MIL-D-43916A
25 February 1988
SUPERSEDING
MIL-D-43916(GL)
12 February 1975

MILITARY SPECIFICATION

DISPENSER, LIQUID, INSULATED

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

1. SCOPE

1.1 Scope. This document covers a 5-gallon capacity, plastic, insulated liquid dispenser.

1.2 Classification. Dispensers shall be in the following classes as specified (see 6.2):

Class 1 - Brown (color No. 30279)
Class 2 - Green (color No. 34094 or 34095)

1.3 Part identification number. The part identification number shall consist of the document number and the class number as follows:

M43916 - 1
- 1: Class
- M43916: Document Number

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Documents. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

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, Development, and Engineering 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.

AMSC N/A FSC 7320

SPECIFICATIONS

FEDERAL

PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-T-45 - Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing

MILITARY

MIL-P-116 - Preservation, Methods of

STANDARDS

FEDERAL

FED-STD-595 - Colors

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 contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity).

2.2 Other publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issues of the nongovernment documents which are current on the date of solicitation.

NATIONAL SANITATION FOUNDATION (NSF)

Standard No. 2 - Food Service Equipment

Criteria C-2 - Special Equipment and/or Devices

(Application for copies should be addressed to the National Sanitation Foundation, 3475 Plymouth Road, P.O. Box 1468, Ann Arbor, MI 48106.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

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. Nothing in this document, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First Article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.3).

3.2 Standard product. The liquid dispenser shall be the manufacturer's current standard product except for any changes necessary to comply with this document.

3.3 Codes and standards. The liquid dispenser shall comply with the applicable requirements of National Sanitation Foundation (NSF) Standard No. 2 or Criteria C-2 (see 4.4.7).

3.4 Data name plate. The liquid dispenser shall be furnished with a data name plate in accordance with the applicable requirements of MIL-STD-130 except the requirements for; (a) Methods of applying, (b) Identification tags, (c) Information not required, and (d) Optional marking information shall not apply. The data name plate shall be made of minimum 20-gauge corrosion resisting metal, and attached to the dispenser by rivets or screws in such a manner as to meet the applicable National Sanitation Foundation requirements for this equipment, or shall be molded into the dispenser with the proper engraving. The plate shall bear the following information which shall be stamped, engraved, or applied by photosensitive means:

National Stock Number
Procurement Contract Number
Specification Data
Manufacturer's Name, Address, and Telephone Number
Supplier's Name, Address, and Telephone Number (If different from manufacturer.)
Manufacturer's Model Number

Each plate shall be placed so as to be readily visible to the operator during normal operation and use, and so as to not adversely affect the life or utility of the dispenser.

3.5 Materials and components. Materials not definitely specified shall be of the quality normally used by the manufacturer for his liquid dispensers provided the completed item complies with all provisions of this specification (see 6.4).

3.6 Design. The liquid dispenser shall consist of a sealed insulated body with faucet, two carrying handles, four snap action stainless steel cover latches, a cover, and shall have a vertical stacking feature. The liquid dispenser shall be not greater than 17 inches long by 9 inches wide by 24 1/4 inches high. The body and cover of the class 1 liquid dispenser shall be brown similar to color No. 30279 of FED-STD-595. The body and cover of the class 2 liquid dispenser shall be colored green conforming to color No. 34094 or 34095 of FED-STD-595. The body and cover of the class 2 liquid dispenser shall have an ultraviolet stabilizer (see 4.4.1.1). The liquid dispensers shall stack and nest one upon another without binding or wobbling and each shall have a capacity of 5 US gallons without the lid, and a minimum of 4 1/2 gallons with the lid on when tested as specified in 4.5.1 and 4.5.2. The liquid dispenser when filled with water at a temperature of 200°F ± 2°F shall lose not more than 25°F in a 4-hour period when tested as specified in 4.5.3.

3.6.1 Body. The body's inner shell and outer shell shall be fabricated of high density plastic insulated to comply with heat retention requirements specified in 3.6. A recessed faucet (see 3.6.3) shall be located on the 9-inch wide side. The faucet and cover latches shall not extend beyond the surface of the liquid dispenser. Clearance between the bottom of dispenser and the bottom of the faucet shall be not less than 4 1/4 inches. The faucet shall be located on the lowest point of the inner liner. The inner liner shall be sloped to provide complete drainage.

