

METRIC

A-A-59838

2 October 2009

## COMMERCIAL ITEM DESCRIPTION

## MANUAL DISPENSING GUN FOR DUAL-BARREL PAINT CARTRIDGES

The General Services Administration has authorized the use of this commercial item description, for all federal agencies.

1. **SCOPE.** This Commercial Item Description (CID) covers manual dispensing guns for dual-barrel paint cartridges conforming to A-A-59815. It does not define spray equipment and pneumatic wall dispensers.

2. **CLASSIFICATION.** Manual dispensing guns shall conform to the following types and sizes:

2.1 **Type.**

Type A – Fixed single-ratio applicator (either 1:1, 2:1 or 4:1)

Type B – Multi-ratio applicator (accommodates more than one mix ratio via a single piece of equipment)

2.2 **Size.** The manual dispensing gun shall accommodate one or more of the dual-barrel cartridge sizes below, having a total system capacity of:

Size 1 – 300-milliliter (mL) total capacity (150 mL by 150 mL)

Size 2 – 375-mL total capacity (300 mL by 75 mL)

Size 3 – 450-mL total capacity (300 mL by 150 mL)

Size 4 – 600-mL total capacity (300 mL by 300 mL)

Size 5 – 750-mL total capacity (600 mL by 150 mL)

Size 6 – 900-mL total capacity (600 mL by 300 mL)

Size 7 – 1200-mL total capacity (600 mL by 600 mL)

3. **SALIENT CHARACTERISTICS.**

3.1 **General design of manual dispensing gun.** Manual dispensing guns shall eject paint from single- or multi-component dual-barrel paint cartridges fitted with static mixing tubes. Manual dispensing guns shall consist of a housing (or frame), triggered handle grip, plunger shafts and disks, retractable drive rod, drive rod release, and a cartridge alignment device. The plunger and other moving parts shall be designed to prevent entrapment of the operator's hands. Units shall be designed to incorporate ergonomic factors and to minimize the number of parts. The system shall accommodate both right-handed and left-handed users. Materials of construction shall be selected to minimize the potential for reactivity with system components and paint products.

3.2 **Housing.** The housing shall be constructed of a steel, aluminum, or other rigid framework; be free of sharp burrs; and be sized to accommodate and permit easy insertion of dual-barrel cartridges. The housing shall be lightweight (not to exceed 5 pounds) for ease of handling. It shall assist in maintaining alignment of the dual-barrel cartridge with the plunger shaft. It shall secure the cartridge in operating position and prevent the cartridge from shifting during dispensing. As a minimum, the housing shall have two openings through the back (handle grip end) to allow for passage of the plunger shafts. One additional opening shall be centrally located for transit of the retractable drive rod (see 3.5). It shall have an opening in the front to accommodate the cartridge nozzle and connection of the static mixer to the cartridge.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: Commander, Naval Sea Systems Command, ATTN: SEA 05B5, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to [CommandStandards@navy.mil](mailto:CommandStandards@navy.mil), with the subject line "Document Comment". Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <http://assist.daps.dla.mil>.

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3.3 Triggered handle grip. The triggered grip shall consist of two handles arranged as levers and provide a forward incremental movement along the length of the drive rod when the trigger is squeezed. This, in turn, shall advance the plunger shafts and disks (see 3.4) to compress the piston end cap seals, thereby initiating release of paint components from the dual-barrel cartridge dispensing system. The handle grip shall have sufficient strength to support the loaded gun assembly. All surfaces of the grip that come in contact with the operator's hand shall be smooth or smoothly textured and free of sharp projections. The handle grip shall permit finger contact with the largest feasible area and be sized to accommodate 95 percent of the anticipated user population when wearing light (solvent-resistant) gloves. Anthropometric (sizing) guidelines may be found in MIL-STD-1472. Integral handle stop points shall cradle the top side of the operator's thumb and index finger, preventing hand slippage upward into the proximity of the plunger shafts, drive rod or drive rod release mechanism. In the static open position, the handle grip diameter immediately below the upper stop points shall not exceed 76 mm (3 inches). The force required to activate the trigger shall be minimized and shall be less than strength criteria described in MIL-STD-1472.

