MILITARY SPECIFICATION

GUNS, SPRAY, OIL AND SOLVENT

This specification has been approved by
the Bureau of Aeronautics, Department of the Navy.

1. SCOPE AND CLASSIFICATION

1.1 SCOPE: This specification covers hand and air operated, solvent and oil spray guns.

1.2 TYPES: - Guns covered by this specification shall be of the following types:

Type I	Siphon, air operated for use with any fluid container.
Type II	Pressure, air operated with one (1) quart cup attached.
Type III	Pressure, hand operated, one (1) quart capacity.

2. APPLICABLE SPECIFICATIONS AND OTHER PUBLICATIONS

2.1 GENERAL: The following specifications and publications of the issue in effect on the date of invitation for bids, form a part of this specification.

2.2 SPECIFICATIONS:

Navy Department Specifications

General Specifications for Inspection of Material.

2.3 OTHER PUBLICATIONS

Army-Navy Joint Packaging Instructions

JPI-12 - Packaging and Packing of Hand Tools.

2.4 AVAILABILITY OF SPECIFICATIONS AND PUBLICATIONS

2.4.1 When requesting specifications and publications refer to both title and number.

2.4.2 Copies of this specification and applicable specifications may be obtained upon application to the Commander, U.S. Naval Air Development Center, Johnsville, Pennsylvania, Attention Technical Records Department.

3. REQUIREMENTS

3.1 Usage. - The guns covered by this specification shall be designed primarily for the spraying of light oils and solvents.

3.2 Corrosion Resistance. - All metal parts shall be rendered corrosion resistant, both inside and outside by an adequate surface treatment.

3.3 Type I - Component Parts. - The gun shall consist of a handle assembly, with built in air valve, metal fluid and nozzle tube, nozzle retaining nut, nozzle, solvent tubing and connection for air supply.

3.3.1 Construction. -

3.3.1.1 Body and Handle Assembly. - The body and hand assembly shall be of the pistol grip or lever type. It shall be well balanced and shaped to afford a comfortable grip. Side connections for either fluid or air shall not be used. It shall be of sufficient strength to withstand a working pressure of 100 pounds, PSI. The gun shall be provided with a means for suspending the gun from a hook when not in use.

3.3.1.2 Valve Assembly: - The air valve assembly shall be built into the handle assembly and so designed as to permit easy removal for cleaning and repairing. The air valve seat may be of any commercially acceptable material, and shall not be glycerine treated.

3.3.1.3 Nozzle Assembly. - The nozzle shall be adjustable by means of a knurled nut which will permit the operator to control the amount of solvent used.

3.3.1.4 Nozzle Tube. - The nozzle tube shall be threaded on both ends to provide for attaching to nozzle and handle assemblies and shall be at least 12" long.

3.3.1.5 Solvent Tubing. - Tubing is to be 6 feet in length, flexible and made of material suitable for the purpose.

3.3.1.6 Connections. - Air connection shall be male, 60 degrees beveled seat with 5/8", 18-NF-2 thread. Hose connections shall be male and of suitable size for the hose furnished.

3.3.1.7 Operating Pressure. - Air requirements shall not exceed 18.5 CFM at 100 pounds pressure.

3.4 Type II - Component Parts. - The gun shall consist of a handle and body assembly with built in air and fluid valves, curved nozzle tube, tube attaching nut, adjustable nozzle assembly, one quart capacity metal cup and connection for the air suply.

3.4.1 Construction. -

3.4.1.1 Body and Handle Assembly. - The handle shall be of the pistol grip or lever type with air fluid controls on top. It shall be well balanced and shaped to afford a comfortable grip. Side connection for air shall not be used. The unit shall be of sufficient strength to withstand a working pressure of 100 pounds PSI. This assembly is to have a recessed threaded section at the bottom for securing cup to unit. A leather or fiber gasket, treated to prevent hardening, shall be cemented into the recessed threaded section to insure an air-tight joint with the container.

3.4.1.2 Valve Assembly, Air. - The air valve shall be on top of handle conveniently located to operator's thumb and to open with a slight pressure. It shall be designed to facilitate easy removal for cleaning and repairing. The air valve seat may be of any suitable, commercially acceptable material but not glycerin treated.

3.4.1.3 Valve Assembly, Fluid. - The fluid valve assembly shall be located on top of handle designed to facilitate easy removal for cleaning and repairing, and to permit complete adjustment of the atomizing air pressure.

3.4.1.4 Nozzle Tube. - The tube shall be at least 12" long, have a curved end and be adjustable to a full 360 degrees.

3.4.1.5 Nozzle Assembly. - The nozzle shall be designed to produce a nearly solid stream of fluid or a fine spray by adjusting a knurled control device on the nozzle tip.

3.4.1.6 Cup Assembly. - The cup shall be not less than on (1) quart capacity and so contructed to withstand 100 pounds PSI working pressure.

3.4.1.7 Air Connection. - The air connection shall be male, 60 degree beveled seat with 5/8", 18-NF-2 thread.

3.5 Type III - Component Parts. - The gun shall consist of a body assembly with built in trigger design. Nozzle tube, nozzle assembly, nozzle cleaner, pump housing, valve, piston and trigger assembly and one (1) quart capacity fluid container.

3.5.1 Construction. -

3.5.1.1 Body and Handle Assembly with Trigger. - The body and handle shall be of the pistol grip design. The handle shall be shaped to provide a comfortable grip with the bottom portion recessed and threaded, inside, to accommodate the threaded part of the fluid container. A leather or fiber gasket, treated to prevent hardening, shall be cemented into the recessed threaded section to insure against leakage between body and container.

3.5.1.2 Nozzle Tube. - The tube shall be not less than six (6) inches in length, threaded to the body of the unit.

3.5.1.3 Pump Assembly. - The pump shall hold prime while not in use.

3.5.1.4 Fluid Container. - The container shall be of not less than one (1) quart capacity with the upper portion threaded to screw into threaded part of handle.

3.6 MARKING. - The model number and manufacturer's name shall be permanently identified on each unit.

3.7 Workmanship. - Shall be in accordance with the highest grade commercial practice covering this class of equipment. This shall include accuracy, finish, fit of mating parts and general appearance.

4. Inspection. - Inspection shall be conducted at the manufacturer's plant in accordance with the General Specification for Inspection of Material, unless other specified by the procuring agency.

5. Preparation for Delivery. - Preservation, packing and marking shall be in accordance with standard commercial practices as they apply to Army-Navy Joint Packaging Instructions JPI-12.

6. Notes

6.1 The guns covered in this specification appear in the Department of the Navy, Bureau of Aeronautics catalog of Navy Material, Aviation Supply Office Catalog Section as follows:

Type I	R41-G-1382-3
Type II	R41-G-1400
Type III	R41-G-1425

6.2 Notice. - When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

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