CCC-C-419	Cloth Duck, Cotton, Unbleached, Plied-Yarns, Army and Numbered.
CCC-D-950	Dyeing and Aftertreating Processes for Cotton Clothes.

FSC 6530

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Military

MIL-T-3530	Thread and Twine, Mildew Resistant.
MIL-C-5541	Chemical Films and Chemicals, Film Materials for Aluminum and Aluminum Alloys.
MIL-P-8585	Primer Coating, Zinc Chromate, Low Moisture-Sensitivity.

STANDARDS

Federal

FED-STD-66	Steel, Chemical Composition and Hardenability.
FED-STD-595	Colors.
FED-STD-751	Stitch, Seam and Stitching.

Military

MIL-STD-129	Marking for Shipment and Storage.
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DRAWINGS

Defense Personnel Support Center (DPSC)

24142	Folding Chair, Desk, Folding, Nurses, Field.
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(Copies of specifications, standards, and drawings required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. REQUIREMENTS

3.1 Material. Except as hereinafter specified, materials shall conform to the applicable portions of the specifications, standards and drawings listed herein. When materials to be used are not specifically designated, they shall be suitable for the purpose intended. Materials shall be subjected to the tests and meet the requirements specified in these documents. The metals shall conform to the chemical and physical requirements of the applicable specifications.

3.1.1 Aluminum Sheet. Aluminum sheet shall be alloy 5052, temper H34, conforming to QQ-A-250/8.

3.1.2 Aluminum Tubing. Aluminum tubing shall be alloy 6061, temper T6 conforming to WW-T-700/6.

3.1.3 Corrosion-resisting steel. Corrosion-resisting steel shall conform to the requirements of FED-STD-66 for AISI 302 or 304.

3.1.4 Cotton Duck. The cotton duck, before finishing, shall be Type I, No. 10, hard texture, 14.35 ounces per square yard, conforming to CCC-C-419.

3.1.4.1 Color and Treatment. Cotton duck shall be vat dyed olive drab No. 7 and the cloth shall be made mildew resistant by treatment limited to two mildew inhibitors only: (a) 2,2' Methylene-bis (4-chlorophenol) or (b) copper-S-quinolinolate.

3.1.5 Cotton Thread. Except as otherwise specified herein, the thread for all stitching shall conform to type IILA or IIIB, 3-ply, Ticket No. 10/3 of V-T-276.

3.1.5.1 Color and Treatment. The thread shall be dyed to match cotton duck and shall be mildew resistant treated in accordance with Type I, Class I treatment of MIL-T-3530. The color of the thread after mildew resistant treatment will be considered acceptable.

3.2 Design and Construction. The design and construction of the folding chair shall conform to the requirements specified herein and DPSC Drawing 24142 and the Bill of Material thereto. The chair shall

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consist of front and rear leg assemblies, a back rest, hinge pins, and a seat. The weight of the chair shall not exceed 7 pounds. Commercial tolerances shall apply to all material gages specified herein.

3.2.1 Leg assemblies. Leg assemblies shall consist of two U-shaped legs, front and rear, each being formed from one inch diameter aluminum tubing. Bends in front and rear legs shall be 90°, on a 2½ inch inside radius, smooth and round in cross section. The ends of both formed tubings shall be welded to another one-inch diameter tubing cross member. In the end of each cross member, there shall be a plug of 0.091 inch thick No. 11 Birmingham and Stubbs gage (No. 11 B&S gage) aluminum welded so that the tubing is completely closed. The welding of the cross member and end disc shall be ground smooth to give the appearance of a one-piece construction. The two leg assemblies shall hinge on one another forming a cross as shown on the drawing.

3.2.2 Seat. The seat shall be formed from 0.081 inch thick No. 12 B&S gage aluminum sheet with a one inch flange turned down. The flange shall run the entire periphery of the seat on a ½-inch radius, with the corners welded and ground smooth. The seat shall be hinged by the use of two one-inch wide straps of 0.102 inch thick No. 10 B&S gage aluminum sheet spot welded to the underside of the seat. The hinge end of the straps shall be mounted to the rear leg, the loop when being closed and welded. Two 8-32 socket head cap screws shall be placed in the rear leg to act as locating pins for the seat. The top of the front leg shall snap into the hook end of the seat straps opposite the seat hinge.

