

A-A-50496
10 September 1990

COMMERCIAL ITEM DESCRIPTION

COFFEE MAKER, PERCOLATOR, ELECTRIC

The General Services Administration has authorized the use of this commercial item description (CID) in preference to Type I, size 8, 10 and 12 cup capacity of Military Specification MIL-C-28515B.

Abstract. This commercial item description covers automatic, percolator-type coffee makers equipped with integral electric heating elements and pouring spout.

Coffee makers covered by this specification are intended for use in coffee messes, clubs for military personnel, exchanges, small galley messes where larger spray-over or pour-over coffee urns are not required, and for stand-by off-hour service in larger mess-halls. Sizes and classes are as follows:

Size 8 - 8-cup capacity.
Size 10 - 10-cup capacity.
Size 12 - 12-cup capacity.

Class 1 - Corrosion-resisting material body with thermostatically-controlled dual heating elements, and with or without flavor selector control.

Class 2 - Polished aluminum body with thermostatically-controlled dual heating elements, and with or without flavor selector control.

Class 3 - Heat-resisting color or polished aluminum body with single heating element and cycling thermostat.

* Beneficial comments, recommendations, additions, deletions, clarifications,*
* etc. and any data which may improve this document should be sent to: *

* Commanding Officer (Code 156), Naval Construction Battalion Center, Port *

* Hueneme, CA 93043, by using the self-addressed Standardization Document *

* Improvement Proposal (DD Form 1426) appearing at the end of the document or*

* by letter. *

FSC 7310

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Salient characteristics

1. The coffee makers shall consist essentially of a body, cover, base, handle(s), coffee basket and stem assembly, heating element(s) and a flexible power supply cord. Particular classes, and sizes of coffee makers shall be equipped with additional items as specified herein.

Coffee makers shall be furnished with a pouring spout and a full grip handle. The pouring spout may be molded plastic in accordance with the manufacturer's current standard practice. Classes 1 and 2 coffee makers shall be equipped with at least one heating element and an automatic control for a cycling thermostat to provide both brewing and warming cycles. Classes 1 and 2 coffee makers may be furnished with any of the following accessories at the option of the contractor unless the contract specifies that one or all of the accessories are required (see ordering data).

- a. Signal light.
- b. Handle-mounted, liquid level sight gage.
- c. Strength/Flavor control selector.

2. Corrosion-resisting material. Corrosion-resisting material shall conform to ASTM A 167. The following materials, with finishes indicated, may be substituted for corrosion-resisting material bodies on Class 1 coffee makers:

- a. Aluminum body with electrolytically applied anodized coating.
- b. Copper body with an interior and exterior chromium plating.

3. Aluminum. Aluminum shall conform to ASTM B 209, with mechanical properties, formability, and finish to suit the intended application.

4. Design. The coffee makers shall be suitable for operation on a nominal 120 volt, alternating current (ac) 60 Hertz power source. Coffee makers equipped with two heating elements (a high-heat brewing element and a low-heat warming element) shall be controlled by a thermostat which shall automatically de-energize the brewing element and initiate or sustain operation of the warming element when the brewing cycle is completed. Signal lights on coffee makers so equipped shall light when the warming cycle commences.

5. Capacity. The capacity of the coffee makers furnished shall be established on the basis of a 5-fluid ounce serving per cup. Capacities shall be as specified in Table I and shall be interpreted in accordance with the following:

- a. The manufacturer's rated 5-ounce cup capacity for the size specified shall not be less than the nominal capacity.
- b. The manufacturer's rated 5-ounce cup capacity may be greater than the applicable nominal capacity provided the larger capacity does not exceed the number of cups specified in Table I under maximum capacity; e.g., a coffee maker rated by the manufacturer as size 8 can have a capacity of 9, 5 ounce cups.

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- c. Coffee maker shall be capable of satisfactorily brewing coffee when operating with a volume of water equal to the number of cups specified in Table I under minimum capacity.

TABLE I. Coffee maker requirements.

Capacity (see Salient Characteristic 5)									Minimum
									power
									input,
Type	Class	Size	Nominal Cups	Quarts	Minimum Cups	Maximum Cups	(watts)		
1	1&2	8	8	1.25	4	9	500		
1	3	8	8	1.25	6	9	450		
1	1&2	10	10	1.56	6	12	600		
1	3	10	10	1.56	6	12	450		
1	1&2	12	12	1.87	6	12	800		
1	3	12	12	1.87	6	12	450		

6. Power input. The total power input of single-and dual element coffee makers, expressed in watts, shall not be less than the applicable wattage ratings specified in Table I. Warming elements shall have a rating adequate to maintain a full coffee maker at the serving temperature specified.

7. Safety hazards. The design shall be such that no fire or electrical shock hazard is present when the coffee maker is connected to a power source. The leakage current of the coffee maker shall not exceed 0.5 milliamperes when connected to a nominal 120 volt supply.

8. Performance. The coffee maker shall meet the performance requirements specified herein. The operation shall be completely automatic when the coffee maker, filled to rated capacity with cold water at a temperature of 65 degrees Fahrenheit (oF) +/-5oF, is connected to the electrical power supply. At the completion of the brewing cycle, the temperature of the beverage shall not be less than 170oF and not more than 205oF. The serving temperature shall not be less than 170oF when the coffee maker has been filled to rated capacity and the finished brew has remained in the coffee maker for a period of 1 hour in an ambient temperature of 75oF +/-5oF. As a measure of the brew quality, the specific gravity of the finished brew, as determined by a hydrometer, shall range from 0.7 to 0.8. The hydrometer shall be calibrated to read zero (at the top of the meniscus at the stem) when placed in 60oF distilled water, in a 1.5" diameter x 7" high cylinder, with the cylinder being on a level surface. The brew shall be thoroughly mixed prior to being poured into the cylinder filling it to approximately .25" from the top. The brew shall be cooled to 60oF, the cylinder set on a level surface, and the hydrometer inserted, allowing for overflow. Gently push the hydrometer into the cylinder to create a mixing effect. The reading shall be taken at the top of the meniscus when the hydrometer has stopped bobbing.

