

INCH-POUND

A-A-52192

August 19, 1994

## COMMERCIAL ITEM DESCRIPTION

### DISPENSER, CARBONATED BEVERAGE, MECHANICALLY REFRIGERATED

The General Services Administration has authorized the use of this commercial item description in preference to MIL-D-43738 for all federal agencies.

#### 1. SCOPE

1.1 Scope. This commercial item description covers two types of mechanically refrigerated carbonated beverage (soft drink) dispensers.

1.2 Classification. The dispensers shall be of the following types, classes, styles, and services, as specified, (see 5.2):

Type I - Gravity syrup feed system (self-contained) counter model  
Type II - Pressurized unit syrup feed system

Size 1 - 360, six-ounce drinks per 90 minute period  
Size 2 - 600, six-ounce drinks per 90 minute period

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 carbon dioxide systems remotely located

Service 1 - Single line feeding  
Service 2 - Dual line feeding

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, ATTN: SATNC-WEE, Natick, MA 01760-5018 by using the Standardization Documents Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 7310

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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1.3 CID based part identification number (PIN). A document based PIN to identify the type, size, class, style, and service of items is included in section 5. This identification numbering procedure is for Government purposes and does not constitute a requirement for the contractor except as information on "Government unique" data nameplates (see 5.3).

## 2. SALIENT CHARACTERISTICS

2.1 Design and construction. The carbonated beverage dispensers shall be mechanically refrigerated, either gravity syrup feed or pressure syrup feed type, and shall be of a counter model style; floor model, self-contained style; or a floor model style with syrup and carbon dioxide systems remotely located. The dispensers may be specified to have three, four, or five dispensing heads for either single line or dual line feeding services.

2.1.1 Refrigeration unit. The refrigeration unit shall consist of a compressor, condenser, pump, ice bank (when used), carbonator, and electrical and plumbing connections. The refrigeration unit shall be completely self-contained, pre-charged and wired with a hermetically sealed compressor unit that shall be capable of maintaining a continuous drink temperature of 40°F and under at the dispensing head, and shall conform to ASHRAE Standard 91. Unless otherwise specified (see 5.2), the unit shall operate on a nominal water pressure of 62 pounds per square inch gage (psig), and if required shall be provided with a water pressure regulator (see 5.2). The unit shall be provided with quick disconnect fittings for cold water, syrup, and the carbon dioxide gas supply.

2.1.1.1 Ozone depleting substances. Class 1 ozone depleting substances in accordance with section 602 (a) of the Clean Air Act Amendments 1990 42 USC 7671a(a) as implemented by 40 CFR 82, Protection of Stratospheric Ozone, shall not be used for refrigerant gases, or for any other purpose, or employed in any process associated with the manufacture of any component parts for this item.

2.1.2 Dispenser cabinet. The cabinet shall be fabricated of materials and components 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. Dispensing valves shall be electronically operated and shall be equipped with solenoids rated for continuous duty. Each valve shall be easily removable with basic hand tools for servicing without interrupting the operation of the other dispensing valves. Easily accessible connections with quick disconnect ball lock fittings shall be provided for cold water, syrup, and carbon dioxide supply, and all fittings shall be non-interchangeable with each other. A removable drain pan and perforated tray shall be provided under the dispensing valves. The drain pan shall be removable without any special tools and shall have a drain hole capable of being left open or closed. When specified (see 5.2), dispensers shall be equipped with key lock switches. Each dispenser shall be furnished with two keys. The key lock switches shall be located on an outside surface and be accessible from the front of the dispenser.

### 2.1.3 Dispensers.

2.1.3.1 Type I dispenser. The type I dispenser shall be a mechanically refrigerated gravity syrup feed, countertop unit, capable of dispensing carbonated and non-carbonated beverages and water. The type I dispenser performance rate shall be three 6-ounce drinks per minute.

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2.1.3.2 Type II dispenser. The type II dispenser shall be a mechanically refrigerated pressurized unit capable of dispensing carbonated and non-carbonated beverages and water. The type II, size 1 dispenser performance rate shall be *three hundred and sixty*, 6-ounce drinks per 90 minute period. The type II, size 2 dispenser performance rate shall be six hundred, 6-ounce drinks per 90 minute period.