3.2.3 Back rest. The back rest shall be formed from one-inch diameter aluminum tubing bent U-shaped with two 90° bends on a 3 inch radius. Two other bends shall off-set the back rest at 10° closer to a vertical open position. The ends of the tubing shall be fitted with a vinyl cap. Cotton duck shall be added by slipping over the vinyl caps and down the ends of the tubing, thus holding the back rest in place. The cotton duck turn-unders and seams shall be neat with no loose or unravelled edges. All stitching shall be machine stitching conforming to Federal Standard 751 for Type 301. There shall be a minimum of eight stitches per inch. The type IIIB thread shall be used for needle or top thread and type III for bobbin or bottom thread in the machine. When machine stitching is not a continuous thread, it shall be backstitched not less than

$\frac{1}{2}$ -inch at each break. All stitching shall be backtacked not less than $\frac{1}{4}$ -inch at the ends to prevent unravelling, except where ends are turned under a hem or held down by other stitching. Thread tension shall be properly maintained so that the lock shall be embedded in the center of the materials sewed. All edges which are not selvaged shall be hemmed with stitching, type EPb-1 of FED-STD-751. All seams shall be straight and evenly spaced.

3.2.4 Hinge Pins. The hinge pins shall be 3/16 inch diameter and 2- $\frac{1}{2}$ inch long corrosion-resisting steel rod, each end of which shall be threaded with a 10-32 X $\frac{1}{2}$ inch long thread. Two of the hinge pins shall be used to attach the back rest to the front leg, and the other two pins shall attach the two leg assemblies. Elastic stop nuts shall be used on the ends of all four hinge pins.

3.3 Finish. All aluminum surfaces shall be thoroughly cleaned and chemically degreased and then treated with a chemical film conforming to MIL-C-5541. After chemical treatment, a zinc chromate primer coat conforming to MIL-P-8585 shall be applied. The primer coat shall form a grounding bond and base for the finishing enamel. The primer coat shall be followed by two coats of synthetic gloss enamel, Class B in accordance with TT-E-491. The color shall be 14241 of FED-STD-595 (see 6.3). Each coat shall be applied and baked in accordance with the paint manufacturer's recommendation.

3.4 Identification Marking. Each chair shall be permanently and legibly marked with the manufacturer's name or registered trademark, the contract number, the Federal Stock Number and item identification. The marking shall be located on the underside of the seat.

3.5 Workmanship. Workmanship shall be first class throughout. Welding shall be continuous, free of blow holes, pitting or cracks. The chair shall be free from defects which detract from its appearance or may impair its serviceability.

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4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. Unless otherwise specified in the contract or purchase 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. Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Inspection. Inspection, as used in this specification, is defined as both examination (such as visual and auditory investigation without the use of special laboratory appliances or procedures) and testing (determination by technical means of physical and chemical properties).

4.1.2 Certificates of quality. When available, certificates of quality supplied by the manufacturer of the component or material, listing the specified test method and test results obtained, may be furnished in lieu of actual performance of such testing by the contractor.

4.2 Sampling. Sampling for examination shall be conducted in accordance with MIL-STD-105.

	Inspection level	A/L (defects per hundred units)
For visual examination		
Major defects	II	1.0
Total (major and minor combined)	II	4.0

4.2.1 For tests. Sampling for tests shall be conducted in accordance with Inspection level S-4 of MIL-STD-105. The acceptance level shall be zero.

4.3 Examination. The chair shall be examined to determine compliance with all the requirements contained in this specification.

4.3.1 Classification of defects. Examination shall be conducted in accordance with the following classification of defects:

Categories and defects *

Major

- 101 any component part missing, broken, or otherwise unusable.
- 102 Exposed edges not free of burs or sharpness.
- 103 Components not properly assembled or aligned.
- 104 Chair does not readily open and close.
- 105 Canvas not free of cuts and tears.

Minor

- 201 Identification marking not complete, permanent or legible.
- 202 Identification marking not securely attached to unit.
- 203 Finish not free of chipped areas, cracks, scratches, or roughness.
- 204 Chair does not rest evenly on a flat surface.
- 205 Turnunders, seams and stitch lines not straight or evenly spaced.
- 206 Canvas not free of loose or unravelled edges.
- 207 Number of stitches per inch not as specified.
- 208 Thread breaks not backstitched $\frac{1}{2}$ -inch or more.
- 209 Ends of stitching not turned under or held down by other stitching, not back tacked $\frac{1}{2}$ -inch.

