MIL-D-43738B 19 June 1984 SUPERSEDING MIL-D-43738A 27 December 1972

## MILITARY SPECIFICATION

## DISPENSER, CARBONATED BEVERAGE, MECHANICALLY REFRIGERATED

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

## 1. SCOPE

- 1.1 Scope. This document covers two types of mechanically refrigerated carbonated beverage dispensers.
- 1.2 Classification. The dispensers shall be of the following types, classes styles, and services as specified (see 6.2):

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Type I - Gravity syrup system (self-contained), counter model
Type II, Size 1 - Pressure syrup system (360 drinks per 90 minute period)
Type II, Size 2 - Pressure syrup system (600 drinks per 90 minute period)
Class 1 - One dispensing head
Class 2 - Two dispensing heads
Class 3 - Three dispensing heads
Class 4 - Four dispensing heads
Class 5 - Five dispensing heads
Style A - Counter model
Style B - Floor model, self-contained
Style C - Floor model, with syrup and CO<sub>C</sub>27 systems
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Service 2 - Dual-line feeding

Service 1

remotely located

- Single-line feeding

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 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

#### 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.

## SPECIFICATIONS

#### FEDERAL

PPP-B-601 - Boxes, Wood, Cleated-Plywood

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

## STANDARDS

# MILITARY

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

MIL-STD-129 - Marking for Shipment and Storage

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

MIL-STD-461 - Electromagnetic Emission and Susceptibility

Requirements for the Control of Electro-

magnetic Interference

MIL-STD-462 - Electromagnetic Interference Characteristics

Measurement of

MIL-STD-1186 - Cushioning, Anchoring, Bracing, Blocking, and

Waterproofing, with Appropriate Test Methods

(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 NATIONAL STANDARDS INSTITUTE, INC., (ANSI)

Standard C73 - Dimension of Caps, Plugs, and Receptacles

(Application for copies should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

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.)

## NATIONAL SANITATION FOUNDATION (NSF)

Listing of Food Service Equipment

Standard No. 18 - Manual and Beverage Dispensing Equipment

(Application for copies should be addressed to the National Sanitation Foundation, NSF Building, Ann Arbor, MI 48105.)

## UNDERWRITERS LABORATORIES, INC.

## Standard 471 - Commercial Refrigerators

(Application for copies should be addressed to the Underwriters Laboratories. Inc., 333 Pfingsten Road, Northbrook, IL 60062.)

(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 First article. When specified, a sample shall be subjected to first article inspection (see 4.3, 6.2 and 6.3).
- 3.2 Standard product. The dispenser delivered under this document shall be current standard product of the manufacturer, except for changes necessary to meet document requirements.
  - 3.3 Standards.
- 3.3.1 NSF standard. The dispenser shall conform to the applicable requirements of NSF Standard No. 18.
- 3.3.1.1 NSF certification. The contractor shall submit satisfactory evidence to the contracting officer or his authorized representative that the dispenser he proposes to furnish under this document meets the applicable requirement of NSF Standard No. 18 as follows:
- 1. Listing in the current edition of the NSF "Listing of Food Service Equipment" and display of the NSF seal on the finished dispenser shall be submitted prior to approval of the first article, if one is submitted, or prior to commencing production, or