2.1.3.3 Style A dispenser. Style A shall be a countertop model dispenser with a self-contained refrigeration unit. On type I dispensers, the syrup tanks shall be integral with the cabinet (carbon dioxide tanks, carbonator and water supply may be remotely located up to 50 feet from the dispenser). Type II dispensers may be for use with syrup tanks, carbon dioxide tanks, carbonator and water supply remotely located up to 50 feet from the dispenser.

2.1.3.4 Style B dispenser. Style B shall be a self-contained dispenser with the carbonator, carbon dioxide tank, syrup and refrigeration unit located within a floor model cabinet. The dispenser dimensions shall not be greater than 42 inches long, 30 inches wide, and 44 inches high without lighted top sign, or 51 inches high with lighted top sign. The cabinet shall have a minimum storage for eight 5-gallon syrup tanks and one 20-pound capacity carbon dioxide tank. When specified (see 5.2), for permanent installation of style B units, a means shall be provided for fastening to the floor or wall.

2.1.3.5 Style C dispenser. Style C shall be a floor-type dispenser with a self-contained refrigeration unit. The syrup tanks, carbon dioxide tanks, carbonator and water supply may be remotely located up to 50 feet from the dispenser. The dispenser dimensions shall not be greater than 22 inches wide, 27 inches deep and 44 inches high without top lighted sign or 51 inches high with top lighted sign.

2.1.4 Service. Service 1 shall be for a single feeding line dispensing, and its dispensing heads shall be accessible from one side only. Service 2 shall be for a dual feeding line dispensing, and its dispensing heads shall be located on opposite sides of the cabinet, and one set of dispensing heads shall be available from each side.

2.2 Electrical characteristics. Unless otherwise specified (see 5.2), the refrigeration system shall operate on a 120 volt, 60 Hz, single phase electrical system. A 3-wire electrical cord 6 to 10 feet in length conforming to UL 62, with a 3 prong grounding type plug conforming to NEMA WD-1 shall be provided. Wiring practices shall be in accordance with NFPA 70.

2.3 Codes and standards. The carbonated beverage dispensers shall comply with the applicable requirements of the following (see 3.4):

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard No. 91.
- Environmental Protection Agency (EPA) Clean Air Act Amendment 42 USC 7671a(a), and 40 CFR 82
- National Electric Manufacturers Association (NEMA) Standard WD-1
- National Fire Protection Association (NFPA) Standard No. 70
- NSF International Standard No. 18
- Underwriters Laboratories (UL) Standard Nos. 62 and 471

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2.4 Data name plate ("Government unique" requirement, (see 5.5). The 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 metal and mechanically fastened to the dispensers or shall be the permanent stick-on type. The plate shall contain the following information which shall be stamped, engraved, or applied by photosensitive means:

National Stock Number  
 Procurement Contract Number  
 Manufacturer's Name, Address, and Telephone Number  
 Supplier's Name, Address, and Telephone Number (when different from Manufacturer)  
 Size and Manufacturer's Model and Serial Number  
 Government Approved Manual Number (when manual is specified, see 5.2)

Each plate shall be placed so that it is readily visible to the operator during normal operating use of the dispenser and so as to not adversely affect the life and utility of the dispenser.

### 3. QUALITY ASSURANCE PROVISIONS

3.1 Contractor certification. The contractor shall certify, and maintain substantiating evidence, that the product offered meets the salient characteristics and requirements of this Commercial Item Description, and except for those "Government Unique" requirements specified, conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same product offered for sale in the commercial marketplace or that had successfully been delivered to the Government on a previous contract or purchase order. The Government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

3.2 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of FED-STD-376, and all other requirements of this CID are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request shall be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

3.3 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

3.4 Standards compliance. Prior to approval of the first shipment, the contractor shall submit satisfactory evidence to the contracting officer or his authorized representative that the carbonated beverage dispenser conforms to the requirements of those standards specified in 2.3.