3.4 Plunger shafts and disks. The manual dispensing gun shall have a plunger shaft associated with each of two plunger disks. Plunger disks (sometimes called push disks) shall cover a minimum of 95 percent of the associated cartridge end cap seal surface that is perpendicular to the long axis of the cartridge. During dispensing, each plunger disk shall remain parallel to its respective cartridge end cap seal throughout the full stroke of the plunger shaft.

3.5 Retractable drive rod. The drive rod, a mechanism (e.g., a friction rod or ratchet rod) to advance and retract the plunger shafts, shall be centrally located between the said shafts. The action along the length of the drive rod that results from squeezing the triggered handle grip, shall advance the plunger shafts with their corresponding plunger disks in unison (i.e., with less than 1 percent mix ratio error) to provide a mechanical advantage with a minimum thrust ratio of 18:1. The drive rod shall withstand the forces required to dispense a paint or coating with a viscosity of 155 Krebs Units (KU). The rearmost tips of the drive rod and plunger shafts shall be shielded by a plate, knob, or handle that facilitates grasping.

3.6 Drive rod release. A release mechanism (e.g., a plate or lever) shall be present to disengage the compression that results from squeezing the triggered handle grip. The release shall be integral to the manual dispensing gun and easily accessible. The drive rod release shall allow for resetting of the plunger shafts to the starting uncompressed position when inserting new cartridges or to a partially extended position when inserting used cartridges.

3.7 Cartridge alignment device. Multi-ratio dispensing guns shall provide a means to accurately position and stabilize cartridges in each of their respective mixing-ratio configurations during dispensing. To accomplish this, an alignment plate shall be located behind the plunger disks. The plate shall possess guide holes to align cartridges in the proper mixing ratio position for the given paint.

4. 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).

## 5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this Commercial Item Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance.

5.2 Market acceptability. The following market acceptability criteria are necessary to document the quality of the product to be provided under this CID:

- a. The item offered must have been sold to the government or commercial market.
- b. A commercial item is required to ensure serviceability, reliability, and quality of materials.
- c. A market tested item is required to preclude untested or experimental units.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

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## 7. NOTES.

7.1 Part or identification number (PIN). The following part or identification numbering procedure is for government purposes and does not constitute a requirement for the contractor.

This example describes a part numbering system for CID A-A-59838.

Example of reference part number:

AA59838-A1

- Type:    A – Fixed single-ratio applicator (either 1:1, 2:1 or 4:1)  
          B – Multi-ratio applicator (accommodates more than one mix ratio via a single piece of equipment)
- Size:     1 – 300-milliliter (mL) total capacity (150 mL by 150 mL)  
          2 – 375-mL total capacity (300 mL by 75 mL)  
          3 – 450-mL total capacity (300 mL by 150 mL)  
          4 – 600-mL total capacity (300 mL by 300 mL)  
          5 – 750-mL total capacity (600 mL by 150 mL)  
          6 – 900-mL total capacity (600 mL by 300 mL)  
          7 – 1200-mL total capacity (600 mL by 600 mL)

### 7.2 Source of documents.

7.2.1 Commercial item descriptions. Commercial item descriptions are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094 or online at <http://assist.daps.dla.mil/quicksearch/> or <http://assist.daps.dla.mil>.

7.2.2 Defense standards. Defense standards are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094 or online at <http://assist.daps.dla.mil/quicksearch/> or <http://assist.daps.dla.mil>.

7.2.3 FAR. The Federal Acquisition Regulation may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 or online at <http://www.arnet.gov/far>.

7.3 Ordering data. The contract or order should specify the following:

- a. CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Requirement for a user manual and maintenance instructions.
- d. Quantity required.

7.4 Key words.

Adhesive  
Applicator  
Caulk  
Coatings  
Two-component  
Mixing system

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MILITARY INTERESTS

Custodians:

Army – MI  
Navy – SH  
Air Force – 11

Review Activities:

Army – MR  
Navy – AS, CG  
Air Force – 84, 99  
GSA – FAS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:

Navy – SH  
(Project 8010-2009-038)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.