- 2. A certification for the dispenser issued by NSF under their special one-time evaluation certification service shall be submitted prior to approval of the first article, if one is submitted, or prior to commencing production, or
- 3. A current certified test report (within 12 months) for each type, class, style, and service (as applicable) from a recognized independent laboratory acceptable to the medical department of the service for which the dispensers are being procured, indicating that the dispensers have been tested and conform to NSF Standard No. 18 shall be submitted prior to approval of the first article, if one is submitted, or prior to commencing production.
- 3.3.2 UL standard. The dispenser shall conform to the applicable requirements of UL Standard No. 471.
- 3.3.2.1 UL certification. Prior to approval of the first article, if one is submitted, or prior to commencing production, the contractor shall submit satisfactory evidence to the contracting officer or his authorized representative that the dispenser he proposes to furnish under this document meets the requirements of UL Standard No. 471. Acceptable evidence of meeting the requirements of this standard shall be the UL Listing Mark, or a current certified test report (within 12 months) acceptable to the Government, from a recognized independent testing laboratory, indicating that the dispenser has been tested and conforms to the applicable requirements of UL Standard 471.
- 3.4 Materials (see 6.4) and components. Materials and components shall be as specified herein. Materials not definitely specified shall be of the quality normally used by the manufacturer in his standard commercial dispensers provided the completed end item complies with all provisions of this document.
- 3.5 Design. When specified (see 6.2), all types, classes, styles and service of dispensers shall be equipped with key lock switches. Each dispenser shall be furnished with 2 keys. The key lock switches shall be located on an outside surface and be accessible from the front of the dispenser.
  - 3.5.1 Styles.
- \* 3.5.1.1 Style A. Style A shall be for counter-top model. The counter-top dispenser shall have a self-contained refrigeration system. On type I dispensers, the syrup tanks shall be integral with the cabinet (CO  $_{\Gamma}$ 2 $_{\Gamma}$  tanks, carbonator and water supply may be remotely located up to 50 feet from the dispenser). Type II dispensers may be designed for use with syrup tanks, CO  $_{\Gamma}$ 2 $_{\Gamma}$  tanks, carbonator and water supply remotely located up to 50 feet from the dispenser.
- 3.5.1.2 Style B. Style B shall be self-contained dispenser with the carbonator,  $CO_{\Gamma}2_{1}$  tank, syrup and refrigeration unit located within a floor model metal cabinet. The dispenser dimensions shall be not greater than 42 inches long and 30 inches wide and 44 inches high without lighted top sign or 51 inches high with lighted top sign.

- 3.5.1.2.1 Cabinet. The cabinet shall be constructed of stainless steel and framed to prevent the cabinet top from flexing more than 1/8 inch when subjected to loading specified in 4.6.1.2. Internal components shall be accessible through doors or panels installed with heavy-duty hardware. The dispensing nozzles shall be a minimum 7 inches and not more than 9 inches above the drip tray. The cabinet shall have a minimum storage for eight 5-gallon syrup tanks and one 20-pound capacity  $CO_{\Gamma}2_{7}$  tank.
- 3.5.1.3 Style C. Style C shall be a floor type dispenser with a self-contained refrigeration unit. The syrup tanks,  $CO_{\Gamma}2_{7}$  tanks, carbonator and water supply may be remotely located up to 50 feet from the dispenser. The dispenser dimensions shall be not greater than 22 inches wide, 27 inches deep, and 44 inches high without top lighted sign or 51 inches high with top lighted sign.
- 3.5.1.3.1 Cabinet. The cabinet shall be constructed of stainless steel and framed to prevent the cabinet top from flexing more than 1/8 inch when subjected to load specified in 4.6.1.2. The internal refrigeration unit shall be accessible through doors or panels installed with heavy duty hardware. The dispensing nozzles shall be a minimum of 7 inches and not more than 9 inches above the drip tray.

# 3.5.2 Types.

3.5.2.1 Type I. The type I dispenser shall be mechanically refrigerated gravity syrup feed capable of dispensing carbonated and non-carbonated beverages and water. The mechanical refrigeration system with hermetic compressor shall continuously maintain drink temperature without ice not greater than 42 deg. F at a rate of three 6-ounce drinks per minute, in a 90 deg. F ambient and 65 percent relative humidity. The carbonator shall be capable of supplying a finished drink carbonation level at a minimum of 3 gas volumes with the inlet water temperature ranging form 50 deg. to 90 deg. F. Unless otherwise specified (see 6.2), water supply pressure shall range from 15 to 80 pounds per square inch gage (psig) and appropriate carbon dioxide ( $CO_{\Gamma}2_{7}$ ) pressure (see 4.6.1.1). The condenser cooling air discharge shall face upward. Condensation shall not appear on external surfaces when operated in 90 deg. F, ambient temperature and 60 percent relative humidity. When specified (see 6.2), liquid shall not spill from any part of dispenser, including drip pans, when the dispenser is inclined up to 15 degrees from the vertical in any direction. Easily accessible connections with quick disconnect ball lock fittings shall be provided for cold water and  $CO_{\Gamma}2_{\Gamma}$  gas supply and fittings shall be non-interchangeable with each other. Unless otherwise specified (see 6.2), dispensers shall be designed to operate on a nominal 120 volt, single phase, 60 hertz, alternating current electric system. A three-wire power-supply cord with a three-prong attachment plug cap shall be provided and shall extend 6 and not more than 9 feet beyond the point at which it is attached to the back of the cabinet. The cord and plug shall provide grounding of the dispenser. When 50 hertz operation is specified (see 6.2), a UL approved, 3 wire power-supply cord compatible with dispenser being furnished shall be provided without the attachment-plug cap. When specified for 50 hertz, the power-supply cord shall be provided with an attachment-plug cap in accordance, with ANSI C73 Standard. Each post-mix valve shall give a constant rate of flow, controlling the water and syrup to provide the syrup manufacturers recommended brix using syrup temperatures ranging from 40 deg. to 90 deg. F. Valve shall be electrically operated only and shall be equipped with solenoids