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3.5 End item examination. The contractor is responsible for assuring that the product conforms to the stated requirements. Three completely assembled dispensers shall be randomly selected from the quantity to be shipped under the current contract or purchase order and inspected for the defects listed below. The finding of any defect shall be cause for rejection of the lot.

- Any component missing
- Not constructed as specified
- Dispensing valves not as specified
- Any hardware or fittings missing
- physical damage - dents, or malformed components

3.6 End item testing. Carbonated beverage dispensers shall be tested as specified in 3.6.1 and 3.6.2.

3.6.1 Refrigerant leakage test. Each beverage dispenser shall be subjected to the refrigerant leakage test. With the refrigeration system fully charged and at rest (not in the operating cycle, refrigerant pressure equalized throughout the system), the complete refrigeration system shall be scanned with an electronic leak detector(s) calibrated and certified to detect leakage of refrigerant-12 or other fully halogenated chloroflourocarbon refrigerant at a rate of one half ounce (0.500 oz) per year or less. Indications of the presence of leaking refrigerant shall constitute failure of the leakage test. This test may be administered as a part of statistical process controls associated with the manufacturing processes for the assembly of the beverage dispenser, and shall be in addition to any other leak testing of the system completed prior to final charging with refrigerant.

3.6.2 Operational test. When specified (see 5.2), and during end item examination, one system shall be tested for performance as specified in ASHRAE Standard No. 91.

#### 4. PACKAGING

4.1 Packaging and packing. Packaging and packing shall be commercial or export as specified (see 5.2).

4.2 Commercial packaging and packing. Each dispenser shall be preserved, packaged and packed in accordance with ASTM D 3951.

4.3 Export packaging and packing.

4.3.1 Export packaging. Each dispenser shall be preserved and cushioned to provide adequate protection against corrosion, deterioration and damage during shipping and storage. All components that are free to move shall be secured by appropriate means in accordance with the manufacturer's standard practice to prevent movement while in transit.

4.3.2 Export packing. Each dispenser shall be packed in a snug-fitting, wood-created plywood box conforming to domestic type, type 3 load of PPP-B-601. The contents of the box shall be cushioned, blocked and braced to prevent movement and damage while in transit. Closure and strapping shall be in accordance with PPP-601.

4.4 Marking (commercial and export). Shipping containers shall be marked in accordance with MIL-STD-129, or ASTM D 3951, as applicable.

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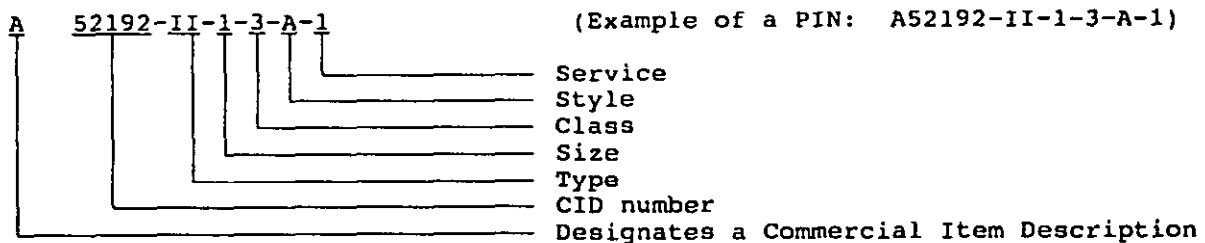
## 5. NOTES

5.1 Intended use. The dispensers are for use in feeding lines to dispense carbonated and non-carbonated drinks.

5.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number, and date of this commercial item description.
- b. Type, size, class, style, and service of dispenser required (see 1.1).
- c. Water supply pressure, if other than specified (see 2.1.1).
- d. When a water pressure regulator is required (see 2.1.1).
- e. When key lock switches are required on dispensers (see 2.1.2).
- f. When permanent floor or wall installation is required for style B (see 2.1.3.4).
- g. When electrical requirements are other than specified (see 2.2).
- h. The Government approved manual number is to be included on the data name plate when manuals are purchased under the contract (see 2.4).
- i. Type of packaging and packing required (see 4.1).