3.6.2 Cover. The cover shall be sealed, double walled, fabricated of high density plastic and insulated to comply with heat retention requirements specified in 3.6. The top surface of the cover shall have four depressions to accommodate the cover latches and hand grip for removing the cover. The cover shall be furnished with a removable gasket and removable anti splash air-vent.

3.6.3 Faucet. The faucet shall be a two position, self closing and continuous flow type and shall be easily removed from the liquid dispenser for cleaning and reassembled without the use of tools. The faucet body, bonnet and handle shall be fabricated of black nylon.

3.7 Marking.

3.7.1 Identification. Each liquid dispenser shall be permanently and legibly marked with the manufacturer's name or trademark (see 3.4).

3.7.2 Caution. Each liquid dispenser shall be permanently, conspicuously, and legibly marked with the following:

DO NOT USE FOR MILK OR MILK PRODUCTS

3.8 Finish. The finish shall be in accordance with the manufacturer's standard commercial practice and finish requirement of NSF Standard No. 2.

3.9 Workmanship. The liquid dispenser shall be complete, clean and free of scratches, dents, breaks, sharp edges and corners, and deformities. The liquid dispenser shall conform to the quality of product established by this document and 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 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this document shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the document shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for assuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to assure compliance with all dimensional requirements.

4.1.3 Certificates of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine the validity of the certification.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.3)
b. Quality conformance inspection (see 4.4)

4.3 First article inspection. When a first article is required (see 6.2), it shall be examined for the defects specified in 4.4.2 and 4.4.3, and tested for the characteristics specified in 4.5. The presence of any defect or failure to pass any test shall be cause for rejection of the first article.

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

4.4.1 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.

4.4.1.1 Certification. The contractor shall furnish a certificate of compliance for Government approval indicating that the body and cover of the class 2 liquid dispenser has an ultraviolet stabilizer (see 3.6).

4.4.2 End item visual examination. The end item shall be examined for the defects listed in table I. The lot size shall be expressed in units of liquid dispensers. The sample unit shall be one liquid dispenser. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects and 6.5 for total (major and minor combined) defects.

TABLE I. End item visual defects

Examine	Defect	Classification Major	Minor
Finish	Not as specified	X	
Workmanship	Dirty		X
	Scratches, sharp corners, sharp edges		X
	Breaks, deformities, dents	X	

TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification Major	Minor
Construction	Any component not fabricated of material specified	X	
	Any component missing	X	
	Not color specified		X
Body	Not double wall construction	X	
	Not self stacking	X	
	Faucet not recessed	X	
	Faucet not on 9-inch side	X	
	Cover latches not recessed	X	
	Inner liner not sloped to provide complete drainage	X	
	Faucet not located at lowest point of inner liner	X	
Cover	Not double wall construction	X	
	Top cover surface not depressed to accommodate cover latches	X	
	No hand grip	X	
	Gasket missing	X	
	Gasket not removable	X	
	Air vent missing	X	
	Air vent not anti-splash type	X	
	Air vent not removable	X	
Faucet	Not type specified (two position)	X	
	Requires tools to assemble or disassemble	X	
Marking, identification and caution	Missing, illegible		X
Data name plate	Omitted or not as specified		X
	Information incomplete or illegible		X
	Not located so as to be readily visible to the operator		X

4.4.3 End item dimensional examination. The end item shall be examined for conformance to the dimensions specified in 3.6 and 3.6.1. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of dispensers. The sample unit shall be one dispenser. The inspection level shall be S-4 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

4.4.4 End item testing. The end item shall be tested as specified in 4.5.1, 4.5.2, and 4.5.3. The lot size shall be expressed in completely assembled liquid dispensers. The sample unit shall be one completely assembled liquid dispenser. The inspection level shall be S-2 and any test failure shall be cause for rejection of the lot.

4.4.5 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
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 sealing or closure of flap, improper taping, loose strapping or inadequate stapling. Bulged or distorted container.
Content	Number per container is more or less than required.

4.4.6 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1, and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

Examine	Defect
Finished dimensions	Length, width, or height exceeds specified maximum requirements

Palletization	Pallet pattern not as specified. Interlocking of loads not as specified. Load not bonded with required straps as specified.
Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.