rated for continuous duty. Brix stratification in the finished drink shall be +/- 0.5 of the syrup manufacturers recommended brix from top to bottom (see 4.6.1.1). Syrup flow shall be adjustable to obtain desired brix. Each valve shall be removable with the normal hand tools for servicing without interrupting the other dispensing valves. Dispensing nozzles shall be designed to prevent contact with upper portion of glass and glass contents. Drains shall be provided for condensation and a drip-pan under the dispensing valves. When specified (see 6.2), a water filter shall be furnished. The filter shall be of the replaceable cartridge type, constructed of corrosion resistant metals and shall be capable of removing particles of turbidity larger than two microns in size and 3.0 ppm chlorine from the influent water and shall be of the type that presently exist in the military supply system. Directions and customer controls shall be accessible from the dispensing position. The base shall be provided with protectors to prevent damage to the surface it rests on. Four holes for 3/8 inch bolts shall be provided in the style A dispenser base for fastening the dispenser to the counter. The system shall be complete and ready to operate when connected to the electrical  $CO_{\Gamma}2_{1}$ , and water supplies. When specified (see 6.2), for permanent installation on style B units a means shall be provided for anchoring to the deck or bulkhead.

\* 3.5.2.2 Type II. The type II dispenser shall be mechanically refrigerated, pressurized carbonated and non-carbonated beverage; and water dispenser. A mechanically refrigerated system with hermetic unit shall continuously maintain drink temperatures not greater than 42 deg. F. Unless otherwise specified (see 6.2), the type II, size 1 performance rate shall be 360 6-ounce drinks per 90 minute period, and the type II, size 2 performance rate shall bae 600 6-ounce drinks per 90 minute period when inlet water, syrup, and ambient temperatures are 50 deg. to 90F. When specified (see 6.2), liquid shall not spill from any part of the dispenser, including drip-pans, when the dispenser is inclined up to 15 degrees from the vertical in any direction. A carbonator shall be capable of supplying finished drink carbonation levels of at least a minimum of 3 gas volumes with inlet water temperature ranging from 50 deg. 90 deg. F. Unless otherwise specified (see 6.2), water supply pressure shall range from 15 to 80 psig, and appropriate CO<sub>「</sub>2<sub>」</sub> pressure (see 4.6.1.2). Easily accessible connections with quick disconnect ball lock fittings shall be provided for cold water, syrup, and CO<sub>r</sub>2<sub>1</sub> gas supply and all fittings shall be non-interchangeable with each other. Unless otherwise specified (see 6.2), dispenser shall be designed to operated on a nominal 120-volt, single-phase, 60 hertz, alternating current electric system. A three-wire power-supply cord with a three-prong attachment plug cap shall be provided and shall extend 6 and not more than 9 feet beyond the point at which it is attached to the back of the cabinet. The cord and plug shall provide grounding of the dispenser. When 50 hertz operation is specified (see 6.2), a UL approved, 3-wire power-supply cord compatible with the dispenser shall be provided without the attachment-plug cap. When an attachmentplug cap is required it shall be in accordance with ANSI C73 Standard. post-mix valve shall give a constant rate of flow, controlling the water and syrup to provide the syrup manufacturers recommended brix using syrup temperatures from 40 deg. to 90 deg. F. Valve shall be electrically operated only and shall be equipped with solenoids rated for continuous duty. Brix stratification in the finished drink shall be +/- 0.5 of the syrup manufacturers recommended brix from top to bottom (see 4.6.1.2). Syrup flow shall be adjustable to obtain desired brix. Each valve shall be easily removable with normal hand tools for servicing without interrupting the operation of the other dispensing valves. Dispensing nozzles shall be designed to prevent contact with upper portion of glass and glass