5.3 Part identification number (PIN). The PIN's to be used for items required by this CID are created as follows:

5.4 Sources of documents.5.4.1 Sources of non-government association documents.

ASHRAE Standard No. 91 - Methods of Testing Pre-Mix and Post-Mix Soft Drink Vending and Dispensing Equipment,  
is available from:

American Society of Heating, Refrigerating  
and Air-Conditioning Engineers (ASHRAE)  
1791 Tullie Circle, NE  
Atlanta, GA 30329

ASTM D 3951 - Standard Practice for Commercial Packaging, is available from:

The American Society for Testing and Materials (ASTM)  
1916 Race Street  
Philadelphia, PA 19103-1187

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EPA Clean Air Act Amendment 42 USC 7671a(a), is available from:

Environmental Protection Agency (EPA)  
401 M Street, SW  
Washington, DC 20460

NEMA Standard WD-1 - General Purpose Wiring Devices, is available from:

National Electrical Manufacturers Association (NEMA)  
2101 L Street, N.W.  
Washington, DC 20037

NFPA Standard No. 70 - National Electrical Code, is available from:

National Fire Protection Association (NFPA)  
One Batterymarch Park  
Quincy, MA 02269

NSF International Standard No. 18 - Manual Food and Beverage Dispensing  
Equipment, is available from:

NSF International  
3475 Plymouth Road  
P.O. Box 130140  
Ann Arbor, MI 48113-0140

UL Standard Nos.:

62 - Flexible Cord and Fixture Wire, and  
471 - Commercial Refrigerators and Freezers, are available from:

Underwriters Laboratories, Inc. (UL)  
333 Pfingsten Road  
Northbrook, IL 60062

5.4.2 Sources of government documents. Copies of military and federal documents are available from:

Standardization Documents Order Desk  
Building 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

5.5 "Government unique" requirements. Whenever a "Government unique" requirement is included in the title of a paragraph under "Salient Characteristics", it is meant that the requirement is something that is not normally offered to the commercial marketplace by the manufacturer.

5.6 Sources of supply. Manufacturers whose products are known to meet the CID requirements are listed below. However, competition is not limited to these companies:

Booth Incorporated  
2310 McDaniel Drive  
Carrollton, TX 75006-6843

IMI Cornelius Company  
One Cornelius Place  
Anoka, MN 55303-1592

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Follett Corporation  
801 Church Lane  
Easton, PA 18044

Multiplex Company, Inc.  
250 Old Ballwin Road  
Ballwin, MO 63021-4834

Cecilware Corporation  
40-05 20th Avenue  
Long Island, NY 11105-1295

K-Way Products, Inc.  
759 West Commercial  
Mount Carroll, IL 61053

Remcor Products Company  
500 Regency Drive  
Glendale Heights, IL 60139-2268

Wilshire Corporation  
An Alco Food Service Co.  
2788 Winstead Road  
Torrington, CT 06790

MILITARY INTERESTS:

Custodians

Army - GL  
Navy - SA  
Air Force - 99

Review Activities

Army - MD, QM  
Navy-MC  
Air Force - 35, 84  
DLA - GS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Army - GL

Project 7310-0805



## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

<b>I RECOMMEND A CHANGE:</b>		1. DOCUMENT NUMBER A-A-52192	2. DOCUMENT DATE (YYMMDD) 94-08-19
3. DOCUMENT TITLE DISPENSER, CARBONATED BEVERAGE, MECHANICALLY REFRIGERATED			
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)			
5. REASON FOR RECOMMENDATION			
6. SUBMITTER			
a. NAME (Last, First, Middle Initial)		b. ORGANIZATION	
c. ADDRESS (Include Zip Code)		d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (if applicable)	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY			
a. NAME U.S. Army Natick RD&E Center		b. TELEPHONE (Include Area Code) (1) Commercial 508-651-5175 (2) AUTOVON /DSN 256-5175	
c. ADDRESS (Include Zip Code) Commander, U.S. Army Natick RD&E Center ATTN: SATNC-WEE Natick, MA 01760-5018		IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	