9. Body. The body shall be fabricated from corrosion-resisting material, anodized aluminum, chromium plated copper, polished aluminum, or polypropylene as specified herein. The nominal thickness of the metal shall be not less than

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0.025 inch for corrosion-resisting material and 0.0320 inch \pm .002 for aluminum or copper. The body may be of molded polypropylene if the material is in conformance with NSF Standard 4.

10. Base. The body of the coffee maker shall be mounted on a round or oval, pedestal-type base, a leg supported base, or a combination of the leg and pedestal base. The base shall enclose the electrical components and the wiring. The base shall be fabricated from the same material as the body, or plastic that is regularly used by the manufacturer for this application, or a combination of the two. For Type II coffee makers, the base shall be so constructed as to allow filling a cup setting on a 5-7/8 inch diameter saucer.

11. Coffee basket and stem. The perforated coffee basket shall be corrosion-resisting material, aluminum, phenolic resin or polypropylene plastic, in accordance with the manufacturer's standard practice. The stem shall be the manufacturer's standard stem. When required (see ordering data), the coffee basket shall be provided with a spreader to provide a uniform delivery of brewing water across the entire surface of coffee.

12. Power cord. Each coffee maker shall have a flexible attachment cord equipped with attachment plugs. The power cord shall conform with the applicable requirements of UL 197.

13. Strength/flavor control. If the Class 1 and Class 2 coffee makers have a strength/flavor control it shall be actuated by a manually operated lever, knob, or switch on the side of the coffee maker base. The control settings shall be marked to indicate the strength/flavor of the brew.

14. Heating elements. Unless otherwise specified (see ordering data), the heating element shall be countersunk and shall not protrude more than 3/8 inch from the bottom of the coffee maker body.

15. Finish. Surface materials in the food zone shall be smooth corrosion-resisting, nontoxic, stable and nonabsorbent under use conditions and shall not impart odor, color, or taste to the beverage. Exposed surfaces in the food zone shall be finished so as to be easily cleanable. Corrosion-resisting material shall have a No. 3 or better finish. Other materials, including plastics, shall be as cleanable as a No. 3 finish on corrosion-resisting material.

16. Identification markings. Each coffee maker shall be marked in accordance with UL 197 and shall include the following:

- a. Manufacturer's name or trademark.
- b. Manufacturer's model or equivalent identification.
- c. Electrical rating.
- d. Date of manufacture.

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The words "DO NOT IMMERSE BASE IN WATER", if applicable, shall be marked on the bottom of the coffee maker. Other precautionary markings, as required by the UL's or as recommended by the manufacturer, shall be marked on the coffee maker and components.

Manufacturer's standard commercial publications shall be furnished.

Standards compliance. The coffee makers shall meet the applicable requirements of UL 197 and UL 1082.

Certification. Prior to approval of the first shipment, the contractor shall submit satisfactory evidence to the contracting officer or his authorized representative that the coffee maker he proposes to supply under this specification meets the requirements of UL 197 and UL 1082.

UL certification. Acceptable evidence of meeting the requirements of UL 197 and UL 1082 shall be the UL label, UL listing mark, or a certified test report from a nationally recognized independent testing laboratory, acceptable to the contracting officer, stating the coffee makers have been tested and conform to these UL's.

Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this commercial item description, shall be the manufacturer's standard commercial product, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices. 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.

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 Federal Standard 376, and all other requirements of this Commercial Item Description (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 should 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.

Preservation, packing, and marking. Unless otherwise specified in the contract or order (see ordering data), the preservation, packing, and marking shall be in accordance with ASTM D 3951.

CID based part identification numbers. The following part identification numbering procedure is for Government purposes and does not constitute a requirement for the contractor.

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*      *      *      *      *
*      *      *      *      *
*      *      *      *      *-- a.  Signal light
*      *      *      *      *-- b.  Liquid level gauge
*      *      *      *
*      *      *      *----- 1
*      *      *      *----- 2  Class
*      *      *      *----- 3
*      *      *
*      *      *----- 08 Cup size
*      *      *----- 10 Cup size
*      *      *----- 12 Cup size
*      *
*      *----- CID Number
*
*----- Designates a commercial item description

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Notes.

Ordering Data. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Size, and class of coffee makers required.
- c. When specifications and standards shall be other than as specified.
- d. When a signal light, height gage, strength/flavor control or all are required for Type I, Classes 1 and 2 coffee makers.
- e. When corrosion-resisting material bodies are required for Type II coffee makers.
- f. When coffee basket is required to be provided with a spreader.
- g. When the heating element shall be positioned on the coffee maker other than as specified.
- h. When level of preservation, packing and marking is to be other than specified herein.

ASTM A 167 and B 209 are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

UL 197 and UL 1082 are available from Underwriters Laboratories (UL), Inc., 333 Pfingsten Road, Northbrook, IL 60062.

NSF No. 4 is available from the National Sanitation Foundation (NSF), 3475 Plymouth Road, P.O. Box 1468, Ann Arbor MI 48106.

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MILITARY INTERESTS

Custodians:

Army - GL
Navy - YD
Air Force - 99

Review Activities:

Army - MD
Navy - MS, SA
Air Force - 84

User Activities:

Army - CE
Navy - CG, MC
DLA - GS

CIVIL AGENCY COORDINATING ACTIVITY

GSA - FSS
VA - OSS

Preparing Activity:

Navy - YD

(Project 7310-0780)