

INCH-POUND

A-A-59564

18 JULY 2001

SUPERSEDING

RR-C-550D

8 April 1991

COMMERCIAL ITEM DESCRIPTION

CONTAINERS, FLUID, FOR PAINT SPRAY EQUIPMENT

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 siphon-feed cup and pressure-feed tank containers used with paint spray equipment. The siphon-feed cup is attached directly to a spray gun. The pressure-feed tank is used to hold fluid under pressure until released through a remote-operated spray gun. Both types are used for spraying materials such as enamel, lacquer, varnish, and fluids of similar viscosity range (see 3.3).

2.0 **CLASSIFICATION.** The containers shall conform to the following types and sizes.

2.1 **Types.** Fluid containers covered by this CID shall be of the following types (see 7.2).

Type I – Siphon cup, 1 quart capacity.

Type II – Pressure tank.

2.2 **Sizes.** Type-II fluid containers covered by this CID shall be of the following sizes (see 7.2).

Size 1 - 2 gallon minimum capacity.

Size 2 - 5 gallon minimum capacity.

Size 3 - 30 gallon minimum capacity.

3.0 SALIENT CHARACTERISTICS.

3.1 **Material.** Material shall be as specified herein. Materials shall be free from defects that would adversely affect the performance, reliability, durability, longevity, or maintainability of the individual components or overall assembly. Dissimilar metals shall not be used in intimate contact with each other unless protected against galvanic corrosion.

3.2 **Construction.** The containers shall be furnished complete so that they can be used for the operations specified herein.

3.2.1 **Castings and forgings.** Castings shall be free from visible blowholes, porosity, hard spots, shrinkage defects, cracks, or other defects. Forgings shall be free from visible scale, cold shuts, mismatching, sharp edges, or other defects. Castings and forgings shall be free from any defects adversely affecting their strength, durability, or suitability. Repair of major castings and forgings shall be permitted if the repair is not on a critical surface.

Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be of use in improving this document should be addressed to: Defense Logistics Agency, Defense Supply Center, Columbus (DSCC-VAI), P.O. Box 3990, Columbus, OH 43216-5000.

3.2.2 Welding, brazing, and soldering. Welding, brazing, and soldering shall be of a quality which shall sustain all requirements of the welded, brazed or soldered parts. These operations shall not be employed as repair measures for defective parts.

3.2.3 Fastening devices. Screws, pins, bolts, and similar parts shall be installed with means for adjustment and for preventing loss of tightness. The methods for adjustment and for preventing loss of tightness shall be in accordance with accepted engineering standards and practices. All such parts, when subject to adjustment, shall not be swaged, peened, staked, or deformed unless otherwise specified.

3.3 Performance. The containers shall be capable of being used with sprayable materials such as enamels, lacquers, primers, shellac, varnishes, stains, oil-based paints, surfaces, and related fluids within a similar viscosity range, including the solvents contained in those materials. The solvents shall include ketones, aromatics, and aliphatics.

3.3.1 Occupational safety standards. The product shall comply with OSHA standards set forth in 29 CFR 1910.107 that are applicable to paint containers.

3.3.2 Threads. Threads shall conform to FED-STD-H28 and the applicable Detailed Standard section referenced therein.

3.4 Type I – siphon cup. Type I siphon cup containers shall consist of the major components covered in 3.4.1 through 3.4.4.

3.4.1 Cup. The siphon cup shall be equipped with a cover and cover attachments for use with sprayable materials. The cup shall be cylindrical in shape and of a seamless metal construction that is resistant to the sprayable materials listed in 3.3 above. The top of the cup shall be smooth and wide enough to seal without cutting the gasket. The bottom of the cup shall be reinforced to prevent undue wear and injury. The siphon cup, containing 8 fluid ounces of oil-based paint, shall be attached to the fluid inlet of a suction feed spray gun. The gun shall be operated in a horizontal position until a steady spray pattern can no longer be maintained. The paint remaining in the cup shall be measured. In the event that the amount remaining is in excess of 3-1/2 fluid ounces, the cup shall be rejected.

3.4.2 Cover. Unless otherwise specified (see 7.2), a matching cover of metal which is resistant to the sprayable materials specified in 3.3 shall be provided. The cover shall contain a leather or impregnated leather gasket that shall form a liquid-tight seal between the cup and cover when using the specified materials. The cover, attached by means of external lugs with a clamping arrangement, shall not distort or loosen in normal use. It shall hold an airtight and liquid-tight seal between cover and cup, and shall permit separation, by hand, of the cover from the cup after the unit has been left standing while containing paint. The cover shall have a vent hole for the admission of air into the cup. Near the vent hole, the words "KEEP OPEN" or "KEEP CLEAN" shall be permanently marked.