4.4.7 Code and standard compliance. Certifications, certified test reports, or listing marks for codes and standards, as applicable, submitted in accordance with 3.3, shall be examined and validated as proof of compliance. Prior to Government approval of first shipment, the contractor shall submit to the contracting officer or his authorized representative for approval, certification that the dispensers he proposes to furnish meet the applicable requirements of NSF as follows:

4.4.7.1 National Sanitation Foundation (NSF). Acceptable evidence of meeting the applicable requirements of the National Sanitation Foundation standards specified in 3.3 shall be one of the following.

a. A listing in the current edition of the National Sanitation Foundation "Listing of Food Service Equipment", and display of the NSF seal on the finished unit.

b. A certification for the unit issued by NSF under their special onetime contract evaluation/certification service.

c. A certified test report acceptable to the contracting officer with the advice of the Army Surgeon General, from an independent testing laboratory, indicating that the unit has been tested and conforms to the specified NSF standards.

4.5 Methods of inspection.

4.5.1 Stacking and nesting. One complete, empty liquid dispenser with cover in place and latches closed shall be placed on a level flat surface. A second liquid dispenser with cover in place and latches closed shall be placed upon the first unit in the stacked position. The bottom liquid dispenser shall then be moved back and forth and side to side. The position of the liquid dispensers shall then be reversed and the bottom liquid dispenser again moved from side to side and back and forth. The liquid dispensers shall be observed during this test to determine compliance with the stacking, nesting, non-wobbling and non-binding requirements in 3.6. Failure to stack or nest, any evidence of wobbling or any evidence of binding shall constitute failure of this test.

4.5.2 Capacity. The liquid dispenser shall be filled with water. The contents shall then be emptied into a graduated measure to determine compliance with the capacity requirement of 3.6. A measured capacity of less than 5 US gallons shall constitute failure of this test.

4.5.3 Heat retention. The liquid dispenser shall be filled with water having a temperature of 200° F ± 2°F, have the cover replaced, and be allowed to stand for 5 to 10 minutes. The dispenser shall then be emptied and immediately refilled with 5 US gallons of water having a temperature of 200° F ± 2°F, have the cover replaced, and be allowed to stand in an ambient temperature of 75°F ± 2°F for a period of not less than 4 hours. The temperature of the water shall then be taken with the same thermometer used for verifying input water to determine compliance with capacity and temperature retention requirement of 3.6. Any noncompliance with the requirements specified shall constitute failure of this test.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A preservation. Each dispenser shall be preserved in accordance with method III of MIL-P-116 and then packaged in a snug-fitting fiberboard box conforming to style RSC, type CF (variety SW), class domestic, grade 200 of PPP-B-636. Each box shall be securely closed with 2-inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45.

5.1.2 Commercial. Each dispenser shall be preserved in accordance with ASTM D 3951.

5.2 Packing. Packing shall be level A, B or Commercial as specified (see 6.2).

5.2.1 Level A Packing. Two dispensers, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC, grade V2s of PPP-B-636. Each fiberboard container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636.

5.2.2 Level B Packing. Two dispensers, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Each fiberboard container shall be closed in accordance with method II as specified in the appendix of PPP-B-636.

5.2.2.1 Weather-resistant fiberboard container. When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix PPP-B-636.

5.2.3 Commercial Packing. Dispensers, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), dispensers, packed as specified in 5.2, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet types 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 primary and secondary straps in accordance with the bonding means K and L or film bonding means O or P. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern shall first be approved by the contracting officer.

5.4 Marking. In addition to any special marking required by the contract or purchase order, shipping containers shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

6. NOTES

6.1 Intended use. The liquid dispenser is intended for use on the Kitchen, Field, Trailer Mounted for serving hot or cold beverages.

6.2 Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this document.
b. When a first article is required (see 3.1, 4.3, and 6.3).
c. Class required (see 1.2)
d. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
e. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
f. When palletization is required (see 5.3).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should include specific instructions in all acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.

6.4 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document (see 3.5).

6.5 Subject term (key word) listing.

Beverage dispenser
Dispenser, liquid
Insulated dispenser

6.6 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL
Navy - SA
Air Force - 99

Review activities:

Army - MD, TS
Air Force - 84
DLA - GS

Preparing activity:

Army - GL

Project No. 7320-0813

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NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document*(s)* or to amend contractual requirements.

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
MIL-D-43916A	Dispenser, Liquid, Insulated

3a. NAME OF SUBMITTING ORGANIZATION

b. ADDRESS *(Street, City, State, ZIP Code)*

4. TYPE OF ORGANIZATION *(Mark one)*

- ☐ VENDOR
- ☐ USER
- ☐ MANUFACTURER
- ☐ OTHER *(Specify)*: _____

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)*

DD FORM 82 MAR 1426

PREVIOUS EDITION IS OBSOLETE