containers. Drains shall be provided for condensation and drip-pans provided under the dispensing valves. When specified (see 6.2), a water filter shall be furnished. The filter shall be of the replaceable cartridge type, constructed of corrosion resistant metals and shall be capable of removing particles of turbidity larger than two microns in size and 3.0 ppm chlorine from the influent water and shall be of the type that presently exist in the military supply system. Directions and customer controls shall be accessible from dispensing position. The base shall be provided with protectors to prevent damage to the surface it rests on. Four bolt holes for 3/8 inch diameter bolts shall be provided in the dispenser base for fastening the style A dispenser to the counter. For Army use, the type II dispenser cabinet shall be equipped with legs a minimum of 6 inches. The system shall be complete and ready to operate, when connected to electrical,  $CO_{\Gamma}2_{1}$ , syrup and water supplies. When specified (see 6.22), for permanent installation style on B units a means shall be provided for fastening to the floor or wall.

## 3.5.3 Service.

- 3.5.3.1 Service 1. Service 1 shall be for single feeding line service. Dispensing loads shall be accessible from one side only. The number of heads shall be as specified.
- 3.5.3.2 Service 2. Service 2 shall be for dual line dispensing. Dispensing heads shall be located on opposite sides of the cabinet and one set of dispensing heads shall be available from each side.
- \* 3.5.3.3 Tanks. For shipboard use (see 6.2), 2 syrup tanks shall be furnished for each dispenser head on type II dispensers. The tanks shall be either 3 gallon or 5 gallon, as specified (see 6.2).
- 3.6 Identification marking. The dispenser shall be marked on an external surface with the manufacturer's name, tradename, or trademark identifiable with said manufacturer. No advertising names or slogans will be used. Marking shall be applied in accordance with MIL-STD-130.
- 3.7 Electromagnetic compatibility. When specified (see 6.2), dispensers procured under this document shall be designed and equipped to meet the electromagnetic control requirements and test limits for class C3 equipment as specified in MIL-STD-461 (see 4.6.1.3).
- 3.8 Workmanship. Dispensers shall be clean and shall be free of scratches, sharp edges, grind, and pit marks. Finished items shall not be buckled, malformed, or damaged. Welds shall be round and blended with adjacent surfaces. Scale and flux deposits shall be removed. Plumbing shall show no leakage when tested as specified in 4.6.1.1 or 4.6.1.2.

# 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 the document where such inspections are deemed necessary to assure supplies and service conform to the prescribed requirements.

- 4.2 Classification of inspection. 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 defects specified in 4.4.2 and 4.4.3 and tested as specified in 4.6.1.1 and 4.6.1.2. The presence of any defect or failure of any test shall be cause for rejection of the first article.
- 4.4 Quality conformation inspection. Unless otherwise specified, sampling for inspection shall be 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.
- \* 4.4.2 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 dispensers. The sample unit shall be one 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	
	Defect	Major Minor	
Design	Cold water and carbon dioxide		
5	connections not easily accessible	X	
	Electric supply cord not as specified	X	
	Drains not provided	X	
	System incomplete for installation Directions or customer controls not	X	
	accessible from dispensing position	X	
	Syrup flow not adjustable	X	
	Refrigeration unit not as specified Regulating valves not provided as	X	
	specified	X	
	Drip trays not provided as specified Base not provided with protectors and	X	
	mounting holes.	X	