3.4.3 Cover attachments. The cover shall have a swivel nut with 3/8-inch National Pipe Straight Mechanical (NPSM) threads and a nipple with a 60-degree included external bevel taper seat connection for attaching a cup to the material connection of the spray gun. The cover shall be compatible with the material of the shell. The material tube shall be of adequate size to handle the sprayable materials specified in 3.3. The tube shall extend as near to the bottom of the cup as possible, without impairing the flow of material, so that proper feed can be maintained until less than 3.5 fluid ounces remain in the cup.

3.4.4 Spare gaskets. A sealed packet of five of the leather or impregnated leather gaskets shall be supplied with each Type I siphon cup container. The packet shall include instructions for the care, cleaning, use, and maintenance of the siphon cup and cup gaskets.

3.5 Type II – pressure tanks. Type II pressure tank containers shall consist of the major components covered in 3.5.1 through 3.5.9.

3.5.1 Tanks. The type II pressure tanks shall be of the sizes and minimum capacities listed in 2.2. The pressure tanks shall be suitable for storing and feeding, under air pressure, the sprayable materials specified in 3.3. The tanks shall comply with the requirements in the ASME Boiler and Pressure Vessel Codes, with a maximum working pressure of 110 pounds per square inch gage (psig), and shall be permanently labeled.

3.5.2 Shell. The shell shall be a seamless, one-piece or fabricated tube constructed of metal or coated metal that is resistant to corrosion and the action of the sprayable materials specified in 3.3. The shell shall be cylindrical in shape with a full open top and with a concave bottom as viewed from the inside. The bottom shall be reinforced to provide a solid support and protection against damage. Two handles or cover clamps shall be located on the side diametrically opposite each other, near the top of the tank. The handles or clamps shall have sufficient strength for lifting the tank when filled with paint. Clamps and permanent brackets, or other suitable means, shall be provided for fastening the cover at the top of the shell so that the cover may be easily removed and yet maintain an airtight seal, when secured to the tank, under 90 psig regulated pressure.

3.5.3 Cover. Unless otherwise specified (see 7.2), the cover shall be made of aluminum or pressed steel. The steel shall be cadmium or zinc plated to a minimum thickness of 0.0003 inch. The cover assembly shall include all necessary equipment for the operation and control of the tank, and the control and supply of the atomizing air to the gun. Centering pads of suitable reinforcement shall be provided for the cover holding devices.

3.5.4 Agitator. Unless otherwise specified (see 7.2), the agitator shall be air motor driven and shall mix the sprayable materials specified in 3.3 to prevent settlement of any pigments. The air motor drive shall be equipped with a speed adjustment and shut-off valve. The air consumption shall not exceed 8 cfm under normal operating conditions. The agitator shall be part of the cover assembly with the air motor being detachable.

3.5.5 Controls. The controls shall be part of the cover and shall consist of a paint strainer; brass shut-off valves for air inlet, air outlet, and fluid release; and a safety valve set for 110 ± 3.3 psig.

3.5.6 Connections. Spray material hose connections of the tank shall have 3/8 inch male NPSM threads, with a 60-degree included angle internal bevel taper seat. Air inlet and outlet connections shall have 1/4-inch standard straight pipe threads, with a 60-degree included angle internal bevel taper seat.

3.5.7 Insert container. When specified (see 7.2), a removable type container of suitable size for insertion into the pressure container shall be provided. The insert container shall be made of galvanized or cadmium-plated steel, or of steel that is corrosion resistant and resistant to the sprayable materials specified in 3.3. The insert container shall be constructed so that it can be removed from the pressure container by use of a bail, handles, or other suitable means.

3.5.8 Regulator. The regulator shall be of the conventional hand screw type for adjusting air pressure, and shall be capable of passing not less than 15 cfm of air at 80 to 100 psig supply line pressure, with a maximum of an 8 psig drop. The outlet pressure shall be adjustable from 5 to 90 psig and shall be held at the set pressure until changed by the operator. The regulator shall be of durable construction capable of withstanding 250 psig pressure. A diaphragm with an adequate diameter and a valve mechanism enclosed within the body shall be operated by a handle for ease of adjustment.

3.5.8.1 Regulator body material. Material for the regulator body shall be brass or zinc. The brass shall conform to appropriate portions of either of the following: ASTM B21, B21M, B30, B61, B62, B124, B148, B176, B271, B283, B369, B584, B763, B770, or B806; or SAE AMS4842, AMS4845, AMS4855, AMS4860, AMS4862, or AMS4890. The zinc shall be a die casting conforming to composition AG40A of appropriate portions of ASTM B86. The body material shall have a minimum tensile strength of 30,000 pounds per square inch (psi).

3.5.9 Pressure gage. The pressure gage shall be of the Bourdon tube geared type, with a 1/4-inch male National Pipe thread stem extending from the bottom. The case shall be drawn steel with a black or gray enameled finish. The bezel ring shall match the case and shall be attached to the case. The dial shall be not less than two inches in diameter, and shall have black lines and figures on a light background. The gage shall be calibrated to an accuracy of 3 percent of the gage span on the upper third and lower third of the scale and to 2 percent of the gage span in the middle portion of the scale. The gage shall be graduated to a maximum range of 100 psig, with scale divisions of 2 psig increments and figure intervals no greater than 20 psig.

