
* METRIC *

A-A-50475B
January 3, 1994
SUPERSEDING
A-A-50475A
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COMMERCIAL ITEM DESCRIPTION

POLISHER, FLOOR, ELECTRIC, DIVIDED WEIGHT
(COMMERCIAL TYPE)

This Commercial Item Description (CID) is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

Abstract. This CID covers commercial type electric floor polishers which are used for heavy-duty wet or dry scrubbing, for polishing and buffing wood, tile, or linoleum covered floors, and for rug shampooing.

Salient characteristics.

1. Description. The polisher shall mainly consist of a frame, operating handle, wheels, scrubbing and polishing brushes, bumper, and motor. The motor of the polisher shall rest on a frame or a carriage having wheels at the rear and the brush at the front with the weight of the polisher divided between the brush and wheels. Speed shall not exceed 250 revolutions per minute while operating on a linoleum floor. The minimum weight on the brush shall be as stated in table I for the respective size of the polisher. If an additional weight is required over the brush in order to meet the pressure requirements, the weight shall be of compact design and free from projections which may interfere with satisfactory operation of the polisher in confined spaces. It shall be attached to a permanent part of the polisher. No part of the polisher and no part of the weight shall project beyond the housing. Unless the weight is built into the polisher and is out of sight in normal use, means shall be provided for readily attaching or removing the weight from the polisher without the use of special tools.

*Beneficial comments (recommendations, additions, deletions) and any *
*pertinent data which may be of use in improving this document should be *
*addressed to: Commanding Officer (Code 156), Naval Construction Battalion *
*Center, 1000 23rd Avenue, Port Hueneme, CA 93043-4301. *

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

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2. Design and construction. The dimensions for the polisher shall be as specified in table I. All dimensions are given in metric units; tolerances shall be +/-3 percent. The weight of the polisher in table I shall include any removable weight. The weight on the bristles shall include any removable weight and one brush.

TABLE I. Class C machines, polishing and scrubbing, electric, divided weight.

| * S | Overall | Area of | Continuous | Weight of | Weight on | Wheel | Height* | * |
|-----|----------|-----------------|------------|-----------|-----------|-------|---------|---|
| * i | diameter | polishing | rating of | machine | bristles | dia. | not | * |
| * z | of brush | brush | motor | | | | incl | * |
| * e | fiber | fiber | | | | | handle* | * |
| * | | | | | (Min) | (Min) | (Max) | * |
| * | mm | mm ² | watt | kg | kg | mm | mm | * |
| * 1 | 270 | 29000 | 190 | 25-40 | 16 | 60 | 280 | * |
| * 2 | 320 | 45100 | 250 | 30-50 | 20 | 60 | 360 | * |
| * 3 | 370 | 58000 | 375 | 40-60 | 25 | 80 | 360 | * |
| * 4 | 450 | 96800 | 560 | 52-80 | 30 | 90 | 380 | * |

3. Frame. The frame enclosing the operating mechanism shall be durably constructed and reinforced to withstand rigorous heavy-duty service.

4. Operating handle. The operating handle shall include a metal handle tube and a metal handle bar with nonmetallic handle grips.

5. Brushes. Each polisher shall be furnished with one set of brushes for polishing and one set for scrubbing. Brushes shall be sectional and may be laminated or solid. The diameter of the brushes shall conform to table I. The machine shall be so constructed that brushes may be replaced without the use of special tools.

6. Polishing brushes. The sectional polishing brushes shall have a suitable reusable metal plate securely attached to it. Polishing brush tufts shall be made of approximately 60 percent tampico and 40 percent palmyra fiber. The tufts shall have a free length of not less than 38 mm when measured at right angles to the surface of the brush block.

7. Scrubbing brushes. Scrubbing brushes shall be the same as specified for polishing brushes but may have a heavy metal back and the tufts shall be made of 100 percent palmetto fiber or 100 percent basine fiber.

8. Bumper. A replaceable rubber or vinyl bumper of not less than 20 mm in vertical direction shall be securely attached around the portion of the motor housing and the brush housing. The bumper shall not dent or mark objects with which it comes in contact.