* Examination shall not be restricted to the classified possible defects listed above.

4.4 Tests. Tests shall be conducted to determine compliance with this specification.

5. PREPARATION FOR DELIVERY

5.1 Packaging.

5.1.1 Unit of issue. One chair, as specified, constitutes one unit of issue.

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5.1.2 Packaging quantities. The number of units of issue indicated in the following table shall be packaged in each unit, intermediate, and exterior container, as applicable, for the required level of protection specified in the procurement document.

Table I Packaging Quantities

Unit package	Intermediate package	Exterior container
1 unit	Not Required	2 units

5.1.2.1 Packing variation permitted. If the required number of units in the entire shipment is less than the number of units specified to be overpacked in an exterior container, such units may be packed in an exterior container of suitable size and design, acceptable to a common carrier, which shall insure safe delivery to destination.

5.1.3 Level A.

5.1.3.1 Unit package. Each chair shall be folded and wrapped with kraft paper and inserted into a carton of appropriate size constructed in accordance with PPP-B-636, type CF, class domestic. Carton shall be designed with suitable interior fittings or shall contain sufficient cushioning material to insure shifting of or damage to the contents. Closure shall be in accordance with the appendix of PPP-B-636.

5.1.4 Level C. Units shall be packaged in standard commercial containers of the size and kind commonly used, which will afford the degree of protection required for shipment and use of the product for its intended purpose.

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5.2 Packing.

5.2.1 Level A.

5.2.1.1 Exterior container. Exterior container shall be designed for a type 1 load and constructed in accordance with PPP-B-636, type CP, class weather-resistant. Closure, strapping and waterproofing shall be as specified in the appendix of PPP-B-636.

5.2.2 Level C. The subject commodity shall be packed in substantial commercial containers of the type, size, and kind commonly used for the purpose, so constructed as to insure acceptance and safe delivery by common or other carriers, at the lowest rate, to point of delivery called for in the contract or purchase order.

5.3 Marking.

5.3.1 Unit packages. Each unit package shall be marked in accordance with MIL-STD-129. When labels are utilized, waterproofing shall be required only when applicable carton is fabricated of water-resistant material. Contract or purchase order number and name of contractor shall be shown.

5.3.2 Exterior container. Exterior container shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. The chair is designed for use with Desk, Folding, Nurses, Field, FSN 6530-115-2993 in military field hospitals.

6.2 Ordering data. Procuring documents should specify the following:

- a. Number and date of this specification.
- b. Selection of applicable levels of packing (see 5.1).

6.3 Availability of color chips. The individual 3 by 5 inch chips of the color referenced in 3.3 are available from the General Services Administration, Business Service Center, Region 3, Seventh and D Streets, S.W. Washington, D.C. 20704, Price-Five cents.

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6.4 This specification does not cover all types, classes, or sizes of the commodity indicated by the title of this specification, or those which are commercially available, but is intended to cover the types which are normally procured to meet military requirements.

Custodians:

Army - MD

Navy - MS

Air Force - 03

Preparing activity.

Defense Supply Agency - DM

Review activities:

Army - 1D

Navy - MS

Air Force - 03

Review information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current DODISS.

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p>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. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document (s) or serve to amend contractual requirements.</p>		
SPECIFICATION MIL-C-36570		PSN
ORGANIZATION		
CITY AND STATE		CONTRACT NUMBER
MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT		
1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING		
B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES		
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID		
3. IS THE SPECIFICATION RESTRICTIVE? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes" in what way?)		
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 activity - Optional)		DATE

CAUTION

NOTICE TO BIDDERS/OFFERORS

DO NOT CONDITION OR BASE YOUR BID/OFFER ON ANY CURRENT PROCUREMENT ON THE INFORMATION SUBMITTED ON THIS FORM SINCE ANY CHANGES OR DELETIONS IN THE SPECIFICATIONS MAY RENDER YOUR BID/OFFER NON-RESPONSIVE IN WHICH CASE IT CAN- NOT BE CONSIDERED FOR AWARD.

Fold

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