3.6 Oil and water separator. When specified (see 7.2), an inlet air, oil, and water separator conforming to CID A-A-59436 shall be provided for each unit.

3.7 Product identification. The containers shall be marked for product identification and, unless otherwise specified (see 7.2), shall include the National Stock Number (NSN).

3.8 Workmanship. Standards of workmanship shall assure that the containers shall have the stability, strength, durability, safety, and efficient operating characteristics found in the best commercial units and as specified in Section 3.

4. **REGULATORY REQUIREMENTS**. The offeror/contractor is encouraged to use recovered material to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulations.

5. PRODUCT CONFORMANCE.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID; conform to the producer's own 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.

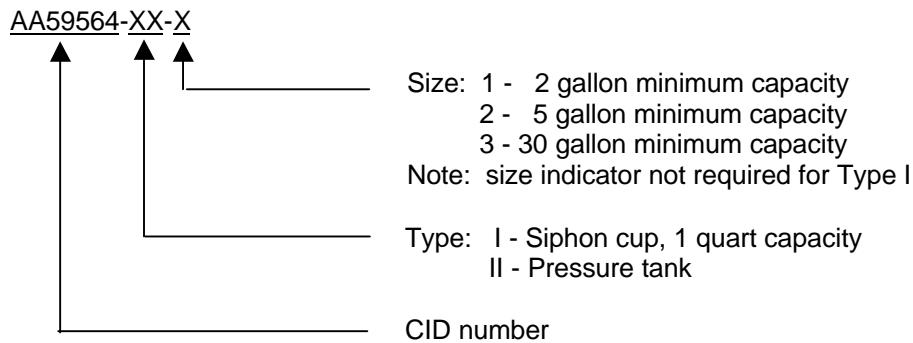
5.2 Product examination. Visually, dimensionally, and manually examine each container to determine conformance with the requirements. Manual examination shall include the operation of movable parts by hand to assure proper functioning. The examination provisions may be applied at the earliest practical point in manufacturing at which it is feasible to inspect for acceptance without risk of change in the characteristics by subsequent operation. Examination requiring testing to determine conformance to salient characteristics shall be accomplished by subjecting the container sample specimens to the appropriate tests and methods. Unless otherwise specified (see 7.2), sampling shall be in accordance with ANSI/ASQC Z1.4. Any modification necessary following failure to meet the specified requirements shall receive particular attention for adequacy and suitability. This element of inspection shall encompass all examinations of material, configuration, performance and marking requirements. Non-compliance with any specified requirement, or the presence of one or more defects shall constitute cause for rejection.

5.2.1 Evidence of compliance with OSHA standards. Evidence of compliance with applicable safety and health requirements shall be reviewed (see 3.3.1 and 7.4).

6. **PACKAGING**. Preservation, packing, and marking shall be as specified in the contract or purchase order (see 7.2).

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.



7.2 Ordering data. The contract order shall specify the following:

- a. Title, number and, date of this specification.
- b. Type and size required (see 2.1, 2.2, and 7.1).
- c. Covers if different than specified (see 3.4.2 and 3.5.3).
- d. Agitator if different than specified (see 3.5.4).
- e. Insert container, when required (see 3.5.7).
- f. Oil and water separator, when required (see 3.6).
- g. If NSN shall not be included in product identification (see 3.7).
- h. Sampling plan, if other than as specified (see 5.2).
- i. Packaging requirements (see 6.).

7.3 Addresses for obtaining copies of referenced documents.

7.3.1 Copies of ASTM standards are available from the American Society of Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.3.2 Copies of ANSI/ASQC Z1.4 and American Society of Mechanical Engineers (ASME) standards are available from the American National Standards Institute, 11 W. 42nd Street, New York, NY 10036, or from the American Society for Quality, 611 East Wisconsin Ave, Milwaukee, WI 53202-3005.

7.3.3 The Code of Federal Regulations (CFR) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.3.4 Activities outside the Federal Government may obtain copies of general specifications, standards and commercial item descriptions as specified in the General Information section of the Index of Federal Specifications, Standards, and Commercial Item Descriptions. The Index is for sale on a subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.3.5 Copies of documents from the Society of Automotive Engineers (SAE) may be obtained from SAE International, 400 Commonwealth Dr., Warrendale, PA 15096-0001.

7.3.6 Unless otherwise indicated, copies of the above specifications and standards are available from the Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.4 OSHA standards. Products that meet all requirements of this specification shall comply with the OSHA standards published prior to the date of this specification and identified in Section 3 (see 3.3.1).

7.5 Key words.

Siphon-feed
Pressure-feed
Agitator
Regulator

MILITARY INTERESTS:

Custodians:

Army - AR
Air Force - 99
Navy - SH
DLA - CC

Review activities:

Navy - MC, SA
Air Force - 84

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

Preparing activity:

DLA - CC

(Project 4940-0762-01)