9. Wheels. The polisher wheels shall have a running surface of resilient material which will not mark or scratch the floor. Unless otherwise specified, the wheels shall comply with the size specified in table I.

10. Wheel mounting. The wheels shall be mounted on one or more rigid axles and shall be in contact with the floor at all times.

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11. Electrical characteristics. Unless otherwise specified, the polisher shall be designed to operate on 120 volts, alternating current, 60 Hertz, single phase. All wiring, cord, plug, and grounding shall be in accordance with UL 561. A 3-conductor cord of not less than 15 meters shall be provided. Polisher shall have a quick break switch for starting and stopping the motor. The switch shall automatically open the motor circuit the moment the operator releases the handle of the machine. The grounding conductor in the cable assembly shall form a continuous conductor path from the point of attachment on the motor housing to the wall receptacle when the machine is connected and ready for operation. The grounding path shall not incorporate any movable joints.

12. Standards compliance. The polishers shall conform to the floor-finishing machine requirements of UL 561. The data plate or listing with re-examination of the Underwriters Laboratories may be accepted as evidence that the polishers conform to this requirement. In lieu of the label or listing, the contractor may submit independent proof, satisfactory to the contracting agency, that the polisher conforms to the applicable requirements of the published standard, including methods of tests of UL 561.

Quality assurance provisions.

1. Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Unless disapproved by the Government, except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein.

2. Classification of inspection. The inspection requirements specified herein are classified as first article inspection and quality conformance inspection.

3. First article inspection. The first article inspection shall be performed on one polisher when a first article is specified in the contract or order. The inspection shall include examination and operational tests as specified herein.

4. Quality conformance inspection. The quality conformance inspection shall be performed on the sample polisher selected in accordance with the inspection lot and sampling requirements. This inspection shall include examination and operational tests as specified herein.

5. Inspection lot. All units of the same class, style, and size offered to the Government at one time, shall be considered a lot for purposes of inspection. The sample unit shall be one complete polisher.

6. Examination. Each sample selected in accordance with the inspection lot, sampling requirements, and also the first article shall be examined for compliance with the salient characteristics requirements specified herein. This element of inspection shall encompass all visual examinations and dimensional measurements. Noncompliance with any specified requirements or presence of one or more defects preventing or lessening maximum efficiency shall constitute cause for rejection.

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7. Operational test. The polisher shall be equipped with a polishing brush or brushes specified herein, and operated for 2 hours on a waxed linoleum floor or a steel plate. The machine shall be operated at full rated voltage. Unless otherwise specified, only one polisher per contract need be tested for the full 2 hours: all other polishers require an operational test for 15 minutes. During and after the 2-hour or 15-minute operation, the polisher shall be observed and examined for the following:

- a. Quietness of operation and freedom from vibration.
- b. Overheating of motor.
- c. Lubrication and leakage of lubricant.
- d. Replacement of brush without the use of special tools.
- e. Provision for feeding water to the scrubbing brush.
- f. Uniformity, continuity, size of polishing area and proximity of brush contact up to a vertical surface.
- g. Resistance in ohms from the motor frame to ground connection on the plug end of the 15 meter cord is less than 1 ohm.

Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID 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.

Inch-pound products. Products manufactured to inch-pound dimensions will be considered on an equal basis with those manufactured using metric units, provided they fall within +/-3 percent of the conversion tables contained in the latest revision of ASTM E 380 and all other requirements of this CID are met.

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

Preservation, packing and marking. Unless otherwise specified in the contract or order, the preservation, packing and marking shall be in accordance with the requirements in ASTM D 3951.

Notes. Acquisition activity should specify the following:

1. The wheel size required, if other than specified.
2. When a first article test is required.
3. The electrical characteristics required, if other than as specified.
4. When the contractor is not responsible for inspection.
5. When preservation, packing and marking is other than as specified.

UL Standards are available from the Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062.

ASTM Standards are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

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MILITARY INTERESTS:
ACTIVITIES:

CIVIL AGENCY COORDINATING

Custodians

GSA - FSS

Navy - YD1

Air Force - 99

PREPARING ACTIVITY:

Navy - YD1

Review Activities

(Project 7910-0086)

Navy - MC

Air Force - 84