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

		Classification	
Examine	Defect	Major	Minor
			_
Design (cont'd)	Dispensing valves not easily removable for servicing	X	
	Keylock switches (when specified) missing, keys missing or not number		
	specified	X	
Construction and	Material not as specified	X	
workmanship	Scratches, sharp edges, grind, or pit marks	X	
	Finished items buckled, malformed or damaged		X
	Welds not smooth		X
	Scale and flux deposits not removed		X X
Marking identification	Missing, incomplete, illegible		X

- \* 4.4.3 End item dimensional examination. The end item shall examined for conformance to specified dimensions. Any dimension not as specified 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-2 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 4.6.1.1 and 4.6.1.2. The lot size shall be expressed in dispensers. The sample unit shall be one dispenser completely assembled in accordance with the manufacturer's instructions. Failure of a test shall be recorded as a defect. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.
- \* 4.4.5 Packaging inspection. An examination shall be made to determine that preservation, packing, marking comply with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged. The lot size shall be the number of 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.

Examine Defect

Marking Omitted; incorrect; illegible; of improper size,

location, sequence, or method of application.

Any component missing, damaged, or not as specified. Materials

4.5 Code and standards compliance. Proof of compliance with the requirements of 3.3.1 and 3.3.2 shall be submitted to the Government representative.

- 4.6 Methods of inspection.
- 4.6.1 Operational tests. Prior to performance of the operational tests (4.6.1.1 and 4.6.1.2), the type I and II dispensers to be tested shall be operated for a period of time recommended by the manufacturer to verify that components and controls are functioning properly.
- 4.6.1.1 Operational test for type I dispensers. The type I dispensers shall be readied for rated capacity output using 90 deg. F inlet water temperature, 90 deg. F syrup temperature a 90 deg. F ambient, 65 percent relative humidity, appropriate carbonation pressure and maximum 80 psiq water supply (see table III, The unit shall be operated with a full charge of 90 deg. F syrup for a period of time recommended by the manufacturer. The unit shall not shut off on over load during initial pulldown. For the type I unit the testing shall commence when syrup temperature stabilizes and the refrigeration unit cycles. Fifty six-ounce drinks at three drinks per minute shall be dispensed when testing the type I dispenser. The first and last drinks shall have measured final temperature not greater than 42F, a gas volume between 1.0 to 3.8, and a brix within +/-0.5 of that recommended by the syrup manufacturer. The brix shall be determined as the average of the top and bottom of each drink with a refractometer equal to American Optical or Bausch and Lomb types; and the carbonation shall be determined by a Bastian-Blessing carbonation tester or equal. The brix control regulator shall not be changed during test. When specified (see 6.2), subject all dispenser components to a 15 degree tilt at 90 degree intervals around the vertical. The operational test shall be repeated using 40 deg. F syrup, 50 deg. F inlet water temperature, appropriate carbonation, and 15 psig water inlet pressure (see table III, column 2). Inability of the dispenser to meet the requirements specified in 3.5 shall constitute failure of this test.
- 4.6.1.2 Operational test for type II dispensers. The type II dispensers shall be readied for rated capacity output using 90 deg. F inlet water temperature, 90 deg. F syrup temperature, a 90 deg. F ambient and a 65 percent relative humidity, appropriate carbonate pressure and maximum 80 psig water supply (see table III, column 1). Three hundred sixty 6-ounce drinks per 90 minute period shall be dispensed. The first and last drinks shall have a a greater than 42 deg. F, a minimum of 3 gas volumes, and a brix within  $\pm$  0.5 of that recommended by the syrup manufacturer. The brix shall be determined as the average of the top and bottom of each drink with a refractometer equal to American Optical or Bausch and Lomb types; and the carbonation shall be deter-

mined by a Bastian and Blessing carbonation tester or equal. The brix control regulator shall not be changed during test. When specified (see 6.2), during the test, subject all dispenser components to a 15 degree tilt at 90 degree intervals around the vertical. This test shall be repeated using 40F syrup, 50 deg. F inlet water temperature, appropriate carbonation, and the minimum specified psig and water inlet pressure (see table III, column 2). Subject the counter surface of style B and style C cabinet to a 100-pound load concentrated over 1 square inch at six different locations, 6 inches from the edges and a minimum of 12 inches apart. Inability of the dispenser to meet the requirements specified in 3.5 shall constitute failure of this test.

TABLE III. Test criteria \*

	#1	#2
Water supply temperature, F	90	50
Syrup temperature, F	90	40
Ambient temperature, F	90	50
Relative humidity	65	65
Supply water pressure, PSIG	80	15

\* 2 percent tolerance allowable

4.6.1.3 Electromagnetic compatibility. When electromagnetic compatibility is required, the preproduction sample or initial unit of production, as applicable, shall be tested by the contractor in accordance with test methods UMO5 of MIL-STD-462. The Government reserves the right to witness tests performed by the contractor or an independent testing agency. The contractor shall furnish the Contracting Office written certification that the Interference Control Plan, the EMI/EMC Test Plan, the electromagnetic test report and the requirements meet MIL-STD-461.

# 5. PACKAGING

- 5.1 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).
- 5.1.1 Level A. Each dispenser shall be packed in a cleated-plywood or nailed wood shipping container conforming to overseas type, type 3 load of PP-B-601 or class 2, style 2 or 4, type 3 load of PP-B-621, respectively. Cushioning, blocking and bracing, and waterproofing shall be in accordance with MIL-STD-1186. Each shipping container shall be provided with skids and closed and strapped in accordance with the applicable container specification.
- 5.1.2 Commercial. Each dispenser shall be packed as specified in 5.1.1, except that the shipping container shall conform to domestic type, type 3 load of PPP-B-601 or class 1, style 2 or 4, type 3 load of PP-B-621 and waterproofing shall not be required.

- $^{\star}$  5.1.3 Commercial. The dispensers shall be packed in accordance with ASTM D 3951.
- 5.2 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.

## 6. NOTES

- 6.1 Intended use. The dispensers are for use in feeding lines to dispense carbonated drinks.
- 6.1.1. Shipboard use. Naval shipboard activities should acquire two each of NSN 8120-00-151-9749  $\rm CO_{\Gamma}2_{\overline{1}}$  cylinders (empty) through regular supply channels for use in conjunction with the carbonator of each dispenser placed in service.  $\rm CO_{\Gamma}2_{\overline{1}}$  gas itself should be procured locally.
  - 6.2 Ordering data. Acquisition documents should specify the following:
    - a. Title, number, and date of this document.
    - b. Type, class, style and service of dispenser required (see 1.2).
    - c. When a first article is required (see 3.1, 4.3 and 6.3).
    - d. When key lock switches are required (see 3.5).
    - e. When electric system operation is other than specified (see 3.5.2.1 and 3.5.2.2).
    - f. When 50 hertz operation is required and an ANSI electrical plug is required (see 3.5.2.1 and 3.5.2.2).
    - g. When tilt requirement is required (see 3.5.2.1, 3.5.2.2, and 4.6.1.1).
    - h. When drink rate is other than specified for type II (see 3.5.2.2).
    - i. When water filter is required (see 3.5.2.1 and 3.5.2.2).
    - j. When water pressure requirements are other than specified (see 3.5.2.1 and 3.5.2.2).
    - k. When permanent floor or wall installation is required for style B (see 3.5.2.1 and 3.5.2.2).
    - 1. Size of syrup tanks required for Navy shipboard (see 3.5.3.3).
    - m. When electromagnetic compatibility is required (see 3.7).
    - n. Selection of the applicable level of packing (see 5.1).
    - o. Requirements for operation maintenance and repair parts manuals (see 6.5).
- 6.3 First article. WHen a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 51.109-4. The first article should be a preproduction sample. The first article should consist of one unit. The contracting officer should include specific instructions in all acquisition documents regarding arrangements for inspection and approval of the first article.
- 6.4 Recycle material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the document (see 3.4).

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- 6.5 Contract data requirements. Any requirement for equipment manuals for the item covered by this document should be included in DD Form 1423 Contract Data Requirements List and cited in the contract.
- 6.6 Changes from previous issue. The margins of this document are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

Preparing activity:

Army - GL

Army - GL

Navy - YD Air Force - 84

Project No. 7310-0456

Review activities:

Army - MD

Navy - SH, MS, MC

DSA - GS

User activity:

Army - CE